Elementary manual of regional topographical dermatology / by R. Sabouraud ; English translation by C.F. Marshall.

Contributors

Sabouraud, R. 1864-1938.
Marshall, C. F. 1864-1940.

Publication/Creation

New York ; London : Rebman, 1906.

Persistent URL

https://wellcomecollection.org/works/m7ku3egj

License and attribution

Conditions of use: it is possible this item is protected by copyright and/or related rights. You are free to use this item in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s).

wellcome collection

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
https://wellcomecollection.org

REGIONAL TOPOGRAPHICAL DERMATOLOGY

SABOURAUD

6/-
a
B2141

Med
K45730

Regional Topographical Dermatology

19910

ELEMENTARY MANUAL

OF

Regional Topographical Dermatology

BY

R. SABOURAUD

Director of the City of Paris Dermatological Laboratory
St. Louis Hospital

ENGLISH TRANSLATION

BY

C. F. MARSHALL

Late Assistant Surgeon to the Hospital for Diseases of the
Skin, Blackfriars, London

With 231 Illustrations in the Text

NEW YORK
REBMAN COMPANY
1123 BROADWAY

1906

LONDON
REBMAN LIMITED
129 SHAFTESBURY AVENUE

17908

PUBLISHED JUNE 4TH, 1905, IN FRANCE.

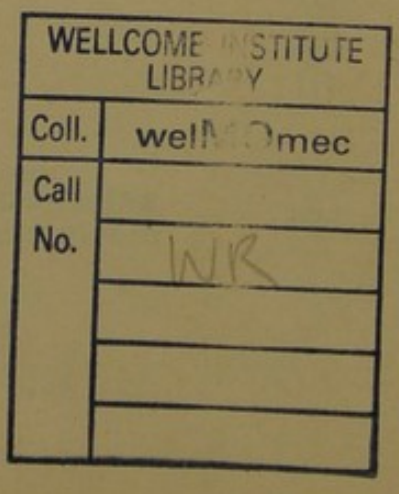
PRIVILEGE OF COPYRIGHT IN THE UNITED STATES
RESERVED UNDER THE ACT APPROVED
MARCH 3D, 1905, BY MASSON ET CIE.

ALL RIGHTS TO COPYRIGHT AND ALL COPYRIGHTS
OF THE ORIGINAL FRENCH AND TRANSLATION
INTO THE ENGLISH LANGUAGE, IN THE
UNITED STATES OF AMERICA ARE
ASSIGNED BY MASSON ET CIE TO
REBMAN COMPANY, NEW YORK

COPYRIGHT, 1906,
BY REBMAN COMPANY, NEW YORK.
ALL RIGHTS RESERVED.

THIS ENGLISH TRANSLATION IS PRINTED FROM
PLATES MADE WITHIN THE UNITED STATES
OF AMERICA, FROM TYPE SET WITHIN
THE UNITED STATES OF AMERICA

ENTERED AT STATIONERS HALL, 1906
BY REBMAN LIMITED, LONDON



8492965

PREFACE

If a student meets with a cutaneous disease which he does not know to be Scabies, we cannot suppose that he would consult in the special treatises the article *Scabies,* more than any other.

On the contrary, the student confronted with this disease will easily notice its regional localisations, and, observing its predominance on the hands and wrists, will consult in this volume the article on the *Wrist,* which has six pages, or the article on the *Hands,* which has twenty pages, and will recognise without difficulty the paragraph concerning the disease which he observes. He will find there its name and essential characters, what is known of its nature and a résumé of its treatment. If he desires fuller information he will refer to the classical treatises, in order to study scabies in all the forms in which it may occur.

Thus, a work of this kind does not only include articles on *Eczema,* on *Psoriasis* or on *Impetigo,* etc., but it also contains articles on the *Face,* the *Hand,* the *Leg,* etc., where the reader will find studied the principal dermatological types of each of these regions.

This book is thus a manual of Topographical and Regional Dermatology. It realises in the study of cutaneous diseases what is represented in elementary botany by the *Dichotomous Flora,* which furnish the means of recognising a plant when it is met with for the first time.

In fact, this book is a practical manual of dermatology, and has no pretension to be more. It is a book for the hospital student and the practitioner in his consulting room.

Compared with the large volumes, which study a single question under all its aspects, this book condenses into 660 pages all which

the student, and especially the practitioner, should know of dermatology in order to be efficient for their daily work.

Lastly, in practice, SYPHILOGRAPHY is inseparable from dermatology, and lesions of the face and body cannot be passed by in silence under the pretext that they belong to the artificially limited domain of syphilography. A description of these lesions will therefore be given, as condensed as possible, so that this manual, on this subject as on all others, may preserve its elementary character.

In one respect at least this work is the first of its kind, for all the books on dermatology, hitherto, presume the reader to have at least a partial knowledge of what they treat. This book, on the contrary, starts with the first principle of all teaching: that *he who learns should be supposed not to know.*

The multiplicity of the subjects treated prevents an encyclopædic book from being exclusively personal. In writing this I have several times derived assistance from the works of others and I have quoted their authors as much as possible. With regard to the figures taken from other sources I have always scrupulously indicated their origin. Mr. Rubens Duval, house surgeon, has given me much assistance in the dry work of correction, which is rendered difficult by the fragmentary nature of the text, and I here tender him my thanks.

Paris SABOURAUD

TRANSLATOR'S PREFACE

The name of Sabouraud is now well known wherever dermatology is studied, and any book from his pen is welcome. The present volume is not only remarkable for the originality of the regional method adopted, but also for its completeness, and for the inclusion of certain subjects which are too often omitted from works on dermatology.

Certain dermatologists have a tendency to become too exclusive and to lose all sense of proportion in their study of the skin. This should be regarded, not as a thing apart, but as one element in a complex mechanism.

Sabouraud takes a wide and scientific view of dermatology, and included in this book will be found a description of the exanthematous fevers, a good account of syphilis, including the extra-genital chancres, and some of the complications of gonorrhœa. It is true that secondary syphilides receive some attention in other text books, but chancres are ignored, and as for gonorrhœa, it is considered bad form by some to recognise its existence. This is a form of hyper-specialisation which is totally foreign to the true scientific spirit. A careful study of Sabouraud's book will show the importance of taking a wider view of the subject; a course which will tend both to the benefit of the patient and the reputation of the physician.

In conclusion I must thank Dr. Sabouraud for his courteous replies to questions, and Mr. George Pernet for some useful help. For the sake of convenience I have given the approximate English equivalents of the prescriptions, in proportions to the ounce.

C. F. M.

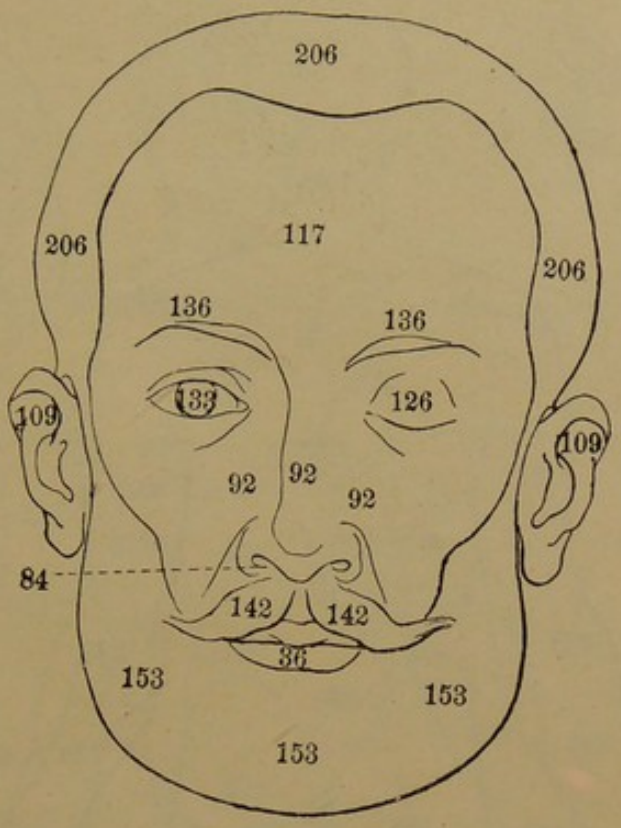
TABLE OF CONTENTS

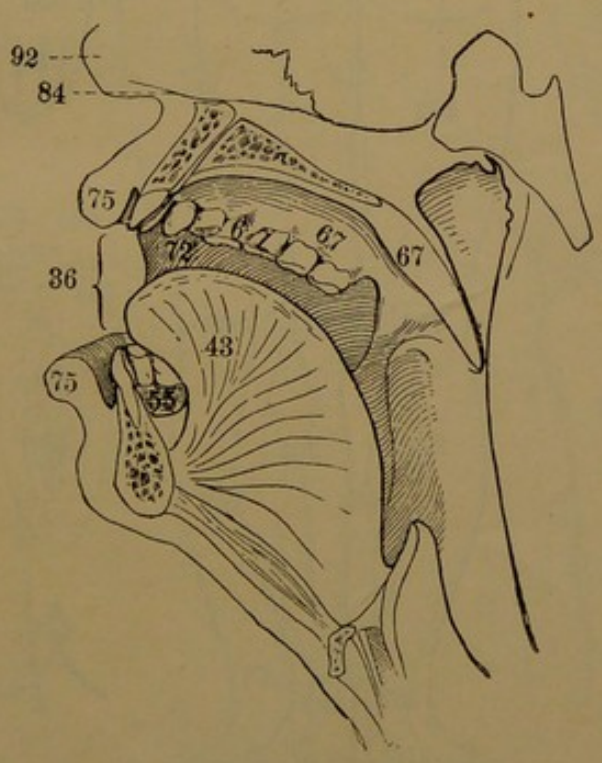
The Table of Contents is presented in the twelve diagrams printed on pages vii, viii and ix.

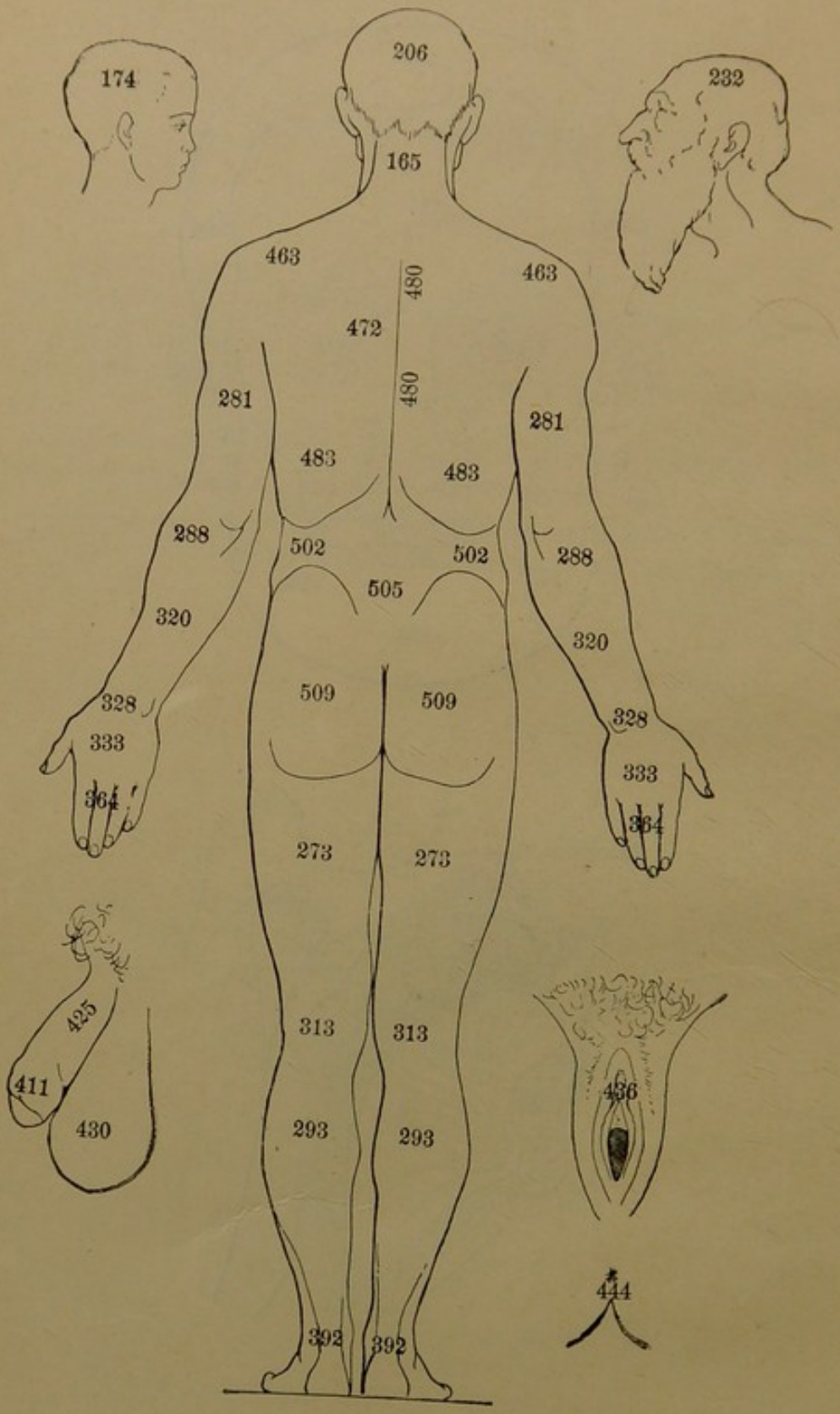
Each chapter of this book corresponds with a regional section of skin.

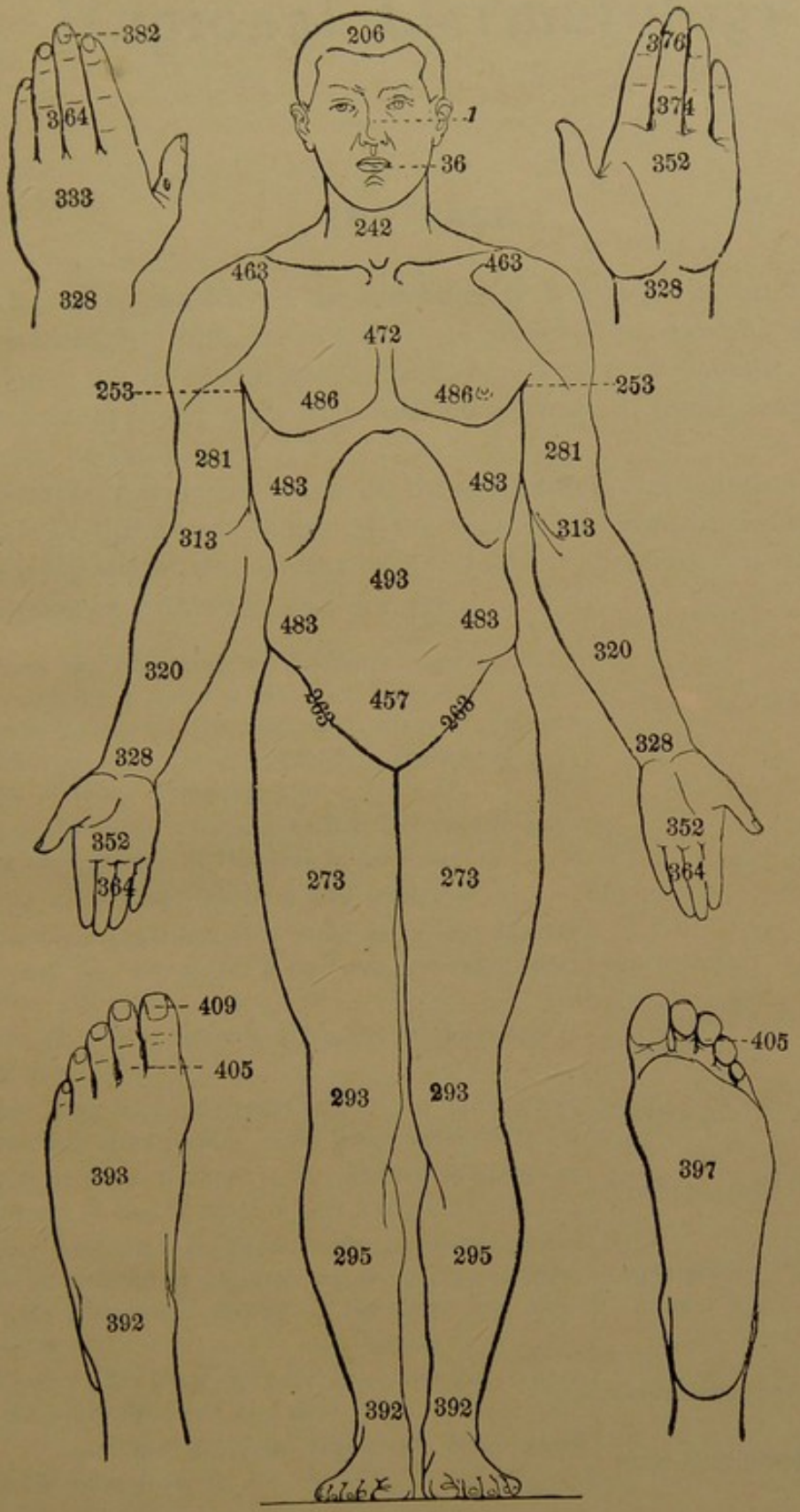
The numbers given in the various regions on the diagrams indicate the first page of the corresponding chapter.

The twelfth section of this book treats on GENERALISED DERMATOSES. The table showing their distribution will be found on page 576.


206
206
117
206
136
136
133
126
109
109
92
92
92
84
142
142
36
153
153
153


92
84
75
67
67
36
43
75
55


206
174
232
165
463
480
463
472
480
281
281
483
483
288
502
502
288
505
320
320
509
509
328
328
333
333
364
364
273
273
425
313
313
411
436
430
293
293
444
392
392


382
364
333
328
206
1
36
242
463
463
472
253
486
486
253
281
281
483
483
313
313
493
483
483
320
320
457
463
463
328
328
352
364
352
364
273
273
409
405
293
293
393
397
295
295
392
392
376
374
352
328
405

Regional Dermatology

THE FACE.

The face, considered as a whole, is a single region for the dermatologist, but, in detail, it is formed by several distinct regions; the forehead, nose, cheeks, eyebrows, moustache, beard, lips and eyelids; each of which may form a small chapter in cutaneous pathology.

Before considering each of these chapters separately I shall speak of the dermatology of the face in general, and deal successively with the dermatoses which it presents in infancy, adolescence, adult age and old age.

From the beginning of existence a pruriginous and weeping eczema of the face may occur which appears connected with digestive disorders in the newly born: Eczema of sucklings, eczema of dentition, teething eruptions, etc. . . . . . Eczema of Sucklings . . . . . p. 2

It is also in the first infancy that birth marks may raise the question of therapeutic intervention . . . Nævi . . . . . p. 4

The same with Ephelides and lentigines . . . . Ephelides . . . . . p. 5

On these regions, some years later, Xeroderma pigmentosum may arise; a rare and consanguineous disease . . . . . Xeroderma . . . . p. 6

The face is a common situation for impetigo in children . . . . . Impetigo . . . . . p. 7

One may also observe "tetters" in all regions (Pityriasis Alba faciei) of the older authors . . . Tetters . . . . . p. 10

Also epidemic trichophytosis; marked by circles or segments of circles, more or less finely vesicular . . Trichophytosis . . p. 11

One sees also in adolescents, an impetiginous form of eczema in placards on the face, accompanied by diminished acidity of the urine and albuminuria . . . . . Impetiginous Eczema . . . . . p. 12

Towards the time of puberty occurs seborrhoea of the nose, forehead and face . . . . . Seborrhœa . . . . p. 13

. . . and the different forms of acne which directly arise from it . . . . . Acne Polymorphe . p. 15

One observes also chronic congestive conditions of the face in adolescents, affecting the ears, hands and nose—erythema pernio and chilblains	Erythema pernio. Chilblain . . . . p. 17
According to many authors, these lesions are related to lupus erythematosus. This has only an elective localisation for the face, for it is often seen elsewhere; but this localisation exists too frequently to be ignored	Lupus Erythematosus . . . . . p. 18
The infiltrated, hypertrophic and ulcerated lesions of tuberculous lupus, also very common on the face, are important	Tuberculous lupus. p. 20
. . . and the papular eruptions of Secondary Syphilis	Secondary Syphilis p. 22
Tubercular leprosy of the face, although rarely observed in our country, cannot be passed over in this enumeration	Leontiasic leprosy. p. 23
Erysipelas of the face, although belonging more to general pathology, requires a brief notice . . .	Erysipelas of the face . . . . . p. 24
Also Darier's disease, in spite of its extreme rarity	Follicular Psorospermosis . . . . p. 25
I shall next speak of Chloasma, or "Uterine Mask"	Chloasma . . . . . p. 26
. . . and of Vitiligo, the discoloured patches of which have the face for one of their seats of election	Vitiligo . . . . . p. 27
The face, like the extremities, is exposed to traumatic eruptions, especially to dermatitis caused by dyes	Artificial dermatitis p. 28
Mature age and senility have also their dermatological pathology, special to the face; for example acne rosacea and acne of the age of decline	Acne rosacea . . . p. 29
Later in life occurs the flat brown wart called senile or concrete seborrhoea . . . and finally Epithelioma	Senile wart. Concrete Seborrhœa. p. 30 Epithelioma . . . p. 31
I shall conclude by describing Mycosis fungoides of the face; and cutaneous lymphadenia, or pernicious lymphodermia	Mycosis fungoides. p. 33 Cutaneous Lymphadenitis . . . . p. 34

ECZEMA OF SUCKLINGS.

Eczema of sucklings usually commences about the 4th or 5th month, whatever the mode of feeding: maternal, mixed or bottle. It may or may not coincide with appreciable digestive troubles.

It begins on the cheeks, forehead, and chin in the form of a crop of red points, which are histologically vesicles, excoriated by scratching. Their number increases so as to form adjoining placards. The natural orifices: the eyelids, nostrils and mouth, and their immediate neighbourhood are nearly always exempt.

Fig. 1. Eczema of Suckling. (Brocq's patient. (Photo by Sottas.)

These lesions, very congestive, present a more or less marked exudation. In some cases the exudation is reduced to a minimum; then the lesion is red, glazed and covered with darker points than the excoriated vesicles. When the exudation is abundant, it forms amber coloured opalescent crusts, sometimes tinged with blood, rarely thick, adherent and often crackled (Fig. 1). Every day brings forth one or more congestive crises, with itch-

ing, scratching and weeping. The lesions increase from the 4th to the 6th month and then diminish, disappearing towards the 10th or 11th month. There are intense forms which attack the body, and benign forms limited to the cheeks and hardly recognizable, the lesions of which disappear almost as soon as they are formed.

The etiology of this eczema, like all others, remains obscure. However, this form appears to be connected sometimes with overfeeding or irregular feeding; at other times with intolerance of the digestive tube for an exclusive milk diet. In these cases, after the first tooth is cut, the best flour must be given and the feeding bottles boiled. It appears that the stomach, which cannot digest the fat of milk or casein, digests better all the other hydrocarbons, starches and sugar. For example: milk and flour, barley, rice and wheat water, diluted according to age. In the most severe cases starchy foods may be given before the eruption of the first teeth. This, when done carefully, is often most successful, but requires careful supervision.

At this age no dressing is tolerated, and no topical applications are of any value except protective pastes, such as equal parts of oxide of zinc and fresh vaseline or lard. Cleanse daily, without soap, with sweet oil of almonds.

Moist dressings covered with protective may be tried, especially on the scalp. This aids removal of the crusts, which may also be done by the application of vaseline for 24 hours: when this does not provoke weeping. At the period of retrogression, the addition of oil of cade to zinc paste hastens the disappearance of the lesions. The proper treatment of this form of eczema is dietetic: all external treatment is symptomatic.

NAEVI OF THE FACE.

These are very common at birth and tend to progressive retrogression which causes most of them to disappear. The physician should bear this in mind.

The dimension of those which persist varies from a fine point to the size of the hand; the former are trivial, the latter important. They may thus be divided into two classes; those which increase in size and those which do not. Treatment may be reserved for the latter, but is indicated in those which increase in size.

They may be flat, projecting or framboesiform; flat nævi form a diffuse placard, or one surrounded by vascular rays. The framboesiform nævi should be destroyed with the galvano-cautery, and the vascular rays which surround them punctured with the fine point of the cautery; this proceeding, when carefully performed, leaves no scar.

Nævi in placards should be treated by electrolysis. For the smallest, unipolar electrolysis is used, the positive needle being inserted in the centre of the nævus and the negative electrode held in the patient's hand (20-25 milliamperes) till the white zone produced by the current around the needle reaches 3 to 5 millimetres in width.

For large nævi, bi-polar electrolysis is required. The positive needle remaining in the centre of the nævus, the position of the negative needle is changed around it, leaving it in long enough to produce a white zone of 4 millimetres each time. The needle should only be inserted and withdrawn after interruption of the current, to avoid pain. The maximum is 15 to 20 milliamperes, beyond which there is risk of necrosis and cicatrices.

Vaccination on nævi may be employed for those of the body, The resulting cicatrix does not render this method suitable for the face.

The treatment of nævi which do not increase in size should be practised when the dimensions require it, and when the child is sufficiently intelligent to submit to it without struggling.

EPHELIDES.

Under the term *Ephelides* are included coloured spots more or less abundant, appearing during the course of second infancy, more marked or more numerous in summer than in winter and more common in blondes than in brunettes. These hyperchromic symmetrical spots are situated especially on the exposed parts, the face and hands. Local treatment is deceptive, for the spots are apt to recur. Treatment consists in the application of exfoliatives.

Apply at night equal parts of oxide of zinc, vaseline and resorcin (*Unna*), for 3 or 4 days, after which the face is covered with a varnish or paste. When the epidermis is detached the whole is removed like a mask.

Darier prefers the following, applied with a brush for three nights:

Tincture of potash soap	40 grammes	ʒi
Resorcin	aa. 10 "	ʒij
Precipitated sulphur		

This is left to dry and covered in the morning with powder or cream. Desquamation occurs on the eighth day. All these proceedings are painful.

LENTIGO.

The spots of lentigo ("beauty-spots") are nævi, varying in number, but generally few in each subject. They are disseminated irregularly, and characterised by regular dark coloured spots, some flat, others irregularly warty, hairy, etc. We are only concerned with lentigines of the face, where by their size or number they may be disfiguring. The treatment is the same as for nævi.

XERODERMA PIGMENTOSUM.

I shall only say a few words concerning this congenital, hereditary affection, described and named by *Kaposi*. It is situated on the face, neck, hands and wrists. In these regions the skin is covered with pigmented spots of different tints, and varying in size from 3 to 6 or 7 millimetres. These spots appear in infancy, and become more and more pronounced; they are red at first, then brown and black. The spots ultimately undergo an atrophic and cicatricial evolution. The mixture of the cicatrices with the younger spots gives a characteristic marbled aspect to the face. This disease, which appears to be benign, causes profound changes in the skin,

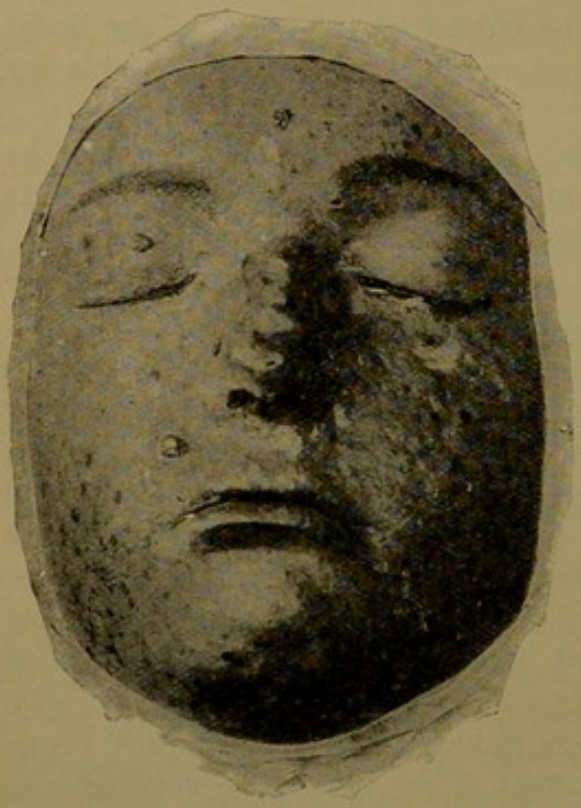


Fig. 2. Xeroderma pigmentosum. (Quinquaud's patient. St. Louis Hosp. Museum, No. 1464.)

which becomes thin and contracted. Later on this condition may become complicated by multiple malignant tumours, sarcomas and epitheliomas, which multiply and increase to the point of causing death of the patient in 15 or 20 years. Sometimes these epitheliomas remain benign and the patient may survive, but this is rare. The family character of the disease is evident; its cause unknown; its treatment nil.

The face and hands should be protected against the action of the sun, which is harmful. Pastes of oxide of zinc are sufficient; to which chlorate of potash (1 in 30) may be added when there is a tendency to epithelioma.

IMPETIGO.

Impetigo is especially an affection of children, and of the face, although it may be observed at all ages and on all parts of the body.

The primary lesion is a thin clear phlyctenule, which soon ruptures and exudes serum in large drops. This serum dries in amber coloured scabs, covering the epidermic exulceration like sealing wax. Around the first scab a new phlyctenular ring forms. This in its turn ruptures, empties itself, and fades away. The turbid serum exuded is added to the scab, which becomes hard. Under the scab the lesion is covered with a thin fibrinous film, of a pale lilac colour, which is characteristic. It increases for some days under the scab, then dries up and heals, generally in 15 days, without leaving scars.

This lesion is never single, the impetigo proceeding by crops, (*ab impetu*). The face presents from 5 to 50 successive lesions in all stages of evolution. There is an impetigo of the conjunctiva (phlyctenular keratitis p. 133) which is accompanied by intense photophobia, and if neglected ends in definite corneal opacity (leucoma). There is also an impetigo of the nostrils (anterior impetiginous rhinitis) which is very persistent and even chronic, and the cause of many recurrent impetigos of the face. There is a commissural impetigo of the lips, (perlèche) and a chronic impetigo of the retro-auricular furrow. Impetigo of the face may be inoculated on the exposed parts: the neck, wrists and hands: on the fingers it forms phlyctenular periony-

chosis; it is often inoculated on the legs, the ankles and feet, where the lesion may become ulcerative, (ecthyma).

The primitive lesion of impetigo contains a serous, non-purulent liquid, which becomes purulent quickly by secondary infection; but even then the liquid is clearer than true pus.

The impetiginous lesion is streptococcic. The liquid which it contains, transferred to boullion serum, gives in 12 hours at

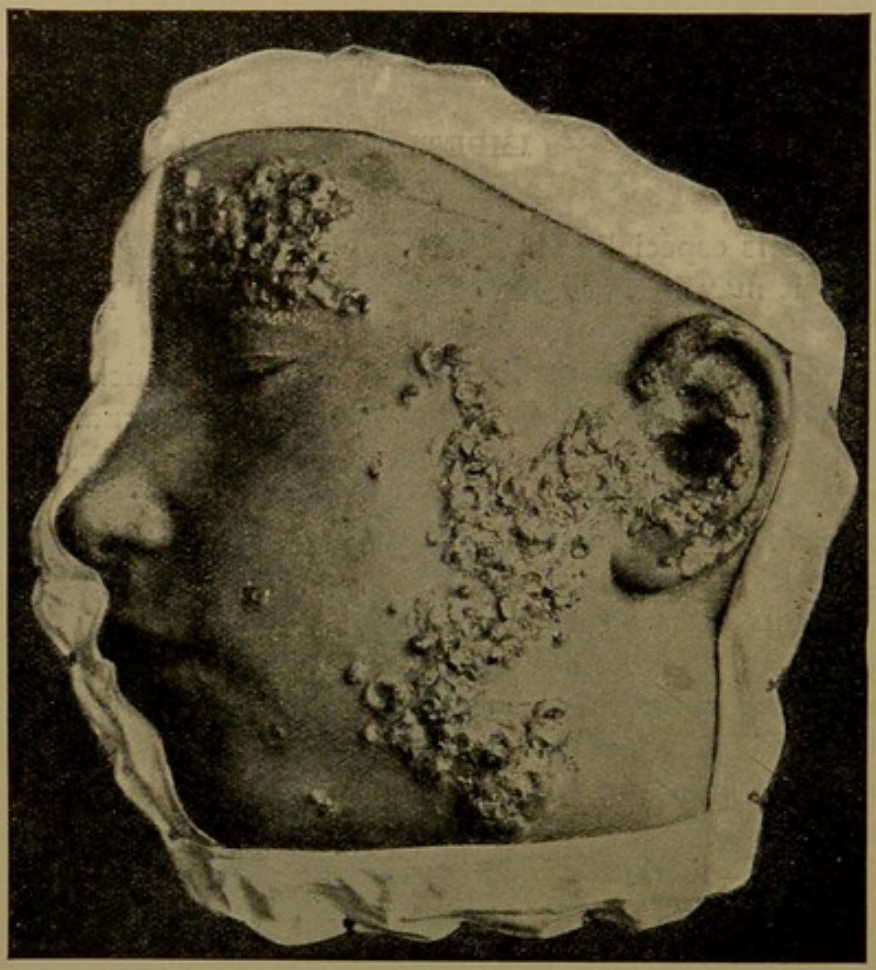


Fig. 3. Impetigo Contagiosa of the face (Streptococcic). (Quinquaud's patient. St. Louis Hosp. Museum, No. 1424.)

37°C. an almost pure culture of Streptococcus, which can be purified by dilution and by passage through successive tubes of gelose urine, on which definite separation is obtained. The culture of Streptococcus is obtained from all impetiginous lesions. We shall refer to this frequently.

The secondary suppuration of impetiginous lesions results from their infection by white and yellow Staphylococci, which grow in a very few hours. Direct culture on gelose peptone renders them evident. They are always distinct from the colonies of Streptococci.

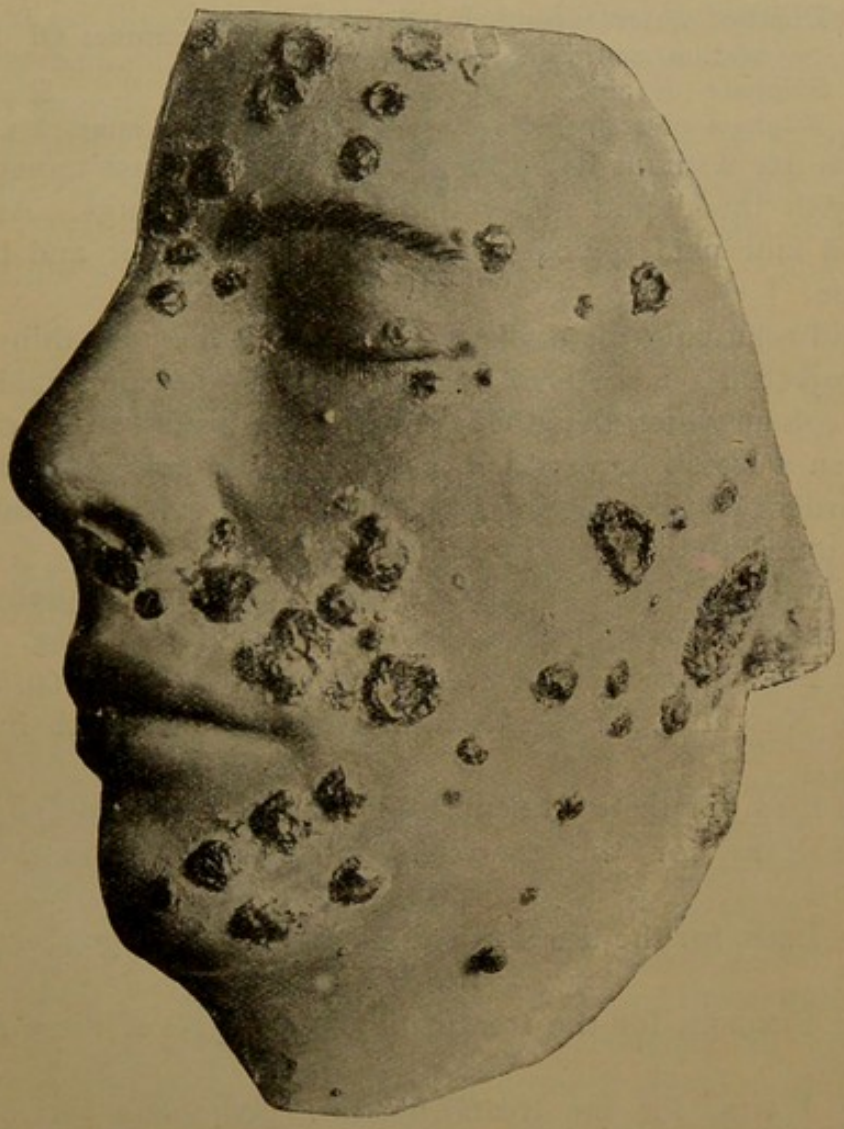


Fig. 4. Impetigo Contagiosa of the face (Streptococcic). (E. Besnier's patient. St. Louis Hosp. Museum, No. 487.)

These Staphylococci may cause, among the Streptococcic lesions described above, lesions of the follicular orifices, pustular from the first, which result from Staphylococcic reinoculations, and may be objectively distinguished from the preceding.

The treatment of acute impetigo is entirely external. When well carried out it gives excellent results.

(1) Remove all the scabs carefully, either by immediate scraping, or after having softened them for several hours with fomentations.

(2) Immediately afterwards—20 times a day—apply the following lotion on absorbent wool with light but repeated friction:—

Distilled water (camphorated to saturation and filtered)	300 grammes	Oi
Sulphate of zinc	2 "	3i
Sulphate of copper	1 gramme	3ss.

Let this dry without wiping and repeat. Never use moist dressings with this liquid under impermeable coverings. At night apply a zinc paste of equal parts of oxide of zinc and lard, or vaseline.

Avoid removing the scabs by force when they are thin and do not project above the level of the skin. Do not be afraid of the green colour which the sulphate of copper gives to the scabs.

When a lesion increases in spite of treatment, carefully raise the borders of the growing phlyctenule and carry the antiseptic liquid under the borders by a little friction.

A solution of nitrate of silver (7 per cent.) may be used instead of the above solution, but has the disadvantage of staining.

Vide EYE, for the treatment of phlyctenular keratitis (p. 133).

Vide NOSTRILS, for the treatment of chronic nasal impetigo (p. 84).

Vide LIPS, for the treatment of commisural impetigo (p. 75).

Vide EARS, for the treatment of retro-auricular impetigo (p. 110).

Vide LEGS, for the treatment of ulcerative impetigo, (ecthyma) (p. 296).

Vide FINGERS, for the treatment of impetigo of these regions (p. 368).

Vide NAILS, for the treatment of impetiginous perionychosis (p. 376).

"TETTERS."*

(*Pityriasis alba faciei* of the old authors.)

This is seen among the lesions of impetigo (see the preceding article), or in connection with chronic lesions left by a former

* TRANSLATOR'S NOTE. The name in the original is "Dartre volante." Dr. *Sabouraud* has suggested "Tetters" as the nearest equivalent in English. Both are old-fashioned terms, but are explained in the text.

acute impetigo, perlèche, impetigo of the nostrils, and retro-auricular impetigo, or even in the absence of all recognisable impetiginous lesions. It is a dry streptococcic dermatitis, and so to speak an abortive pityriasiform impetigo.

Each lesion is minute, finely scurfy, ill defined and usually localised on the side of the chin, the cheeks, forehead or neck. All intermediate forms exist between crustaceous impetigo and this dry slightly scaly rash.

Applications of the following preparations daily, or twice daily, cause the lesion to quickly disappear; but it often reappears elsewhere. The primary lesion must be sought for and treated in the eyelids, nostrils and behind the ear.

Vaseline	aa. 30 centigrammes	m. v.
Calomel		gr. v.
Ethereal solution of tannin .	30 grammes	℥i

TRICHOPHYTOSIS.

We shall deal with trichophyton of the beard and neck in the adult in their proper places (p. 156 and 170). I shall only refer here to Trichophyton of the smooth skin of the face. It is common, multiple, and generally minute. It always accompanies ringworm of the scalp in the child by accessory and transient inoculation of the smooth skin. It consists of rose-coloured spots, slightly papular, irregular and squamous, which tend to spontaneous disappearance.

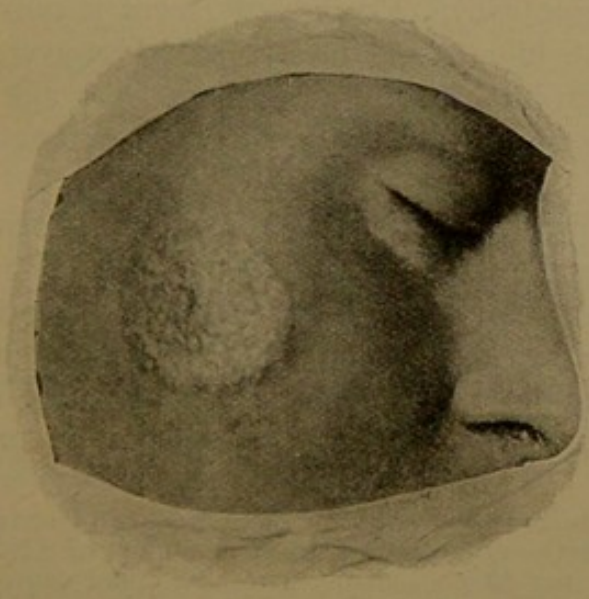


Fig. 5: Ringworm of the face. (E. Besnier's patient. St. Louis Hospital Museum, No. 1710.)

If the spots enlarge they become partly surrounded by a quarter or half circle, which is redder, more papular, and finely and irregularly vesicular. Sometimes this circle is complete (Fig. 5). The presence of ring-

worm of the scalp, and microscopic examination or culture of the squames, confirms the diagnosis.

Treatment consists in daily friction with tincture of iodine in alcohol (10 per cent.), applied on wool pledgets.

IMPETIGINOUS ECZEMA OF THE FACE IN ADOLESCENTS.

This is a very interesting and little known dermatosis. It is an amicrobial dermatosis; finely vesicular, pruriginous, and exudative, with impetiginous scabs; a moist eczema, situated on the face, cheeks, temples, forehead and chin; or more generalised on the neck, in the flexures of the elbow and hand, in the groin and genital region, etc. Sometimes it is chronic, but more often it occurs in sub-acute crops, with intervals during which there may remain a red and slightly moist epidermatitis. This disease occurs in adolescents, and especially in young girls from 10 to 20 years of age.

It has an evident relationship to the prurigo of *Hebra,* but must not be confounded with this. It is usually very localised. The prurigo of *Hebra,* even when it affects the same principal regions, is also generalised on the whole body. Prurigo of *Hebra* is only moist secondarily; the disease in question always so. However, prurigo of *Hebra* dates from infancy and disappears with age. The disease in question may arise at 12, 15 or 18 years, without anterior prurigo.

It is accompanied by diminished acidity of the urine,[1] often also by slight albuminuria, sometimes intermittent.

This albuminuria (0.10 to 0. 50 per day) is sometimes transient and disappears in the recumbent position; or it may coincide with the digestion of the mid-day meal. There may also be an albuminuria with renal lesions (epithelial casts), consecutive or

[1] The urinary acidity may be tested by a solution of carbonate of soda —made so that a cubic centimetre corresponds to a gramme of acid (expressed in phosphoric acid) per litre of urine, using 20 cubic centimetres of urine for examination. The neutralisation obtained is verified by the equal tints of red and blue litmus paper.

To find the normal acidity of the urine of any subject, the biological coefficient (weight) of the subject is multiplied by 0.03 (this figure representing the normal acidity by the urological standard).

Example. In a subject having a biological coefficient of 56, the normal acidity would be $56 \times 0.03 = 1.69$ for 24 hours, ((acidity expressed in phosphoric acid). (Note by Desmoulières.)

not to an infection (scarlet fever or mumps). In this case, by treating the nephritis by milk diet, etc., the eczema is cured.

In all cases, fresh air, vegetable diet with eggs, starchy foods and sugars are indicated: the attacks becoming less frequent and severe.

Local treatment includes applications of zinc pastes, nitrate of silver (5 to 10 per cent.). Some cases are severe and last for years, but are always curable.

SEBORRHOEA.

This term is exclusively limited to a greasy state of the skin produced by an exaggerated flow of sebum, causing the latter to become visible.

The seborrhœic state thus defined must be carefully distinguished from others improperly called by the same name, which are characterised by dry squames (*pityriasis simplex*), or by fatty squames (*pityriasis steatoides*, squamous eczema with fatty squames). A squamous condition may be superposed on a seborrhœa (*pityriasis superseborrhoica*), but it is never a seborrhœa. Seborrhœa is a morbid state which is the precursor and sign of puberty. The elementary lesion is formed by a fatty cylinder situated in the sebaceous pores, which it distends and renders visible. This cylinder, which may be expressed like a worm by the finger nails, when spread on a slide, washed with ether and stained with some aniline dye, or by *Gram's* method, shows myriads of a fine bacillus, the seborrhœic microbacillus, which is the constant microbial expression of seborrhœa (Fig. 6.). The

Fig. 6. Microbacillus of Seborrhoea. Extemporary preparation. Obj. immersion 1-12 Leitz. Ocular IV.

culture of this microorganism, although not very easy, can be obtained with a little care by the insertion of a particle from the middle of a seborrhœic cylinder in glycerin peptone gelose, very slightly acid, (five drops of glacial acetic acid in a litre of the medium).

Seborrhœa thus defined appears just in the skin of the nose and nasal fold, the chin and forehead. In many cases these seborrhœic regions, at first distinct, become confluent, and the whole face becomes seborrhœic, with the exception of the natural orifices.

True seborrhœa has no functional symptoms except very slight itching, when there is local sweating.

Seborrhœa is not confined to the face, but extends over nearly the whole of the axial line of the body, with predominance in the presternal and inter-scapular regions. It is observed in very different degrees of intensity. Seborrhœa is accompanied by diffuse loss of hair in the affected region. On the vertex, where it usually occurs at the age of 19 or 20 in man, it causes masculine baldness. On the face and on the body seborrhœa gives rise to acne of all kinds, which we shall study later.

Seborrhœa has two maximum periods: puberty and the menopause, or to speak generally, the age of evolution and the age of involution, It is the necessary substratum of a large number of morbid conditions; of all the acnes; *a. comedo; a. papulosa; a. indurata—suppurata—keloid—necrotica,* etc., and the frequent substratum of a number of others: *pityriasis, follicular psorospermosis, contagious flat wart, epithelioma,* etc.

The importance of this morbid state is considerable. Seborrhœa with all the eruptions above described is observed most often in adolescence and in young girls. It increases from 12 to 15 years and usually decreases towards 20. In this case all the sebaceous pores excrete on the face a yellow fatty fluid, which in a few hours accumulates.

This morbid state, extremely distressing when it attains this degree, requires active treatment. Mild preparations should be tried first. The following is a list of anti-seborrhœic applications, arranged in order of strength.

1. Friction twice daily with Hoffmann's

Liquor	200 grammes	ʒi
Resorcin	2 "	gr. 5

2. The same with sulphur soap at night.

3. The same in the morning and at night the application with a brush of:

Precipitated sulphur . . .	10 grammes		gr. 50
Alcohol (90 per cent.)	100	"	℥i
Aqua dist.	10	"	ʒi

4. Sulphur Ointment at night

Precipitated sulphur	1 to 10 grammes		gr. 16-160.
Vaseline	30	"	℥i
Salicylic acid, Resorcine }	aa. 30 centigrammes to 4 grammes		gr. 8 to 64

5. Application at night of equal parts of soft soap and precipitated sulphur.

This is followed by zinc paste at night if the irritation is excessive.

6. Friction with pledgets of absorbent wool soaked in Carbon bi-sulphide saturated with sulphur (this is inflammable at some distance). This treatment may be combined with the preceding.

After several months both doctor and patient perceive that they are gaining ground, and that the morbid condition is diminishing in intensity.

Benign cases require only the mildest of the preparations indicated. No internal treatment is of any constant value in the treatment of pure seborrhœa, and the same may be said of rules of diet.

ACNE POLYMORPHE.

Acne must be defined by its immediate cause. The history of acne is that of microbial infection, secondary to the microbacillary fatty cylinder of seborrhœa. This microbacillary fatty cylinder may develop largely and assume a utricular form, with a summit covered with pigmented granulations, appearing as black points: *Acne comedo.* After remaining for years this grows excessively, and degenerates; its flora disappear and it is reduced to an epidermic shell enclosing fat.

More often the comedo is infected with white staphylococci at the summit, which is surrounded by a red spot. The comedo then becomes the centre of a generalised inflammation, more or less acute, which causes either an abscess—*acne suppurata,* or an indurated

nodule which does not suppurate and is slowly absorbed—*acne indurata*—or undergoes a cystic transformation. The foci of inflammation, when they are contiguous, may form burrows and irregular fistulous tracts (especially in the submaxillary region and the neck).

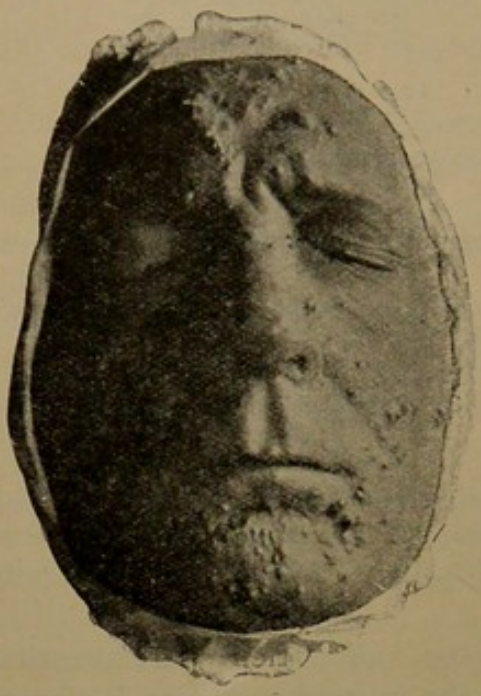


Fig. 7. Acne polymorphe. (A. Fournier's patient. St. Louis Hospital Museum, No. 1132.)

All these lesions coexist in the same face, and constitute *acne polymorphe* (Fig. 7). This has its maximum in the adolescent on the forehead, nose, cheeks, chin and sub-maxillary regions. It is accompanied by similar lesions of the trunk, especially in the anterior and posterior thoracic regions. These lesions may occur with such multiplicity as to cause complete disfigurement.

A similar state is observed in its maximum in workers in chlorine: *chloric acne.*

The treatment of polymorphous acne is that of the subjacent seborrhœa: sulphur ointments and lotions applied at night and washing with soap in the morning. The doses must be graduated according to the case (pp. 14 and 15). Sulphur baths assist external medication.

The action of the X-rays on polymorphous acne is undeniable. They should be applied diffusely in sittings every 15 or 18 days, with 3 or 4 units H. The result is generally evident after the third sitting and more permanent than after most external applications.

In acne comedo, expression of the comedo facilitates the action of topical applications and renders them more efficacious. In suppurative and indurated acne, opening the collections of pus with the fine point of a galvano-cautery hastens the disappearance of the lesions. Cauterisation of the fistulous tracks of pustular and cystic acne with a crayon of nitrate of silver may be required.

A course of strong sulphur water, such as Challes, St. Boé's,

Allevard or Luchon, tends to diminish the number and size of the lesions, and to prevent recurrence. In some acnes the outbreaks appear to be connected, even in the adolescent, with gastric disorders. In such cases, the state of the stomach must be attended to. More often acne appears related to sexual development. No uniform rule of diet can be prescribed, based on the acne alone.

Acnes connected with uterine disorders, the menopause in women, the evolution of the fifth decade in men will be studied later (p. 30).

PERMANENT CONGESTIVE STATES OF THE FACE IN ADOLESCENTS.

Congestive states of the face occur in adolescents, some of which are related to gastric disorders, others to bad circulation depending on an ill-defined general condition, hitherto called lymphatism and scrofula.

FACIAL CONGESTION CONNECTED WITH GASTRIC DISORDERS.

This may occur both in the adolescent and in the adult. After each meal, especially after breakfast, the patient experiences congestion of the face. At the same time the extremities, the feet in particular, become cold. Gastric digestion may be arrested, and is hardly complete in three hours. At the end of this time the facial congestion diminishes, to reappear at the next period of digestion.

According to many authors, facial congestion is connected with, and reciprocal to, seborrhœa of the face. I believe the two conditions to be distinct. But permanent congestion of the face may render a previous seborrhœa more visible and accentuated.

First of all the gastric condition, which is usually hyperacid, must be treated by alkalis: bicarbonate of soda, or better carbonate of lime in a pastille of 2 grains, taken every hour during gastric digestion. If there is constipation the carbonate of lime may be replaced by similar pastilles of magnesia. This simple treatment is often followed by excellent results. If this fails, a glass of warm vichy water may be taken half an hour before each meal.

Local facial congestion. Chilblain. We shall meet with these conditions in studying the dermatoses of each region of the face, e. g., chilblain of the nose and ear. Many authors still regard these morbid types as the first degree of cutaneous disorders, labelled together formerly under the name of lymphatism, because one especially of these forms, erythema pernio, is confined to one of the forms of lupus erythematosus which we shall study,—lupus erythematosus with non-cicatricial evolution.

LUPUS ERYTHEMATOSUS.

Lupus erythematosus is related to tuberculosis, without the lesions revealing the tubercle bacillus. The coexistence of lupus erythematosus with the tuberculides in general and lupus vulgaris is not very common, but its relation to tuberculosis is nevertheless certain. Thus we may see on the same subject tuberculous ulcerations of glandular origin, tuberculous lupus disseminated round the cicatrices, resulting in direct inoculation of the skin with pus, and numerous patches of lupus erythematosus of the face and body.

Fig. 8. Lupus erythematosus.
(E. Besnier's patient. St. Louis Hosp. Museum, No. 535.)

Lupus erythematosus may

begin at all ages, and its symptoms vary little. It forms red patches of irregular form, depressed, and covered with white adherent scaly squames (cretaceous herpes of *Devergie*); the patches being sensible to percussion (*Besnier*).

These patches may be situated anywhere; on the nose, cheeks, beard, forehead, scalp, neck, and more rarely on the hands, fingers and body. Some of the patches are about half an inch in diameter, others as large as the hand. Their margin is always sharply defined and nearly always irregular.

One form only is symmetrical, affecting both sides of the nose, and known by the name *Vespertilio*. This form is often juvenile and superseborrhœic. On the surface of the patches appear the dilated orifices of the sebaceous glands, filled with an adherent epidermic cone; a condition known as congestive seborrhœa (*Cazenave*). These non-atrophic, non-depressed erythematous patches, sometimes change their position, and may disappear without leaving any traces.

Lupus erythematosus in its classic form, with depressed patches, extends, but scarcely ever retrogresses. Usually the lesions remain unchanged for years, or heal on one side by a cicatrix while they develop on the other. The cicatrix in hairy regions is completely alopecic.

This affection is very rebellious and the strongest measures in treatment give only indifferent results. Thus, salicylic and pyrogallic plasters; the galvano-cautery and scarifications, have much less effect in lupus erythematosus than in tuberculous lupus. The same with *Finsen's* phototherapy.

High frequency currents have been tried without satisfactory results. Treatment by the X-rays appears to have the most likely future. The application of 6 to 10 units has caused a radio-dermatitis with scarring which took 3 to 5 months to heal, but which cured the lupus. Some authors think that a slower and less violent treatment gives the same result (5 or 6 sittings of 5 units H. with intervals of 18 to 20 days). The latter method, being without inconvenience, should be preferred at present. but the former method is certainly more rapid and perhaps more constant in results.

In favourable cases the lesion retrogresses, the redness fades, and is replaced by a smooth white scar.

TUBERCULOUS LUPUS.

Tuberculous lupus is one of the most severe dermatoses which affects the face. It may occur in all regions of the body, but is more frequent on the face than elsewhere; and more commonly on or around the nose. It consists in a dermic and hypodermic nodular tuberculosis. Inoculation of these nodules on the peritoneum of the guinea-pig causes typical peritoneal tuberculosis.

Fig. 9. Tuberculous non-ulcerative lupus. (Sabouraud's patient. Photo by Noiré.)

The lesion, whatever its situation, arises at first as a diffuse red patch, with a glazed surface and soft consistence. Through this may be seen lupus nodules; each of the size of millet seed;

more or less distinct from each other; of a yellowish red, or barley sugar colour; and enclosed in the lesion.

The lesion extends in the dermis and under the epidermis (first stage, Fig. 9); often ulcerating with hypertrophy of fungosities (second stage); later on with progressive necrosis (third stage). These three processes may be united in cases where the evolution is rapid.

Tuberculous lupus is a disease which is rarely fatal (by extension to the mucous membrane of the nasal fossæ, the gums, pharynx and larynx, with concomitant pulmonary tuberculosis), but which in most cases lasts during the patient's life. When left to itself, or badly treated, which is the rule, it ends in ulceration and extensive destruction of the bones (Fig. 34). When well treated it leaves cicatrices of the same dimensions as the lesions, which assume the bony form of the region, on account of the disappearance of the soft parts.

The cicatrices, according to their situation, may lead to buccal or nasal atresia, or ectropion of the eyelids with consecutive chronic keratitis and corneal opacities.

The treatment of tuberculous lupus, to be successful, should be commenced at once, when the lesion does not exceed the size of a sixpence. It is difficult to induce the patient or the parents to agree to total excision, owing to the situation of the lesion on the face. Excision, in order to give good results, must be as extensive and as deep as possible. Most excisions are insufficient and lupus nodules generally reappear in the cicatrix.

The application of *Finsen's* phototherapy is the method to be preferred. It gives, slowly but surely, perfect results; and, when the treatment is sufficiently continued, the results are permanent.

This treatment requires elaborate and expensive installation. A Voltaic Arc of 70 to 80 amperes is necessary. The light rays, emitted from this source, are collected by a series of rock crystal lenses mounted in metallic tubes and separated by running water, eliminating all the heat rays. In the focus of the last lens is placed the lesion, under a crystal compressor in which circulates a current of cold water. The object of the compressor is to diminish the circulation of blood in the lesion to be treated; for the red tissues arrest part of the chemical rays. Two days after an application lasting half an hour, a phlyctenule forms which opens and dries up. The whole lesion undergoes an inflammatory process which lasts about

fifteen days, and when this process subsides it leaves the lupoid lesion attenuated.

The method of Finsen has been applied to lupus of considerable dimensions, but as the number of sittings on the same part is also considerable (5 to 15), and as the part treated each time cannot exceed an inch in diameter, the results are extremely slow.

We must also mention those of the older methods which gave the most satisfactory results before phototherapy. These still remain too often the only ones which are made use of.

Chemical Caustics. Vienna paste, half strength, applied for ten minutes, gives excellent results. The application, it is true, causes considerable pain. A black scar, 7 to 10 millimetres in thickness, is formed, which separates slowly, leaving a smooth cicatrix. Much progress is thus made in a short time. Cauterisation with pure permanganate of potash has given appreciable results in ulcerative lupus.

Galvano-cautery. Cauterisation of tuberculous nodules with the point of a galvano-cautery, repeated every month on the same surface, afterwards increasing the intervals to every two, three or four months, gives very good results, but is nearly always incomplete. Later on tuberculous nodules reappear in the cicatrix which require destruction afresh.

Linear quadrilateral scarification is useful to reduce the fungosities of the second stage of lupus, but should only be employed in tuberculous lupus at the beginning of the treatment or to correct unsightly cicatrices.

Ulcerated fungous lupus, tuberculous fistulæ and lupus of mucous membranes may be treated by *double cauterisation* (1) with nitrate of silver, (2) with metallic zinc which reduces the silver and sets free nitric acid. The method is somewhat painful, but gives excellent results.

Lupus of mucous membranes is modified by applications of pure lactic acid, chloride of zinc (10 per cent.), etc., by repeated applications with absorbent wool pledgets.

The accessory treatment of lupus will be considered more in detail with each localisation of the disease.

SECONDARY SYPHILIS.

Syphilitic roseola is rarely visible on the face. The secondary characteristic eruption in this situation is the papular (fig. 230).

This is more or less abundant and florid, constituted by small projecting round papules of a brownish red colour, equally distributed and covering the chin, forehead, cheeks and eyelids. This eruption occurs usually six weeks or two months after the initial lesion, traces of which with the satellite glands are always easy to discover. The eruption may precede the mucous patches by a few days, or coincide with them (vide *Throat*). For the general history of syphilis and its treatment see page 644.

LEPROSY.

Leprosy does not occur in our country in the florid tubercular form represented in the figure. But in many of our possessions in Asia or America it exists in an endemic state, and our soldiers, colonial administrators and colonists often contract it there.

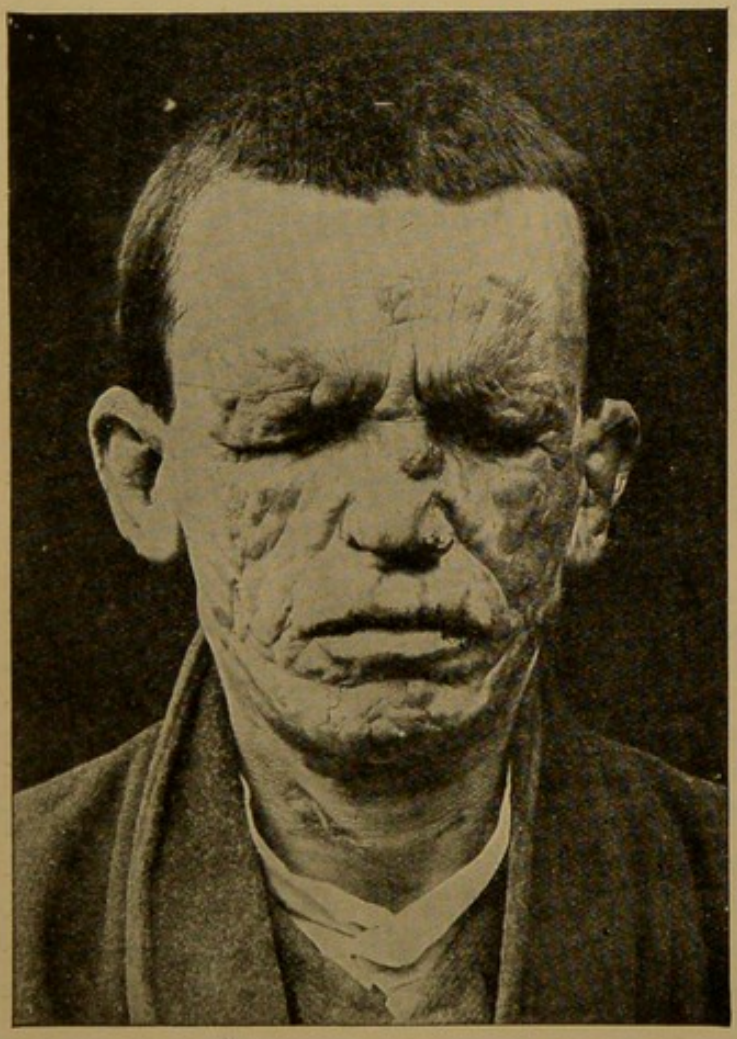


Fig. 10. Leontias ic leprosy. (Jeanselme's patient. Photo by Noiré.)

It is a tubercular disease closely allied to tuberculosis and caused by a bacillus morphologically very similar to the bacillus of *Koch* (bacillus of *Hansen*). Up to the present the disease is only inoculable and contagious in the human species.

On the face it begins by the formation of projecting nodosities on the eyebrows; soft tuberosities which rarely ulcerate, but nearly always cause

almost complete alopecia of the eyebrows. This alopecia, which sometimes also affects the moustache and beard, usually spares the scalp. The forehead, cheeks, chin and nose gradually become infiltrated, and the features become enlarged and deformed by the production of fresh nodosities disseminated over all parts of the skin (leprous tubercles). This results in a special leonine facies which has given rise to the word—*leontiasis*. The tubercles may become indurated and disappear incompletely. This evolution is only observed in France, where exotic leprosy undergoes generally a spontaneous retrogression.

The tubercules often form indolent ulcers which may remain stationary for years or slowly increase in size. Finally, attacks of acute lymphangitis may occur, analogous to erysipelas, after which the tissues remain engorged.

There is no specific treatment for leprosy, and in the great majority of cases it is incurable. The local action of X-rays and phototherapy may be tried methodically, for the action of external applications is scarcely appreciable. Apart from these methods the leprous ulcers should be treated like all atonic ulcers. (See for example p. 307).

Naphthol B taken internally in a dose of 30 to 60 grains and oil of Chaulmoogra (*Gynocardia odorata. Bixacées*), in the doses of 50 to 200 drops a day, have caused certain improvement, although incomplete. But these drugs, which are often badly tolerated by the stomach, must be taken in massive doses and for a long time to have any effective action.

ERYSIPELAS OF THE FACE.

Erysipelas of the centre of the face, the most common form, may begin in the nasal furrow, at the internal angle of the eye, on the upper lip, or sometimes in the centre of the cheek, by a redness which increases rapidly in intensity and extent. It is often preceded by general phenomena; fever, nausea, headache, and sore throat. These general phenomena, especially fever, are of sudden onset. The temperature rises to 40°C. or more, and remains so during the duration of the disease. There is often delirium, especially in alcoholic subjects.

The erysipelatous skin is glossy, red, tense, painful, and limited by a sharply defined raised border. The region affected may be

extensive and may include the whole of the face and scalp. More commonly the erysipelas migrates, the redness disappearing in the part first affected and extending to other parts (ambulatory erysipelas). The temperature falls abruptly on the sixth or ninth day, all the general and local symptoms subside, and cure takes place rapidly without convalescence. This description applies to a case of medium severity, but some cases are more severe. Erysipelas may be phlyctenular, purulent, or more rarely gangrenous. It may present all the complications affecting the heart, kidney and pleura, etc., which occur in infective diseases: but resolution is always the rule.

Treatment is symptomatic, both general and local. The general temperature may be lowered by quinine, antipyrine and the like, and the local temperature by moist dressings. Colloidal Silver may be tried as a local application.

FOLLICULAR PSOROSPERMOSIS.

This name is given, after the researches of *Darier*, to a disease which is usually superseborrhœic, having the regional seats of election of seborrhœa, and characterised by brown conical crusts enclosed in greatly dilated sebaceous orifices, and each raised on a soft papular projection.

This disease, the coccidial nature of which is disputed, but the parasitic nature of which is probable, always commences on the face in the nasal furrows, the fold of the chin, the nose, the glabellum and the region under the eyebrows. At the same time all the seborrhœic regions of the body are invaded by the same process; the mid-thorax, the axillæ and the groins.

The elementary lesion is everywhere the same, but the subjacent papular eminences with follicular crusts may become confluent.

The disease is chronic and may occur at any age, but most often in adolescents of the poorer classes, who neglect the elementary principles of hygiene. We shall have occasion to refer to it again with each of the chief localisations of the disease.

The treatment is that of seborrhœic lesions, and consists in the external application of sulphur, tar and reducing agents. Internal treatment is not required.

STRONG OINTMENT.

Precipitated sulphur . . .	aa. 1 gramme	aa. gr. 16
Salicylic acid		
Ichthyol		
Cinnabar		
Oil of cade	10 grammes	ʒiii
Lanoline	30 "	ʒj

WEAK OINTMENT.

Resorcine	aa. 1 gramme	aa. gr. 24
Ichthyol		
Oil of birch		
Yellow oxide of mercury .		
Oil of cade	10 grammes	ʒiv
Lanoline	20 "	ʒj

Soaps are useful as keratolytics, and baths indispensable. The results of treatment are variable, but usually good when the patient takes some care in carrying it out. But the lesions are rather effaced than destroyed, and reappear when treatment is discontinued.

CHLOASMA.

Chloasma consists in a brown pigmentation of the forehead and temples, which appears in the course of pregnancy, sometimes from the beginning, and fades more or less completely after delivery.

This "mask" occupies symmetrically the forehead and temples, sometimes the cheeks, the areola of the breasts, the labia majora and the axial line of the abdomen.

On the forehead the patches stop at the border of the hairs by a sharp and sinuous margin. On the temple they form irregular but symmetrical placards, usually yellow and very unsightly.

Chloasma, which is habitually connected with pregnancy, may be produced in all peri-uterine and peri-renal diseases, which affect the sympathetic plexus around the supra-renal capsules.

The treatment is the same as for ephelides (p. 6), but it is subject to the same failures, and if the cause persists or recurs, the chloasmic patches also persist or recur.

VITILIGO.

The name *vitiligo* is given to a non-congenital dermatosis characterised by the formation of white patches with well defined borders, surrounded by a zone of pigmentary hyperchromia. The cause of vitiligo is unknown; it occurs after severe nervous shocks, or among nervous subjects, degenerates, syphilitics or heredo-syphilitics. It develops insidiously without any subjective symptom. The patches present no anomaly except their colour. The skin is normal to the touch and folds in the same way as normal skin. The colour is milky-white. These patches, large or small, symmetrical or otherwise, have always clear, irregular sinuous margins. Around each patch the hyperpigmentation is evident and diminishes insensibly till it joins the normal skin.

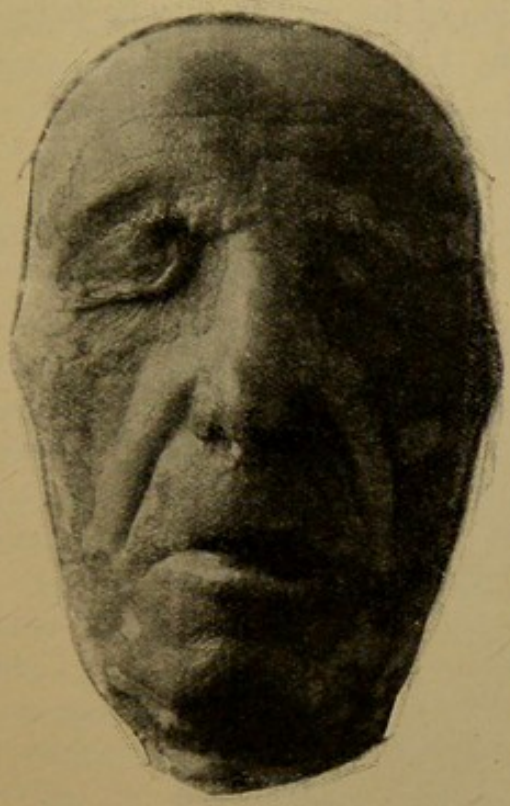


Fig. 11. Vitiligo of the face. (Lailler's patient. St Louis Hospital Museum, No. 350.)

When the vitiliginous patches occupy or encroach on a hairy region, the hairs are silvery white, sometimes even atrophic. Their number on the patch is sometimes only half that on the parts around.

The patches of vitiligo differ from the achromic patches of leprosy (p. 655) in having no sensory affections; thermic algesic or tactile.

The seat of election of vitiligo is the face and neck, especially the lateral parts; also the back of the hands and wrists, and the genital organs (p. 461); but it may occur on all parts of the body. Usually the patches do not remain stationary, but increase or decrease, and alter in position; but these changes occupy some years.

Vitiligo has certain, but not definite, relations with alopecia areata, with sclerodermia in patches or morphœa, with syphilis and with

tabes. Local treatment is nil. General treatment may be instituted after a complete examination of the patient with regard to his nervous system, heredity and former ailments. When there has been anterior syphilis, mercurial treatment is indicated.

"It is probable that ovarian, thyroid, orchitic or supra-renal opotherapy, according to the condition of the patient, may be called into play" in the treatment of vitiligo. (*Darier*).

ARTIFICIAL DERMATITIS.

The face, hands and wrists, the feet and ankles, have a certain number of dermatoses in common. The traumatic dermatoses due

Fig. 12. Artificial dermatitis due to the application of a dye. (Brocq's patient. Photo by Sottas.)

to the irritant action of external agents are particularly common on the hands and face.

On the face they have two common causes; the application of irritating ointments (sulphur, salol, etc.); or hair dyes containing substances which have a toxic action on certain skins; the most common of which is paraphenyl diamine. The appearance of these lesions is that of a sub-acute eczema, total or in patches, and situated most often on the forehead, ears, nose and lips. The horny epidermis is raised by myriads of miliary vesicles close together, the surface of the skin having a finely mammillated appearance. Each vesicle contains a small drop of turbid fluid. These lesions are always accompanied by a considerably degree of diffuse œdema, which causes swelling of the loose tissues of the eyelids, neck, etc.

In a more accentuated form the vesicles are ruptured, and exudations occur in the situation of each (the punctate perforations of *Devergie*). The exudation may be slight or considerable, and may form a thin placard of adherent, honey-like crust. This acute phase usually lasts only if the cause of the irritation is renewed. If, on the other hand, the exudation ceases the lesion becomes dry and desquamating and the skin gradually resumes its normal aspect.

Treatment consists in removal of the cause, which includes not only the avoidance of further applications of the irritating agent, but also removal of the traces of it which remain. Moist dressings, cataplasms of potato starch, made while hot and applied cold; and washing with a badger hair brush with a very mild soap are useful. When the epidermis is much injured pulverisation with camomile water or simple boiled water (not boric) is preferable to soap.

As soon as the lesions cease to discharge a protective paste of equal parts oxide of zinc, lanoline and vaseline gives an excellent result; the epidermis being regenerated underneath it. Benign traumatic dermatitis lasts from 3 to 15 days: more severe cases may persist for two months or more. If the cure is delayed the urine should be examined and internal treatment adopted, for glycosuria, hyper-acidity, hypophosphaturia, oxaluria, etc., which the analysis of the urine may indicate.

ACNE ROSACEA.

Towards the fiftieth year the seborrhœic and telangiectasic processes, which generally become attenuated when the adolescent has become adult, occur afresh, and take on another aspect.

Venous stasis becomes pronounced; the face becomes diffusely red or purple, and the tissues thickened; the skin becomes coarse and dotted with the gaping sebaceous orifices. The different forms of polymorphous acne appear here and there, pustular, indurated and cystic, but chiefly the hypertrophic and congestive forms (see *Rhinophyma*, p. 103). This is a syndrome which is seen at its maximum in the subjects of varicose, cardiac and cardio-renal affections, and may also occur at the menopause in women.

Fig. 13. Acne rosacea. (Besnier's patient. St. Louis Hosp. Museum, No. 563.)

In these cases local treatment is directed against the elements of polymorphous acne, etc. (p. 15), but general treatment is more important. According to the case, the condition of the digestive tract, dilatation of the stomach and intestinal paresis must be looked for. In other cases cardiac or renal troubles require appropriate treatment, which need not concern us here. The result is rarely complete, but the most prominent symptoms may be alleviated. Local treatment concerns chiefly the elements of rosacea and hypertrophic acne. This treatment consists especially in the use of the fine galvanocautery, especially in hypertrophic acne of the nose, the most frequent and the most distressing form (p. 103).

SENILE WART.

On integuments which have undergone senile changes and become telangiectasic, turgid and infiltrated, a series of morbid

conditions may arise which must be considered as parasitic, although this parasitism is not definite.

In places the senile skin has an unwashed appearance, covered with a kind of yellow or black scum. This is not due to the superposition of exuded fat but to a velvety quasi-papillomatous transformation of the epidermis. It is a flat wart, wrongly called seborrhœic because it is often superseborrhœic. It is also said to be contagious because it multiplies, and inoculation with a pin appears to transmit it.

These lesions improve greatly under the influence of reducing ointments containing chlorates:—

Chlorate of potash	150 centigrammes	gr. 24
Precipitated sulphur	3 grammes	gr. 48
Resorcine	1 gramme	gr. 16
Vaseline	30 grammes	ʒi

It is possible that in the majority of cases temporary disappearance is obtained rather than cure of the lesion. Epitheliomatous transformation of these lesions is often seen, but is not constant.

PRE-EPITHELIOMATOUS SENILE SEBORRHOEA.

Of a similar nature is the slow formation, in one or more parts of the face, in the aged, of a hard, yellow crust, adherent to the subjacent skin, to which it is fixed by numerous conical projections occupying the sebaceous pores. Under this crust the skin is not quite normal, but its surface is velvety and there is a corresponding fitting of the projections of the skin with those of the crust, so that removal of the latter may cause bleeding. The process is slow, and may continue for five or six years without the crust falling. When this is removed it is quickly reproduced (Fig. 14).

EPITHELIOMA.

Malignant epithelioma of the face, apart from the mouth, is rare and usually develops on the cicatrices of former lupus (Fig. 15); but benign epithelioma is common.

It is also a lesion of senility, occurring, like the preceding, on a skin altered by seborrhœa and telangiectases, etc. Sometimes it arises as a small atonic ulcer which grows under a crust of concrete seborrhœa; at other times it is a raised non-ulcerating lesion consisting of epidermic pearls placed side by side in a circle, which

later on expands while its centre becomes ulcerated. The lesion rarely assumes a granulating form, objectively neoplastic[1], except when the epithelioma is secondary (Fig. 15).

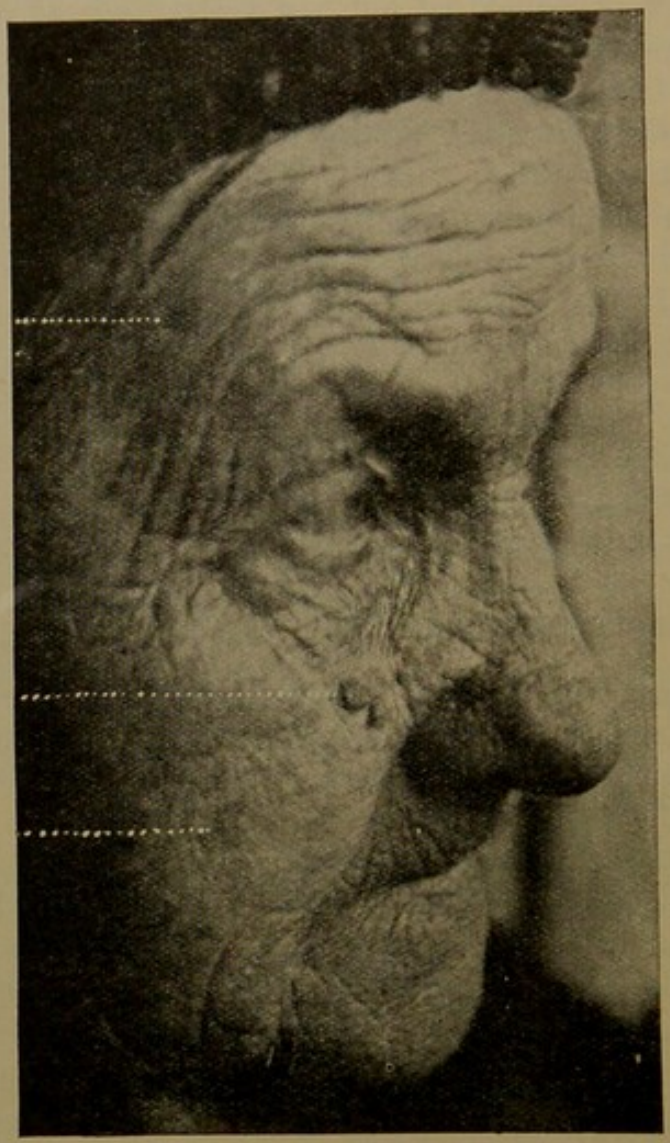


Fig. 14. Pre-epitheliomatous concrete lesions of Seborrhoea.
(Sabouraud's patient. Photo by Noiré.)

Ulcerated epithelioma may slowly increase in size for years without becoming malignant, giving rise to metastasis, or altering the general condition of the patient. This slow evolution is the rule, but sometimes it is otherwise and a chronic superficial

[1] For further details see the article on cutaneous epithelioma, p. 639.

ulceration finally develops into a cancer. This is the exception.

For benign epitheliomas simple expectation, curetting, actual cautery, chemical destruction, chlorated pastes and powders, etc., were formerly prescribed. To-day there is only one form of treatment which seems to be of value in nearly all cases; the X-rays. Usually six applications at intervals of 18 days, with 5 units of *Holzknecht*, or tint B of the radiometer of *Sabouraud* and *Noiré;* are sufficient. Even if the lesion has disappeared before the last application it should be administered in order to prevent the chance of relapse.

MYCOSIS FUNGOIDES.

Mycosis fungoides is a generalised dermatosis which will be considered later on (p. 637).

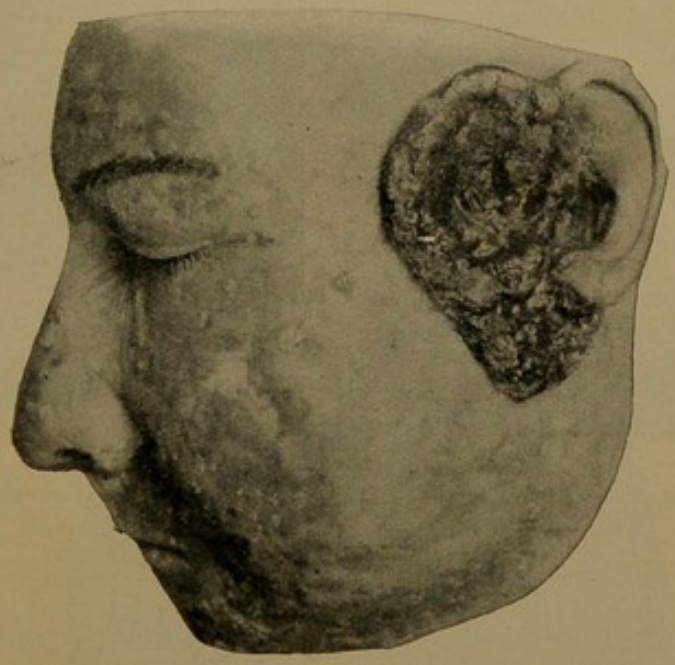


Fig. 15. Epithelioma developing in former lupus. (Besnier's patient. St. Louis Hosp. Museum.)

When fully developed mycosis fungoides nearly always affects the face, causing diffuse infiltration and swellings, shown very well in Figure 18. This aspect is characteristic, as well as the

slow evolution of the diease, which is for a long time compatible with comparatively good health.

PERNICIOUS LYMPHADENIA.

In pernicious lymphadenia, another analogous generalised dermatosis, erythodermia is more diffuse and the tissues are in-

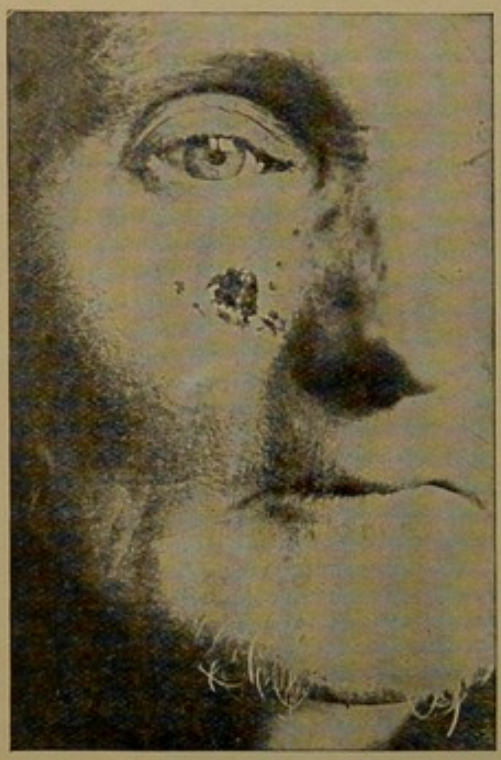


Fig. 16. Ulcerated epithelioma of the face.
(Sabouraud's patient. Photo by Noiré.)

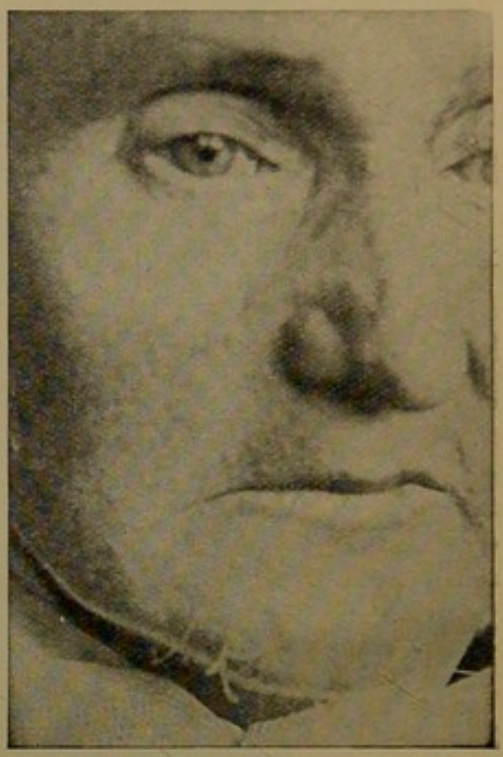


Fig. 17. The same cured by X-rays.

filtrated and thickened en masse without forming distinct tumours. A comparison of the two figures will convey a better idea than any description. The general history of the disease is described on p. 639.

Fig. 18. Mycosis fungoides.
(Hallopeau's patient. St. Louis Hospital Museum. No. 1706.)

Fig. 19. Cutaneous Lymphadenia.
(Hallopeau's patient. St. Louis Hospital Museum, No. 1964.)

THE MOUTH.

In a series of separate chapters I propose to study later on the dermatoses having their seats of election in the *tongue*, the *gums*, the *cheeks*, and the *throat*, but I shall first devote a few pages to affections which may occur in the mouth, without having any evident predilection for any one of its parts.

Among these I shall first consider ulcero-membranous stomatitis, the name of which sufficiently indicates its characters . . . . . . Ulcero-membranous Stomatitis . . . p. 37

. . . Then the aphthous stomatitis of animals, which in rare cases may develop in the child . . . Aphthous Stomatitis . . . . . p. 37

. . . and Simple aphthae; small, common inflammatory lesions, which must be carefully distinguished from the preceding . . . . . . Simple Aphthæ . p. 38

Mercurial stomatitis has the gums for its point of origin and essential localisation. It will therefore be dealt with elsewhere . . . . . . Mercurial Stomatitis . . . . . p. 57

But the stomato-mycosis of nurslings and cachectics, known under the name of thrush, is usually generalised in the whole mouth, and will be studied here . . . . . . Thrush . . . . . p. 38

Simple leucoplasia may affect the whole mouth with disseminated white patches. It therefore belongs to this chapter . . . . . . Simple leucoplasia p. 39

The same with lupus of the mouth, papillomatous and ulcerative forms of which may occur on the palate, gums, cheeks and lips . . . . . . Tuberculous lupus p. 41

Lupus erythematosus is seldom seen except on the cheeks and will be studied with them . . . . Lupus Erythematosus . . . . . p. 74

. . . The same with lichen planus . . . . . . Lichen planus . . p. 73

I shall say a few words concerning Acanthosis nigricans . . . . . . Acanthosis nigricans . . . . . p. 42

. . . Melanodermia . . . . . . Melanodermia . . p. 42

. . . and Vitiligo . . . . . . Vitiligo . . . . . p. 42

ULCERO-MEMBRANOUS STOMATITIS.

Ulcero-membranous stomatitis is contagious and epidemic and especially attacks children of three to eight years; but it may be observed at any age.

It is characterised at first by extreme dysphagia accompanied by salivation and an offensive odour from the mouth. On different parts of the internal surface of the cheeks, the floor of the mouth and borders of the tongue are seen thick patches of a yellowish white, or buff colour. These have a tendency to separate at their edges, disclosing a sanious ulceration which bleeds easily. The disease is accompanied by some fever and malaise and lasts from 5 to 15 days, ending in resolution, which is always much accelerated by treatment.

Treatment. All the patches should be frequently touched with a brush charged with a 5 per cent. solution of chloride of lime. Camphorated ether or chlorate of potash may be also used, but chloride of lime is the best.

The microbial origin of ulcero-membranous stomatitis is obvious, but the specific microbe has not been isolated. It sometimes, but not always, shows the presence of the bacillus of *Vincent*. In this case it is accompanied by the ulcerative and membranous angina of the same type.

APHTHOUS STOMATITIS.

Aphthous stomatitis is a bovine disease which may be inoculated in man. This is rare, and the resulting affection is usually benign. It may exceptionally assume a severe form in the nursling and end fatally. It is always accompanied by malaise, fever, gastric disorder, enteritis and prostration.

The mouth is filled with minute ulcerations situated chiefly at the back of the throat, each of which resembles exactly a simple aphtha. There is dysphagia and salivation. Local treatment is almost nil; painting with lemon juice, etc. General treatment is not much use, but in the nursling small doses of calomel may be given.

The milk of cows affected with aphthous fever may be consumed by the infant on condition of its being boiled. (*Nocard*).

APHTHAE.

Simple aphthæ have nothing in common with aphthous fever. They are small common lesions, which appear to have no specific nature, which arise without definite cause in crops; one, two or three at a time, on the tongue, gums or lips.

They first appear in the form of small pustules as large as a millet seed, and very sensible to every movement of the tongue when they occur on it, or when it rubs them. The pustules always open, so that many authors who have only observed the lesions in this state describe them as primary ulcers. The ulceration is small and infundibular, reddish grey in colour, and very painful to all movements of the tongue. It heals usually in six or eight days without treatment. Aphthæ are nearly always recurrent. Some persons have a crop of two or three lesions six times a year; others one or two every year. The attacks may coincide or not with other lesions, such as tonsillitis and gastric disorders, but may be observed in apparent health. The aspect and characters of aphthæ resemble herpes, but I regard them as more closely allied to the pustular impetigo of *Bockhart* (p. 183). However, the anatomical and bacteriological proof of their nature is wanting.

It is necessary to bear in mind that the recurrent lesions may often become the origin of *syphilophobia* in neurasthenic subjects, who always regard aphthæ as the mucous patches of syphilis.

Each aphtha may be cauterised with sulphate of copper. Water of St. Christau is useful as a mouth wash. In benign cases local treatment may be disregarded, but it is well to correct gastric or hepatic troubles which occur in patients subject to recurrent aphthæ, and also the salivary acidity which they often present.

THRUSH.

The "thrush" is a buccal mycosis caused by the proliferation of the OIDIUM ALBICANS in the superficial layers of the epidermis. This affection is characterised by white, stellate spots, resembling hoar frost, adherent to the mucous membrane, very slightly raised and situated on the dorsal surface and borders of the tongue, the gums and floor of the mouth. Thrush is only

observed when the saliva is acid. In the nursling, contagion occurs from one infant to another and may thus affect a whole nursery; but dyspeptic infants are the most often attacked. The affected child sucks badly owing to suction being painful. The nurse often mistakes thrush for curds of milk remaining on the tongue. Microscopic examination confirms the diagnosis; a trace of the white patch examined without staining in glycerine or liquor potassæ showing a mycelial meshwork with rows of spores at intervals among the filaments.

Thrush in infants should be treated with alkalis and local applications of borate of soda. Vichy water may be given either mixed with the milk or by a spoon before each feed.

Thrush is not always of grave prognosis in the infant and may often be seen in slight gastric disorders.

In the adult it is not the same and only arises in states of extreme cachexia, especially in the tuberculous; in tuberculous peritonitis its appearance is always grave. It is moreover a complication which is often very distressing to the patient and one which requires treatment by itself, for it may render the last days of dying patients painful. Cocaine or stovaine, in one per cent. solution, should be applied locally, alternating with alkaline applications.

LEUCOPLASIA (BUCCAL PSORIASIS).

According to some authors all leucoplasia is either *syphilis* or *lichen planus*. With regard to lichen planus it will be described later on (p. 73). Concerning syphilis, it is certain that the relative number of syphilitic leucoplasias has increased during the last ten years, since the tertiary lesions of syphilis have been more attentively studied. There still remains, however, an essential leucoplasia which cannot be regarded as syphilitic in the absence of further information: (1) because it occurs in a great number of people who deny having had syphilis and who have

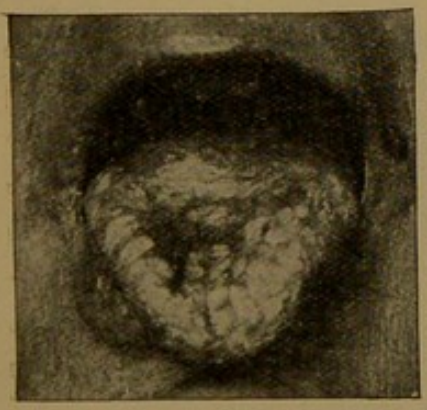


Fig. 20. Lingual Leucoplasia. (Lailler's patient. St. Louis Hosp. Museum, No. 118.)

never presented any recognisable lesions: (2) because it is observed in young people at an age when acquired syphilis cannot have arrived at the tertiary stage, and where hereditary syphilis, of which they have no stigmata, becomes rare: (3) because anatomically it consists of a lesion which is primarily hyperkeratotic without appreciable vascular changes, while all the known lesions of syphilis commence as a primary perivascular lesion.

Simple leucoplasia is not limited to the tongue, but also occurs inside the labial commissure in the form of an irregular patch, wrinkled like a bird's claw. It may also occur on the inner surface of the cheek, on the gums, on the inner surface and free border of the lower lip. The lesion is everywhere the same, like a cigarette paper stuck to the mucous membrane and intersected by crossed folds (parqueted). On the tongue it is less white than in other situations and of a rose lilac hue, due to the colour of the tongue shewing through it. The villous surface of the tongue is replaced by a smooth surface where the mucous membrane is slightly thickened, giving a sensation of india rubber both to the finger and the eye. The borders are well defined and often appear as if cut by scissors.

Leucoplasia is a chronic hyperkeratosis of unknown origin. Among the secondary causes, the abuse of tobacco is certainly of importance, but this cause may be wanting. Males are more often affected than females. It commences at 18, 20 or 25 years of age, but occasionally later. Very often after some years it is complicated with epithelioma.

The treatment of this affection is difficult; mouth washes with alkalis or cupric waters (St. Christau) may be tried, but they have no real effect except on the fissures and artificial irritations which the lesions may present. Curetting and destruction by the galvano-cautery have been recommended, but the first method which should be attempted is radiotherapy. I have had incomplete but excellent results in the only case in which I have tried it; incomplete because the treatment was only applied to a part when epithelioma had developed. The epithelioma disappeared and with it the leucoplasia in all the region exposed.

As a precept one might say that, with the exception of radiotherapy, it is better not to touch a leucoplasia than to half treat

it, for all irritation of a leucoplasia appears capable of provoking epithelial degeneration.

TUBERCULOUS LUPUS OF THE MOUTH.

Lupus of the mouth is not usually primary, but is produced by extension of a lupus of nasal origin to the lips and gums.

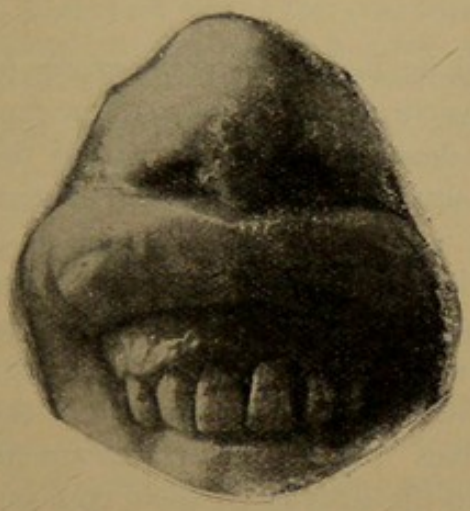


Fig. 21. Lupus of the nose, lips and gums. (Lailler's patient. St. Louis Hosp. Museum, No. 228.)

On the mucous membrane it may affect an ulcerative form, but is more often papillomatous, with scattered points of necrosis. Lupus in placards invades especially the gums and then the floor of the mouth and palate and even the inner surface of the cheeks. It forms at first a hypertrophy of the mucous membrane followed by points of necrosis, denuding the teeth till they sometimes fall out. The lesion is friable, very slowly extensive and bleeds easily.

Here as elsewhere it does not undergo spontaneous resolution. Most commonly the lesions are visible externally because the lip has disappeared partially or totally, and the buccal orifice forms an ulcer of which the base is formed by the denuded teeth implanted in a fungating and ulcerated gum.

In this degree lupus of the mucosa is almost incurable. Applications of permanganate of potash, pure lactic acid or chloride of zinc (1 in 15) are excellent modifying agents, but the result depends on the amount of care taken. The patient must be treated daily and the drug applied to each part. Phototherapy should be applied to every accessible part, especially the gums.

LUPUS ERYTHEMATOSUS.

Lupus erythematosus of the mouth is rare and hardly exists except inside the cheeks. We shall consider it with the diseases of this region.

LICHEN PLANUS.

The same applies to lichen planus, which affects the same localisation, and is only seen exceptionally on the dorsal surface of the tongue (p. 73).

ACANTHOSIS NIGRICANS.

This is a dermatosis which should be included in the group of toxidermias, being connected with a cachectic state, most often cancerous, and in most cases with the development of cancer of the stomach. Its maximum lesions are situated in the folds of flexion and in the mouth.

In the mouth, the inside of the cheeks and gums are the parts most affected. The lesions have two elements, black and diffuse hyperpigmentation and a kind of smooth villous transformation of the mucosa. These lesions must be recognised in order to make a differential diagnosis. In themselves they require no treatment and their prognosis is grave owing to the gravity of their etiology.

MELANODERMIA. VITILIGO.

All forms of melanodermia may be observed in the mouth as on the skin. They are seen especially inside the cheeks. They comprise:—the melanodermia of *Addison's* disease, *i.e.*, cutaneous hyperpigmentation of the head and hands connected with organic lesions of the super-renal capsules: the melanodermia of acanthosis nigricans of which we have just spoken: the melanodermia of xeroderma pigmentosum (p. 6): diabetic melanodermia: lastly, phtiriasic melanodermia of the back (p. 614) appears in the most marked cases to be accompanied by melanodermia of the inside of the cheeks (*Thibierge*).

Vitiligo may occur on mucous membranes. It is seen especially in the mouth and inside the cheeks, in concomitance with vitiligo of the skin, neck and cheeks (p. 27). It has the same symptomatology, evolution and long duration. The etiology and therapeutics are no more determined than those of vitiligo of the skin.

THE TONGUE.

The dermatology of the tongue is extremely complex and difficult to sum up in a few pages.

I shall speak first of that congenital macroglossia (Scrotal tongue) which is often mistaken for a disease, but which is only a malformation . . . . — Macroglossia . . . p. 44

Nævi and angiomata, which are also malformations, will occupy us next, for their frequent development necessitates active treatment . . . . . . — Angiomata . . . . p. 45

Lymphangiomata, although more rare, may require treatment . . . . . . — Lymphangiomata . p. 45

Children, more often than adults, may present on the surface of the tongue segments of circles diversely associated and constituted by an accumulation of hyperkeratotic epidermis . . . . . . — Exfoliating marginate glossitis. . p. 45

At all ages the tongue may present on its borders small painful ulcerative lesions; aphehae . . — Aphthæ . . . . . p. 46

And the white arborescent patches of thrush . . — Thrush . . . . . p. 46

There exists a special hyperkeratosis of the tongue and lips, formed by large, white, smooth and parqueted patches (lingual psoriasis) . . . . — Non-specific leucoplasia . . . . . p. 46

Syphilis may occur on the tongue under diverse forms. The initial lesion may also be seen there . — Syphilitic chancre p. 47

Also mucous patches; raised, smooth and ulcerated . . . . . . — Mucous patches . p. 47

Also tertiary glossitis . . . . . . — Tertiary glossitis . p. 48

Finally, syphilitic lucoplasia and gummata . . . — Specific leucoplasia p. 49

A dental glossitis exists . . . . . . — Dental glossitis . . p. 50

And also traumatic ulcers of the tongue, which may simulate syphilitic, tuberculous or cancerous lesions . . . . . . — Traumatic ulcerations . . . . . p. 50

Lingual tuberculosis will be studied by itself and by comparison with diverse lesions of the tongue with which it must not be confounded . . . . . . — Lingual tuberculosis . . . . . p. 51

Lingual epithelioma must also be distinguished from syphilitic, tuberculous and traumatic lesions which resemble it: for it requires very different treatment . . . . . . — Epithelioma . . . p. 51

After this, I shall say a few words concerning lesions of relatively less importance:—

The old bullous hydroa, which should be now included in the polymorphous dermatitis of Duhring-Brocq	Bullous Hydroa .	p. 53
Lichen planus of the tongue which is naturally observed only in concomitance with lichen planus of the inner surface of the cheek	Lichen planus . .	p. 53
The black villous tongue frequently seen in old people and in hospitals and asylums	Black tongue . . .	p. 53
The painful tongue of the neurotic; glossodynia and painful papillitis, which belong more to nervous pathology than to dermatology	Glossodynia . . .	p. 54
Finally, traumatic ulceration of the fraenum of the tongue	Ulceration of fraenum	p. 54

MACROGLOSSIA (SCROTAL TONGUE).

This is a congenital malformation consisting in irregular parallel longitudinal folds, giving the tongue the wrinkled aspect of the scrotum. These folds are, in fact, fissures covered with epidermis, not painful and not resulting from any morbid process. According to some authors they result from folding of the tongue owing to its being too large for the mouth: according to others it is a primary anomaly of the muscle, on the form of which the mucosa becomes moulded. In any case this condition requires no treatment except hygienic precautions for cleansing the mouth and the depths of the folds.

Chlorate of potash	2 parts
Soap	10 "
Prepared chalk	10 "
Menthol	1 part

Precautions should be increased if the patient contracts a buccal disease, or a general disease such as syphilis having a tendency to cause lesions of the tongue.

In practice the importance is not to confound this malformation with acquired lesions, particularly with syphilitic tertiary rhagades, which would be a grievous error.

ANGIOMATA.

These develop rarely in the adult, but are seen in the child and adolescent. They usually occur in the form of a soft oblong tumour disappearing under compression. These tumours have the colour of the mucous membrane if the angioma is situated deeply; violet or blue if the colour of the veins shews through the mucosa. They are *nævi* with a possible progressive development and require treatment only when they increase in size. This consists either in uni- or bipolar electrolysis (p. 5), or excision; according to the nature and accessibility of the tumour.

LYMPHANGIOMATA.

Lymphangioma of the tongue usually has the following appearance. In its anterior third, and not quite symmetrically, the tongue is increased in thickness, its surface is yellow and folded irregularly in its length. On the yellow, almost linear folds, the disseminated papillæ form small red projections on the yellow base of the tumour. Puncture of the yellow folds yields a drop of lymph streaked with blood.

Treatment, which should be practiced only when the lymphangioma increases in size, or when it is already of excessive dimensions, is the same as for angioma. It is possible that the X-rays may in the future afford a painless and more rapid result, but this is not yet confirmed.

MARGINATE EXFOLIATING GLOSSITIS.

This occurs most often in childhood, but also in the adult during the first half of life, becoming more and more rare with age. It is a chronic disease, lasting for months and years and recurring after periods of apparent cure. It presents no functional symptoms, so that the patient only becomes aware of it by chance. The dorsal surface of the tongue is covered with segments of grey circles, mingled without any arrangement. These are of various sizes, but more often belong to circles with a diameter of 5 to 10 millimetres. When several circles intersect the parts intersected disappear, leaving an ornamental polycyclic design. These figures are caused by

an adherent epithelial accumulation analogous to a squame on the skin. A curious fact is that the designs change in form and position from day to day. One day there is a patch and the next day a ring. These lesions, like many cutaneous lesions, commence by a disc of hyperkeratosis the diameter of which increases; then the mucosa becomes normal in the centre and the disc becomes a circle.

The cause and nature of the lesion are unknown: *Parrot* regarded it as syphilitic and *Fournier* as parasyphilitic, but it does not appear to me to have anything in common with syphilis, acquired or hereditary. It has also been considered to be eczematous, psoriasic, etc., but it is observed in the absence of both these. The only thing certain is that the disease is absolutely benign.

No treatment appears to have any effect and anything may be prescribed except irritating medicaments: Vichy water, St. Christau water, gargles and mouth washes, balsam of Peru, etc. It is well to remember the long duration of the affection and its recurrences.

APHTHAE.

I have described aphthæ in speaking of the affections of the mouth in general (p. 38); they are situated on the borders or tip of the tongue. They present nothing particular in this region.

THRUSH.

I have already described the thrush (p. 38); that of the tongue presents no peculiarity worthy of attention.

SIMPLE LEUCOPLASIA.

Leucoplasia has also been described with the diseases which are observed in all parts of the mouth (p. 39). Simple leucoplasia of the tongue is only an epiphenomenon of buccal leucoplasia: one hardly exists without the other. This character generally differs from that of syphilitic leucoplasia, which has, like tertiary syphilis in general, a special predilection for the tongue.

Leucoplasia of the tongue has the same characters, prognosis and treatment which we have described in all its situations.

SYPHILITIC CHANCRE.

Syphilitic chancre of the tongue is always situated at the tip or on the border of the anterior part. It is of moderate dimensions and usually characterised by its round or oval form and its exulcerated surface, the absence of ulceration and discharge, the saucer-like depression, cartilaginous hardness, sub-hyoid satellite gland (p. 252) and indolence; its evolution in 4 or 5 weeks and its spontaneous resolution and cure.

No local treatment is required. The treatment is antisyphilitic. Extra-genital chancres have not a particularly grave prognosis. (*A. Fournier*).

MUCOUS PATCHES.

Mucous patches of the tongue present three forms which can be clearly distinguished from one another: the normal exulceration, the hypertrophic pseudo papillomatous and the smooth depapillated patch.

1. *The typical Mucous patch* is a flat exulceration slightly depressed, with a grey base, non-suppurative, with a red margin sometimes surrounded by a grey ring rendering its dimensions larger. The Mucous patch of this type occurs on the tongue, or underneath it, and also inside the cheeks, lips and mouth. Mucous patches of the tongue co-exist nearly always with a series of similar patches on the pillars of the fauces and the free border of the soft palate (p. 68).

The two other types of secondary patches are not true mucous patches, but lesions of the back of the tongue homologous to the secondary papules of the skin.

2. *Hypertrophic pseudo-papillomatous patches.* These are placed, one, two or three in number, on the back of the tongue, near the lingual V. They form hard regular eminences (bosses) covered with hypertrophied villous papillæ.

3. *Depapillated patches* occur fairly often on the tongue, appearing like "heavy steps on fine turf". In several oval areas the papillæ appear to be absent and to have been shaved with a razor, or flattened so as to be invisible; while around these patches the papillæ have preserved their normal number and disposition.

These different lesions are simple epiphenomena of a general

disease of which the general treatment only is important. It is the custom to cauterise the true mucous patches with nitrate of silver but not the hyperthropic or depapillated ones! A true therapeutic idea or a prejudiced one?

TERTIARY SYPHILIS OF THE TONGUE.

The tongue may present the *syphilitic gumma* of the normal type, the size of a nut, hard and painless; later on ulcerated, and eliminating a yellow sphacelus from a deep crater. An important negative symptom is the absence of adenopathy. Tertiary syphilis of the tongue usually occurs in the form of *Sclerous Glossitis,* which is one of the most common and special manifestations of the disease. The tongue is much increased in size and deformed by irregular swellings. It is also divided by deep longitudinal folds—often exulcerated and bordered with rhagades. Finally, the tongue may be covered with white irregular cicatrices, often adjoining ulcerations in process of cicatrisation, the scars of which are added to the existing cicatrices.

The irregular bosses covering the tongue are gummata. They are hard, often elongated in the direction of the tongue, or sometimes separated from each other by cicatrices. They do not soften and ulcerate like ordinary gummata, but always retain their hardness.

The folds are due to increase in the volume of the tongue and are formed as in congenital macroglossia, in proportion as the total volume of the tongue increases. They are often bordered with exulcerations, or the bottom of the fold may be fissured. The exulcerations, which are rarely deep but tenacious, precede and cause the cicatrices. These cicatrices form grey bands which bridle the tongue and form a sort of lobulation on the surface. An ulceration is often continued by a cicatrix and *vice versa.* The appearance of these lesions is characteristic and nothing can simulate it. They are extremely chronic and are improved but not cured by ordinary remedies. They may last for 6 to 10 years and more. It is probable, but not certain, that they are not contagious. They are more common in males than in females and are often tenacious in smokers.

Both external and internal treatment are required. Externally mouth washes with alkaline water or St. Christau water, etc., are useful, but especially repeated painting of the fissures, rhagades and

ulcerations with chromic acid (20 per cent.). The lesions may also be touched with chromic acid crystals. Relief is almost immediate.

Internal treatment should be active; pills and inunction must be disregarded and injections of calomel or biniodide employed.

1. Calomel . . . . . 4 centigrammes (gr. 4/7)
   Oil of almonds fresh . . . 1 cubic centimeter (M 17)
   Sterilize and stir thoroughly before use.
   Inject every week in alternate buttocks.

2. Biniodide of mercury . . . 2 centigrammes (gr. 2/7)
   Distilled water . . . . . 1 cubic centimeter (M 17)
   Iodide of sodium . . . . . Qs to dissolve.
   Inject daily.

3. Gray oil . . . . . 1 in 40
   Inject 8 centigrammes (gr. 1 1/7) twice a week.

This treatment must be continued, under supervision, for a long time and only interrupted in case of supersaturation (stomatitis, etc.). But the patient should be informed that this is one of the most tenacious localisations of the disease and one of those which should be attacked with the most intense treatment. Gumma of the tongue on the other hand yields readily to anti-syphilitic treatment.

SYPHILITIC LEUCOPLASIA.

This often accompanies the preceding lesions and develops in a tongue previously prepared by Sclerosing Glossitis. In this case the diagnosis is certain; in others leucoplasia takes a different course and closely resemble non-syphilitic leucoplasia described on page 39.

Except in doubtful cases, syphilitic leucoplasia is characterised by its exclusive localisation on the tongue, without leucoplasic lesions of the gums, cheeks and lips. As a rule the hyperkeratotic patch is diffuse, with borders which are recognisable, but not limited so strictly as in essential leucoplasia. Syphilitic leucoplasia usually develops on a subjacent sclerosis which is perceptible to the touch, and is usually accompanied by lesions of sclerosing glossitis. The duration of the lesion is unlimited, and when once formed it is permanent. Epithelioma, without being the rule, sometimes complicates it. The action of local treat-

ment is almost nil: the general treatment is the same as for sclerosing glossitis, which we have just considered (p. 49).

DENTAL GLOSSITIS.

Dental glossitis occurs when the tongue is subject to chronic irritation by teeth which are misplaced, inwardly projecting or with broken edges; especially when the care of the mouth is neglected, when the denuded teeth are covered with tartar and the gums suppurating, and especially when the profession of the patient requires much speaking. The swollen and painful tongue bears the inprints of the existing teeth and projections where the teeth are absent.

Simple dental glossitis is not severe and disappears when the cause is removed. Irreparable teeth should be extracted, tartar removed and antiseptic lotions, such as the following, applied daily to the gums:—

Alcohol (60 per cent.)	20 parts
Tincture of cochlearia	
Tincture of iodine	10 "

TRAUMATIC ULCERATIONS.

These are more severe cases, consisting of chronic ulcers with callous and sometimes vegetating borders, produced by the irritations of a broken tooth. The lesions are always situated on the borders of the tongue, and the tooth which gives rise to them can always be discovered.

The offending tooth must be removed and mouth washes of St. Christau water and emollient applications used, such as marshmallow. In three weeks the lesion is usually transformed, leaving a thin white cicatrix the induration of which disappears gradually.

It must, however, be borne in mind that a traumatic lesion of this kind may be the origin of an epithelioma, and if the ulceration persists or increases after avulsion of the tooth a biopsy should be made which will indicate intervention.

LINGUAL TUBERCULOSIS.

I have only seen this in the subjects of pronounced tuberculosis or when the apices of the lungs were suspected; generally in the emaciated subjects of phthisis.

The tuberculous ulcer may occur on the soft palate (p. 70), or on the tongue (Fig. 22), or on the inner surface of the lips, with the same characters. It is a deep ulceration with sharp cut ragged borders, like the crevasse of a glacier. On separating these borders there is found at the depth of a few millimetres, an ulcerated yellow base stippled with orange red, bleeding easily and painful.

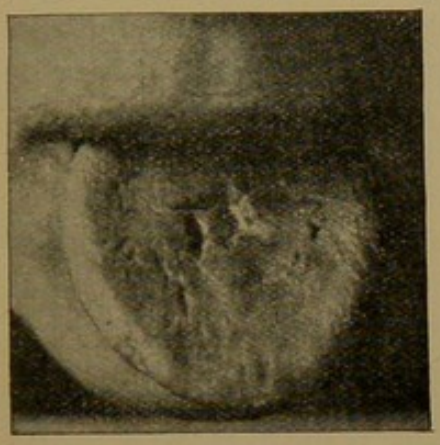


Fig. 22. Lingual Tuberculosis. (Besnier's patient. St. Louis Hosp. Museum, No. 344.)

One or both borders of the ulcer are callous, hyperkeratotic and covered with red points circled with yellow. Sometimes a small ulcer exists by the side of the large one.

The border of the tuberculous ulcer is sometimes a hard, raised, gummatous mass: or its base may rest on a gummatous sheet. Microscopic diagnosis is nearly always easy. It is sufficient to examine a trace of the necrosed tissue from the bottom of the ulcer by ordinary methods. The bacillus of *Koch* swarms there.

The evolution of this ulcer is chronic and progressive. Sometimes external treatment may cure it, but the patients die of their pulmonary tuberculosis like those affected with tuberculous pharyngitis or laryngitis. They are nearly always the subjects of incurable tuberculosis. Local treatment consists in the daily applications of pure lactic acid or concentrated solutions, or chloride of zinc (1 in 15 to 1 in 20), etc. This affection is too uncommon to enable us to speak yet of the results of radiotherapy.

EPITHELIOMA.

The treatment of lingual epithelioma hardly comes within the province of dermatology, but it is usually the dermatologist who

is first consulted, so long as the patient in these cases fears the surgeon. Epithelioma of the tongue is usually hypertrophic; rarely ulcerative.

It may be primary or secondary to essential leucoplasia, syphilitic sclerosing glossitis or chronic dental ulcer, etc. It occurs at the usual age of cancer, about 50 years, often in younger people, and is more common in males.

It generally forms a mammillated tumour, very irregular, larger at the base than at the apex, of irregular conformation, and covered by the normal mucosa of the tongue, the villous structure of which is exaggerated and covered by an adherent hyperkeratotic coating. Sometimes the hyperplastic development of the tumour is more marked and it is lobulated and riddled with clefts separating the digitations. At other times it forms a vegetating ring on a flat base, in the form of a sea-anemone; sometimes a tumour developing in the substance of the muscle like a nut enclosed in the tongue. Later on this tumour becomes ulcerated, the ulceration being situated on an ill-defined deep infiltration. The everted borders form rounded swellings, and the sanious base discharges an offensive liquid. Hæmorrhages are common, and sometimes severe. The subjective signs are very marked: pain, dysphagia salivation and otalgia. The sub-maxillary or sub-hyoid glands enlarge and the termination is that of all cancers.

The differential diagnosis from tertiary gummatous syphilis and hypertrophic tuberculosis may, in certain cases, be impossible, and a biopsy may be necessary. A small fragment taken with a *Graefe's* knife or with scissors is sufficient. Cicatrisation is effected in a few days.

Diagnosis is necessary on account of intervention, for a trial of anti-syphilitic treatment is more harmful to a cancer of the tongue than the biopsy of a fragment as large as a nail paring, which is in itself insignificant. Treatment of cancer of the tongue at the present time appears to consist in complete excision, followed by radiotherapy of the cicatrix. At the commencement of an epitheliomatous lesion radiotherapy may be tried without excision, because the X-rays are borne by the mucous membrane in very high doses. Sittings of 6 or 7 units of *Holznecht* may be given to the tongue without the least radiodermatitis. Several sittings are necessary. The tumour undergoes resolution, and is reduced to a fibrous stump which I have never seen disappear altogether.

I have observed such a case for six months.[1] Radiotherapy should also be regarded as a useful and moral method in all cases of inoperable epithelioma.

Radiotherapy of the glands should never be neglected, as this gives surprising results and seems to diminish the further propagation of the disease.

VARIA.

Bullous Hydroa is an indefinite dermatosis which may have been artificially constructed with cases of streptoccocic impetigo of mucous membranes, which are not well known and certainly rare; with cases of polymorphous erythema with accessory buccal localisation; or more often with cases of dermatitis herpetiformis of *Duhring-Brocq* (p.). The eruption is characterised by the appearance in the mouth of a multitude of phlyctenular lesions which rupture, leaving transient exulcerations. The functional symptoms are those of severe stomatitis. The duration of the attack is short, from 10 to 15 days, but there is always recurrence. The treatment is purely symptomatic and palliative.

Lichen planus of the tongue is less common than on the inner surface of the cheek (p. 73). It consists of one or more grey patches, very much resembling leucoplasia, but quadrilateral, with greyish blue arborescences, which traverse the grey patch like fine linear cicatrices. These lesions require no treatment beyond that for the disease which causes them (lichen planus of *Erasmus Wilson* (p. 553).

Black Tongue is the name given to a lingual mycosis common among old people and in asylums. It is a mycosis of old people corresponding to thrush of the young.

It is seldom accompanied by functional symptoms; only slight dysphagia and dryness of the tongue. The tongue is generally covered with two symmetrical black patches, elongated in its major axis, separated by the median raphe and larger towards the lingual V. On these surfaces the villous structure of the tongue is exaggerated and hyperkeratotic papilæ project, or lie flat on the tongue in all directions like long grass in a meadow.

[1] According to some authors the lobulated pavement epitheliomas which are common on the tongue and lower lip give no result with radiotherapy.

The disease appears due to a mycotic parasite, of undetermined species, easily cultivated in glycerine gelose.

Treatment consists of the application of an alcoholic solution of salicylic acid (10 per cent.); camphorated ether or oxygenated water.

Glossodynia. Some people are affected by constant pains in the tongue increased by speech, mastication, tobacco, spices, etc. Nothing is seen on examination, but the patient points out such and such a papilla as the seat of pain at the moment. At other times it is a papilla of the lingual V which is said to be painful.

Patients who have these pains are without exception neurotic, generally suggestive neurotics. They spend their time in examining their papillæ, which they regard as lesions of the mucous membrane. These glossodynias, true, or suggested by the patient herself, constitute a more or less marked nervous state. The patients should be treated as neurasthenics, but it is always useful to prescribe local applications and to appear to attach importance to them. By this means the patient may be relieved for several weeks, but the remedy should be varied according to the inevitable relapses in such conditions.

Ulceration of a frænum of the tongue. Ulceration of the frænum of the tongue may accompany spasmodic and convulsive cough, especially whooping cough in children. This ulceration is produced by the frænum striking the lower incisor teeth at the moment when the tongue is projected from the mouth. It occurs as a small linear transverse ulceration, which becomes greyish on the following day. It only requires mention owing to the confusion to which it may give rise.

THE GUMS.

The gums, among all the buccal regions, have a morbid and peculiar dermatological autonomy.

We shall study successively:—

Simple gingivitis due to want of hygiene and the accumulation of dental tartar, or to the eruption of the wisdom teeth	Simple Gingivitis	p. 55
This may under certain conditions of bad health, such as diabetes and divers cachexias, become ulcerated	Diabetic gingivitis, etc.	p. 56
Gingivitis or stomatitis due to acute mercurial poisoning is well known	Mercurial gingivitis	p. 57
A gonorrhoeal gingivitis has been described, which is at least rare and of which we shall only say a few words	Gonorrhœal gingivitis	p. 58
Alveolo-dental pyorrhoea belongs to the domain of stomatologists rather than to that of dermatologists. But the symptoms should at least be known	Alveola-Dental Pyorhœa	p. 58
The gums form one of the localisations of lead in saturnism	Saturnism	p. 59
We shall briefly survey the tumours which originate from the gums and maxilla	Epulis Malignant Tumours . . .	p. 60
Lupus of the gums has been described above . .	Lupus	p. 41

Many lesions, such as ulcero-membranous gingivitis, aphthæ, mucous patches and leucoplasia occur on the gums, as on all parts of the mouth, and have been studied with the dermatological lesions of the mouth in general.

SIMPLE GINGIVITIS.

In persons having chemical disorders of the saliva, and in those who neglect the care of the mouth, an accumulation of dental tartar takes place on the teeth beyond the point of emergence from the gums. This forms a chalky concretion, very adherent of the teeth, but removable by any instrument. Sometimes the tartar pushes back the gum and lays bare the tooth, generally the incisors, for a third or half of the root.

The resulting gingivitis covers the alveolar border with grey or greenish epithelical débris under which the mucous membrane is apparently intact, but bleeds easily. This condition is common, and the somewhat putrid breath of the subject should draw attention to the affected region. The treatment is simple.

1. The tartar should be removed by a dentist.
2. Prescribe the following dentifrice:—

Chlorate of potash	1 part
Prepared chalk	aa. 10 parts
Soap	

3. Apply with a brush every other day, to the gums and to the sides of the teeth, a layer of this liniment:—

Tincture of iodine	equal parts
Tincture of cochlearia	
Spirit of lavender	
Tincture of aconite	
Alcohol (60 per cent.)	

GINGIVITIS OF THE WISDOM TEETH.

The eruption of the last teeth is always the occasion for local congestive phenomena and lacerations of the gum, which may in their turn be the point of origin of superficial or deep suppurative gingivitis.

Whatever type gingivitis assumes, this cause must always be looked for, as it may easily escape detection. Having discovered the cause, the gum is treated by lancing, or excision of the proud flesh round the teeth, or by cauterisation with the galvano-cautery. This cause being removed, the gingivitis should be easy to reduce. According to its gravity the case should be treated by the methods indicated in the preceding or following chapters.

ULCERATIVE GINGIVITIS. SCORBUTUS NOSTRAS. DIABETIC GINGIVITIS.

Under the influence of the different causes mentioned above, and divers intoxications, such as phosporous and lead, or in many

cachectic conditions, an ulcerative gingivitis may be established affecting not only the epidermis but the dermis.

The breath is extremely fœtid and the gums on examination are found to be swollen, thickened and ulcerated over their whole alveolar extent, on both sides of the teeth, but especially externally. The teeth may be more or less denuded according to the depth of the ulceration, and are sometimes loose. The ulceration follows the alveolar border and is covered with pus and grey or greenish necrotic detritus. The base of the ulceration is not flat, but irregular, and studded with small fleshy granulations. According to symptomatic details, such as more or less free hæmorrhage, the stomatitis has taken different names, such as *Scorbutus nostras;* or may be named after its chief cause, *Diabetic gingivitis.* It appears to be always the same non-specific affection determined by the pyogenic microbes of ordinary suppuration.

In nearly every case, the influence of the general condition explains the gravity of the process. It is an affection of cachexia, which may be transient, or profound and chronic (diabetic, cancerous, tuberculous, etc.). In nearly all cases it is thus necessary to examine the patient completely and to investigate his general condition in order to indicate the appropriate treatment. After this, local treatment consists in the application of chlorine water, or oxygenated water. When healthy granulations appear the cure is completed by weak applications of iodine of the kind indicated on page 56.

MERCURIAL GINGIVITIS.

Gingivitis is invariably the point of origin of mercurial stomatitis, and the gingival irritation begins around the root of a semi-decayed tooth or a wisdom tooth in process of eruption. It always commences on one side by a painful swelling of the gum and a peridental necrotic patch. At the same time there is ptyalism and a flow of saliva, which in severe cases may run from the mouth continuously for several days. In those cases the swelling of the gum becomes generalised and the necrotic patches multiply, giving to mercurial stomatitis a strong resemblance to ulcero-membranous stomatitis. The grey or yellow patches of necrosis may be seen also on the border of the tongue and on the inner surface of the cheeks. They exhale a fœtid odour. In benign cases mercurial gingivitis, which

is only characterised by painful swelling of the gums and salivation, lasts three or four days.

In severe cases, accompanied by patches of ulcerative gingivitis, it may last from 10 to 15 days or more. Formerly one used to see gingivitis followed by loss of the teeth and even necrosis of the jaw, as in phosphorous poisoning among matchmakers. The sensibility of different persons to mercury varies considerably: some subjects have ptyalism after a few pills of proto-iodide, but it is mercurial inunction or injection which most commonly causes gingivitis. Formerly it was encouraged, on the supposition that the syphilitic virus was eliminated by the saliva. Hence the severe accidents which formerly occurred during mercurial treatment, and the opinion which certain people still hold concerning it.

Directly mercurial gingivitis commences, the ingestion, inunction or injection of mercury must be stopped, and the skin of the patient cleansed after inunction. The elimination of mercury must be assisted by laxatives and diuretics. Finally, the gingivitis is treated in the same way as all ulcerative gingivitis (p. 57), for, if the elimination of mercury by the saliva is the primary cause, its development is due to local microbial infection.

GONORRHOEAL GINGIVITIS.

I have only seen a single case, and possibly this was an ulcerative gingivitis with secondary infection by the gonococcus, arising from a concomitant acute gonorrhœa. The appearance was that of ulcerative gingivitis with irregular deep lesions, very necrotic and very fœtid. The pus was streaked with blood and the least touch caused bleeding. The lesions were cured in 12 to 15 days by the application of lactic acid (10 per cent.).

ALVEOLO-DENTAL PYORRHOEA.

This name is given to a chronic suppurative arthritis which usually extends to all the teeth of one or both jaws. Probably it is a suppuration of a common kind, like that of sycosis, but still more intractable. When the tooth of the suppurating alveolus is pressed upon, it becomes surrounded at its point of emergence from the alveolus by a thin border of pus. The peri-dental ligament and

the inter-alveolo-dental space are not easily infected, for many cases of gingivitis develop without causing pyorrhœa, in the same way as many suppurations of the skin do not affect the hairy follicles of the region. But infection of this space when once established is usually chronic, like that of the follicles in sycosis. This comparison may be extended, for all the teeth become affected one by one, as all the follicles attacked in sycosis of a hairy region.

This chronic suppuration causes loosening of all the affected teeth, followed by their expulsion, after the manner of a foreign body. Finally the alveolar cavity becomes effaced by progressive sclerosis, forming a cicatrix, in the same way that the infective follicles in sycosis undergo spontaneous cure by expulsion of the hair and the formation of a cicatrix.

Alveolo-dental pyorrhœa is not very painful but constitutes a distressing infirmity by its chronicity, ending with the loss of each tooth, whether healthy or carious, but more often healthy.

It has been proposed to place this affection, like all chronic cutaneous lesions, under the head of arthritism, but considering the uncertainty of the definition of this word we might make it the cause of any disease we wished. If a general condition causes alveolo-dental pyorrhœa, it is one which can be neither defined nor treated. The local treatment of this disease belongs to stomatology. It is difficult for the same reasons that sycosis is for dermatologists. Avulsion of the tooth causes disappearance of suppuration, as epilation of the hair in sycosis suppresses folliculitis; but the tooth like the hair does not grow again.

Peri-dental injections of chloride of zinc (1 to 15) by means of a *Pravaz* needle give temporary results. The treatment is tedious and requires frequent repetition, but may lead to survival of the teeth for some years.

SATURNISM.

There is, properly speaking, no Saturnine gingivitis, since chronic lead poisoning does not cause suppuration of the gums and leaves the mucosa intact. One observes only in the saturnine a greyish blue border traced under the epidermis of the gums and extending along all the teeth. This is a deposit of sulphide of lead shewing through the mucous membrane.

When this lesion is met with the patient should be warned of the imminence of severe disorders—paralysis and lead colic, and preventive treatment should be instituted by laxatives of sulphur, sulphuric lemonade and sulphur baths.

It is probable that lead may determine an acute gingivitis like mercury, but the intoxication is rarely so rapid as to produce this phenomenon.

EPULIS. GINGIVAL TUMOURS.

The mucosa of the gums may become the seat of development of divers malignant tumours. The old *epulis* was more often a sarcoma arising in the inter-dental space and assuming the form of a malignant tumour.

THE TEETH.

Diseases of the teeth are beyond the scope of this volume and I shall only deal with certain disorders of osseous and dental evolution which serve as a retrospective diagnosis for hereditary syphilis. Under this heading the following affections merit attention.

I shall first speak of certain defects of formation of the maxillae and of the special aspect which results therefrom . . . . . → Defects of maxillary conformation . . . . . p. 61

I shall then mention changes peculiar to the teeth and shall survey successively the defects of implantation, number, form and dimensions of the teeth, the latter being more frequent and more important . . . . . →
Defects of dental implantation . . p. 62
Defects of number p. 63
Defects of dimensions . . . . . p. 63
Defects of form . p. 64

Before dealing with any of these lesions it is necessary to explain their nature and value. None of them are exclusively characteristic of hereditary syphilis and none are syphilitic in themselves. In syphilitic parents the intoxication caused by the infection is so profound that even the human germs which they contain bear a trace of it and develop abnormally. But these germs and the human beings which they become, may undergo this abnormal development without having been infected by the microbe of syphilis, and without ever having shewn an actual syphilitic lesion.

In the second place this original vitiation of the human germ may result from other causes than syphilis of the parents. Syphilis is the most common cause, and it is to this that the malformation should first draw attention, but the relation of these deformities to syphilis is not absolute.

MAXILLARY MALFORMATIONS.

Defects in the formation of the jaws are commonly seen in the subjects of heredo-syphilis. The most common is prognathism

of the lower jaw, which cannot when at rest enclose itself within the upper jaw and projects beyond it. This causes the chin to be too long and prominent.

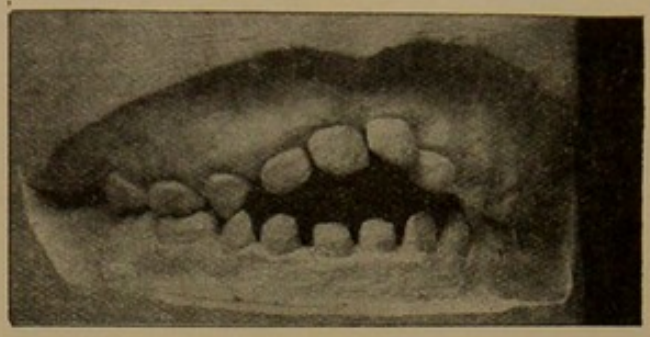


Fig. 23. Malformation of superior maxilla. (Model and plate from Chompret.)

At other times the upper maxilla is not level, and the front teeth do not touch when the mouth is closed (Fig. 23).

This defect of form often accompanies prominence of the supra-orbital parts of the frontal bone and incomplete development of the nose and upper maxilla; a combination causing "lunar crescent profile." This hollow profile, in place of the usual projecting one, is one of the most common characteristics of hereditary syphilis.

When prognathism of the lower jaw is slightly marked the art of the dentist, by making the teeth converge, may artificially render the semi-circle which they describe possible of enclosure within the arcade of the superior maxilla. But this is evidently all that can be attempted in such a case, for we are concerned with an anomaly of development and not with an active lesion capable of benefiting by any medical treatment.

Prognathism of the upper maxilla is much more rare: a remarkable example is given of this in Fig. 103. The jaws being closed, the thumb could be inserted between the upper and lower dental arcades. In this case the shape of the head was phenomenal.

DEFECTS OF DENTAL IMPLANTATION.

Defects of implantation of the teeth are somewhat rare in syphilis and they must be very marked indeed in order to establish the presence of syphilis with any probability. Some times one sees teeth displaced forwards in one or part of the jaw, the two external incisors being superposed on the canines. A large molar has been seen in the middle of the palate (*E. Fournier*), emerging from an abnormal cavity. Such cases are very rare.

DEFECTS IN NUMBER.

Very rarely teeth arise from supplementary buds, "reduplicated teeth". This reduplication is more often apparent and is due to the preservation of teeth of the first dentition. Adults sometimes preserve all the teeth of the first dentition in one or both jaws, inside the row of second teeth; but more often only one or two teeth survive. This is seen without the least evidence of syphilis in the parents.

DEFECTS IN SIZE.

Defects in size of the teeth are more characteristic of hereditary syphilis, but do not necessarily imply it. Usually two symmetrical teeth are dwarfed, generally the upper lateral incisors. They are

Fig. 24. True Hutchinson's teeth.
(Jeanselme's patient. Photo by Noiré.)

well formed, with good enamel, but "doll's teeth." There are also teeth described as "rice grains." These have been arrested in development, as the individual as a whole may be.

DEFECTS IN SHAPE.

Defects in the shape of the teeth are the most frequent and most characteristic in hereditary syphilis. They may be classified in several ways:

Hutchinson's teeth. *Hutchinson* described as characteristic of syphilis, the *triad:* Eye, ear and teeth: the eye affected with interstitial keratitis or choroido-retinitis; the ear with deafness by ossification of the tympanum;[1] teeth with concave crescent shaped borders directed inwards towards the median line (Fig. 24). These true *Hutchinson's* teeth are rare.

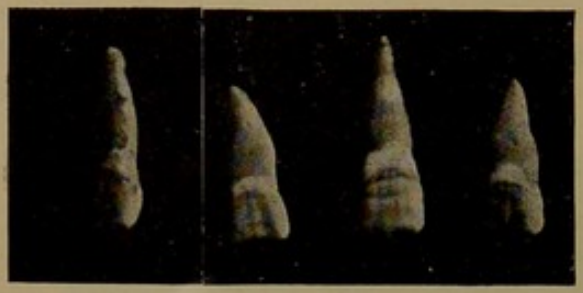


Fig. 25. Hutchinsonian teeth. (Chompret's collection.)

Pitted, furrowed or rusted teeth. These are the most common, and chiefly affect the four upper incisors, especially the two median. Sometimes the anterior surface has the appearance of a soft mass riddled with hail stones. These marks are greenish, brown or yellow ochre colour (Figs. 26 and 27).

Sometimes the teeth are striated transversely by irregular furrows where the enamel is absent,[2] and the dentine appears yellow (furrowed or rusted teeth). Everyone has seen this lesion which popular opinion, often justly, attributes to "convulsions in infancy." Sometimes a child with hereditary syphilis already bears teeth of the second dentition marked in their germinal stage and has presented a mild attack of those convulsive crises which destroy so many heredo-syphilitic infants.

These dental lesions, which are most common in hereditary

[1] Translator's Note.—Hutchinson attributed the lesion of syphilitic deafness to a neuritis of the auditory nerve. Fournier regards it as a lesion of central origin (Vide "La Syphilis Hereditaire tardive").

[2] Fournier points out that the enamel is present in the early stages, as the lesion is really a malformation and not a true erosion.

syphilis, may occur by themselves or in association with those which it remains to examine.

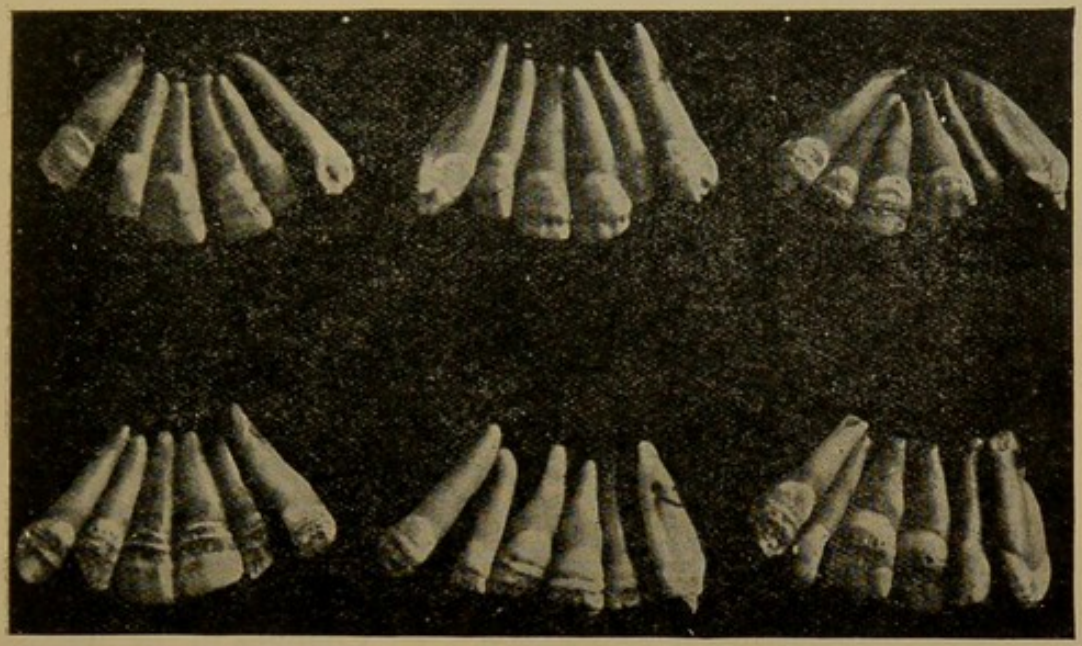


Fig. 26. Pitted and striated teeth.
(Chompret's collection.)

Conical, "Screw driver" and "fish teeth." The transverse bars, commonly observed on the anterior surface of the incisors, may

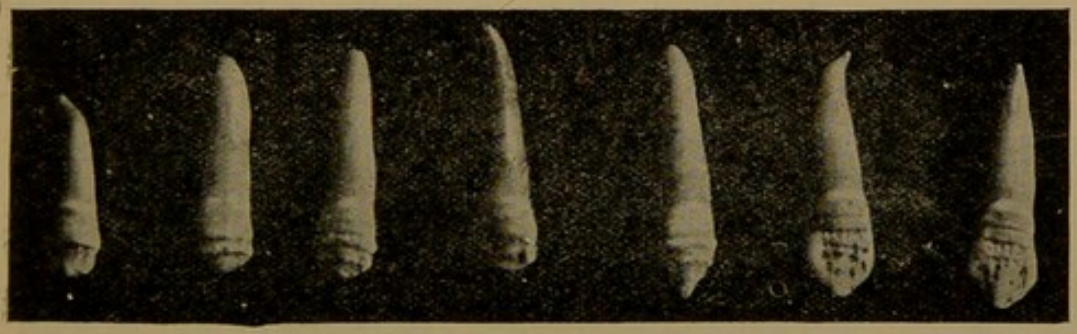


Fig. 27. Spotted, rusted, striated, deformed teeth.
(Chompret's collection.)

also occur on the whole circumference of the tooth. This is then formed of two or three conical segments which seem to arise one

from the other, like two or three cones stacked one within the other. The lesion may be more marked, two-thirds of the tooth being normal and the terminal third with the free border, small, dirty yellow and often marked with black spots (Screw driver tooth of *A. Fournier*). At other times one or more incisor teeth or canine lose their shape and their enamel and form simple irregular points, often sharp like the teeth of a fish (*A. Fournier*). See a canine in Fig. 26.

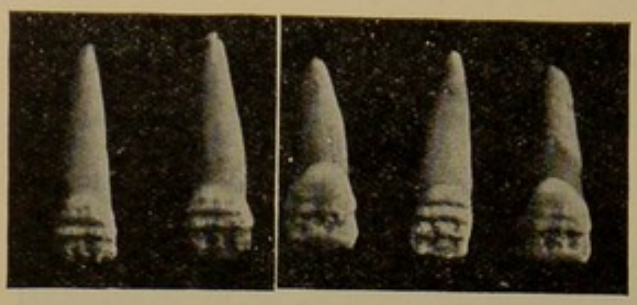


Fig. 28. Striate and comet shaped teeth. (Chompret's collection.)

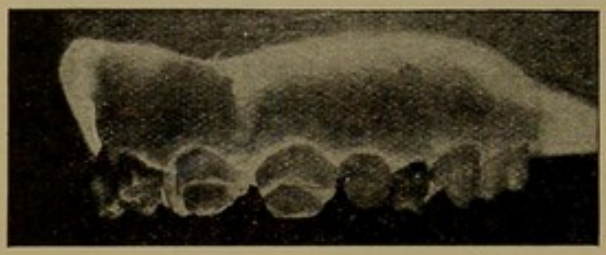


Fig. 29. Screw-driver teeth (Chompret's collection.)

Changes in the molar teeth. The changes in the molar teeth are very special and nearly always the same. Up to a certain level the teeth are normal, covered with enamel, and of normal form and size: then the enamel suddenly ceases and the tooth loses a millimetre in thickness. The cusps are yellow and irregular. Later on, when the individual grows old, the part of the tooth deprived of enamel is worn away and the tooth reduced in length to the point where the enamel ceases.

Fig. 30. Changes in molar teeth. Teeth with cusps deprived of dentine. On each side of the figure, the same teeth after wearing away of the cusps. (Chompret's collection.)

THE THROAT.

PALATE—SOFT PALATE—PHARYNX.

The throat presents few affections which concern the dermatologist, if all those which the practitioner should be acquainted with, but which belong to general medicine, are omitted.

I shall consider successively indurated chancre of the tonsil . . . . . Tonsillar chancre p. 67

Secondary syphilides of the fauces and soft palate Mucous patches . p. 68

Tertiary syphilides which in these regions may assume two forms, the diffuse gummatous form with superficial ulcerations . . . . . Diffuse gummata . p. 68

. . . and gumma of the soft palate which ends in perforation . . . . . Perforation of the palate . . . . . p. 69

To these two lesions must be added ulcerating diffuse pharyngeal gummata . . . . . Syphilitic ulcer of the pharynx . . p. 70

Lastly there exists a local tuberculosis which may take two forms, ulcerative and papillomatous, the latter more commonly . . . . . Tuberculosis of the palate . . . . . p. 70

We shall confine ourselves in this chapter to a brief study of these affections.

INDURATED CHANCRE.

Indurated chancre of the tonsil is never diagnosed at first. It is nearly always regarded at first as an angina, and this error may be continued during its whole duration. The peculiarity of this so-called angina is that it remains unilateral.

The tonsil is doubled or tripled in size: it may touch the uvula and cross the middle line. It forms a hard tumour with a plain surface like a plateau and often surrounded or covered with grey fibrinous membranes.

The symptoms, less marked than in angina, are more severe than in chancres situated elsewhere. There is dysphagia especially. Chancre of the tonsil lasts for six weeks or two months and grad-

ually disappears. Sometimes mucous patches of the soft palate follow it without any interval.

The chief characteristic of the indurated chancre is the satellite gland situated under the middle of the sterno-mastoid muscle (p. 251). Its size is much increased: it is visible to the eye, sensible to touch and pathognomonic even at a distance (*Vidal*). It diminishes and disappears with extreme slowness and may be seen after 4 or 5 months. It may assist retrospective diagnosis.

MUCOUS PATCHES.

Mucous patches of the throat are one of the most frequent and most pathognomonic signs of secondary syphilis. They may be few, abundant or profuse. They may occur on the anterior pillars, the uvula or soft palate as red erosions circled with grey. They are also found more or less disseminated on the tongue, gums and floor of the mouth. When they are confluent, which is not uncommon, they line the pillars and soft palate with exulcerative lesions, the grey borders of which form a continuous polycyclic festoon. Nothing is more characteristic than these lesions. They are contemporary with the eruptions of secondary syphilis—roseola and papules. They may arise nearly simultaneously or in crops, the first crops being always the most severe and composed of the most numerous lesions. The same eruption occurs in the larynx, causing the raucous voice. They generally last for 6 to 10 weeks, fresh patches forming when the first disappear. The eruption may thus continue for some time and be reproduced after it had apparently terminated.

The traditional treatment of mucous patches consists in cauterisation with nitrate of silver. Their proper treatment is that of secondary syphilis (p. 650).

Mucous patches are contagious and the saliva of persons who have them is contaminated. Ejection of saliva during a medical examination, a fit of coughing, etc., has in rare cases given rise to contagion.

DIFFUSE GUMMA.

Like nearly all gummatous lesions of the mouth these are most often diagnosed in the period of ulceration, for the onset is pain-

less and their advanced state is more characteristic. These gummata are generally situated on the soft palate and on one side only. They form an irregular group of small ulcerations, with a greenish yellow base, from one to three millimetres in depth, of subacute evolution, characterised only by some permanent discomfort and dysphagia. The ulcers are 3 to 4 millimetres in diameter, irregularly rounded and situated on an indurated flat mass, common to all, which constitutes the diffuse gumma, each necrotic focus of which has given rise to a distinct ulcer.

This lesion usually occurs from 3 to 10 years after the chancre, but sometimes after a long period. It is amenable to mixed intense treatment by injections of grey oil and alkaline iodides, which heal the lesion in three weeks. This forms a certain means of differential diagnosis when there is a doubt between diffuse gumma and epitheliomatous or tuberculous lesions in the same situation.

PERFORATION OF THE SOFT PALATE.

The lesion which causes perforations of the soft palate is of the same nature, the same date and the same evolution as the preceding. There are no premonitory symptoms, and when the patient complains the perforation is made. In appearance it is a small irregular ulceration with a greenish yellow base. A probe passes through it into the nasal fossæ.

The perforation is made by a small gummatous tumour usually situated at the junction of the hard or soft palate, the softening of which takes place without pain and which finally opens. Usually the perforation is single. When the patient is extremely negligent, the ulceration enlarges and the loss of substance may be enormous. It is always irreparable.

Mixed treatment should be rapid, intense and long continued (p. 650). Under its action the necrosed part is eliminated, the ulceration heals and cicatrisation is produced; but the loss of substance remains.

When it is very small and well cicatrised angular cauterisations with the galvano-cautery, repeated every month, will provoke progressive cicatricial atresia. But this should only be attempted on a lesion which is perfectly healed. In more severe cases reflux of food through the nose and troubles of phonation require the patient to wear an obturator.

SYPHILITIC ULCER OF THE PHARYNX.

A lesion of the same kind, the same date and the same nature may be situated in the back of the throat. On making the patient open his mouth wide and utter a deep sound, which raises the soft palate, one sees at the back of the pharynx a lateral ulceration, often elongated vertically, with irregular sloping and reddened borders; the base, which is covered with a greenish yellow mammillated scab, is depressed. The symptoms are slight, and a rapid cure is obtained by mixed intense treatment.

All these tertiary lesions arise from syphilis unknown to the patient and not treated; or syphilis very incompletely treated, to which the patient pays no attention, because he thinks it has been extinct for some time.

LUPUS OF THE PALATE.

Lupus of the soft palate and pharyngeal isthmus is only the prolongation to the mouth of lupus of the gums, lips or face. It is only seen in cases of extreme gravity neglected for years. It occurs in the papillomatous, fungous, hypertrophic form, analogous in symptoms, course and evolution to gingival lupus (p. 41). The treatment is the same for lupus of any other part of the mouth.

Fig. 31. Lupus of the palate. (Guyot's patient. St. Louis Hosp. Museum, No. 667.)

ULCERATIVE PHARYNGEAL TUBERCULOSIS.

This is a rare affection analogous in form, objective type and evolution to tuberculous ulceration of the tongue (p. 51), or the mucous surface of the lips (p. 83).

Here as there it is a sinuous, narrow, often linear ulceration, with a hard border; callous, sometimes velvety, sharply cut, with a yellow base stippled with red and bleeding easily.

The tuberculous ulcers have always accentuated functional symptoms and are sensitive to the least touch.

Treatment is the same as for other tuberculous ulcerations of the mouth (p. 51).

THE INTERNAL SURFACE OF THE CHEEKS.

The dermatological pathology of the internal surface of the cheeks coincides to a great extent with that of the mouth in general: For instance, ulcero-membranous stomatitis (p. 37), tuberculous lupus of the buccal mucosa (p. 41). The inside of the cheeks participates in the evolution of dermatological affections of the gum, in mercurial gingivitis (p. 57), etc.; and even when the whole of the cheek presents lesions having a particular physiognomy, these are often only an epiphenomenon of buccal lesions: for instance, leucoplasia (p. 39); or more general eruptions such as:—lupus erythematosus (p. 18) and lichen planus (p. 553); or general diseases such as syphilis.

For these reasons this chapter will be short.

I shall consider the interdental excrescences caused by the disappearance of one or more teeth . . . Interdental Excrescences . . . p. 72

The leucoplasic patches of smokers; their evolution and epitheliomatous degeneration . . . . . Leucoplasia . . . . p. 73

The grey aborescent patches of lupus erythematosus, which constitute perhaps the most localised dermatosis of the region . . . . . Lupus Erythematosus . . . . . p. 74

Finally, the greyish blue finely quadrilated patches of lichen planus . . . . . Lichen planus . . p. 73

The divers melanodermias of the same situation have been mentioned. For melanodermia of the inner surface of the cheeks refer to what I have written in the article on the mouth in general (p. 42) . . . . . Melanodermia . . p. 74

INTERDENTAL EXCRESCENCES.

In the place of an absent tooth, generally a large molar, it is not uncommon to see the mucosa of the inner surface of the cheek form a large bud, or excrescence, of a definite form, which, when the jaw is at rest, exactly fills the place of the missing tooth. This fact should be known, so as to avoid confusion of these tuberosities with some neoplasm. These projections are injured at each movement of the jaw, or pinched between the teeth dur-

ing mastication, and become eroded and may even form the point of origin of an epithelioma. They can only be made to disappear by wearing a dental apparatus to replace the absent tooth.

LEUCOPLASIA.

Buccal leucoplasia has been studied above (p. 39), but its localisations on the inner surface of the cheeks often presents a special physiognomy.

The lesions are situated on the internal surface of the commissures, where they form grey, hypertrophic, radiating patches which have been called "smoker's patches." Total and prolonged avoidance of tobacco does not, however, always cause their disappearance.

True leucoplasia appears to be only a further degree of hyperkeratosis. The raised, white, circumscribed patches may be situated on the commissures or on any part of the inner surface of the cheek. Their evolution and characters are those of buccal leucoplasia in all localisations. In buccal leucoplasia it is often on patches in this situation that epithelioma developes. It appears then on the leucoplasic patch of the radiating "sea-anemone" type.

This super-leucoplasic epithelioma may be of a severe degree. I have dealt with its treatment and that of leucoplasia on pp. 52 and 40.

BUCCAL LICHEN PLANUS.

Lichen planus of *Wilson* (p. 553) is often situated on the mucosa of the cheeks, tongue or soft palate. It occurs there in the form of bluish arborescences resembling thin cicatricial tracts which subdivide and intersect. Certain of these lines enlarge in places to form small flat, grey, slightly raised papules, sometimes very numerous, in the midst of a network in which they are included, as islets. Buccal lichen planus affect the same form and symptoms on the tongue, palate, etc.; but in the mouth it is more common on the inner surface of the cheeks than elsewhere.

Lichen planus of the mouth is only one localisation of lichen planus of all mucous membranes, and only has a symptomatic

value; lichen planus of all situations being without special treatment and healing only in several months. The lesions of the cheeks may survive those of the body. They are said to have been observed alone in some cases. Certain dermatologists regard as lichen planus all non-syphilitic leucoplasia, but this opinion appears to me to be in contradiction with clinical facts. The evolution of essential leucoplasia is very different to that of lichen planus in any situation.

MELANODERMIA.

In the chapter on the mouth in general I have spoken succinctly of melanodermia and of vitiligo (p. 42). These lesions are especially seen on the inner surface of the cheeks. In such a concise epitome as this I have nothing further to say. I shall deal with melanodermia in general on page 611.

LUPUS ERYTHEMATOSUS.

Lupus erythematosus is rarely observed in the mouth, but always has an elective localisation for the inner surface of the cheeks. It forms one or more irregular patches, slightly raised, indurated, red, and studded with white patches of hyperkeratosis and traumatic erosions caused by the teeth.

This has, in certain cases, been described as the only localisation of the disease, but in the immense majority of cases it accompanies lupus erythematosus of the face, scalp and body.

Its progress and evolution are those of ordinary lupus erythematosus. Radio-therapy should be of more value than in lupus erythematosus of the skin, for it can be applied both internally and externally at the same time, and it is known that high doses of the X-rays are required to act on lupus erythematosus (p. 19).

THE LIPS.

The dermatological pathology of the lips is somewhat complex, for the lips present two surfaces, the one cutaneous, the other mucous, and a free border, of which the dermatological manifestations are peculiar:[1]

In the child the commissures present two symmetrical points of chronic irritation known as "perleche"	Perleche	p. 75
The corner of the lips in the adult often shews vesicular clusters of febrile herpes	Febrile herpes . .	p. 76
The red border of the lips is sometimes fragile and shews fissures and eczema	Fissured eczema of the red border .	p. 77
The cutaneous border also shews eczema, often traumatic	Eczema of the cutaneous border. .	p. 78
Sometimes milium occurs	Milium	p. 79
The lips may be the seat of hard chancre . . .	Indurated chancre	p. 79
. . . and also of mucous patches	Mucous patches. .	p. 80
The internal surface of the lips presents a tertiary hypertrophic syphiloma	Tertiary syphiloma	p. 80
The same region may present the old buccal psoriasis; better termed non-syphilitic leucoplasia	Non-syphilitic leucoplasia	p. 81
. . . which often ends in epithelioma	Epithelioma	p. 81
The lip, finally, shews tuberculous lupus of the papillomatous and hypertrophic form	Tuberculous lupus	p. 82
. . . and an ulcerative tuberculosis, analogous to that of the tongue	Tuberculous ulceration	p. 83

PERLECHE.

Common perleche is an intertrigo of the labial commissures; and intertrigos are streptococcic impetigos localised in the natural folds. Perleche is thus a commissural impetigo. It may be due to a streptococcic salivary infection, or accompany lesions of impetigo of the face.

The lesion is constituted in each commissural angle by one or more fissures of the fold surrounded by two corresponding surfaces of epidermis, which is macerated and of a white or violet colour.

[1] All the hairy diseases of the lips will be studied in the chapters on the *moustache*, p. 142, and *beard*, p. 153.

On the skin perleche may be continued by a lesion of true impetigo, radiating like a bird's claw, or by a lesion of powdery scabs or fine scales (Vide *Pityriasis simplex faciei*, p. 10). When left to itself this lesion may last for months. It disappears slowly and may recur.

Perleche is not only contagious like impetigo, but is also epidemic. It is a disease of schools, no doubt transmitted by the habit of sucking pen-holders. This epidemic, which is nearly always connected with an epidemic of pityriasis of the same microbial nature, is of no

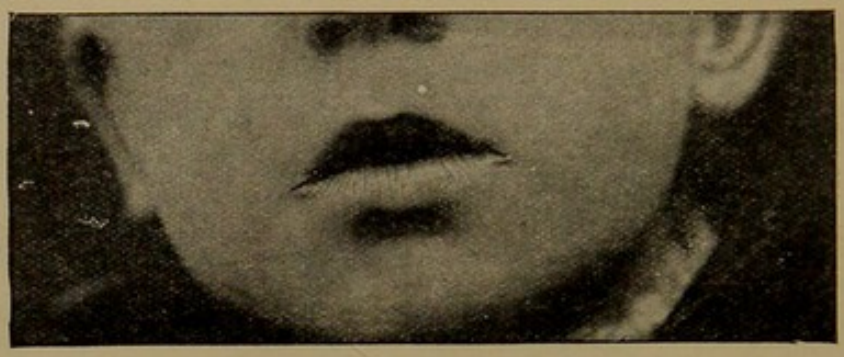


Fig. 32. Perleche. Commissural Impetigo or Streptococcic intertrigo. (Jacquet's patient. Photo by Dubray.)

great mportance. The streptococcic nature of the diverse lesions is shewn by the methods of culture for common impetigo (p. 8).

The treatment of perleche is the same as for impetigo; by friction with sulphate of zinc (1 per cent.) or nitrate of silver (5 per cent.), and applications of zinc ointment. When the perleche is accompanied by radiating cutaneous lesions the following is useful:—

Oil of cade	aa. 5 grammes	aa. gr. 80
Oxide of zinc		
Vaseline	aa. 15 "	℥j
Lanoline		

FEBRILE HERPES.

Febrile herpes is seen most often on the cutaneous surface of the lower lip, near the commissure; but it may occur on all the surrounding regions.

It may be menstrual and then often periodic; or it may coincide with tonsillar herpes, simple angina, or even general malaise, such as migraine. Its *critical* value, so much remarked by the older physicians, remains true in many acute infectious states, especially in pneumonia.

The cluster of herpes is constituted by 6 to 10 small turbid, oblong vesicles, united side by side, but irregularly in several small groups. The vesicles are of equal size, 2 or 3 millimetres in diameter and have the form of half an egg cut in its long axis. The size and uniformity of the vesicles and their topographical distribution are the principal elements in diagnosis. These vesicles arise together and develop at the same rate, situated on a small common erythematous placard, which disappears after the third day.

If the vesicles of herpes are opened by scratching, their (horny) cupola is replaced by a serous crust under which the lesion heals. In six or eight days it has disappeared.

No treatment modifies the spontaneous evolution of herpes. It is always accompanied at first by slight adenitis.

FISSURES. ECZEMA OF THE RED BORDER OF THE LIPS.

Under the influence of cold and wind some persons are liable to an inflammatory condition of the red border of the lips, which is both painful and distressing. The pain is especially severe on moving the lips and when acid substances or pepper are eaten.

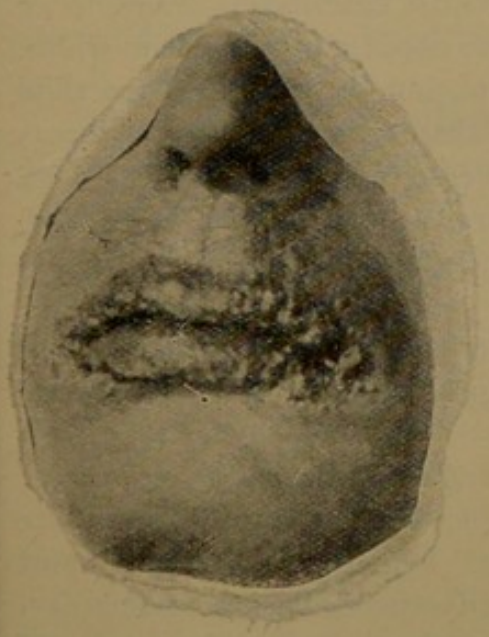


Fig. 33. Chronic eczema of the lips. (A. Fournier's patient. St. Louis Hosp. Museum, No. 849.)

The lesion resembles a burn, the red border of the lips desquamating and appearing covered with debris resembling onion peel. Here and there there are antero-posterior or transverse fissures, sometimes deep and painful and exuding a drop of serum or blood.

This condition is most frequent in winter and is often accompanied by chilblains. It may, however, occur by itself even in the summer and behave like an eczema (Fig. 33). In this case it is often connected with an acid reaction of the saliva or with an eczema of the cutaneous border of the lips (p. 78).

When it consists of an erythema *a frigore*, glycerinated preparations are often successful:—

Glycerole of starch	30 grammes	℥j
Tartaric acid . . .	aa. .30 centigrammes	aa. gr. 5
Resorcine		

This relieves the patient and often cures in a few weeks.

When there are lesions connected with external eczema or salivary acidity, alkaline treatment, either buccal or gastric, is indicated. Locally, glycerole of tar may be applied. Alternating with nitrate of silver (1 in 15).

Liquid tar . . . . . 5 grammes—ʒi ss.
Fluid extract of panama, to saponify.
Glycerole of starch . . . . . 30 grammes—ʒi

ECZEMA OF THE CUTANEOUS BORDER OF THE LIPS.

This is one of the most distressing and rebellious affections. It is situated exactly at the point where the skin joins the semi-mucosa of the red border of the lips.

The lesion may affect both lips, but is often situated on the lower lip alone. It may be accompanied by the desquamating and fissured condition of the red border of the lips just described.

It may vary from three millimetres to about a centimetre in width. Its border is sharp on the semi-mucosa, but ill defined on the skin. On the surface the horny epidermis is absent and the excoriated surface is yellowish red, moist, and covered with crystalline crusts. At certain places small vertical fissures are seen, more or less distinct and painful. The lesion is continually smarting, especially during or after meals.

The duration of this affection is very long. It is recurrent and paroxysmal, and often developes gradually by a polycircinate border.

It is perhaps a streptococcic lesion and not an eczema[1].

Treatment is unsatisfactory; simple protective ointments are insufficient and followed by no results. I have seen applications of tincture of iodine (10 per cent.) modify the extension of this dermatitis. Between daily applications of this mixture zinc ointment is applied. Nitrate of silver (20 to 30 per cent.) applied on a brush gives equally good results.

[1] According to the latest works of the French school—Besnier, Brocq, Veillon, and Sabouraud, the term eczema should be confined to a process characterised essentially by finely vesicular lesions, *primarily amicrobial* by all the actual means of investigation.

As in the analogous cases the salivary and gastric reactions should be studied and remedied when necessary. Finally, eczema of traumatic origin, which is described below, must be borne in mind.

ARTIFICIAL ECZEMA.

In artificial eczemas of the lips, whatever objective type they affect, the physician should always think of traumatic dermatitis often caused by pencils of rouge, and tooth pastes, especially pastes and powders with salol. The odour of salol in these pastes and powders is easily recognizable. The cause being discovered and removed, simple treatment causes disappearance of the lesions. Equal parts of oxide of zinc and fresh lard, or in acute cases fresh oil of sweet almonds is sufficient.

MILIUM.

Exactly at the margin of the red border of the lips and the skin, one or two rows of small, round, white, miliary cysts may be seen, constituting *milium*. This lesion is insignificant and painless, but the patient may be alarmed when he discovers it, and a woman may find it disfiguring.

The cysts may be easily destroyed one by one with the fine point of a galvano-cautery, and after two or three sittings a cure is obtained.

INDURATED CHANCRE.

The indurated chancre may occur on almost any part of the lip and is nearly always typical. It is a raised, round lesion of cartilaginous consistency, enclosed in the skin; with a flat, red, slightly eroded and non-suppurating surface. The pre-auricular, sub-maxillary or sub-hyhoid glands may be enlarged, according to the situation of the chancre.

The course, duration and evolution of the lesion is typical. It requires no local treatment, and such applications as emplastrum Vigo are unnecessary. Syphilis following extragenital chancres has not the grave prognosis which has been suggested.

The contagion from a chancre of the lip is too obvious to be insisted on, but the patient should be warned against the danger of kissing.

MUCOUS PATCHES.

Mucous patches may be observed on the mucous surface of the lips as elsewhere in the mouth and have the usual characters; a diameter of 3 to 4 millimetres, oval form, central depression, red colour and grey borders.

Commissural mucous patches are peculiar and may attain exceptional dimensions. Their grey border extends beyond the lip like the commissural membrane of a bird. Even at a distance the aspect is peculiar. These lesions, which may be seen at any age, are very common in syphilitic nurslings. They usually accompany a florid roseola or an abundant secondary papular eruption on the body, which leaves no doubt as to diagnosis. The mouth also contains mucous patches of the ordinary type.

TERTIARY HYPERTROPHIC SYPHILOMA.

The lips, especially the lower lip, may be the seat of the tertiary hypertrophic lesion, which occupies the whole surface of the lip and presents a great resemblance to the tertiary syphilitic tongue. The mucosa is mammillated and traversed by the white cicatrices of former lesions. By the side of these cicatrices there are often flat red ulcerations in process of cicatrisation. The lesions cease at the red border of the lips, which is visibly thickened, everted and deformed. There are often commissural rhagades. These lesions are always accompanied by some salivary hypersecretion.

Although tertiary lesions are reported to be non-contagious, great doubt prevails with regard to these, and the patient should be warned.

The spontaneous evolution of these lesions is chronic and progressive. They resist the usual anti-syphilitic methods and require intense treatment by injections of gray oil (1 in 40) twice daily, or daily inunctions with 4 to 6 grammes (ʒi to ʒiss) of mercurial ointment. Syrup of *Gibert* (Biniodide of Mercury) in large doses may be given to patients with a strong stomach. Local treatment must not be neglected: cauterisation of the ulcers with nitrate of silver, chloride of zinc (1 in 15) or chromic acid (1 in 5) give excellent results.

NON-SYPHILITIC LEUCOPLASIA.

This is the old buccal psoriasis already studded with lesions of the mouth in general (p. 39). It has no connection with psoriasis and does not appear to be related to syphilis, although this has been stated. The previous occurrence of white smoker's patches within the buccal commissures is not necessary, but is often observed.

Buccal leucoplasia is observed on the internal surface of the lip as on that of the cheek and on the mucosa of the gums. The lesions have everywhere the appearance of a thin layer of coagulated white of egg, but the patches are completely adherent to the mucosa. They are slightly in relief and on the surface are folded or quadrilated, according to the region of the mouth which they occupy. At the commissure they are marked with radiating folds (crows feet).

This lesion is allied to the hyperkeratoses. It occurs at the age of 20 to 30. It is chronic and never disappears, but may slowly change from place to place, diminishing and increasing. After 40 or 45 years of age there is a constant danger of epithelioma. The epitheliomatous nature of the leucoplasia itself has been maintained.

Treatment is almost nil. It is a good rule either to leave them alone or to destroy them entirely, for half measures are dangerous. Scraping and the galvano-cautery have been used. The action of the X-rays is certain, but difficult in application, and the results have not been shown to be constant.

In medium cases we may be content without constant supervision, frequent mouth washes with cupric water (St. Christau) and the avoidance of all local irritation, such as tobacco.

EPITHELIOMA.

Epithelioma of the lip may follow leucoplasia. On a patch of chronic leucoplasia develops a flat, epitheliomatous swelling or a projecting tumour. Epithelioma of the lip may become grafted on the tertiary syphiloma previously described (p. 80). It is usually more vegetating than the preceding and often more or less framboesiform.

Lastly, epithelioma may develop on the border of the lip without being preceded by any other dermatological lesion. It

affects, in this case, the common form of epithelioma of the face (p. 31). However, there are framboesiform forms as well as ulcerative. By pressing the epitheliomatous swelling between the fingers, white filaments emerge with a few drops of blood. These filaments are shewn by the microscope to consist of epidermic cells and globes. In this localisation, on the borders of the lips, epithelioma is of less rapid progress than super-syphilitic or leucoplasic epithelioma, the gravity of which is often great.

It is impossible to pronounce absolutely on the value of the X-rays in the treatment of epitheliomas of these regions. I may mention, however, that I have treated, with my assistant, *M. Noiré*, a woman attacked with super-leucoplasic epithelioma of the commissure, which had recurred after two operations; it was adherent to the jaw and regarded by the surgeon as inoperable. An apparently complete cure was obtained in 8 sittings of 5 units H. The patient has had no recurrence during 5 months of observation. If such results were constant and permanent they would be completely satisfactory.

Apart from radiotherapy one can only advise extensive excision, and this proceeding is compatible with radiotherapy of the cicatrix afterwards[1].

LUPUS OF THE LIP.

Lupus of the deep surface of the lip seldom exists alone, but is usually accompanied by lupus of the face, of which it represents the extension.

It is rarely ulcerative at the first, but usually hypertrophic and papillomatous. The lip is doubled in thickness by hard œdema, and the surface is fungous and papillomatous. Sometimes the fungosities are soft and without tendency to ulcerate; sometimes they form hard papillomata with a tendency to hypertrophy This process is very chronic and slowly progressive, and extends to the gums and the cheeks.

Lupoid ulceration is not very deep; it is of a yellowish colour, and suppurates little. The process never undergoes spontaneous resolution.

[1] Epitheliomas of the lower lip are not all cured by radiotherapy (Brocq). Lobulated pavement epitheliomas resist it (Darier).

The treatment par excellence of these morbid conditions is the phototherapy of *Finsen* (p. 21), to which may be added excision of the hypertropic processes with scissors or sharp spoon. As accessory measures, we may mention the galvano-cautery, the first results of which are good, but which, as in other cases of lupus, improves but does not cure. We may also mention the treatment of ulcerations by lactic acid or by chloride of zinc, the results of which are more striking in the following affection.

TUBERCULOSIS OF THE LIP.

As with the tongue and the throat, there exists a gummatous and ulcerative tuberculosis of the lip entirely different in appearance and evolution to lupus in the same situation.

Usually the lesion consists in an ulcerated ragged fissure, one border of which at least is hard and callous. The ulceration is sharply cut with a yellowish base studded with red points. It suppurates little and is very sensitive to touch. It may be situated on a more or less distinct, deep-seated tumour. In cases where one or both borders of the ulcer are callous, the subjacent tumour may be wanting. This lesion may accompany or follow tubercle of the tongue (p. 51) and has the same treatment and prognosis, both general and local.

The treatment consists in phototherapy, the galvano-cautery, cauterisation with chloride of zinc and lactic acid. The local prognosis is usually mediocre, although cure may be effected by the above measures. The general prognosis is bad, and should at least be guarded, for these lesions, in distinction to lupus, generally accompany pulmonary tuberculosis. It is the rule that, when pulmonary tuberculosis is accompanied by laryngeal, labial or lingual lesions, the prognosis is bad.

THE NOSTRILS.

The pathology of the nostrils may be summed up for the dermatologist in four chapters, and, apart from the morbid types which we shall consider, everything else is exceptional or unimportant.

(1) *The first is chronic streptococcic nasal impetigo, which in the child causes recurrence of impetigo of the face . . . . . .*	Streptococcic nasal Impetigo	p. 84
With this morbid type we shall study recurrent erysipeloid, which may be the result of it . . .	Recurrent Erysipeloid	p. 85
(2) *The second of these types is chronic anterior staphylococcic rhinitis, arising from pustular blepharitis and causing pustular sycosis of the moustache . . . . . .*	Staphylococcic anterior Rhinitis . .	p. 85
I shall say a few words concerning the exotic disease called Rhinoscleroma	Rhinoscleroma . .	p. 91
. . . With this we shall study nasal folliculitis .	Folliculitis	p. 86
. . . And fissure of the anterior angle of the nostril	Nasal fissure . . .	p. 87
. . . Also furuncle	Furuncle	p. 87
(3) *The third chapter will deal with tuberculous lupus of nasal origin and its development . . . . .*	Nasal lupus	p. 87
(4) *Finally the nostrils form one of the seats of election of syphilitic lesions, tertiary or hereditary, which we must study briefly . . . . . .*	Nasal Syphilis . . .	p. 89
I shall say a few words concerning the exotic disease called Rhinoscleroma	Rhinoscleroma .	p. 91

STREPTOCOCCIC NASAL IMPETIGO.

Nasal impetigo consists in yellow crusts obstructing the nasal cavity, and a continual serous discharge from the nose trickling down the upper lip. It arises with impetigo of the face and persists after it. At night the nasal mucous collects in yellow crusts and obstructs the nose. In the morning the child wipes off the crusts and the discharge is reproduced. Cultures from the crusts and from the nasal discharge shew the presence of the streptococcus. There is often perleche of the corners of the lips and retro-auricular intertrigo and fissures (pp. 74 and 111). At other times the face bear- ill-defined marks of *pityriasis alba faciei* (p. 10) of the old writers, which is a streptococcic scurfy lesion. Chronic nasal impetigo is a frequent cause of recurrent acute impetigo.

Eventually the impetiginous coryza determines in the neighbouring parts, chronic œdema of the nose and lip, which has been described as a characteristic feature of "lymphatism." This is a chronic lymphangitis connected with nasal impetigo and disappears gradually after removal of the cause.

Treatment consists in an intra-nasal painting with a solution of nitrate of silver (5 per cent.) or ichthyol (10 per cent.): and at night the application of antiseptic ointments:—

(1)	Tannin	aa 30 centigrammes	aa gr. 3
	Calomel		
	Vaseline	50 grammes	℥i
(2)	Resorcine	30 centigrammes	gr. 5
	Oxide of Zinc	7 grammes	℥ii
	Vaseline	30 grammes	℥i

The lesion often occurs after apparent cure. Treatment must then be repeated.

ERYSIPELOID (SO-CALLED STRUMOUS).

When nasal impetigo exists in a chronic state it is not surprising that recurrent erysipeloid of the centre of the face should be frequent. This is the bacteriological fact which clinicians express in saying that it occurs especially "in pale, fat, puffy children with a projecting upper lip," or "soft-skinned" (*Critzmann*). But in children who continually absorb streptococci and their products, erysipelas runs a special course. It is characterised by "a mild invasion, little or no fever, considerable swelling, but slightly red and painful, a slow and not extending progress and frequent recurrence" (*Comby*). In fact, erysipelas presents all its usual characters in an attenuated form. It is a curious fact that it is often accompanied at first by superficial phlyctenules, identical in appearance and in flora with the initial phlyctenules of impetigo, but below these the skin is infected in its whole thickness. It is red, livid, and swollen, and no longer an epidermitis but a streptococcic dermatitis.

The evolution is that of a benign erysipelas, but the temperature may exceptionally rise above 39° C. Treatment is the same as for erysipelas of the face (p. 24).

STAPHYLOCOCCIC ANTERIOR RHINITIS.

This has by itself very few symptoms. The subject, usually an adult, is affected with "a cold in the head," which recurs several times a year, and lasts almost constantly.

When the eyelids are examined they present chronic blepharitis of the ciliary border, which is red and scaly in the morning. They also bear an indefinite series of styes which have lasted for years. This pustular blepharitis (p. 127) which has the same relation to the eyelids that the chronic impetigo of *Bockhart* has to the scalp, is of stapylococcic origin. The microbial lachrymal discharge infects the nose with anterior rhinitis. This rhinitis in its turn infects the subnasal region of the moustache and reproduces staphylococcic follicular pustules, called sycosis (p. 149). The treatment of the latter requires treatment of the nose, and treatment of the nose that of the eyelids.

The treatment of staphylococcic rhinitis which gives the best results is daily moistening with warm water, and the application at night of the following ointment.

Ichthyol	aa	1 gramme	gr. 16
Resorcine			
Yellow Oxide of Mercury . .			
Birch oil			
Vaseline		30 grammes	ʒi

If this causes irritation the yellow oxide may be omitted.

INTRA-NASAL FOLLICULAR PUSTULES.

In association with sycosis of the moustache which follows staphylococcic rhinitis, or even with this rhinitis without sycosis of the moustache, there occurs a recurrent and chronic pustulation of the nostril at the base of the nasal hairs. This pustulation may require the same treatment as sycosis of the moustache —epilation or X-rays, (p. 149).

One should always begin by lavage of the nose for several weeks with saline solution, and by local applications, such as sulphur lotion:—

Precipitated sulphur	10 grammes	ʒi
Alcohol (90 per cent)	20 grammes	ʒii
Rose water	70 grammes	ʒi

Or yellow oxide of Mercury ointment (1 per cent.) which often gives satisfactory results.

NASAL FURUNCLE.

Sometimes at the entrance of the nostril a true furuncle develops, which proceeds from a follicular pustule of the preceding type. The mechanism of its production will be explained later on (p 183). This furuncle is very painful because it is developed in the dense tissue in the dermis. It is very unsigthly on account of the surrounding œdema which it provokes, and it ends in the formation of a sequestrum or core after the manner of a true furuncle. It leaves behind it a local œdema which persists for a long time. The treatment of this furuncle does not differ from that of feruncle in general (p. 185).

NASAL FISSURE.

In the symptomatic syndrome which the three preceding articles present, there often occurs a fissure of the anterior nasal commissure, of long duration and recurring after cure. By pressing on the nose it is caused to open and gape. It is often of very small dimensions and without apparent proportion to the symptoms by which it is accompanied, for it is sensitive to the least touch. It may follow, precede or accompany intra-nasal follicular pustulation. The application by a brush of a drop of *Friar's* balsam; repeated painting with nitrate of silver (1 in 15); ointments of oil of cade, or the pure oil, in these cases give good results, provided the application is continued long enough.

Cauterisation by pencils of nitrate of silver followed by metallic zinc should be used when the first measures fail. This should be repeated every week till healed.

TUBERCULOUS LUPUS.

The centre of the face is the most common situation of tuberculous lupus: Nine times out of ten it is of nasal origin and commences at the orifice of the nose. The researches of *Straus* have shewn the presence of the tubercle bacillus on the mucosa of the nose in a healthy subject. When inspired with the air it is arrested by the nasal hairs and this is no doubt the origin of a certain number of cases of lupus, which are so common in this situation.

Lupus begins usually on the border of the nostril by one or two slightly raised tubercles, of a rose colour, disappearing by pres-

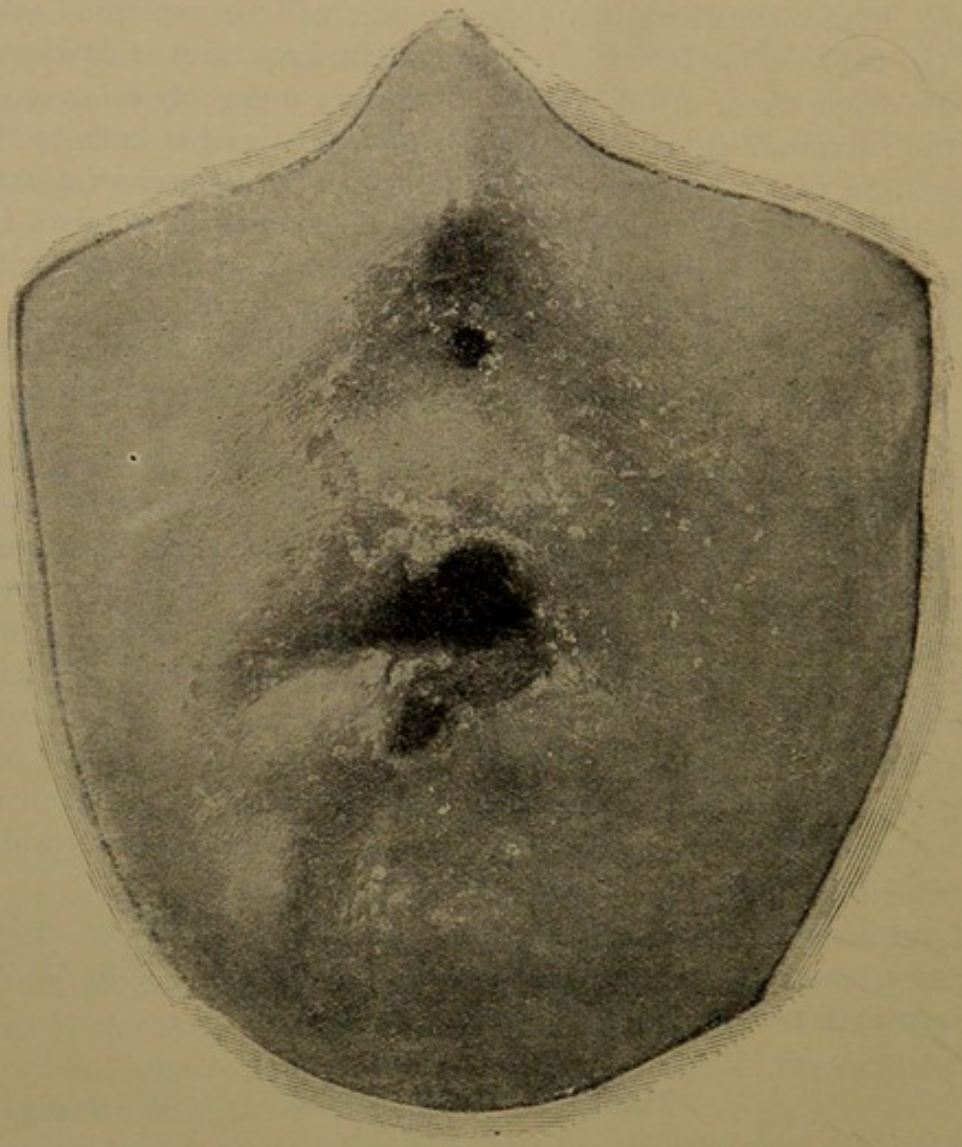


Fig. 34. Mutilating lupus of the nose and lips, causing nasal atresia. (Le Dentu's patient. St. Louis Hosp. Museum, No. 570.)

sure excepting a yellowish red spot in the centre. These tubercles enlarge and multiply, and the lupus patch invades the side of the nose or the lobule.

Here as elsewhere lupus undergoes one or other of the well-known evolutions which we have enumerated (p. 20). The evolution may be progressive, slow and fibrous; or rapid with soft cutaneous tubercles, leaving a soft raised patch which may become fungous and ulcerated; or mutilating. Lupus of the nose is the most dangerous of all, owing to its peculiar evolution and situation and the difficulty in applying the only really curative treatment, which is phototherapy.

The law which should regulate the therapeutics of lupus is more true for this form of lupus than for any other. The diagnosis must be made early and the patient must be induced to undergo treatment without delay. The difficulties of treatment increase with the size and age of the lesions (see page 21 for phototherapy).

We may, after the manner of *Finsen*, combine phototherapy with scarification of the nodules and cauterisation of the ulcers with permanganate of potash, 1 per cent., 10 per cent., or even pure.

Treatment of the interior of the nostrils, which is nearly always inaccessible to phototherapy, requires repeated applications of the galvano-cautery, and cauterisation by pencils of nitrate of silver and metallic zinc alternately.

But we should bear in mind that phototherapy is necessary and the patient should be urged as much as possible to undergo this treatment, which is the only one absolutely effective when well performed. It is a disgrace to therapeutics for cases analogous to that represented in Fig. 34 to be seen; cases where the cicatrix is made so slowly and is so deformed and atresic, that the face is rendered monstrous. Such misfortunes should not occur now that we have the means to avoid them.

SYPHILIS. PERFORATION OF THE SEPTUM. SADDLE NOSE.

Tertiary lesions of the nostrils are frequent, especially bony lesions. The skeleton of the nose is one of the seats of election of advanced syphilis. These lesions are insidious; they arise and develop without pain. A chronic coryza may occur, in the course of which the patient wipes pus from the nose and eventually finds bony fragments in the pus. Sometimes the lesion

is situated on the septum and causes perforation. Nearly all perforations of the septum belong to tertiary or hereditary syphilis. Sometimes the lesions occur in the nasal bones. In these cases there is a chronic purulent coryza, frequent elimination of bony fragments and fœtid breath. Eventually the nose falls in, the back of the nose preserves its form, but is sunk in an arch

Fig. 35. Tertiary syphilis of the nasal bones. "Saddle nose." (Sabouraud's patient. Photo by Noiré.)

formed by the two nasal processes of the superior maxilla, which remain intact. The nose, driven in on itself, or "saddle nose," is characteristic of tertiary syphilis, and allows a retrospective diagnosis, because the lesion, when once formed, remains in spite of all treatment.

Treatment, which must be commenced as soon as possible, is the same as for syphilis in all situations. It should be rapid, because these lesions progress quickly and are irreparable.

HEREDITARY SYPHILIS OF THE NOSE.

Late heriditary syphilis may manifest itself in the nose and nostrils by ulcerative lesions which resemble the type of ulcerative lupus of the same region so closely as to be often confounded with it.

It consists of an ulcerative gumma of a torpid appearance, developing without functional symptoms and especially without pain, slowly and progressively, and terminating by converting the centre of the face into a vast ulcer, destroying the lower part of the septum, the upper part of the lip and sometimes the lower part of the nose, the bone itself being destroyed.

These mutilating lesions, which are fortunately rare, occur at the same age as lupus, from 12 to 15 years, which adds to the difficulty of diagnosis. The stigmata of heredo-syphilis affecting the teeth, eye, ear, tibia, etc., should be carefully looked for. The lesion is gummatous and soon ulcerates. Lupus rarely follows this evolution, but is hypertrophic before becoming ulcerated, as a rule. Syphilis destroys, perforates and necroses the bones; tuberculosis only attacks the surface and corrodes them slowly, without perforating and without producing a true sequestrum.

Treatment is often the only proof of the syphilitic nature of the disease. However, hereditary syphilis may resist for a long time the best form of mixed treatment, and many cases of tuberculous lupus receive a certain amount of benefit by mercurial treatment in the early stages.

RHINOSCLEROMA.

Rhinoscleroma is a disease of equinoxial America, characterised by a naso-pharyngeal catarrh and a new growth of the same region. This neoplasm is relatively benign, but may invade the whole throat, the fauces and soft palate, and end fatally.

It generally arises from the nasal orifice and the upper lip in the form of a tumour surrounding the orifice of the nose and

forming part of the lip. The tumour is of a violet colour, very regular in form and of hard consistence; in our country its evolution is often arrested. This disease appears due to a bacillus very similar if not identical with the pneumo-bacillus of *Friedlander*, and is found in the large phagocyte cells characteristic of the disease. All the forms of treatment recommended for lupus have been tried in this disease. In early cases, opening the nose and scraping may be tried. When operative measures would necessarily be incomplete, palliative treatment only is available, by mechanical dilatation of the nasal fossæ.

THE NOSE AND CHEEKS.

The nose, with the centre of the face, is one of the most interesting dermatological regions.

It is here that seborrhoea and the seborrhoeic or super-seborrhoeic processes begin. It is on the sides and lobule of the nose that dilatation of the sebaceous pores commences in true seborrhoea . . — Seborrhœa . . . . p. 94

It is here also that the complications are seen; acne comedo, with its black spots . . . . . . — Acne comedo . . . p. 95

. . . Acne polymorphe, with its various elements—redness, induration, pustules, cysts, etc. . . — Acne po'ymorphe . p. 95

. . . And even most frequently acne necrotica, which leaves varioliform cicatrices . . . . . . — Acne necrotica . . p. 96

It is in the naso-genial fold that one of the most common complications of seborrhoea of smooth regions occurs—pityriasis with fatty squames . . . — Pityriasis of the naso-genial fold p. 97

The nose is a seat of predilection for vaso-motor disorders and chilblains . . . . . . — Vaso-motor disorders. Chilblain . p. 98

The nose is a seat of predilection for vaso-motor disorders or chilblains . . . . . . — Vaso-motor disorders, chilblains . p. 98

Here is observed erythema pernio, which appears to cover the nose with a placard of chilblain . . . — Erythema pernio . p. 99

The bridge and lateral faces of the nose are the most common seats of lupus erythematosus (Vespertilio) . . . . . . — Lupus erythematosus . . . . . p. 100

One observes on the nose not only tuberculous erythemas, but true tuberculosis, for the lobule and alae of the nose are often affected and destroyed by tuberculous lupus arising from the nasal orifice . . . . . . — Tuberculous lupus p. 100

The nose may be the seat of a whole group of tertiary acniform syphilides . . . . . . — Tertiary Syphilides . . . . . p. 101

Lastly, towards the 50th year a group of passive congestive lesions combine with seborrhoea to create new types in the centre of the face. Varices of the nose, which form on the alae and lobule, purple serpentine lines; or that passive congestion which causes the large red noses attributed specially to drinkers . . . . . . — Congestive Acne of middle age, Acne rosacea . p. 102

. . . And this passive congestion is accompanied by all the types of acne, developing in the midst of a hypertrophic and even benign neoplastic process — Acne hypertrophica Rhinophyma . p. 103

Other neoplastic papillomatous processes may be superposed in the seborrhoea of middle age . . . . — Senile Warts . . p. 104

. . . Of which some are less benign, such as epithelioma, which occurs with a relative benignity, at least at first . . . . . .

Epithelioma . . . p. 105

Finally, I shall terminate this chapter by saying a few words concerning divers clinical facts of less importance or of less frequency, which may be observed in the same region . . . . . .

Hypertrichosis . p. 106
Nævi . . . . . p. 106
Xanthelasma . . . p. 107
Molluscum contagiosum . . . . p. 107
Adenoma sebaceum . . . . . p. 107
Darier's disease . p. 107
Glanders . . . . p. 108

SEBORRHOEA.

Everyone knows this condition of the skin, which is so marked in certain persons, in whom the skin becomes coarse and covered with the visible openings of the sebaceous glands. This is the elementary lesion of Seborrhœa (p. 13). Seborrhœa begins in the naso-genial fold and on the nose, a little before the age of puberty. It becomes pronounced and extends beyond its first limits during youth.

This condition occurs in all degrees, the less marked cases being hardly recognisable; in the most marked the nose is covered with an oily coating arising from the sebaceous glands. The characteristic of this condition, which presents no subjective sign, is the excessive formation of cutaneous fat and its accumulation in the sebaceous canals.

This fat can be expressed by the fingers from each sebaceous orifice like a worm. This fatty cylinder, the origin of the comedo, is a microbacillary colony, characteristic of the seborrhœic state which I have just described (for methods of examination and culture see p. 13).

In severe forms the abundance of secretion requires treatment. In less marked forms, quasi-normal, most subjects are not treated.

The chief agent is sulphur, which may be used in the form of powder, lotion or ointment. In spite of the statements of many writers, experience shows that ointments are as useful as lotions.

POWDER.

Precipitated Sulphur . . . . . }
Oxide of Zinc . . . . . } equal parts
Talc . . . . . }

This powder is applied at night with a powder puff and washed off in the morning. A little vaseline is applied to protect the eyelids.

LOTION.

Precipitated Sulphur . .	aa	15 grammes	aa	ʒj
Alcohol (90 per cent.) .				
Distilled water		100 grammes		℥j

OINTMENT.

Precipitated Sulphur . .	aa	1 gramme		gr. 16
Resorcine				
Ichthyol				
Vaseline		30 grammes		ʒj

The action of the sulphur may be increased by mordants; preliminary soaping, salicylic acid, etc.

In severe cases the action of sulphur may be combined with soft soap, according to the tolerance of the patient's skin; or sulphide of carbon saturated with sulphur may be applied on absorbent wool (this is very inflammable).

ACNE COMEDO.

Acne comedo is only a variety of seborrhœa. In seborrhœa each sebaceous gland discharges its contents on the skin continually; in acne comedo the fatty cylinder in the sebaceous canal develops to the point of obstructing the sebaceous pores. Its summit becomes black and the seborrhœic cylinder becomes an ampulla, the comedo, which appears as a black spot in the sebaceous orifice, and can be expressed by the fingers. It forms a large microbacillary colony.

The comedo may be treated by extraction by a watch key, or by instruments based on the same principle, comedo extractors. This is combined with the topical applications for seborrhœa. Seborrhœa always co-exists with comedo, which is only a clinical accessory.

ACNE POLYMORPHE.

At the period of youth polymorphous acne of the nose and centre of the face does not differ from that of the face in general (p. 15). It is only an epiphenomenon, and its different

modifications have a frequent predilection for the sides of the nose and the naso-genial furrow. The treatment is that of polymorphous acne in general.

ACNE NECROTICA.

Acne necrotica is a suppurating acne with discoid crusts imbedded in the skin, leaving a varioliform depression when they fall. In the light of recent researches, it is a hybrid of pustular folliculitis and seborrhœa; an impetigo of *Bockhart* situated on the seborrhœic microbacillary cylinder.

Fig. 36. Cicatrices of necrotic acne of the face. (Besnier's patient. St. Louis Hosp. Museum, No. 498.)

The disease has three seats of election; the forehead (acne frontalis of *Hebra*); the middle facial and middle thoracic regions. One of these localisations may occur alone.

On the nose (Fig. 36) it consists of a crop of lesions of different sizes, forming a discoid crust in the epidermis, which is not detached for some time. The varioloid cicatrix is permanent and arises from necrosis, always produced by impetigo of *Bockhart*, but more marked in acne necrotica.

Acne necrotica occurs at two periods; in the young adult, when it is amenable to treatment and may not recur; about the 50th year, when it is more severe and extensive, see (*Scalp* p. 235).

Even in these cases the actual eruption is easily curable by preparations of mercury and sulphur:—

Cinnabar Precipitated Sulphur	aa 1 gramme	gr. 16
Vaseline	30 grammes	℥j

But local treatment does not prevent recurrence. This clinical fact applies to other localisations of the disease and will be referred to again (p. 123 & 235).

NASO-GENIAL PITYRIASIS.

When studying diseases of the scalp (p. 207) we shall see that *pityriasis simplex capitis* is a morbid entity of mycotic origin like *pityriasis versicolor,* and that its dry scales may assume a fatty appearance by secondary infection with a coccus forming a grey culture (p. 201). This symbiosis gives the disease a tendency to diffusion. It is generally in this form of *steatoid* pityriasis that pityriasis occurs apart from the scalp.

The centre of the face is one of its seats of election, chiefly the naso-genial furrow; also the head and eyebrows. It occurs in the form of small pale yellow scales which accumulate in the naso-genial furrow. These form again a few hours after removal. This formation is accompanied by local itching and smarting. With a lens the skin appears moist, and gives the same sensation to the fingers. The scales appear fatty like wax and leave a mark on blotting paper, similar to that left by impetigo.

The treatment is entirely external and includes the use of tar and sulphur, associated when the skin will bear it.

Precipitated Sulphur	1 gramme	gr. 20
Oil of Cade	5 "	ʒ ii ss
Lanoline	10 "	ʒv
Vaseline	15 "	ʒj

When the skin is irritable or the eruption very extensive the following may be applied at night and washed off in the morinng with tar soap:—

Oil of Cade	5 grammes	ʒ ii ss
Oil of Birch	aa 1 gramme	gr. 20
Resorcine		
Ichthyol		
Lanoline	10 grammes	ʒv
Vaseline	15 "	ʒi

This pityriasis is the type of a disease essentially super-seborrhœic in its localisations on smooth regions. It is recurrent in seborrhœa because the latter is permanent.

VASO-MOTOR AND VASCULAR DISORDERS.

The older observers distinguished two types of vaso-motor and vascular affections of the nose: an *active* type occurring in young people and connected with other manifestations formerly claimed as *lymphatic;* a *passive* type occurring in middle age and connected with manifestations which are still known as *arthritic.* Until these general morbid conditions (lymphatism, arthritism, etc.) are better defined it is unwise to accept the idea as valid, or its existence as being demonstrated. This classification should only be regarded as a simple mnemonic measure.

To the first type belong chilblains; lupus pernio; lupus erythematosus, mobile or fixed. Some would even include tuberculous lupus in this group.

To the second type belong varices of the nose; hypertrophic acne with congestion; pustular and cystic lesions and deformities, the combination of which creates rhinophyma; complications which may be superposed in senile skins—warts, concrete seborrhœa and epithelioma.

CHILBLAIN OF THE NOSE.

Chilblain of the nose may occur in children with chilblains in other situations, but also in adults by itself. It then has special characters.

The nose is cold; the lobule slightly enlarged, rounded and of a purple colour which disappears on pressure. At night there may be congestion with itching, but more often these are absent. Chilblain of the nose is first observed in the winter, but it may last through the summer and reappear in the autumn. Usually it co-exists with chilblain of the ears. This condition is not much affected by the mode of life, diet, or therapeutics, and is especially distressing when it occurs in young women.

In some cases it may excite nasal troubles such as adenoiditis, rhinitis, deviation of the septum, polypi, etc., by reflex action. In such cases therapeutic intervention is indicated. High and tight collars which impede the venous circulation should be

avoided; the diet should be regulated to avoid digestive troubles, which cause reflex congestion of the face. Locally, glycerole of starch with resorcine (1 per cent.) or zinc ointment may be tried. In the best cases these measures are only mediocre.

I should have much more faith in treatment similar to that for lupus erythematosus, by repeated applications of the X-rays in high doses, or phototherapy.

ERYTHEMA OR LUPUS PERNIO.

The term lupus is bad, for the tuberculous origin of this lesion is far from being proved. The action of cold in its genesis is only that of a determining cause which only produces this result in very few subjects. It resembles a chilblain of the nose with extension to both cheeks. The lesion is roughly symmetrical, of a diffuse red colour with marbling of the skin, and œdematous in all parts. It is transient but liable to recurrence, and may remain permanent with temporary exacerbations, resembling lupus only in its situation and form, which are those of lupus erythematosus. Concerning the genesis and treatment of this affection all that I have just said with regard to chilblain of the nose applies to erythema pernio.

MOBILE LUPUS ERYTHEMATOSUS.

Between chilblain of the nose and lupus pernio on the one hand and true lupus erythematosus on the other, and also acute infectious patchy erythemas of the type of certain polymorphous erythemas, there exists a series of clinical cases still unclassified. These are recurrent at certain places, which suggests an infectious origin causing eruptive patches by toxic discharges. These unclassified cases, which perhaps belong to different categories, have been provisionally united under the name of mobile lupus erythematosus. The boundary of lupus erythematosus is sufficiently large and ill defined to include this type by the side of the others, in spite of the great clinical differences.

TRUE LUPUS ERYTHEMATOSUS.

The nose is one of the seats of election of fixed or true lupus erythematosus in its usual form. It is rarely confined to the nose and there are usually patches of similar character on the face (Fig. 8).

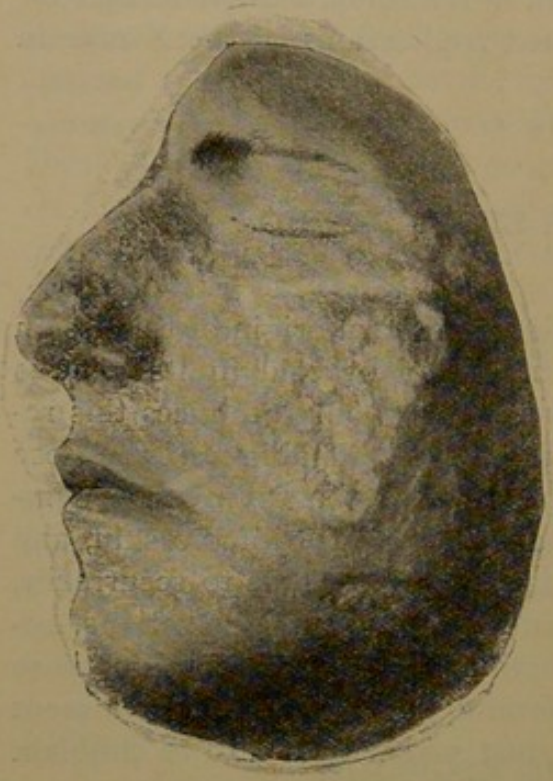


Fig. 37. Lupus Erythematosus. (Besnier's patient. St. Louis Hosp. Mus., No. 1014.)

The patches are of irregular outline; symmetrical or not with the axial line of the nose; depressed and cicatricial in the centre and surrounded with a red border, slightly raised and covered with adherent scales. All these lesions are obvious to the touch. They are chronic patches of indefinite duration, developing slowly by peripheral extension and receding sometimes at one place while advancing at others. Spontaneous or therapeutic cure replaces the lesion by a white, depressed, cicatricial, indelible, sometimes marbled patch (Fig. 37).

I have already spoken of lupus erythematosus of the face (p. 18) and I shall refer to that of the ear later on (p. 112). In all situations it preserves the same characters. Treatment by radiotherapy is daily becoming more exclusive. The sittings, of 5 or 6 units H, should be repeated every three weeks. Radiodermatitis is only of moderate severity in these cases, and a cure is obtained more quickly and with a better cicatrix than by any other method.

TUBERCULOUS LUPUS.

Tuberculous lupus of the nose is very common. It is usually secondary to lupus of the nasal orifice (p. 87). It has a great tendency to develop on the lobule or sides of the nose (Fig. 38), and gradually invades the upper lip. It most often assumes the

hypertrophic fungating form and proceeds to destructive ulceration. This process after some years causes disappearance of the soft parts of the nose and, even when healed, leaves horrible scars which contract or entirely close the nostrils (Fig. 34).

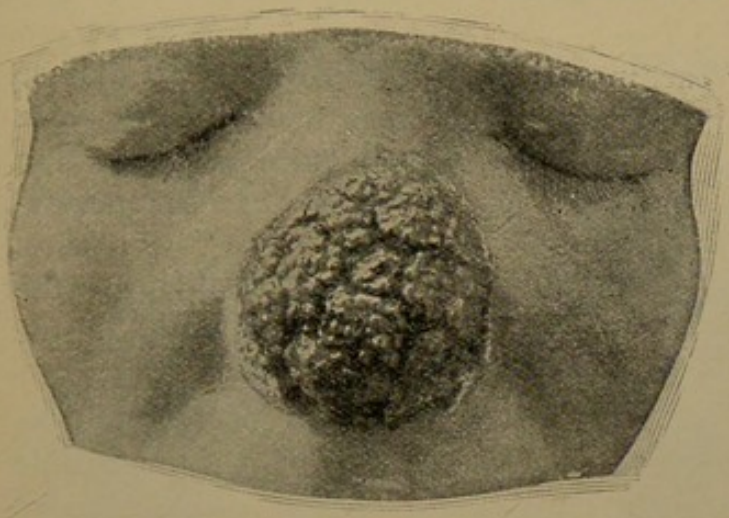


Fig. 38. Vegetating lupus of the nose. (Besnier's patient. St. Louis Hosp. Museum, No. 522.)

I have already mentioned the treatment of lupus (p. 21) and described how all the older methods should be used to assist the only truly curative treatment by phototherapy (p. 21).

TERTIARY ACNIFORM SYPHILIDES AND GUMMATA OF THE SKIN.

There are too common syphilitic lesions of the nose which have also a preference for the naso-genial fold, the alæ of the nose and cheeks. The first forms a red, irregular placard on which occur adherent scabs covering sharply cut, slightly discharging ulcers, which are only seen on removal of the scabs. This lesion occurs in old cases of syphilis of 10 to 15 years' duration, or more.

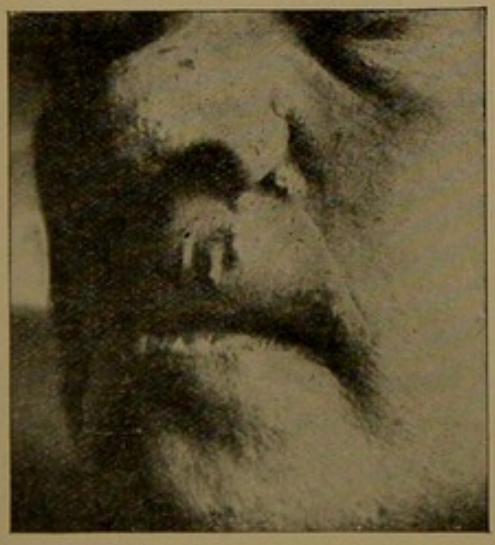


Fig. 39. Papulo-ulcerative acniform syphilide. (Jeanselme's patient. Photo by Noiré.)

The second form is composed of the same elements, but disseminated (Fig. 39). This lesion is frequently mistaken for necrotic acne. All local treatment is ineffective, but the lesion yields to mixed internal treatment in a few weeks.

PASSIVE CONGESTION AND VARICES.

Towards the 50th year, in patients affected with heart disease or renal affections, or in the absence of these, acne hypertrophica and varicose congestion of the nose become accentuated. The nose is swollen, cold to the touch, and of a purple colour.

Fig. 40. Acne rosacea and polymorphous acne. (Besnier's patient. St. Louis Hosp. Museum, No. 583.)

The coarse skin is riddled with the visible orifices of distended sebaceous pores. On the deep red uniform base of the skin are seen varicose veins of various sizes and forms. Some follow the nose longitudinally; others are in parallel arcades, covering the sides of the nose and anastomosing with each other.

This condition, the causes of which are unknown, but which is often consanguineous and hereditary, is permanent and progressive. The chronic gastric disorders which occur in drinkers may exaggerate it, but are not the cause.

Treatment is entirely surgical and consists in puncture of all the visible veins with a fine galvano-cautery. After 6 or 8 operations of this kind, the lesions subside. The congested state of the skin may be remedied by quadrilateral linear scarifications continued at long intervals of 18 days for 15 to 20 applications.

The action of radiotherapy on acne, which is admitted in Germany and America, is at present less known in France and

less often practised. In all severe cases it should be tried, especially if the patient objects to repeated surgical interference.

ACNE HYPERTROPHICA. RHINOPHYMA.

Hypertrophic acne begins at the age of 20 and attains its maximum at 60 or 70 years. At twenty the subject is congested and flushes easily. The skin of the face is too red, and already shows enlarged sebaceous pores and resembles the skin of an orange. With advancing age this condition is increased and the skin becomes thickened, rough and irregular and more and more coarse. Sometimes all the varieties of polymorphous acne arise, especially acne indurata and soft masses of cystic acne. Pressure between the fingers causes white filaments to exude from the pores. This condition is especially marked on the nose, which loses its shape and may become increased in size to a remarkable extent — *Rhinophyma* (Fig. 41). Sometimes the condition is confined to the lobule, sometimes it affects nearly the whole of the nose. It is then covered with protuberances of various degrees of deformity and of all colours.

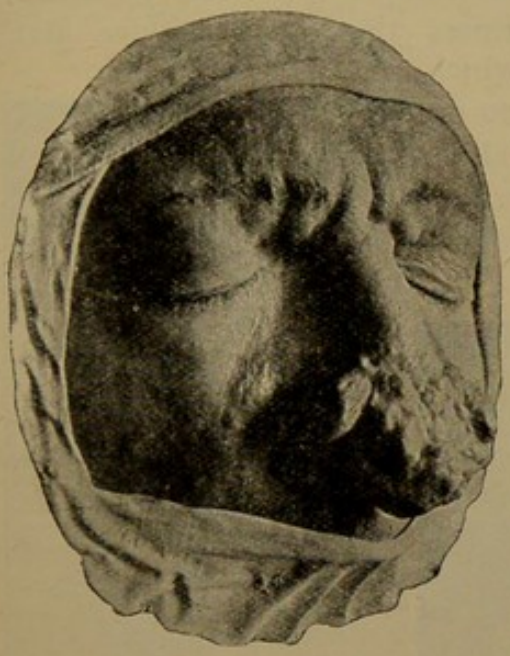


Fig. 41. Hypertrophic acne of the nose. Rhinophyma. (Lucas Championnière's patient. St. Louis Hosp. Museum, No. 1780.)

The treatment of this affection is that of congestive acne in placards, which will be mentioned shortly. Excision of all the projections with scissors, or even removal of the whole skin has been recommended. The resulting cicatrix is remarkably good, because the operation cuts the glandular ducts, which form epithelial grafts. In all these affections treatment of the subjacent seborrhœa and acne may be combined with treatment by the galvano-cautery or scarification. The hygiene of the nose after operation is the same as for every seborrhœic skin.

SENILE WARTS.

On a nose affected with seborrhœa and passive congestion at middle age, senile warts and concrete seborrhœa are of frequent occurrence (p. 31). They are superposed on the seborrhœa of old age, as pityriasis is superposed on the seborrhœa of youth, and with a peculiar preference for the same situation, the naso-genial furrow. Sometimes there are yellow, flat, seborrhœic, papillomatous warts, which appear at first to be simply excreta on the surface of a badly washed skin; sometimes there is concrete seborrhœa which has been described above

Fig. 42. Malignant epithelioma of the nose. (Besnier's patient. St. Louis Hosp. Mus., No. 1194.)

Fig. 43. Epithelioma of the nose, ulcerative. (Sabouraud's patient. Photo by Noiré.)

(p. 31), consisting of small, hard, thick scabs, like parchment, very adherent to the skin and connected with it by a series of villous prolongations, penetrating the orifices of the sebaceous glands.

The treatment of these different senile superseborrhœic processes is the same for all. The skin should first be treated by the following ointment:—

Chlorate of potash	aa 1 gramme	gr. 16
Precipitated Sulphur		
Cinnabar		
Resorcine		
Oxide of Zinc	5 grammes	3 i ss
Vaseline	30 "	j3

After a time the lesions are cleansed and improved and one can observe what remains.

If there are epitheliomatous pearls, or if small ulcers with a hard border appear under the scabs of the so-called concrete seborrhœa, which are already commencing epithelioma, radiotherapy should be practised, according to the rules indicated above (p. 32).

The projecting papillomata are destroyed by the galvanocautery; the flat warts, if they resist ointments containing sulphur and chlorate of potash, should be destroyed by painting with chromic acid (10 per cent).

EPITHELIOMA.

Epithelioma of the side of the nose is common, both in the neoplastic and ulcerative forms. In the neoplastic form it forms a soft red, spongy tumour, studded with necrotic points, moist and often covered with scabs (Fig. 44).

In the other form there is a polygonal, sharply-cut, red ulcer, varying in depth and exudation, and bordered with epithelial pearls, rendering the edge of the ulcer hard and glossy. In other cases the ulcer is bordered with pseudo-pityriasic circinations, which give it an almost geometrical appearance. Between this circination and the ulcer is a smooth red surface which appears deprived of horny epidermis.

These epitheliomas, in whatever form they appear, are amenable to radiotherapy, as shown in Fig. 44.

Five or six applications are made at intervals of 18 days,

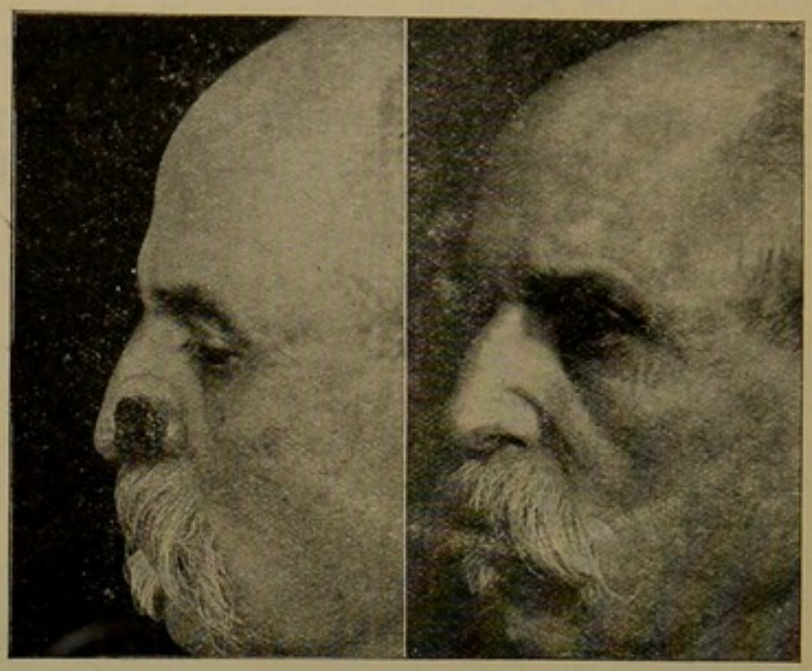


Fig. 44. Epithelioma of the nose cured by radiotherapy. (Sabouraud's patient. Photo by Noiré.)

each corresponding to 5 units of *Holzknecht,* or the B tint of the radiometer X (p. 197).

HYPERTRICHOSIS.

Sometimes towards the 50th year the nose becomes covered with unsightly hairs. As these hairs are usually large and few in number destruction by electrolysis is the method of choice (p. 143).

NAEVI.

Very often the nose, on its lateral faces, presents one or two stellate nævi which enlarge with age. They are usually easily removed by the fine galvano-cautery, which may require two applications. When galvanic cauterisation leads to cicatrisation of the central vessel, all the vascular rays arising from it disappear.

XANTHELASMA.

Xanthelasma of the eyelids is sometimes prolonged from the glabellum to the root or sides of the nose. It is only an epiphenomenon in the course of Xanthelasma of the eyelids. (p. 130).

MOLLUSCUM CONTAGIOSUM.

The small, soft, hemispherical and umbilicated tumours of molluscum contagiosum often occur in the naso-genial furrow, or on the alæ or lobule of the nose. The treatment consists in removal by a curette; a painless operation which may, however, require repetitions because the fine elements escape the first intervention (Fig. 52 and p. 129).

ADENOMA SEBACEUM.

Adenoma sebaceum is a rare disease, usually limited to the naso-genial furrow and spreading from this as a centre. It is formed of small irregular tumours, sessile or semi-pediculated; often united in a coherent mass; not umbilicated, deep or crusted. They are of a rose yellow colour, or more or less red.

These lesions are of the size of a pea when situated centrally, smaller when they are more excentric. They are bilateral, with a predominance on one side and always concomitant with marked seborrhœa.

They are nævoid adenomata, in which the vascular anomaly is more frequent than the glandular. They occur at the age of 10 to 15 years and remain stationary after a period of growth. They are more common in young girls and often co-exist with other nævi of diverse forms, and with retarded intellect.

They may be destroyed by electrolysis, or the curette, or by the galvano-cautery. They never recur even when incompletely removed.

Vidal mentions their later transformation into epithelioma.

DARIER'S DISEASE.

I have described this elsewhere (p. 25). I only mention it here because its localisation in the naso-genial fold may be the first and only situation for some time. More often all localisations in the seborrhœic regions occur together.

GLANDERS AND FARCY.

I have seen a case of glanders of the nose in a man of 50. The nose was larger than normal and covered with deep linear ulcerations, resembling worm tracks in old wood; the nose was *worm eaten* (*Besnier*). There was a specific coryza of both nostrils discharging abundant pus.

Glanders was proved by inoculation of the pus in the peritoneum of a male guinea pig, which showed specific orchitis in five days. The pus from the orchitis, sown on potato, produced cultures in drops, of a characteristic chocolate colour.

The prognosis of this disease is fatal, and the course may be acute or chronic. The only treatment is specific, which in some cases has appeared to arrest the disease (p. 659).

THE EAR.

This chapter comprises a short description of furunculosis of the external auditory canal . . . — Furuncle of the Auditory Canal p. 109

. . . A succinct résumé of suppurative otitis externa . . . . . . — Otitis externa . . p. 110

. . . A more detailed study of irritation of the retro-auricular fold, which is a true intertrigo, more or less complicated with eczema . . . . . . — Intertrigo of the Retro-auricular fold . . . . . p. 110

. . . A résumé of the evolution in this situation, of chilblains and winter erythema . . . . . . — Chilblain Erythema pernio . . . p. 111

. . . Of lupus erythematosus of the auricle which is closely allied to the preceding morbid process . . . . . . — Lupus erythematosus . . . . . p. 112

. . . Finally, of tuberculous lupus, which is more rare . . . . . . — Tuberculous lupus p. 113

Cheloids of the ear are common after piercing the ears, and we shall speak of them after lupus, for the tuberculous origin of these lesions has been frequently demonstrated . . . . . . — Cheloid . . . . . p. 113

We shall next study the two chief forms of eczema of the ear: impetiginous eczema of the temples and cheeks, which may cause secondary invasion of the pavilion of the ear . . . . . . — Impetiginous eczema . . . . . p. 114

Squamous eczema of the auditory canal, which most authors place among the seborrhœic eczemas — Squamous eczema p. 115

Lastly, the ear may be the seat of rare or less important lesions, which we shall briefly refer to .

- Molluscum . . . p. 116
- Papilloma . . . . p. 116
- Seborrhœa . . . . p. 116
- Comedo . . . . . p. 116
- Gouty Tophus . . p. 116
- Cancroid . . . . p. 116
- Leprous tubercles p. 116

FURUNCULOSIS OF THE EXTERNAL AUDITORY CANAL.

Furunculosis of the external auditory canal is generally observed after external otitis, an eczema of the canal or neighbouring regions having given rise to the infection. Furuncle of the ear develops with the characters of ordinary furuncle; pain is excessive and strictly limited to the anterior or posterior part of the canal and is out of proportion to the amount of pus which is evacuated. The evolution of furuncle takes from 6 to 8 days, but after the first boil others often appear.

Diagnosis is made by the aural speculum, which reveals a round projecting tumour in the cavity, very painful to the touch.

Medical treatment is illusory. Incision of the central part of the tumour relieves the patient, and even when incomplete, diminishes pain and congestion. Strong antiseptic lotions are contra-indicated. To prevent recurrence, applications of calomel ointment (1 per cent) may be prescribed.

SUPPURATIVE OTITIS EXTERNA.

Suppurative otitis externa is common in children of 3 to 10 years in the poorer classes. Its commencement is acute and painful; its evolution chronic, and it lasts for months or years.

Every day the ear discharges a few drops of thick or serous pus with a fœtid odour. The child does not suffer, the parents neglect it and the disease continues.

It is possible that this chronic epidermatitis may lead later on to thickening of the tympanic membrane, analogous to the corneal leucomas left after phlyctenular conjunctivitis. Otitis externa rarely gives rise to otitis media and hardly ever to ulceration of the membrane.

Frequent syringing with warm boric lotion, or oxyginated water diluted to one-fifth, give excellent results when the treatment is continued for some time. Whenever such an affection does not quickly improve the case should be referred to an aurist.

RETRO-AURICULAR INTERTRIGO.

This affection, which is very common even in the adult, but especially in children, is of the greatest clinical and educational importance.

Clinically, it is an intertrigo, a red moist epidermatitis, limited to the retro-auricular folds and to the borders of these folds. Like all intertrigos it may remain with its original characters, but has a tendency to become moist, crusted and fissured. It is in this form that it is most frequently observed.

The fold is then hidden by an elongated impetiginous crust, under which is found the macerated, moist epidermis, covered with a pale lilac fibrinous membrane. By drawing the ear for-

wards a fissure is found which bleeds easily. These lesions generally persist for several months.

They may co-exist with chronic impetigo of the nose, with acute impetigo of the face, or more rarely with whitlow. They may be superposed on an eczema of the same region, or of the face or scalp; or, inversely may become the centre of a neighbouring eczematisation.

Culture (p. 8) shows that this intertrigo, like all intertrigos, is streptococcic. The clinical opinion which connects this lesion with fatty squamous conditions, wrongly termed seborrhœic, is without foundation. The lesion in question is a primary impetigo of the retro-auricular fold, or secondary to a pre-existing lesion such as eczema.

The treatment is that of impetigo, with lotions of sulphate of zinc (1 per cent) or nitrate of silver (1 in 15); protective pastes, etc. It is liable to recurrence, or to alternate with other lesions of the same nature (see impetigo p. 7). When there is peripheral eczematisation, ointments of oxide of zinc and oil of cade are excellent:—

Oxide of zinc	aa 5 grammes	3 i fs
Oil of cade		
Oil of birch	aa 1 gramme	gr. 16
Ichthyol		
Resorcine		
Vaseline	aa 15 grammes	℥j
Lanoline		

CHILBLAIN. ERYTHEMA PERNIO.

Children, adolescents and even adults (especially women) present every winter chilblains of the ears. These occur in two forms, diffuse and localised. The diffuse form is a reddish purple œdema, very congestive and affecting the pavilion of the ear and the lobule, sometimes accompanied by superficial epidermic desquamation. This "erythema pernio" persists during the cold season. The localised form affects the margin of the ear with a series of distinct chilblains, in the form of a chaplet, each consisting of a hard and painful œdematous point. All intermediate forms occur between these two forms, and

between the second form and lupus erythematosus of the ear.

There is no treatment for chilblains. Generally the tendency diminishes as the patient grows older Local treatment is not very efficacious, but the following may be tried:—

Glycerole of Starch	30 grammes	℥j
Resorcine . . . . . }	30 centigrammes	gr. 5
Tartaric acid . . . . . }		
Menthol	15 "	gr. ii

General treatment by sea baths, mineral water springs, etc., is theoretical. They may possibly do some good and can do no harm.

LUPUS ERYTHEMATOSUS.

The margin of the ear is one of the seats of election of lupus erythematosus.

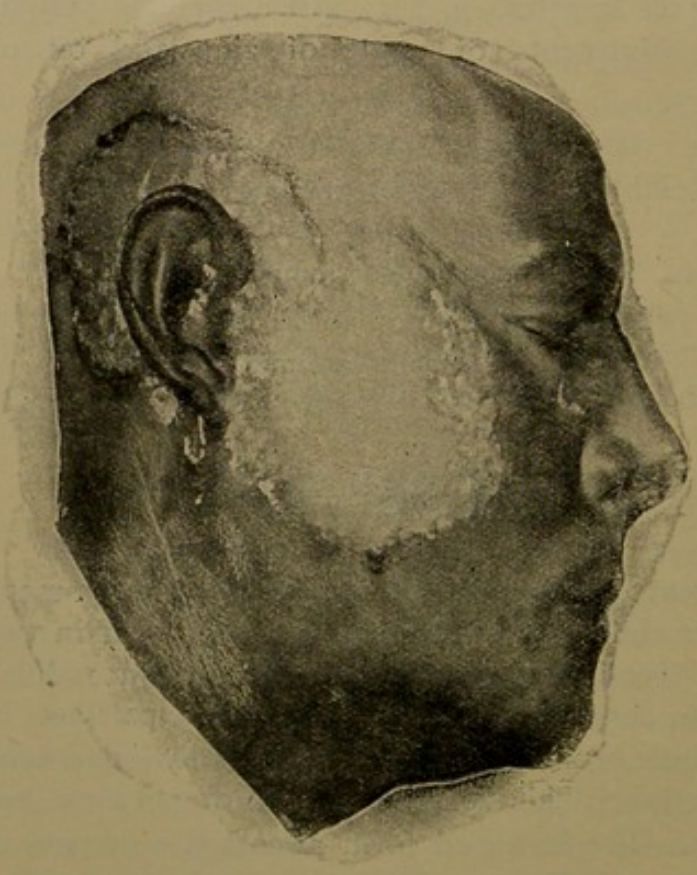


Fig 45. Lupus erythematosus of the cheek and ear. (Hillairet's patient. St. Louis Hosp. Museum, No. 168.)

Clinically, it often follows chilblains of the same situation. It occurs usually as a series of red patches, irregularly elongated in the contour of the concha, situated in the hollows, and bordered with white, adherent squames. The atrophy of the skin causes the ear to appear emaciated, and it preserves this appearance after cure.

Lupus erythematosus may exist exclusively

on the ears, but more often it occurs also on the face or scalp (Fig. 45).

I have spoken of the unsatisfactory treatment of lupus erythematosus (p. 19) and there is no need to return to it. Radiotherapy appears to be the only one of any value, if not in all cases, at any rate in a great number.

TUBERCULOUS LUPUS.

In contra-distinction to lupus erythematosus, tuberculous lupus is generally situated on the lower part of the ear, below the tragus.

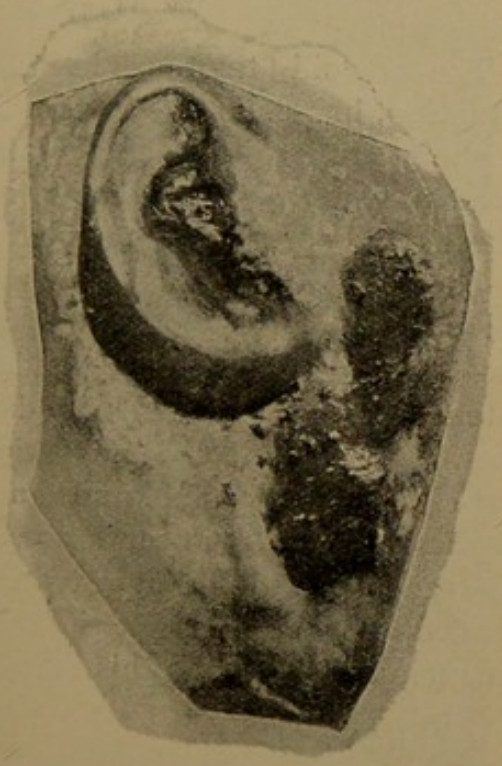


Fig. 46. Hypertrophic lupus of the ear and its lobule. (Hardy's patient. St. Louis Hosp. Museum, No. 299.)

The lobule is nearly always the initial and principal seat of this regional localisation of lupus, which is somewhat rare. The lobule is much increased in size and the lupus nodules buried in the neighbouring congestive œdema are not easily seen. The chronicity of the lesion and its progressive development indicate the diagnosis. This is confirmed by examination of the lobule compressed under a plate of glass, which blanches the region and renders the red nodules apparent.

Treatment, apart from phototherapy (p. 21), is nearly exclusively confined to the galvano-cautery, by means of cauterisations crossing in all directions. A cure is easier to obtain than in many other forms of lupus. After cure, the lobule is reduced to a stump and has a skeletal aspect of which the patient must be warned.

CHELOID.

Cheloids, like lupus or papillomatous tuberculosis, which also sometimes occur on the lobule of the ear, may originate

in perforation of the lobule for ear rings. This operation is often performed by a jeweller with a dirty instrument, which he sometimes moistens with saliva. Under these conditions infection is possible, especially when the operator is tuberculous.

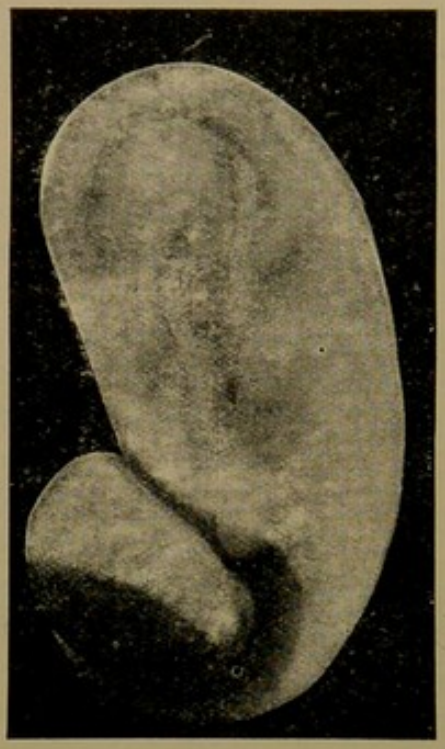


Fig. 47. Cheloid of the lobes of both ears. (Besnier's patient. St. Louis Hosp. Museum, No. 1681.)

It is impossible to say that all cheloids are tuberculous, but the tuberculous nature of a great number has been demonstrated by positive inoculation in the guinea pig.

The cheloid tumour, in this situation, has usually the form of a plum. It is of red colour and firm to the touch, showing its fibrous and compact structure.

Cheloids, in this situation as in all others (p. 625), should be treated by deep linear quadrilateral scarifications, or by radiotherapy. Surgical extirpation even when extensive and antiseptic, has too often been followed by recurrence with aggravation of the tumour to be recommended, however simple it may appear at first sight, especially in such a situation as this.

IMPETIGINOUS ECZEMA.

Impetiginous eczema of the ear is only an accessory localisation of impetiginous eczema of the face in the adolescent, which so often accompanies urinary hypoacidity and transient albuminuria (vide p. 12).

In the course of this eczema streptococcic impetiginous infection may occur secondarily. One then finds points of intertrigo, covered with crusts, in the folds of the antero-external surface of the ear, and also retro-auricular intertrigo, (p. 110).

SQUAMOUS ECZEMA.

Squamous eczema is limited to the external auditory canal and the concavity of the concha. On the surface of the skin, which is fatty in these places, there are squames, semi-adherent to the subjacent skin, which is of an orange red colour.

This condition is found in association with simple or steatoid pityriasis of the scalp, naso-genial furrow and beard in adoles-

Fig. 48. Epithelioma of the commissure of the lobule of the ear, recurring after operation. (Sabouraud's patient. Photo by Noiré.)

Fig. 49. The same patient after cure by the X-rays. Observe the alopecia produced by radiotherapy.

cents with a fatty skin, which is also often affected with polymorphous acne of the face and commencing seborrhœa of the forehead and vertex. It is also seen at middle age in fat men with dry eczema of the beard and scalp.

This condition is very liable to recur but is easily remedied by tar ointments, pine tar being in this case superior to oil of cade. Examples:—

Liquid tar purified	}	equal parts	
Oleum theobromæ	}		
or, Yellow oxide of mercury	} aa	30 centigrammes	gr. 7
Resorcine	}		
Liquid tar		4 grammes	ʒi fs
Lanoline		20 "	ʒj

MOLLUSCUM. PAPILLOMA. COMEDO. TOPHUS. CANCROID.

In addition to the preceding affections, the ear may be the seat of more uncommon lesions. In the child, *molluscum contagiosum* is sometimes seen (p. 129); in the adult, papillomatous *warts*. The concha of the ear is a seat of election for *comedos*. The margin of the ear presents in the gouty a chaplet of chalky *tophi*, which has some resemblance to the chaplet of chilblains in the adolescent. Lastly, very rarely, chronic epithelial ulcer, or epithelioma, may be situated here as on senile seborrhœic faces (p. 31). This has two common situations, the margin of the ear and the commissure which separates the lobule from the cheek. The latter is represented in Figures 48 and 49.

TUBERCULAR LEPROSY.

Leprous tubercles are observed on both ears in nearly all cases of leontiasic leprosy (vide Fig. 10, p. 23).

The tubercles are the size of a pea, indurated and raised, with a slow evolution interrupted by acute paroxysms of pseudo-erysipelas. They are disseminated throughout the lobule, the size of which is doubled, and around the margin of the ear, with the same characters as on the face. They only represent a common epiphenomenon in tubercular leprosy, but may become of diagnostic value at the onset of the disease. Local treatment presents nothing peculiar. The treatment of leprosy is summed up on p. 24.

THE FOREHEAD.

The forehead presents dermatoses peculiar to the smooth regions of the face, and also, on account of its situation between the eyebrows and the hair, some of the lesions of hairy regions. This gives a peculiar interest to its dermatological study.

The supra-superciliary region is one of the first to present the manifestations of seborrhoea, which may extend later to the whole forehead . . . . . . Seborrhœa . . . . p. 118

Polymorphous acne occurs here, as in all smooth regions . . . . . . Acne polymorphe p. 118

The supra-superciliary regions are also a place of election for the small lesions of follicular hyperkeratosis, commonly called keratosis pilaris . . . Keratosis pilaris p. 119

The forehead is one of the regions of the face where miliary juvenile flat wart is most often seen Flat wart . . . . p. 119

Also, in young people, pityriasis of the scalp often extends onto the forehead and forms the red squamous border of the corona seborrhoica . . . . Corona Seborrhoica . . . . . p. 120

These comparatively benign lesions are sometimes confounded with the crown of copper-coloured papules caused by secondary syphilis . . Corona Veneris . p. 121

Seborrhoea of the forehead is depilatory, and when it reaches the temples causes denudation, which precedes or accompanies common baldness . Frontal baldness . p. 121

In women, seborrhoea and acne together denude the border of the scalp along the forehead from one temple to the other . . . . . . Frontal Alopecia p. 122

The forehead, especially at the temples, is often the seat of papular secondary syphilides, in the corymbose form . . . . . . Corymbose Syphilides . . . . . p. 122

In the same situation is often seen lupus erythematosus, with cicatricial evolution and scaly borders Lupus erythematosus . . . . . p. 123

At mature age acne necrotica forms varioloid lesions in the form of a crown round the forehead . Acne necrotica . . p. 123

Also acne hypertrophica, with its projections and bosses . . . . . . Acne hypertrophica . . . . . p. 124

On the forehead tertiary ulcerative syphilides form arborescent ulcers . . . . . . Tertiary Syphilides . . . . . p. 125

In old age the temples are a seat of election for senile warts and epithlioma . . . . . . Epithelioma . . . p. 125

We need not do more than mention the lesions of molluscum contagiosum, the patches of cutaneous trichophytosis, tuberculous lupus, etc., which may occur here as elsewhere, without occurring with sufficient frequency to merit special attention. Opthalmic Zona will be studied with lesions of the eyelids.

SUPRA-SUPERCILIARY SEBORRHOEA.

The forehead, next to the nose, is one of the first regions in which seborrhœa occurs, characterised by exaggerated sebaceous secretion and dilatation of the sebaceous pores, which are filled with a fatty cylinder containing a colony of the specific microbacillus.

This seborrhœa is symmetrical above the eyebrows. The affected surfaces often coalesce, the forehead becomes diffusely seborrhœic and the infection may invade the hairy scalp (p. 211). Here, as elsewhere, seborrhœa preserves its chronic symptoms and evolution (p. 13). In seborrhœa of the forehead, different forms are found according to the case observed; the severe or fluent form, which is common in the forehead and face, the treatment of which we have already considered (p. 14); the form with comedo and polymorphous acne, of which we have studied the different forms and treatments in other regions of the face (p. 95).

ACNE POLYMORPHE.

Polymorphous acne is common enough to merit a special paragraph, but as its characters are identical with those of polymorphous acne occurring elsewhere, this paragraph will be very short.

On the forehead one may observe together or separately, acne comedo, acne punctata, indurata, pustulata; and in rare cases even phlegmonous and cystic acne.

Whenever acne occurs on the forehead with abundance, it also exists on the nose, cheeks and trunk. Acne of the forehead is only an epiphenomenon.

When localised only on the forehead it should always suggest *acne necrotica* (acne frontalis of Hebra, p. 123). The treatment is identical with that of acne of the face. (p. 95).

KERATOSIS PILARIS.

Keratosis pilaris must be distinguished from seborrhœa and acne, and will be studied more in detail with affections of the eyebrow (p. 139); but it often presents a supra-superciliary frontal localisation.

On a semilunar space, 4 centimetres wide and 3 in height, are situated a number of follicular hyperkeratotic points, surrounded with a red ring after friction, or when the subcutaneous circulation is increased. This condition occurs also in the temporal region and in the external pre-auricular and maxillary portion of the cheek.

This condition, which appears to be distinct from seborrhœa, is sometimes connected with it and is then observed on the forehead, especially over the eyebrows and at the border of the hairy scalp.

The skin is greasy and dotted everywhere with the gaping orifices of sebaceous glands, sometimes occluded by a comedo. But a great number of sebaceous orifices are hidden by a small cone of hyperkeratosis, more or less raised and distinct.

This condition resists all ordinary treatment for acne, and requires keratolytic applications, such as:—

Salicylic acid	aa 1 to 3 grammes	gr. 16-48
Resorcine		
Precipitated Sulphur . . .		
Vaseline	30 grammes	℥j

Ointments with sulphur or oil of cade may also be used after washing with soft soap for a quarter of an hour to two hours. Prolonged treatment is necessary and recurrence frequent. The proportions of the medicaments employed should be altered according to the resistance of the skin of the patient.

(See *Keratosis pilaris of the eyebrows*, p. 139; and *Frontal Alopecia*, p. 122).

JUVENILE FLAT WART.

Juvenile flat warts may be situated anywhere, even on the hands or body, but they are more common on the face, especially on the forehead. They may occur in the infant, but more gener-

ally at the sexual age. They appear to become attenuated and disappear generally at adult age.

They occur in the form of a crop of very small papules, nearly contiguous, or disseminated in rows. Each wart is shiny, of a yellowish red colour, from half to one millimetre in diameter, with sharp borders projecting from the skin from ¼ to ½ a millimetre. Very often they form regular trails extending from a traumatic erosion or scratch, and a scratch with a needle is soon covered with them. They thus appear to be contagious, but the parasite is unknown.

They may be removed by the galvano-cautery applied superficially so as not to leave a scar. Lotions of salicylic acid (2 per cent) sometimes give favourable results. A better application is sulpho-carbolic acid, applied with a hard brush and repeated daily.

CORONA SEBORRHOICA.

When the hairy scalp is covered by steatoid pityriasis with fatty pellicles (p. 208) it is not uncommon for the pityriasis to extend beyond the margin of the hairy scalp and form more or less marked circinations on the forehead.

These lesions encroach on the smooth skin for ½ to 1 centimetre, rarely more. This is the *Corona Seborrhoica* of Unna, consisting of a figured steatoid pityriasis. The lesion is constituted by very slight thickening and redness of the skin, which is finely scaly and covered with small yellow pellicles, which leave a grease spot on blotting paper.

In rare cases, not only the corona seborrhoica exists, but similar patches occur on the forehead and temples in the midst of smooth skin, also on the eyebrows and glabellum. Steatoid pityriasis has a tendency to diffusion, sometimes even to generalisation. (Seborrhœic Eczema of Unna). It is nearly always seen also in the naso-genial furrow (p. 97) and the mid-sternal region.

The treatment is that of steatoid pityriasis of the hairy scalp (p. 208). Applications of ichthyol, resorcine, oil of cade and sulphur give excellent results, but must be continued for a long time to give permanent results.

Very resisting cases should be treated like psoriasis; viz., by preparations containing pyrogallic acid or hydroquinone (1 in

30). Soap should be avoided in removing these ointments, as it may cause staining.

SECONDARY SYPHILIS. CORONA VENERIS.

Secondary syphilis may affect the forehead indifferently, as any other region of the body, by roseola, papular and papulo-tubercular syphilides, etc. But there often occurs in the course of secondary syphilis, around the hairy scalp, a series of spots, sometimes so crowded as to form a crown. This may be confounded by the novice, with the preceding lesion, or vice versa. The syphilitic lesions are papular, flat, copper coloured, not squamous and almost surrounded by a very fine desquamation. (the "collar of Biett"). This lesion may be observed in the absence of any analogous lesion of the hairy scalp, which does not occur in the case of *corona seborrhoica.* Also the presence of other syphilitic lesions must be determined. At this stage of syphilis they are almost always present. Search must be made for the initial lesion, the enlarged glands, roseola, secondary papules on the body, mucous patches, alopecia, etc.

Local treatment is illusory; general treatment is important.

RECEDING OF THE FOREHEAD BY SEBORRHOEA AND BALDNESS.

At the same time that diffuse depilation commences on the vertex in young people, foretelling those who will later on become bald (18 to 25 years), one sees the forehead recede little by little for a few millimetres and expose the temples by denudation, forming two more or less deep notches and enlarging the forehead at the expense of the hairy scalp. Examination with a lens shows invasion of the region with seborrhœa, with all its characters, at the same time as the depilation. The surface is glossy, with an overproduction of fat, especially towards night; the sebaceous pores are enlarged and present cylinders of fat which can be expressed by scraping with the edge of a glass slide, or between the nails.

The treatment of this localisation of seborrhœa is the same as for seborrhœa in other situations, sulphur and tar being the

most useful remedies. Washing with soap may be done at night, but this at first appears to increase the seborrhœic phenomenon.

Solvents of fats, such as acetone and ether, may be applied on absorbent wool, but these medicaments are only palliative. This form of seborrhœa and the depilation which accompanies it are very little influenced by any kind of treatment.

FRONTAL ALOPECIA OF WOMEN.

In young girls, between the ages of 15 and 20, affected with seborrhœa of the face, an invasion of the whole border of the hairy scalp, from one temple to the other, and about an inch in width, is sometimes produced by a morbid condition which appears to be a mixture of keratosis pilaris and seborrhœa, which I have just mentioned (p. 119). This eruption, which is established in the course of a few months, is accompanied by diffuse alopecia of a corresponding band of the hairy scalp.

The whole surface of the skin is fatty and covered with small horny elevations, more or less marked, corresponding to the hairy follicles. The skin between the hairs is often scaly, so that the lesion has the appearance of a combination of keratosis pilaris, steatoid pityriasis and seborrhœa. In a few months this alopecia is nearly complete over the whole of a frontal band, about an inch in width. The process gradually subsides, after destruction of the hairs, the skin becomes smooth and the hair follicles which have lost their hairs undergo a progressive sclerosis which causes their entire disappearance.

The treatment of this affection, for which we are nearly always consulted too late, is that of pityriasis, seborrhœa and keratosis pilaris (p. 119). The most active treatment consists in the application of ointments containing sulphur, oil of cade and salicylic acid; and cleansing every morning with a fat solvent, such as acetone and ether. The lesion when once established is irreparable.

SECUNDO-TERTIARY CORYMBOSE SYPHILIDES.

Papular or papulo-tuberculous syphilides of the corymbose form are late secondary manifestations, which may be observed on the forehead and temples. Sometimes the eruption is situated half on the smooth skin and half on the hairy scalp. It is an

efflorescence of 4 to 20 elements, disposed in the form of a more or less regular bouquet. The elements are brown, round, flat, slightly raised and of the size of a lentil. They are slow in disappearing and often last for months in the same place without apparent change, a characteristic by which they differ from other analogous secondary eruptions, which are always much less stable.

These late secondary eruptions give evidence of insufficient treatment and require a new treatment better carried out, by inunction or injections (p. 513). Iodides appear to have an uncertain action in these cases, nevertheless they may be combined with mercurial preparations.

LUPUS ERYTHEMATOSUS.

Lupus erythematosus presents on the forehead the same characters which we have described in other regions of the face (p. 18). It is always in the form of a white, depressed, cicatricial patch, marbled with brown, bordered with red, and scaly at the circumference. The peculiar symptoms, indefinite duration and cicatricial evolution, and the co-existence of similar lesions in other places, in normal cases, hardly leave any doubt as to the diagnosis, even to the novice. But typical cases occur which may puzzle the best dermatologists. We cannot describe here these exceptional forms. In doubtful cases, when the objective signs of a lesion are abnormal, remember that the evolution of a dermatosis is quite as characteristic as its objective form. (For treatment see p. 19).

ACNE NECROTICA. ACNE FRONTALIS OF HEBRA.

The forehead is one of the seats of election of acne necrotica. It sometimes begins and always occurs here, sometimes exclusively. It generally occurs on the forehead at the same time as on the nose (p. 96), the scalp (p. 235), and the chest (Fig. 195 and p. 477). In each case it is characterised by a discrete or profuse eruption of similar elements. These commence like a pustule of circumpilary impetigo (*impetigo rodens*) of Hillairet-Gaucher); but the pustules enlarge and increase in diameter.

The flat discoid crust, fixed in the skin, remains there for several weeks. It finally becomes detached and falls with the

hairs which pierce it, leaving a strongly marked and indelible cicatrix. I have described the nature of acne necrotica elsewhere. It is a pustule of impetigo of Bockhart, superposed on seborrhœic infection of the follicle which forms the centre of the pustule.

The frontal eruption of neucrotic acne eventually forms a crown of cicatrices, more numerous near the temples than in the centre. This eruption occurs in crops of varying degrees and duration. Treatment cures for a time but does not prevent recurrence. I have already mentioned the treatment of necrotic acne of the smooth parts (p. 96); I shall refer to its treatment when dealing with eruptions of the scalp (p. 235).

ACNE HYPERTROPHICA.

Acne of the period of involution is sometimes accompanied by passive venous stasis, a kind of congestive œdema, or quasi neoplastic infiltration, a good example of which is seen in rhinophyma. This condition may be more rarely observed on the cheeks and forehead (Fig. 50).

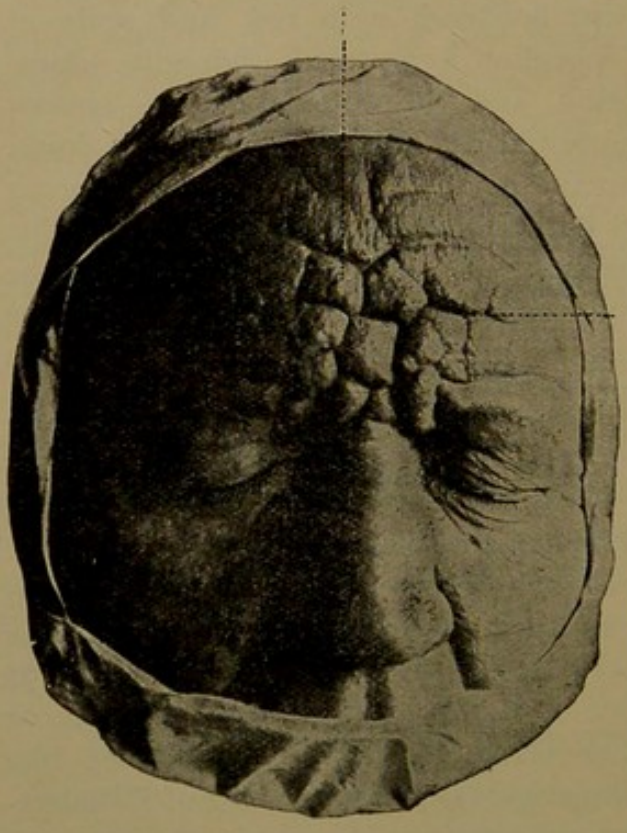


Fig. 50. Acne Hypertrophica: pf, fissure: mh, hyperplasia. (Besnier's patient. St. Louis Hosp. Museum, No. 1287.)

Treatment is the same as for acne hypertrophica of the nose (p. 103). We may add, to what we have said, compression of the region, which is possible here, with an elastic dressing which aids absorption of the infiltration and causes in a few days a better appearance. This condition is always very chronic, slowly progressive and apt to recur after treatment.

FRONTAL TERTIARY SYPHILIDES.

Tertiary frontal syphilides belong to the type of gummata in placards. They are common and characteristic, but often misunderstood. At first they form red or purple placards, irregular in shape and form, with a slightly mammillated surface. In the second stage the nodosities become ulcerated and covered with a greenish brown adherent scab, under which is found a sharp cut, grey and moist ulceration, which bleeds easily. These ulcerations often fuse together and become extensive, forming radiating ulcerations with curious configuration. External treatment has no effect. Internal mixed treatment gives good results in a few weeks.

The lesion disappears, leaving an arborescent white cicatrix, which forms a probable, but not absolutely certain retrospective diagnosis of syphilis to the practised eye.

EPITHELIOMATOSIS.

The forehead of old people with fatty skins, especially in the temporal regions, shows a propensity for senile warts and epithelial degenerations. It is at these points that cutaneous epitheliomas most often occur, in the non-ulcerated pearly form, or the ulcero-crustaceous.

The characters, evolution and treatment of these lesions has been already mentioned and there is no need to repeat them here (p. 105).

VARIA.

The forehead is one of the regions where *impetigo contagiosa* (p. 7); chloasma (p. 26) and ephelides (p. 5) are most commonly observed.

THE EYELIDS.

The eyelid presents for consideration simple catarrh, known under the name of blepharitis . . . — Simple blepharitis p. 126

. . . Also chronic ciliary pustular blepharitis, which often precedes and accompanies sycosis of the moustache . . . . . . — Chronic pustular blepharitis . . p. 127

We shall next study syphilitic chancre of the eyelid, which is less rare than commonly supposed . . — Chancre of the eyelid . . . . . p. 127

. . . And syphilitic blepharitis, which accompanies secondary eruptions . . . . . . — Secondary syphilitic blepharitis p. 128

The painless intra-palpebral tumour, of slow evolution, which oculists call chalazion, merits a few words of description . . . . . . — Chalazion . . . . p. 128

. . . Also the small soft umbilicated tumours of molluscum contagiosum . . . . . . — Molluscum contagiosum . . . . . p. 129

. . . And the grains of milium, which are frequently seen in the eyelids . . . . . . — Milium . . . . . p. 130

After this, we shall study xanthoma of the eyelids, which forms a small yellow painless placard of chronic evolution . . . . . . — Xanthelasma . . . p. 130

And opthalmic zona, the vesicular branches of which may cover, not only the eyelid, but also the forehead . . . . . . — Opthalmic Zona . p. 131

on alopecia of the eyelashes . . . . . .
We shall end this chapter by saying a few words — Alopecia of eyelashes . . . . . p. 131

. . . Ciliary phtiriasis, which is rare but necessary to know . . . . . . — Phtiriasis . . . . p. 132

. . . Lastly, cicatricial contractions of the eyelid, generally after lupus . . . . . . — Ectropion . . . . . p. 132

SIMPLE BLEPHARITIS.

In simple blepharitis the borders of the eyelids are red and slightly itching, with a pricking sensation when waking at night. During the night the eyelids become glued together and in the morning they are crusted and smarting, and the ocular conjunctiva is injected.

Blepharitis is probably a common microbial infection. It has been said to be rheumatic in origin, which might mean something if rheumatism was defined. This blepharitis is recurrent once or twice a year in certain subjects. The attacks last about two or

three months. Treatment consists in frequent bathing with warm Vichy water to dissolve the crusts, and with saline solution to diminish congestion. At night red oxide of mercury ointment is applied (½ per cent).

PUSTULAR BLEPHARITIS. STYE.

The elementary lesion of this form of blepharitis is the stye, a pustular ciliary folliculitis. The stye may be single and often recurs. It is more common in children but occurs in adolescents and in adults. It may become chronic, when the eyelashes are agglomerated in tufts and the ciliary border is covered with recurrent styes. In the inner angle of the eye a drop of pus is found in the morning. Eventually the eyelashes are expelled by deep folliculitis and the palpebral border becomes chronically red, atrophic and smooth. This pustular blepharitis is included among the stigmata of *lymphatism*. If lymphatism and scrofula are defined, like tubercle, by the bacillus of Koch, this opinion is wrong, for the lesions are not tuberculous. Apart from this erroneous definition lymphatism has hardly any other. Certain individuals show a predisposition to invasion of the mucous membranes by pyogenic microbes, but we know nothing of the nature of this predisposition.

The conjunctivitis accompanying this blepharitis is treated by instillations of sulphate of zinc (2 per cent) twice a day. The pustules should be opened and cauterised with nitrate of silver (1 in 15). Irrigation with saline solution and moist dressings at night give good results. The affection is very chronic and recurrent. It often precedes an anterior rhinitis.

CHANCRE OF THE EYELID.

The initial lesion of syphilis is less rare on the eyelids than one would at first imagine. It is in fact a professional chancre and almost special to metal workers. In these occupations a hard fragment often gets into the eye of the workman and causes small erosions of the palpebral conjunctiva. It is the custom with the workmen to remove these fragments with the moist end of a cigarette taken from the mouth. This is the origin of most palpebral chancres.

They generally occupy the palpebral border and develop chiefly at the expense of the mucosa, causing eversion. The

chancre forms a hard, red, fleshy induration, eroded but not ulcerated, and with little discharge. The development takes

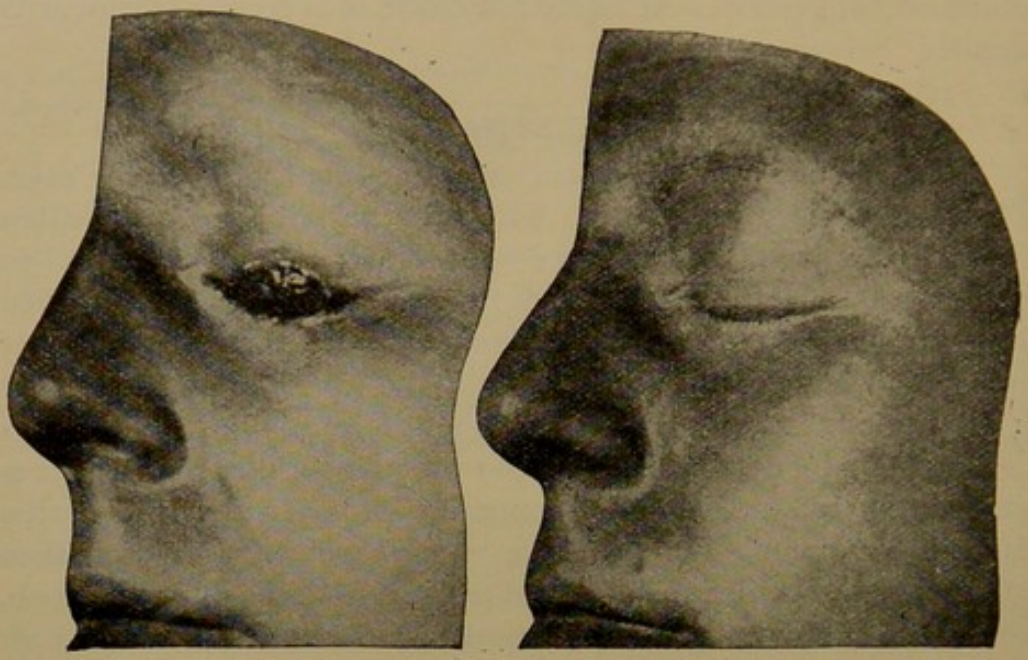


Fig. 51. Syphilitic chancre of the upper eyelid.
Before and after treatment. (Lailler's patient. St. Louis Hosp. Museum, No. 84.)

about two or three weeks, and the pre-auricular gland becomes enlarged, hard, and painless. The lesion is sometimes of considerable size, but entirely disappears under treatment. Anodyne lotions of Vichy water or camomile may be applied locally.

SECONDARY SYPHILITIC BLEPHARITIS.

This co-exists with roseolar and papular eruptions, and generally with papular eruptions of the face. The conjunctivæ are injected and the eyelids have lost their regular curve, owing to the border being raised in places by papules.

The co-existence of the eruption on the face should indicate the diagnosis, which is confirmed by roseola of the body, enlarged glands and the presence of the initial lesion.

CHALAZION.

Chalazion is said, without absolute proof, to be an acne of the Meibomian glands. The anatomical seat of the lesion is certain, but not its nature. It forms a small tumour, resembling acne indurata, of chronic progressive evolution, sometimes stationary,

sometimes retrogressive; the total duration being from 6 months to 2 years. When once established it may not undergo resolution.

The treatment of chalazion belongs to the oculist and consists in curetting the tumour on its palpebral surface; a simple operation which is always successful. Chalazion does not recur in the same place, but the same eyelid may be affected by several.

MOLLUSCUM CONTAGIOSUM.

Molluscum contagiosum is a small benign tumour of the skin of various sizes, from that of a millet seed to that of a pea. The tumours are soft, sessile, raised and umbilicated. They may

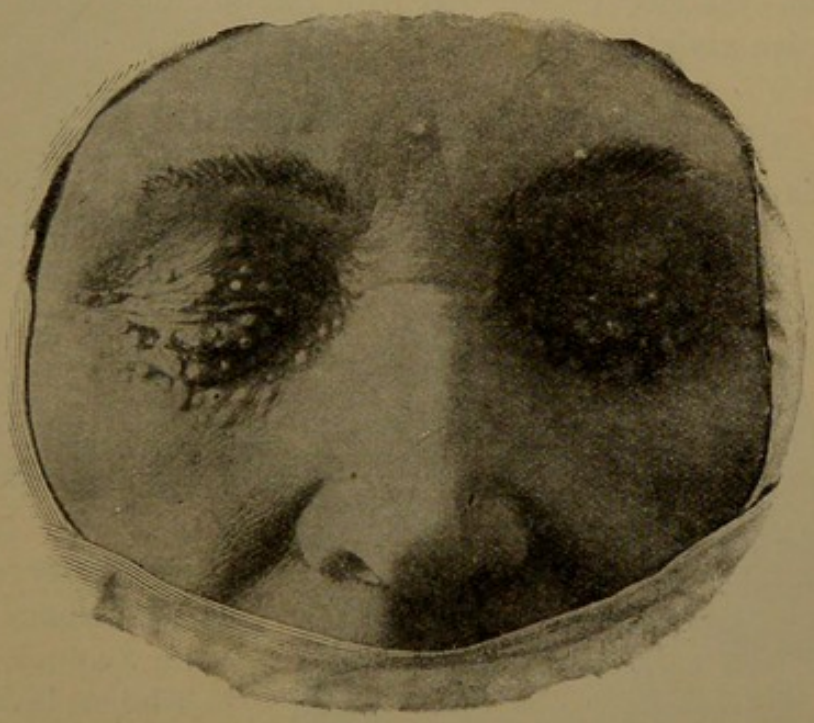


Fig. 52. Molluscum contagiosum of the eyelids.
(Thibierge's patient. St. Louis Hosp. Museum, No. 1672.)

occur on all parts of the body and are mentioned among the general dermatoses (p. 621). They are more common on the face and I describe them with the eyelid on account of the fine example shown in the figure (Fig. 52). There are often 20 or 30 tumours in the same region. At other times they are few and disseminated. They must not be confounded with *milium*.

The treatment is simple and consists in extirpation by a sharp curette. The operation causes very little pain or bleeding.

MILIUM.

Milium is often seen in the eyelids, especially in women, and at about the 50th year. Each grain of milium (*hordeolatum*) is a small white cyst resembling a grain of barley set in the skin. It is of no importance and never becomes the origin of epithelioma.

Treatment is only æsthetic and consists in opening each cyst with a fine galvano-cautery and expressing the contents. If they recur each cyst may be touched with tincture of iodine applied on a wooden stylet.

XANTHOMA. XANTHELASMA.

Xanthelasma may occur on the body (p. 632) and on any part of the face, but its most common situation is the inner half of the upper eyelid. The lower lid is affected secondarily.

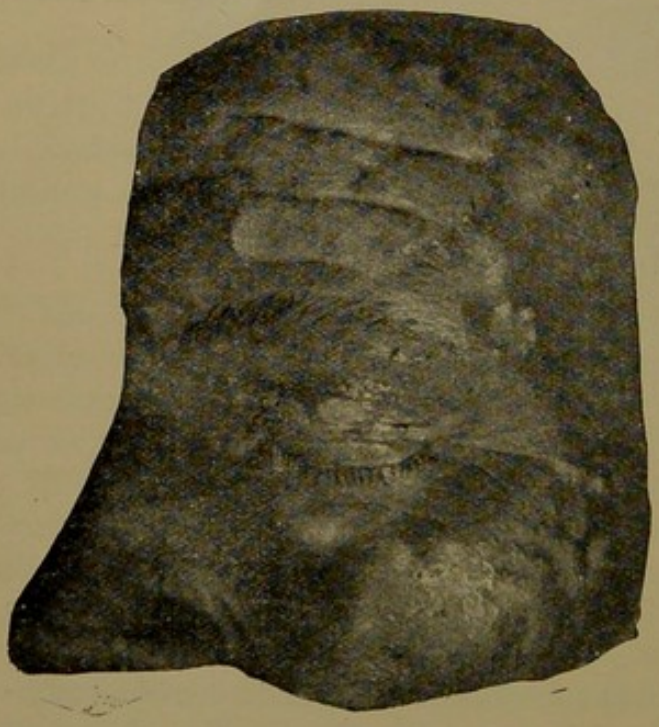


Fig. 53. Xanthoma (Darier's patient. St. Louis Hosp. Museum, No. 1600.)

The lesion of Xanthelasma is very peculiar. It forms under the skin, a flat slightly mamillated tumour of a yellow colour.

This lesion is chronic, nearly always symmetrical, never retrogresses and increases slowly. It is of no importance and never degenerates. It is seldom observed before 40, and occurs in both sexes. His-

tologically it is a special disease the nature of which is not known.

Treatment consists in a series of punctures with a fine galvano-cautery at intervals of one or two millimetres. The lesion disappears after three sittings with intervals of a fortnight.

OPTHALMIC ZONA.

We are ignorant of the nature and origin of zona. It is distributed in the region of the opthalmic branch of the trigeminal. Like all zonas it is unilateral, and the corymbose pustules may cover the frontal region, the hairy scalp, the temporal region, the eyelids and the globe of the eye, on one side.

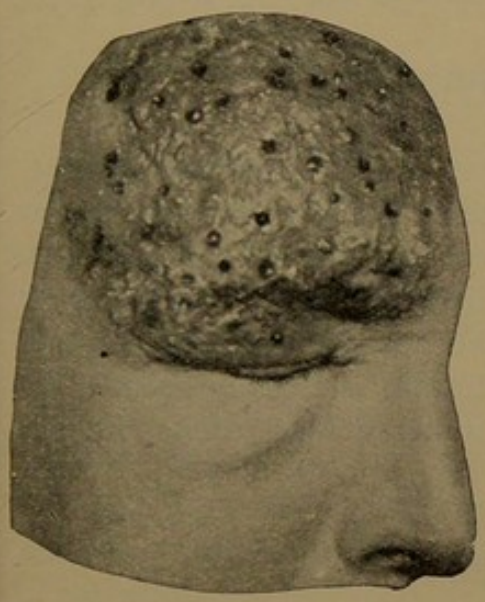


Fig. 54. Ophthalmic Zona. (Danlo's patient. St. Louis Hosp. Museum, No. 1871.)

The pustules on the eye are extremely dangerous. They are nearly always accompanied by hypopion, a crescent of pus accumulating in the lower part of the anterior chamber of the eye. There is therefore great risk of panopthalmitis, but this is not of very frequent occurrence.

There is no treatment for zona. Glycerole of starch and zinc paste have little value and it is doubtful if the most rational treatment of the eye, by permanent warm compresses, has any action in preventing the occurrence of hypopion or panopthalmitis. A protective dressing has, however, the advantage of easing photophobia and putting the eye at rest.

After disappearance of the zona, the persistent neuralgia may be treated with a spray of chloride of methyl, which has given good results.

CILIARY ALOPECIA.

Partial or total loss of the eyelashes is usually an epiphenomenon in the course of generalised alopecia. It then partic-

ipates in the general course of the disease, and its prognosis is the same.

I have once seen an alopecia of a single palpebral border occurring suddenly in a nervous patient. It continued for about four months and the eyelashes grew again almost spontaneously. One can hardly advise daily local applications on the ciliary borders when there is general alopecia requiring much attention. In these cases I simply order an ointment of red oxide of mercury (1 per cent). In localised ciliary alopecia a lotion of lactic or acetic acid may be applied with a wooden match. (Alcoholic solution of lactic acid 16 per cent).

PEDICULOSIS.

Pediculosis of the eyelashes is rare. It is seldom seen except in people who take little care of their person and are for a long time infected with *pediculi pubis*. It is always the *phthirius pubis* which is seen in the eyelids. This should be thought of in cases of blepharitis, of which the cause is not apparent, for the lice hanging on to the palpebral border are not easily seen.

Treatment consists in removing, under a lens, each parasite and each hair bearing an egg.

ECTROPION.

Ectropion is eversion of the eyelid produced by a contractile cicatrix. It occurs after tuberculous lupus of the cheek, after epithelioma and after burns of the face, etc. It can only be cured by a plastic operation.

When very pronounced the eye remains uncovered during sleep and ulcerations of the cornea may occur.

THE EYE.

Of the whole pathology of the eye the dermatologist need only be thoroughly acquainted with a few types.

The first is interstitial keratitis, which is a stigma of hereditary syphilis	Interstitial Keratitis	p. 133
The second is phlyctenular impetigo, which accompanies or follows impetigo of the face . . .	Phlyctenular Keratitis	p. 133
The third is secondary syphilitic iritis	Syphilitic iritis . .	p. 134

INTERSTITIAL KERATITIS.

Interstitial keratitis is a sign of hereditary syphilis. At an excentric point, generally in its lower part, the cornea is rendered opaque by a bluish white interstitial deposit, more marked in the centre of the patch and diminishing towards the periphery. It is always a lesion of childhood, but may become gradually accentuated.

In this white deposit is often seen a group of dark spots of variable size formed by anterior synechia of the iris.

This lesion occurs without other symptoms than progressive diminution of vision when the corneal opacity reaches the centre of the pupil.

Specific treatment does not improve this lesion after it is once established but vision may often be restored by iridectomy. For the dermatologist it is an important element of retrospective diagnosis.

PHLYCTENULAR KERATITIS.

Phlyctenular keratitis is the impetigo of the eye. It consists in an erosion of the cornea resulting from an impetiginous phlyctenule, most often arising in the course of impetigo of the face. It is accompanied by intense photophobia and lachrymation.

The child, more or less covered with impetiginous crusts or affected with impetiginous coryza with nasal discharge (p. 7), holds the head obliquely, the affected eye being held lower or

closed. On separating the eyelids the conjunctiva is found to be suppurating, the eye injected and the surface of the cornea abraded by the small erosive lesion of the impetiginous phlyctenule.

This lesion when neglected lasts a long time; several lesions are produced in succession and the affection may persist for four or six months. Each erosion leaves a permanent bluish corneal opacity. On the contrary, when properly treated the lesions disappear without leaving a trace.

Instillations of sulphate of zinc (1 per cent), repeated several times a day, and warm compresses constitute the best treatment in this affection.

SYPHILITIC IRITIS.

There is a recurring iritis called rheumatic, because the cause is unknown; also iritis is sometimes seen in the course of different infectious manifestations, such as recurrent scarlatiniform erythema; it has even been described in the course of gonorrhœa; but the most common and most characteristic form of iritis is that of secondary syphilis.

It may appear soon after the roseola, but generally occurs later and may be seen at any time during the first year of syphilis.

It presents itself as a circum-corneal ring of congestion, often taken for a cold in the eye, and not very painful. When examined in this stage the pupil is already irregular, presenting a notch at some part of its circumference. If the mobility of the iris is tested by suddenly opening the eye, the effort which the pupil makes to contract exaggerates the deformity.

The lesion is constituted by an inflammatory fibrinous exudation on the posterior surface of the iris, causing immobility. At the pupillary orifice may be seen posterior synechiæ, appearing as a flaky deposit.

This lesion requires intense treatment by injections of grey oil or calomel (p. 49). It is the custom to apply emplastrum of Vigo or grey ointment to the region of the temple; but the injections are more important.

When properly treated the lesion retrogresses and is cured in two or three weeks. The iris regains its mobility and vision is perfect. But when badly treated, or treated too late, the iritis

leaves permanent synechiæ and the pupil remains deformed.

The iris is not always affected alone, the choroid being often attacked. Irido-choroiditis is recurrent and may cause permanent disorders in the fundus oculi. But choroiditis belongs to the domain of the oculist and will not be studied here.

THE EYEBROWS.

The eyebrow presents for examination, first an insufficient development for which we are sometimes consulted . . . . . Atrichia . . . . . p. 136

. . . Or an exaggerated development which unites the eyebrows in the middle line . . . . . Hypertrichosis . . p. 136

Like all hairy regions the eyebrow is a seat of election for pityriasis . . . . . Steatoid Pityriasis p. 137

. . . and for moist eczema which may follow it Eczema . . . . . p. 137

These conditions are often followed by an alopecia which must be recognised and treated . . . Pityroid Alopecia p. 138

The eyebrow is the seat of election of a peculiar disease characterised by a slight hyperkeratosis of the hair follicle and atrophy of the hair . . . . . Keratosis pilaris . p. 139

The line of the eyebrow is a point where a congenital cyst may occur . . . . . Cyst of the eyebrow . . . . . p. 139

It is one of the regions where secondary syphilitic alopecia assumes one of its special forms . . . . . Syphilitic alopecia p. 140

Alopecia of the eyebrows must be recognised although it is generally only an epiphenomenon of severe alopecia . . . . . Alopecia of the eyebrow . . . . p. 140

Lastly, the eyebrow is one of the situations where tubercular leprosy first appears . . . . . Leprous tubercles p. 141

ATRICHIA AND HYPERTRICHOSIS.

Some young girls complain that their eyebrows are too pale and too scanty. Generally they are blondes with fine hairs. A stimulating lotion, such as the following, may be ordered:—

Tincture of Jaborandi	25 grammes	ʒj
Alcohol 90 per cent	250 "	ʒj
Extract of violets	25 "	ʒj

Acetic acid lotions may also be given, which have a tendency to darken the hair:—

Glacial Acetic Acid	1 part
Hoffmann's Liquor	50 parts

On the other hand, some girls complain that the eyebrows join in the middle line. These are hypertrichotic brunettes presenting

in different places a visible downy growth. Electrolysis is the only treatment for this condition and should be confined to the large hairs, leaving the pale down alone(p. 5). This improves the condition and removes the severity of expression caused by this slight disfigurement.

STEATOID PITYRIASIS.

The eyebrow behaves like a detached portion of the hairy scalp, of which it may present all the principal affections, especially the pellicular diseases.

Pityriasis of the eyebrow generally accompanies steatoid pityriasis of the scalp (p. 208). On turning back the hairs of the eyebrow, one sees thick yellow soft pellicles, which may extend slightly beyond the hairy region. This condition is permanent with exacerbations. The fatty condition of the squames is more or less marked; sometimes they are nearly dry, sometimes greasy.

This pityriasis is nearly always diffuse, rarely occurring in circles or semi-circles. In the latter case there are pityriasic circles on the forehead and naso-genial furrow.

Treatment consists first in the application of ointments of tar or sulphur, the action of which is rapid:—

(1)	Precipitated Sulphur Resorcine	aa 1 gramme	gr. 16
	Essence of verveine		q. 3.
	Vaseline	30 grammes	℥j
(2)	Oil of cade	5 grammes	℥ ii fs
	Oil of birch Ichthyol Resorcine	aa 1 gramme	gr. 20
	Lanoline	10 grammes	℥v
	Vaseline	15 grammes	℥j

These ointments are applied at night and washed off in the morning. Good results are also obtained by daily friction with coal tar in Eau-de-Cologne (1 in 7).

ECZEMA.

Steatoid pityriasis, on the eyebrows as elsewhere, is often the origin of subjacent eczematisation, giving rise to discharge and

crusts. The same phenomenon occurs in the moustache (p. 147), the beard and scalp (p. 215); and sometimes eczematisation is produced in all these places. The functional phenomena are pruritus, heat and exudation, the latter forming thick crusts occupying the exact position of the eyebrow and glueing its hairs into a single mass. This eczema, limited to the hairy regions, shows the same tolerance to medicaments, such as tar and sulphur, as pityriasis. These are applied in the form of ointments, by massage:—

(1) Oil of birch Resorcine Ichthyol	aa 1 gramme	gr. 16
Oil of Cade	10 grammes	ʒiv
Lanoline	20 grammes	ʒj
(2) Precipitated Sulphur Resorcine	aa 1 gramme	gr. 16
Ichthyol Vaseline	30 grammes	ʒj

In the morning these are washed off with very mild soapapplied with a badger hair brush; or sweet oil of almonds may be applied first on absorbent wool.

When there is recurrence, local hygienic treatment for pityriasis should be applied.

PITYROID ALOPECIA.

The eyebrow undergoes periodical moulting, but presents besides a more or less marked alopecia accompanying steatoid pityriasis. An eyebrow may thus lose a quarter or a third of its size by a diffuse alopecia accompanying the evolution of pellicles. An almost complete alopecia may occur after eczema.

This alopecia, like those which follow pityriasis in all situations, is curable by the therapeutic methods which act against its cause—tar or sulphur ointments (p. 137). When the cause has disappeared the ointments may be replaced by alcoholic frictions of the type of those which are useful in pellicular alopecia of the scalp:—

Coal-tar (Saponified) Extract of violets	aa 25 grammes	ʒj
Alcohol: 60 per cent	200 "	ʒj
Nitrate of potash	50 centigr.	gr. j
Distilled water	50 grammes	ʒii
Bichloride of Mercury	30 "	gr. ½

Alopecia of the eyebrow may become in hereditary neurotics or the overworked, the origin of phobias of the type we shall speak of later (p. 145).

KERATOSIS PILARIS.

Keratosis pilaris appears to be an affection resulting from a congenital cutaneous dystrophy, but which is especially marked in the second period of infancy, becoming more and more apparent during adolescence. The lesions are first seen when the face is flushed by exercise or emotion. The cheeks and temples up to the line of the eyebrow as well as the supra-superciliary regions are covered with red points consisting of horny follicular elevations, conical and truncated, and each surrounded by a minute red areola. In repose these dots are much less apparent and of a yellow barley sugar colour. After friction they become red and prominent. The hairs of the modified region, emerging from the horny cone, are seen to be dystrophic and downy. When, as is the rule, the temporal and supra-superciliary affection invades the eyebrow externally, this process is accompanied by progressive atrophy of the line of the eyebrow (*Brocq*). In severe cases only the internal part of the eyebrows remain, resembling the supra-orbital feathers of an owl. These dry, slightly inflammatory lesions terminate in follicular sclerosis and permanent disappearance of the hairs, leaving a punctiform cicatrix.

This affection has been connected to keratosis pilaris of the back and arms, but is not quite identical and often does not occur in the eyebrows of patients whose arms are covered. It has also a relationship to the pseudo-alopecia of Brocq (p. 224).

Treatment by reducing agents, such as sulphur, salicylic acid and resorcine is the only satisfactory one. Strong doses must be used to erode and exfoliate the horny epidermis:—

Salicylic acid	aa 1 to 5 parts	gr. 16 to ʒj fs
Resorcine		
Precipitated Sulphur . .		
Vaseline		ʒj

This is applied at night and washed off in the morning.

CYST OF THE EYEBROW.

This congenital deformity, for which the dermatologist is sometimes consulted, is fairly common. At the line of the eyebrow and

a little above it is a small tumour the size of a pea or nut which persists without causing symptoms. It is due to imperfect obliteration of part of a branchial cleft. The treatment is surgical.

SYPHILITIC ALOPECIA.

The alopecia of secondary syphilis may affect all the hairs of the body. It is sometimes characteristic on the eyebrows, and it is not uncommon for the clinician to diagnose syphilis from this appearance.

It resembles a series of snips by scissors made transversely and dividing the eyebrows in pieces. It is especially marked on the inner half of the eyebrow. The hairs are easily removed by the fingers. The scalp at the same time presents parietal alopecia in patches (p. 228). On the body and mucous membranes there are other signs of syphilis.

Local treatment may be given if the patient desires it (as in pityroid alopecia (p. 133), but general treatment is the only one of importance, and the patient should be informed that the disease is not cured when the eyebrows have grown again.

ALOPECIA AREATA OF THE EYEBROW.

Alopecia areata of the eyebrow has no clinical characters, and only occurs in conjunction with the same affection of the beard and scalp. Usually the eyebrows present circumscribed or diffuse patches, in severe cases of alopecia areata of the scalp or beard progressing towards total baldness. Also in old cases of alopecia areata a single patch may exceptionally occur in the eyebrow. The Alopecia areata of the eyebrow is thus only an episode in the course of the more general affection, which we shall study on the scalp (p. 219) and in all hairy regions.

Local treatment is the same as for the scalp, and the skin of this region usually supports the same medicaments in the same doses.

Growth of the eyebrows almost always follows that of the patches on the scalp, and treatment of the eyebrows in cases of general alopecia may be comparatively neglected till regrowth of the hair is obtained.

LEPROUS TUBERCLES.

Tubercular leprosy, of which we have already spoken (p. 23) and which causes the leonine face, begins generally in the eyebrow in the form of irregularly disseminated intra-cutaneous nodules, causing falling of the hairs. These nodules rarely ulcerate, but generally persist or increase in size and number to form a moniliform tumour occupying the whole extent of the eyebrow. At this time the appearance of the rest of the face is enough to make a diagnosis of the disease (Fig. 10).

I shall refer briefly to the general clinical history of leprosy with other exotic diseases (p. 655).

THE REGION OF THE MOUSTACHE.

Young girls or young women consult the physician, because the down on the upper lip has an excessive development	Hypertrichosis . .	p. 142
Young men, because the development of the moustache is insufficient	Atrichia	p. 143
In other cases the hairs of the moustache present numerous nodosities at the level of which the hairs break off	Trichorrhexis nodosa	p. 144
. . . Or the hairs are divided in the form of a brush	Trichoptilosis . .	p. 145
In the latter case falling of the hair occurs, which in neurotic persons may give origin to a severe fright	Phobia of Pityriasis	p. 145
The moustache is often affected with pellicular affections or pityriasis, dry or fatty	Pityriasis	p. 146
Some neurotics epilate themselves without reason, thus causing an artificial alopecia	Trichotillomania .	p. 146
The moustache may be the seat of the weeping eczema with greenish yellow crusts, generally limited to the hairy regions	Eczema	p. 147
The moustache is also the seat of pustular affections, of considerable importance and difficult treatment	Sycosis	p. 149
It may be attacked by alopecia areata	Alopecia areata .	p. 150
Lastly it presents, although rarely, a parasitic disease characterized by the imbedding of hairs in a hard greenish brown substance of a dirty appearance	Piedra nostras . .	p. 151

HYPERTRICHOSIS.

Young girls or young women consult the physician for removal of the down on their upper lip. These cases are of different degrees.

In the case of a uniform fine downy growth the application of oxygenated water is sufficient to render it invisible. A series of 10 applications is made with absorbent wool moistened with pure oxygenated water, with intervals to allow the last application time to dry.

If there are large hairs scattered at intervals, or a true moustache, the only efficacious remedy is electrolysis of each hair. Certain

ladies prefer the indefinite use of the epilation forceps, but the hair thus removed always grows again and slowly increases in size.

The larger hairs may be destroyed by electrolysis and the subjacent down bleached as above.

In all cases epilation by pastes or liquid depilatories is to be condemned. They leave the lip blue, as after shaving; they are painful, require frequent renewal, and give the lip the appearance of an imperfect beard.

Radiotherapy is not indicated here to provoke epilation, for it only acts on adult hairs and not on down. It is thus much easier to remove the moustache of a man than the downy growth of a woman. The latter seldom falls without radiodermic erythema, and grows again three months later.

Electrolysis for the destruction of hairs, being most often employed for removal of the moustache in women, may be described in detail here. The necessary instruments are: (1) A battery of small cells with a continuous current of regular action; (2) a rheostat; (3) a milliamperemeter; (4) a positive pole consisting of a metallic cylinder covered with chamois leather and moistened with salt water; (5) a negative pole with the electrolytic needle, as fine as a pig's bristle, slightly blunt at the end, and bent to 45° at ¼ inch from the point.

The needle is introduced in the follicle up to the hair papilla, the patient holding the positive cylinder. After 4 to 10 seconds a little froth appears at the hairy orifice indicating destruction of the hair. The hair then comes away without resistance. A current of 4 to 10 milliamperes may be used according to the size of the hair. As a rule 4 or 5 milliamperes are sufficient. The best operators may destroy 30 hairs at a sitting, allowing for 3 or 4 failures, which have to be repeated. The patient should be informed of the slowness of this method and the number of sittings which are necessary. There are generally three times as many hairs on a given surface as were at first expected. Electrolysis after destroying the large hairs may cause a supplementary development of the down, but this is rare.

ATRICHIA.

In certain young men the moustache grows slowly and scantily. These cases are often hereditary and cause much distress in certain

neurotic subjects. Revulsive and stimulating applications may be prescribed, but without giving a guarantee as to the result; which is always slight. But the prescription may have a moral effect.

(1)	Alcohol 60 per cent. . . .	aa	25 grammes	aa ℥ fs
	Acetone			
	Glacial Acetic Acid . . .		50 centigrammes	gr. v
(2)	Hoffmann's Liquor . . .		50 grammes	℥j
	Distilled water		25 centigrammes	aa m ii
	Hydrochlorate of pilocarpine . . .			
	Nitrobenzine		5 drops	m vii

TRICHORRHEXIS NODOSA.

This peculiar affection, which is rather common on the moustache, is always more marked there than on the beard, where it is sometimes observed. It is more rare on the scalp. The cases differ considerably in degree.

Slight cases are often not noticed. In medium cases the moustache is rough and presents hairs broken at different lengths, and a multitude of fine white points. Each of these white points is a nodosity on the hair. Some hairs show from two to six in a row, at unequal intervals, for 3 or 4 centimeters of the length of the hair. There may be hundreds of such hairs, which break off at one of the nodosities when pulled upon, presenting a brush like end (*trichoptilosis*).

In very marked cases the moustache is short and rough as if cut by scissors, where the hairs are broken off. These cases are always the result of bad treatment. The moustache has a russet aspect and the hair appears artificial and relaxed.

The hair, examined by the microscope, shows changes which explain the fracture, although they differ very much from the naked eye appearance (Fig. 55).

The etiology of trichorrhexis nodosa is obscure. A microbial origin has been suggested, but this is not proved. All we know is that, in certain individuals, daily washing with soap is sufficient to cause this change. But, on the microbial theory, washing with soap is

increased and the points of trichorrhexis multiply. It is thus that all severe cases are caused. On the other hand cases occur on mous-

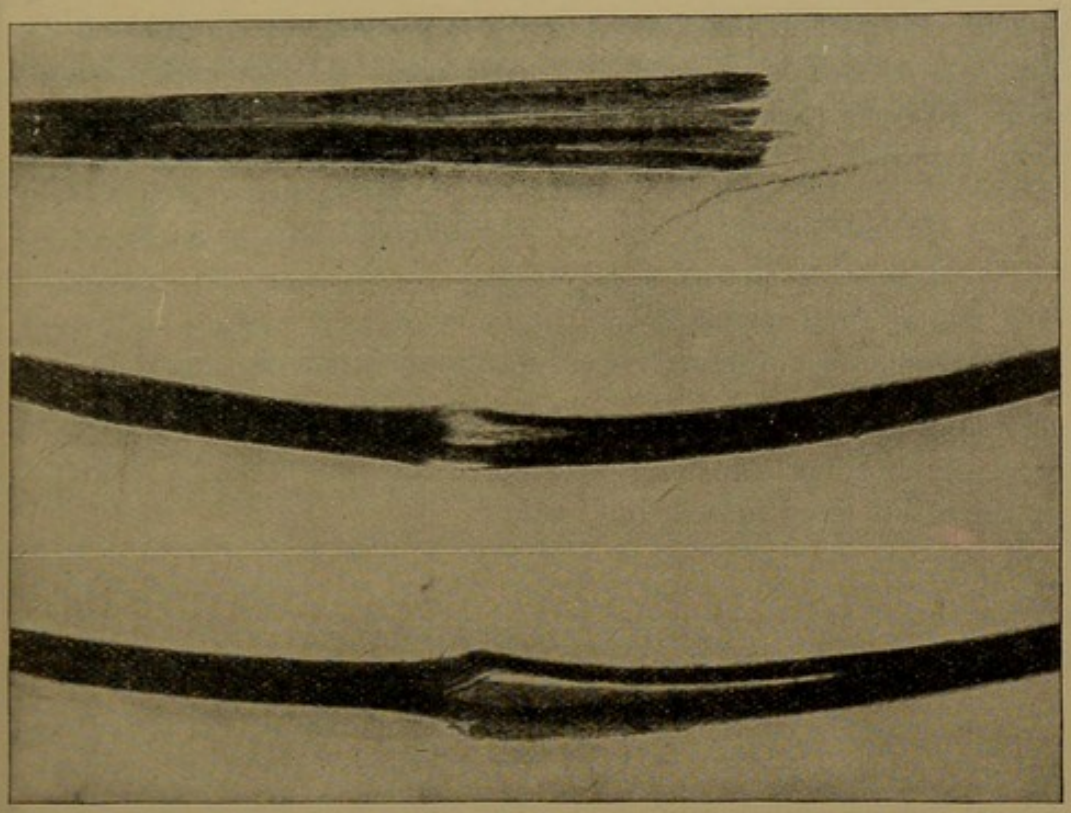


Fig. 56. Moustache hairs with nodosities of trichorrhexis, and after fracture at these points. Magnified 60 diameters.
(Preparation by Sabouraud. Photo by Noiré.)

taches which have never been soaped and the origin of these is doubtful.

TRICHOPTILOSIS.

This alteration of the hair is of mechanical origin caused by too frequent brushing and soaping, etc. Certain hairs, more fragile than the others, appear to be particularly predisposed. There is no further treatment than for trichorrhexis nodosa. The affected hairs should be cut and brilliantine applied.

PHOBIA OF PITYRIASIS.

Certain adolescents and adults consult the physician on account of continued loss of the hairs of the moustache. These patients are invariably nervous nosomaniacs and the loss of hair is a delusion.

Examination shows either a slight degree of local pityriasis; or the loss of only three or four hairs altogether.

Treatment should be directed against the nervous condition by assuring the patient that he will not lose his moustache and that the daily loss of hair is normal. Prescribe daily friction with an antiseptic alcoholic lotion which will correct the pityriasis and act as a moral remedy.

Alcohol 60 per cent	250 grammes	℥j
Spirit of lavender	aa 25 "	℥j
Coal Tar (saponified) . . .		
Bichloride of Mercury . .	30 centigrammes	gr. ½

Explain to the patient his nervous condition and his delusion and direct the re-education of his will power on this point. He should get rid of his fixed idea, as he made it.

TRICHOTILLOMANIA.

Some patients, of the same nosomaniac group as the preceding, consult the physician for alopecia of the moustache. They complain of local itching and tingling and other subjective symptoms; "when they touch a hair it comes out by itself," etc.

These are neurotics with pityriasis in this region as well as on the scalp and eyebrows, in whom local itching has caused a mania for epilation. They pull out hair after hair to see if it is affected, thus causing bald patches, which in turn leads to further epilation of the supposed diseased hairs.

These neurotics, who are generally intelligent, should be informed of the mechanism of their mania, and be given a local anti-pellicular treatment.

PITYRIASIS.

When the moustache is fully developed it frequently becomes in the adolescent and the adult the seat of a pellicular affection limited to the region of the skin which it covers:—*pityriasis.*

This affection occurs in other situations and will be specially studied with diseases of the hairy scalp (p. 207). In the moustache

it occurs in two forms, dry and fatty. The dry form *pityriasis simplex* is rare and unimportant, consisting of some local itching and fine floury scales, produced by scratching.

The fatty form, *pityriasis steatoides*, is more common and more unpleasant and forms numerous semidetached epidermic scales, yellowish and greasy, disseminated between the hairs at their base. The affection is accompanied by itching and the loss of 5 to 10 hairs a day, which does not, however, cause visible alopecia, much less total loss of the moustache.

Steatoid pityriasis of the moustache is usually a local manifestation of a similar disease affecting all the hairy regions and some smooth areas, such as the intermammary region and the naso-genial fold.

The etiological conditions are:—adolescence, the male sex; a skin with a fatty tendency; blonde or red hair; an easily excitable vaso-motor system and habitual congestive reflex. Pityriasis is common in overfed persons.

The microbial flora is constant, and consists in the *Pityrosporum Malassezii* (bottle-bacillus of Unna); and the skin coccus with grey culture.

Pityriasis of the moustache is easily improved, but difficult to cure on account of rapid recurrence. It becomes spontaneously attenuated in the course of time. It requires local hygiene rather than true treatment, such as daily friction with Eau-de-Cologne or the following:—

Alcohol (60 per cent) . . .	250 grammes	℥j
Spirit of lavender	aa 25 "	3j
Coal Tar (saponified) . . .		
Bichloride of Mercury . .	30 centigrammes	gr. ½

ECZEMA.

Eczemas limited to the moustache, like those of the beard and all hairy regions, generally arise from a previous pityriasis. They preserve a tendency to be exclusively limited to hairy regions and their treatment resembles that of pityriasis rather than that of acute eczema.

These eczemas, with their serous exudation, often insidiously replace pityriasis, with its fatty scales. They are sometimes, however, rather acute at first. The serous exudation coagulates on

the moustache, as a greenish brown wax, of soft and fatty consistence (seborrhœic eczema). Under the crust the skin is red, and secretes, by numerous punctiform erosions, droplets which form the crust.

The cause of this eczema, like that of all eczemas, is unknown. In the horny epidermic debris is found the flora of pityriasis. Occasionally the lesion becomes impetiginous and assumes the characters and flora of impetigo (p. 7).

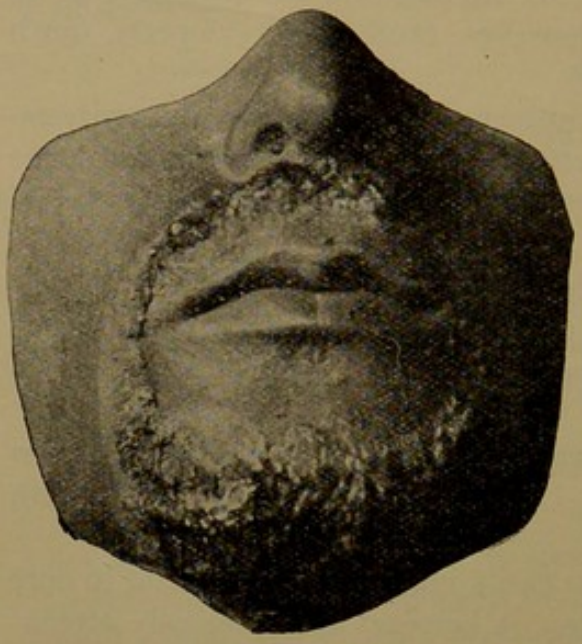


Fig. 56. Eczema of the moustache and chin.
(A. Fournier's patient. St. Louis Hosp. Museum, No. 946.)

Usually, during the whole of the affection, the crust remains amicrobial. This affection does not therefore appear to be due to a secondary infection of pityriasis. This eczema was formerly classed among the "ichors" of lymphatic subjects. It is more often seen in adolescents, blonde or red, with soft and fatty tissues. But lymphatism, like all diasthetic conditions, is wanting in precise definition.

Treatment. Remove the crusts with oil of vaseline and apply weak preparations of sulphur or oil of cade.

(1)	Precipitated Sulphur . . .	30 centigrammes	gr. 5
	Vaseline	30 grammes	℥j
(2)	Oil of Cade	2 grammes	ʒ fs
	Lanoline	30 "	℥j

These may be increased in strength later:—

(3)	Oil of cade	5 to 15 grammes	ʒiii to ℥j
	Lanoline	15 grammes	℥j
(4)	Precipitated Sulphur . . .	1 to 3 grammes	gr. 16 to 48
	Vaseline	30 grammes	℥j

The patient should also use tar or sulphur soap.

ECZEMAS NOT LIMITED TO THE MOUSTACHE.

Eczemas which have a tendency to become generalised on large surfaces may affect the region of the moustache. If they have an evident predilection for this part it is because the eczema approaches the type described above. In other cases its localisation on the moustache presents nothing special. These eczemas will be studied with the other chief dermatoses (p. 560).

SYCOSIS.

Sycosis of the moustache is a pustular affection presenting a remarkable tendency to chronicity and to recurrence after apparent cure. There are two types:—

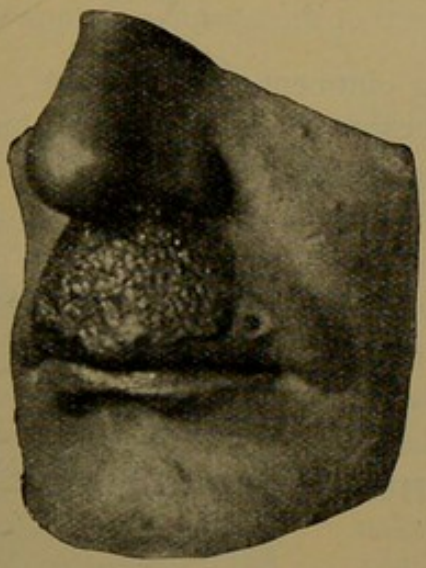


Fig. 57. Sub-nasal Sycosis consecutive to chronic anterior rhinitis. (Besnier's patient. St. Louis Hosp. Museum, No. 813.)

In the first the sycosis is limited exclusively to the region of the moustache; in the second it is common to the region of the chin and cheeks as well as the moustache. The latter, which is very different to the first, will be studied with diseases of the beard (p. 153).

Sycosis limited to the Moustache. This always commences under one or both nostrils and often remains confined to this region. It arises in successive outbreaks of follicular pustules of the type of impetigo of Bockhart (p. 183). These pustules are greenish yellow, dome-shaped, pierced by a hair and surrounded by a red areola. These areolas fuse together, and the pustules develop on a slightly raised surface of inflammatory œdema, which disappears so much the more slowly as the pustules are reproduced more often.

Sycosis is the third act of a clinical history which is always the same. A ciliary blepharitis begins in adolescence and a rhinitis follows it; and, after some years, the nasal mucus inoculates the lip. Thus sycosis of the moustache is always the consequence of a "cold in the head," chronic or recurrent. The microbe of the pustules is the staphylococcus aureus.

Sycosis is permanent, or at any rate recurs at each fresh attack of rhinitis. Usually it only becomes permanent after several recurrences. When once established there is no spontaneous tendency to disappear and even careful treatment succeeds with difficulty.

Treatment. The blepharitis and rhinitis should first be treated by irrigation with saline solution (8 in 1000), or isotonic sea water diluted with two thirds of pure water. During the attacks care should be taken that the nasal mucus does not soil the lip. The pustules should be opened every morning and cauterised with a saturated alcoholic solution of boric acid. At night the following is applied with a brush:—

Alcohol 60 per cent	.5 grammes	℥fs
Precipitated Sulphur	.1 "	gr. 48
Distilled water	.5 "	℥fs

If this lotion is not tolerated, sulphur ointment may be tried.

Epilation with forceps causes disappearance of the sycosis, but this re-appears with new growth of the hairs. Nevertheless it is the best treatment for chronic sycosis, but must be continued for a year or more without interruption. The X-rays, especially in cases with inflammatory œdema, have given good results in the dose of 2 or 3 units H, after 4 or 5 sittings with 15 days intervals, No result is permanent as long as the rhinitis recurs.

ALOPECIA AREATA OF THE MOUSTACHE.

Alopecia areata is seldom limited to the moustache. When this occurs the bald place often affects, on the left side, the exact situation of hare-lip. It resembles alopecia of the beard in its very slow evolution and difficulty in cure. The patch is more often completely bare than covered with down, and in this respect it resembles alopecia of the scalp more than that of the beard (p. 153).

On the marginal hairs it is often easy to observe the retrogressive changes which lead to their atrophy and disappearance; i.e., diminution of pigment and of diameter. The patch is often cured on one side while extending on the other. Cure is announced by the appearance of scattered white hairs, which increase in number and gradually resume their pigmentation. The evolution of a patch of alopecia on the moustache generally exceeds a year. When it occurs as an epiphenomenon in the course of alopecia areata of the

scalp and beard, the prognosis depends on that of the affection of which it forms a part (p. 219).

The etiology of alopecia of the moustache is as obscure as that of alopecia in general. Recently Jacquet has shown a case which appeared to be connected with neuralgia due to chronic infection of the root of a canine tooth; but many similar facts are necessary to establish such a theory.

The usual treatment by revulsives gives only moderate results and cannot be maintained energetically without causing disfigurement. Hence, local treatment of alopecia areata of the moustache is almost illusory. Daily frictions may be given with glacial acetic acid in alcohol (2 per cent) or lactic acid in alcohol (12 per cent). The irritation caused by revulsive treatment may be partly concealed by applying burnt cork to the patch.

PIEDRA NOSTRAS.

This is a rare affection which I have only seen once in the moustache. It is said to be more rare in the moustache than in the axillæ and pubes. I will describe the case which I have seen.

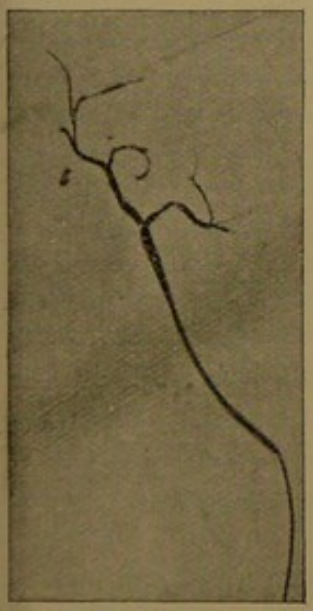


Fig. 58. Hair of moustache affected with Piedra Nostras. (Preparation by Sabouraud. Photo by Noiré.)

In an extremely thick moustache the affection was exactly limited to the subnasal segment on each side. At this point every second or third hair appeared to the naked eye to have been dipped in paste, which had dried on it. This formed a brownish coating which was very resisting. When the hair was pulled upon it did not come out, but broke off as in trichorrhexis nodosa, and the split extremity was curved and twisted. (Fig. 58.)

It appeared to me that a physical condition favoured the development of the parasite. The hairs of the nose were continued without interruption with the moustache, so that the nasal orifice was almost completely obstructed. Hence the moustache, under the nostrils, was continually warm and moist, and infection of the hairs appeared to arise from the nostrils. Microscopic examination

of the parasite was easily made by the methods recommended for ringworm, i.e., immersion and warming in a solution of liquor potassæ and examination without staining. The hard sheath of the hair is constituted exclusively by the parasite. I cannot better compare its form than to that of a series of artichoke heads juxtaposed, which are separated by the potash and which consist of an agglomeration of spores on a highly refractive mycelium arranged in bunches. The parasite is easily cultivated on all media. On glucose-gelose it forms a round, white cultivation which becomes brown during growth. Inoculation has not yet been carried out.

Treatment. Epilation of the diseased hairs did not prevent the neighboring ones becoming affected in their turn. Simple shaving, long continued, apparently cured the affection. In a similar case I should prescribe epilation of the nasal and sub-nasal hairs, so as to maintain an open space under the nostril and alter the conditions of warmth and moisture which the parasite appears to require. A number of antiseptics had been tried without success by the patient, who was a medical man.

THE REGION OF THE BEARD.

The dermatological affections of the beard are numerous and require definite order in their explanation.

1. *We shall first treat of diseases which cause complete disappearance of the hairs; incomplete atrophy, and blanching*	Alopecia areata . p. 153 Vitiligo . . . . . p. 155
2. *We shall next speak of diseases of the hair itself, and first of all of a great increase in size of the hair which constitutes a rare disease* . . .	Hyperplasia . . . p. 155
And of trichoptilosis and trichorrhexis nodosa which occur in the beard and moustache	Trichoptilosis . . p. 156 Trichorrhexis nodosa . . . . . p. 156
Next of trichophytosis in the two dry forms which it affects, simulating ichthyosis pilaris	Dry Trichophytosis . . . . . p. 157
. . . And trichophytosis of the type identical with trichophytosis of the infant	
3. *We shall then pass on to the study of diseases of the follicle with trichophytosis of the sycosiform and impetiginous types*	Trichophytic Sycosis . . . . . p. 157
. . . And with trichophytosis of the follicular type	Kérion Celsi . . . p. 158
Non-trichophytotic folliculitis will occupy us next: dry, red folliculitis; pustular folliculitis and furuncle, and phlegmonous or cystic folliculitis: morbid forms which are commonly united under the term of non-parasitic sycosis.	Staphylococcic Sycosis . . . . . p. 159
4. *Lastly we shall treat of diseases of the beard affecting more especially the cutaneous surface itself: at first the pellicular affections, pityriasis simplex and steatoides:*	Pityriasis . . . . . p. 161
. . . The dry and moist eczema:	Eczema . . . . . p. 162
And the lesions of true impetigo.	Impetigo . . . . . p. 164
We shall mention the secondary syphilitic lesions of this region which may simulate a dry eczema or impetigo.	Syphilis . . . . . p. 164
And we shall conclude by devoting a few words to erythematous and tuberculous lupus situated in the region of the beard.	Lupus . . . . . p. 164

I. ATROPHY OF THE HAIR.

Alopecia Areata of the Beard.

Alopecia of the beard may occur alone or in association with alopecia areata of the scalp, or more or less general alopecia.

General Alopecia. This has the character and the prognosis of severe alopecia. It is accompanied by a shiny condition of the skin of the cheeks, a thinning of the dermis with flaccidity of the skin (*"hypotonus"* of Jacquet) and a total disappearance of hair on the beard, moustache, eyebrows, scalp and the whole body. In these cases, which we shall study later on (p. 219), local treatment is of little importance and general treatment is rarely successful in giving definite or rapid results.

After months or years, these cases may end in complete restoration of atrophic downy hair; or there may be transient successive restorations in the course of an alopecia of indefinite duration; or there may be no return of hair at all. The face remains smooth and permanently wrinkled for 10 or 15 years or more. Complete restoration of hair, in these cases, is very rare.

Common Alopecia. Benign alopecia of the beard presents a less regular type than that of the scalp.

There is one form with small, multiple, transient and recurrent areas, but this is rare. The large areas of alopecia of slow evolution are the rule. Their situation is indifferent and their form irregular, with a rounded outline. As a rule their duration is proportional to their size, and for the same size an alopecia of the beard is two or three times as slow in evolution as one on the scalp. In many cases there is diminution in diameter and in pigmentation, but no disappearance of the hairs, and in these cases the affected area is never smooth. The same hair remains and eventually regains its colour and diameter. These atrophic hairs may be mistaken for hairs in process of restoration.

Local treatment of alopecia of the beard always gives less favourable results than that of similar alopecia of the scalp. The mildest case lasts for 12 or 18 months. The hairs gradually regain their diameter and colour, but very slowly, and one patch may arise while another is being cured.

The etiology of this alopecia is unknown, or, at any rate disputed. In my opinion the theory of dental origin is not applicable to most cases and remains to be proved in the others. The existence of former syphilis is too often observed to be a coincidence. It must be borne in mind, as well as hereditary syphilis, in all cases of severe, chronic recurrent alopecia. Even in these cases internal treatment is doubtful and requires to be given systematically. For local and

general treatment of alopecia of the beard see those for the scalp (p. 219).

The skin of this region being more irritable than the scalp, milder doses of stimulating applications are required (glacial acetic acid 2 per cent in *Hoffmann's* liquor, or lactic acid in alcohol 16 per cent).

In many cases local treatment has no appreciable effect in the evolution of the disease.

VITILIGO.

Vitiligo of the beard differs from alopecia areata by hyperpigmentation of the lesions around those where the skin is depigmented. Cases occur where differential diagnosis is impossible and the two diseases may be of the same origin.

The affected areas are irregular, asymmetrical with rounded outline, and the hairs, which may be diminished in number, preserve their size but lose their pigment. They are silvery white. The skin is depigmented, milky white and sometimes wrinkled and senile. Around these lesions the skin is normal except for a brown hyperpigmentation. The lesion generally extends beyond the hairy regions on to the cheeks, temples, neck and scalp. Certain vitiligos are not accompanied by discoloration of the hairs.

Little is known of the etiology and treatment of vitiligo (p. 613). Topical applications have hitherto proved futile, but there is no reason why high frequency and radiotherapy should not be tried. There is often a history of former syphilis in cases of vitiligo.

II. DISEASES OF THE HAIR.

Hyperplasia.

I refer here to a morbid process in which the hairs, principally on the cheeks, assume, without any known cause, unusual forms and dimensions. The hair is large and deformed, and sometimes appears as if two hairs were joined together laterally. They may show various forms in section and are also twisted like tree stumps. This condition of the hair is not accompanied by any lesion of the skin, except occasionally a collar of follicular desquamation. There is no follicular lesion except dilatation necessary to allow exit of the hair, which is broken spontaneously at a distance of several millimeters from the skin. The diseased hairs are mingled in various propor-

tions with the healthy hair and often occur in groups. They are covered with a vitreous, almost glairy, epithelial sheath.

The etiology of these rare lesions is unknown and no parasite is found on microscopical examination. The evolution is very slow and ends neither in cure nor cicatrisation. No treatment gives any result, but I should be inclined to advise epilation by forceps, as was formerly practised in favus (p. 199).

TRICHOPTILOSIS. TRICHORRHEXIS NODOSA.

Here, as elsewhere, trichorrhexis causes trichoptilosis. These are allied affections, although trichoptilosis may occur without trichorrhexis, on beards which are too frequently washed with hard soap. These two affections, the termination of the hair in the form of a brush or feather (trichoptilosis), and the existence of fine white nodosities near the end of the hair, at the level of which the hair bends and breaks, are less common and less marked in the beard than in the moustache. In the beard they are most frequent on the two sides of the chin (see p. 144 & 145).

TRICHOPHYTOSIS OF THE BEARD.

Trichophytosis of the beard is rare, but of a different type to that of the scalp. There are two very different clinical forms; one in which the lesions of the hair are accompanied by exudative or suppurative lesions of the follicle (p. 157), and one in which there is no inflammatory lesion of the follicle; a type identical with the common ringworm of children, or one in which the inflammatory lesion is reduced to a dry folliculitis in the form of ichthyosis pilaris.

FORM IDENTICAL WITH THE COMMON RINGWORM OF CHILDREN.

A few scurfy circinate lesions of the skin may occur, but these may be absent. The lesions of the hairs are slight, but visible to the naked eye, and characteristic. Black hairs may be observed, in groups or singly, larger than normal hairs, soft and twisted in the epidermis in the form of a corkscrew, comma, or note of interroga-

tion. When raised with a needle these hairs break and are found to be filled with the spores of a fragile trichophyton forming a violet culture; the *Trichophyton violaceum,* a species, probably of animal origin. The two cheeks are affected, often successively, in twenty or two hundred points, each including from 2 to 6 diseased hairs. The evolution of this trichophyton is always chronic and lasts for 2 to 5 years or more. Treatment by shaving followed by applications of tincture of iodine (1 in 5) gives moderate results, or cure in 10 to 18 months. Treatment by X-rays may be given in mild doses every week, to the extent of three applications of half tint B of the radiometer X. This should be repeated on parts which have been incompletely depilated.

DRY TRICHOPHYTON IN THE FORM OF ICHTHYOSIS PILARIS.

A few lesions occur on the skin, sometimes similar to those of the preceding species, but with larger circles. The diseased hairs of the beard are broken at a short distance from the skin. They are generally numerous, with few normal hairs between them. Around each broken hair is a conical follicular projection, 1 to 2 millimeters in height, crateriform when the hair breaks off deeply, or surmounted by the hair broken a millimeter beyond it. The hair is large, white and chalky, like the follicular cone from which it emerges, and is broken by epilation. Microscopical examination shows large round spores, arranged in rows and surrounded by a fine mycelial network with regular septa, external to the hair. It forms a white, downy, cup shaped culture presenting on the upper surface a large black spot. The culture is flattened longitudinally and the surface assumes a red colour. (*Trichophyton rosaceum:* probably of avian origin in many cases, and experimentally proved in several). The treatment is the same as for the preceding species.

III. DISEASES OF THE FOLLICLES.

Trichophytosis with Follicular reaction.

We shall now study diseases of the beard accompanied by follicular lesions. Several ringworms are included in this class.

Sycosiform and Impetiginous Trichophytosis. The symptoms of this form vary in different cases. Sometimes the lesions form moist, red, impetiginous patches of epidermatitis, in the region of which trichophytic hairs are scattered among healthy ones. At other times the lesions form folliculitis, not agglomerated, but scattered, resembling those of pustular or indurated acne. Sometimes they project from the skin in a semi-fungating form, formerly called sycosis.

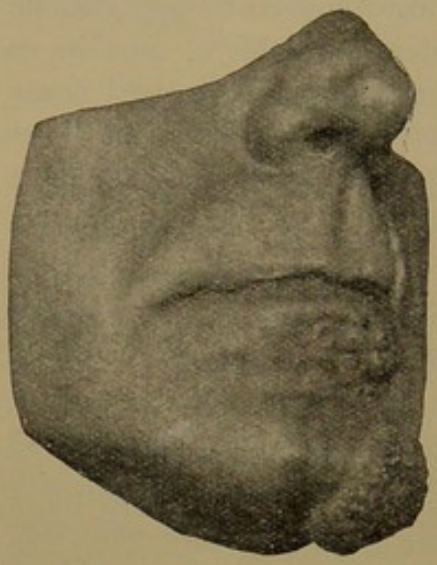


Fig. 59. Trichophyton of equine origin. Kérion de Celse. (Besnier's patient. St. Louis Hosp. Museum, No. 1733.)

The diseased broken hairs are few and scattered, and project for one to two millimeters from a grey epidermic collar, which often adheres to them. The parasite, having a more resisting mycelium than the preceding species, is formed by rows of large spores (*endo-ectothrix*). The culture is powdery, yellow and very analogous to that of the common ringworm of children (*T. crateriforme*). These are said to be identical, but the question is not settled. (*T. flavum.*) The treatment is the same as for the two preceding species, and the greater the inflammatory reaction, the better the prognosis.

Trichophytosis Known as Kérion Celsi.—This forms one, two or three red projections on the skin, more or less circular and riddled with pustules and scabs in all stages. Pus may be expressed from all the hair follicles. The objective symptoms are very analogous to anthrax, but the functional symptoms, especially pain, are much less marked.

Epilation of the surface is painless, and all the hairs are spontaneously detached in whole. Most of the hairs are not trichophytic, excepting the small downy hairs around the lesion. When the lesion is cleansed it is riddled with holes like a sieve. Microscopical examination should be made of the pus (sporulating mycelium), rather than of the diseased hairs, which are always difficult to find (*endo-ectothrix* with fine spores in chains). Culture is always easy and pure when an unbroken pustule is taken. (*Trichophyton gypseum*

pyogenes). This trichophyton has been experimentally shown to be of equine origin, and the occupation of the patient (groom, coachman, veterinary surgeon, knacker, harness maker) often indicates, but not always, the origin of the infection.

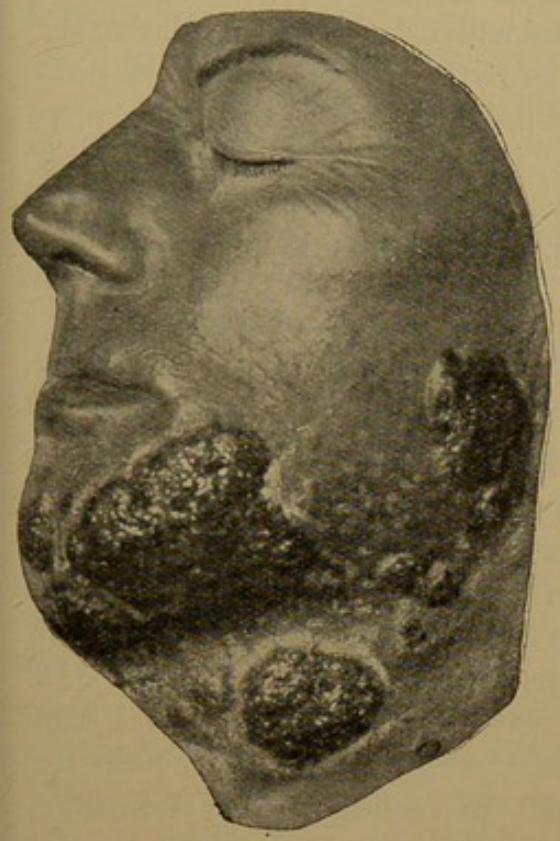


Fig. 60. Trichophytosis in the form of agminated follicles. Kerion Celsi. (Quinquaud's patient. St. Louis Hosp. Museum, No. 1679.)

Kérion Celsi may occur apart from the beard, on the neck, wrists or scalp; both in children and adults.

Treatment consists in careful cleansing, removal of scabs and dead hairs, painting with tincture of iodine (1 in 10) and moist dressings. The cure is rapid, provided the applications are not too strong.

Rare forms of trichophytosis.—Other mycoses of the same group may be seen in the same region, with slightly different characters, and varying in epidermic lesions; large or small circles, vesico-pustular or squamous, more or less inflammatory, etc. Bodin has observed in the beard a *Microsporum Audouini* of equine origin; the lesions in the beard being identical in form with those of the *Microsporum* of the child's scalp (p. 189).

STAPHYLOCOCCIC SYCOSIS.

This disease is homologous in the adult beard with the impetigo of Bockhart in the child (p. 183). It is a pustular folliculitis occur-

ring in patches, of chronic evolution, paroxysmal, and recurring after cure. The microbe is always the *staphylococcus aureus*. The causes which favour its implantation and growth are unknown. A pustular path formed of follicular pustules appears on one cheek and grows by the addition of new pustules. The patch is irregular, and the symptoms very marked; pain, heat and smarting. The pustules create a zone of inflammatory œdema which fuses with that of the neighbouring pustules.

Fig. 61. Non-trichophytic sycosis. (Fournier's patient. St. Louis Hosp. Museum, No. 985.)

On this red placard, which persists because the follicles remain infected when once attacked, new pustules form continually. Sometimes similar lesions spring up at a distance. In this way a chronic dermatitis is constituted which lasts for months or years. In certain cases a vesicular, eczematous element is joined to the pustular; with amber coloured crusts, very pruriginous and slightly moist. This lesion has been attributed to all the indefinite diasthetic conditions, such as lymphatism, arthritism, etc., but nothing definite is known of its ultimate causes.

Treatment is empirical, varying in different cases which are difficult to class according to their indications. When inflammatory symptoms are intense, local antiphlogistics are indicated; cataplasms of starch meal made hot and applied cold; moist dressings with Van Swieten's solution (one part of perchloride of mercury in 100 parts of alcohol and 900 of water). Epilation is only temporary in its results, as the lesion recurs in the new hairs; but it eventually gives good results, in chronic cases. Antiseptic and astringent applications such as saturated boric alcohol, nitrate of silver (1 in 15) are usually badly tolerated; also sulphur applications, except in very chronic cases.

The X-rays in half doses (half tint B of the radiometer X), applied every week for a month or 6 weeks, often give good results, and not only on account of the local alopecia which is caused.

Dry, red folliculitis of the Beard. This process is not very common, but chronic and difficult to treat. A series of disseminated red follicular points appear on the cheeks, with diminution in the number of hairs by follicular sclerosis, forming almost invisible cicatrices. This lesion resembles symptomatically the post-seborrhœic sclerosis of the hair follicles of the scalp (p. 238)); the psuedo-alopecia areata of Brocq (p. 224) and of Acne decalvans)p. 166).

Furuncle. This rarely develops in its usual form in the beard, but is generally replaced by a follicular pustule, of sub acute quasi-acniform evolution.

Epilation or cauterisation with the galvano-cautery, and applications of saturated boric alcohol, constitute the treatment. Reinoculation in the adjacent parts must be anticipated and aborted by the same methods.

Phlegmonous cystic acne of the maxillary or sub-maxillary region occurs in the form of pustules of the same nature as those just described. They arise, in the adolescent, in the course of a more or less general polymorphous acne. They give rise to cold cystic abscesses; very disfiguring, tenacious and recurrent, and often accompanying similar lesions on the neck (p. 166).

They are treated in the same way as phlegmonous sycosis of the neck, of which they are the homologues. Excellent results are obtained by the galvano-cautery, and by alternate cauterisations with crayons of nitrate of silver and metallic zinc. These should be freely manipulated in the diverticula of the abscesses. Sulphur waters are recommended both internally and externally in all forms of acne, especially in this form.

IV. DISEASES OF THE CUTANEOUS SURFACE

Pityriasis Simplex.

Pityriasis Simplex is seen in the beards of many men, who are unaware of it owing to the squames being very fine. This affection, which occurs chiefly in the sub-mental region, is only apparent to the patient by slight itching, exaggerated by neglect of toilet, indigestion or a sleepless night; and by a fine powder removed by friction.

Treatment consists in daily friction with a solution of tincture of iodine in Eau de Cologne (30 per cent); or saponified coal tar (15 per cent).

Pityriasis Steatoides, with larger, more fatty and yellow squames and situated on a skin redder than normal, is less common than the preceding form, but more apparent. It is more pruriginous and more dirty, the scales falling incessantly on the clothes. Moreover, it is accompanied by similar lesions of the scalp, moustache and chest.

It is a true pityriasis, in the bacteriological sense; that is, a desquamative epidermatitis due to the presence of the spore of Malassez (*Pityrosporum Malassezii*, or bottle bacillus of Unna).

The treatment of this affection varies according to the intensity of the process. Benign cases are treated as *pityriasis simplex;* more severe cases require stronger applications of tar:—

(1) Acetone		20 grammes	℥j
Oil of Cade	1 to 2	grammes	gr. 24-48
(2) Oil of Cade		5 grammes	ʒ i fs
Lanoline		30 grammes	℥j

These are washed off in the morning with tar soap.

More severe cases require stronger applications:—

Oil of Cade		10 grammes	ʒ fs
Lanoline		20 "	℥j
Yellow oxide of Mercury	aa	1 gramme	gr. 16
Oil of birch			
Ichthyol			
Resorcine			

When the pityriasis has disappeared, continue to use weak alcoholic tar lotions daily, to prevent recurrence. (See formula on p. 147).

ECZEMA (DRY, SQUAMOUS, FATTY AND NUMMULAR).

When the preceding cases are allowed to develop, they often end in the formation of fatty, squamous, almost exudative lesions, which, extending beyond the hairy regions from which they proceed, invade more or less the smooth skin. These lesions are generally round and nummular and may become generalised on the whole body in

a more or less complete and regular form, maintaining a preference for hairy regions.

These lesions must be understood to consist in amicrobial eczematisation of a microbial pityriasis. There is always a clinical chain between these cases and psoriasis, and this group (recently called Seborrhœic Eczema of Unna) is often confounded clinically with true psoriasis, recognized histologically by the peculiar and specific structure of the psoriasic squame.

The treatment is that of steatoid pityriasis. Mild preparations are commenced with:—

Oxide of zinc	7 grammes	ʒii
Oil of Cade	5 "	ʒi.fs
Lanoline	25 "	℥j

Afterwards more active preparations of the type of the last ointment indicated are used, which quickly reduce the lesions as soon as they are tolerated by the skin.

EXUDATIVE ECZEMA.

Weeping eczema is rare in the region of the beard, apart from artificial eczema, which has been studied elsewhere. Impetigo is

Fig. 62. Impetigo contagiosa of the beard. (Sabouraud's patient. Photo. by Noiré.)

often mistaken for it. When impetiginous eczema occurs on the face in young men it is generally before the growth of the beard

and has no special character. It is situated on the cheek bones rather than on the maxillary regions.

IMPETIGO.

Impetigo of the beard is not uncommon in blonde adolescents and occurs in the form of disseminated crusts with rounded outlines, thinner and more papyraceous than in the child.

Under this friable crust the skin is red and deprived of the horny epidermis and exudes a drop of clear serum. The diagnosis, prognosis and treatment present no special features (p. 7).

SECONDARY SYPHILIS.

In the course of secondary syphilis, exulcerated papular syphilides (the so-called cutaneous mucous patches) may occur in the region of the beard and may be mistaken for impetigo.

The crust is less hard, more regular and flatter. Underneath the crust is a round projecting papule, exulcerated on the surface but not exudative. All these characters differ from impetigo. Moreover, red non-exulcerated papules are seen on other parts of the face and body. There is no special treatment of these syphilides and the internal treatment is that of secondary syphilis.

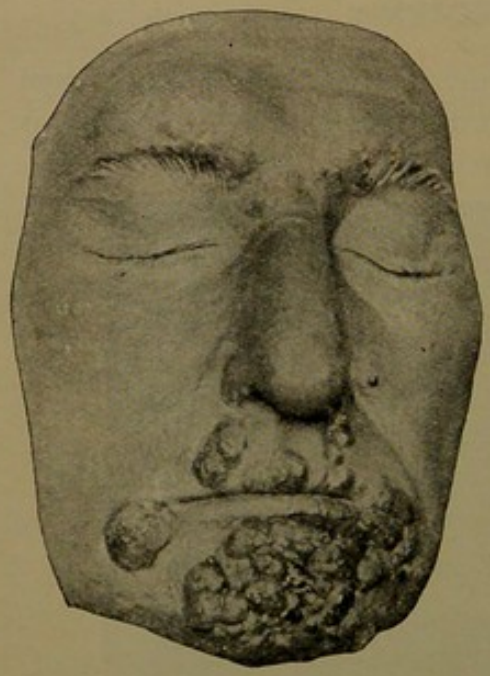


Fig. 63. Vegetating papular Syphilides. (Guibout's patient. St. Louis Hosp. Museum, No. 907.)

LUPUS.

Lupus Erythematosus of the beard is an accidental localisation and presents all the usual characteristics, and causes destruction of the beard on its surface.

Tuberculous Lupus is often situated in the sub-mental region. It maintains the usual characters of the first stage of lupus and rarely becomes fungous or ulcerative.

THE NAPE OF THE NECK.

The nape of the neck presents four chief morbid types.

It is the seat par excellence of pediculous impetigo.	Pediculous impetigo	p. 165
It is a region which presents frequent pustular eruptions of sub-acute evolution: pustular, sycosiform and keloid acne.	Acne pustulosa . .	p. 166
. . . Or, of acute evolution: furuncle; perifuruncular abscess; carbuncle.	Furuncle	p. 169
It is a region where diverse types of trichophyton of animal origin are often observed	Trichophytosis . .	p. 170
Lastly, it is a region in which chronic, infiltrated, pruriginous patches are seen to develop, which were formerly known as lichen circumscriptus	Lichenoid Eczematisation . .	p. 172

PEDICULOSIS. PEDICULOUS IMPETIGO.

Pediculosis and the irritative lesions which it causes occur at all ages and in both sexes, but most commonly in adolescence and in women. The long hairs favour the multiplication of parasites, especially when a young girl wears a low chignon, or plaits. These conditions localise the maximum point of pediculous lesions to the sub-occipital fossa .

On raising the hairs a region with a repulsive aspect is disclosed. At first there appears a mass of crusts, adherent to the hairs and resembling coagulated melted sugar. On separating the hairs, the crusts are broken up, each hair retaining a part of them (*impetigo granulata* of *Alibert*). Among the crusts and on the moist skin the lice may be seen moving among the hairs. On closer examination innumerable eggs are seen glued to the hairs. They are the size of a pin's head, grey and shining (Fig. 70).

The impetiginous lesions decrease in number the further from the neck one examines. These lesions occur in two distinct forms; phlyctenular impetigo (p. 7) and pustular folliculitis, or impetigo of *Bockhart* (p. 183). They are accompanied by painful adenitis of the sub-occipital glands. The number of lice and nits also decreases

further away from the neck. The louse of this region of the neck is the head louse (p. 181).

The treatment of pediculosis of the neck does not differ from that of the scalp, but may present several particular indications:—

(1) The abundance of crusts may lead to cutting the hair over the oval space, several centimeters in diameter. But, as a matter of fact, this is not absolutely necessary in any disease of the scalp.

(2) A large quantity of vaseline may be applied locally and the softened crusts removed the next day with the dead parasites, by means of a comb.

(3) The skin may be treated with Oxide of zinc ointment, or the following lotion, to cicatrise the epidermis:—

Distilled water	300 grammes	℥j
Sulphate of zinc	2 "	gr. 3
Sulphate of copper	1 "	gr. 1½

(4) It only remains to destroy the nits. The hair being cleansed of fat, it is sufficient to soak it for several hours in warm vinegar. By this means the nits are half dissolved and may be detached from the hairs by a fine comb. All should be well, in the most difficult cases, in less than a week.

ACNE (PUSTULAR, SYCOSIFORM, CICATRICIAL, CHELOID).

Seborrhœa, acne and its complications assume, in the region of the neck, a peculiar appearance.

1. As soon as seborrhœa appears in the centre of the face the seborrhœic infection of the neck has taken place. For some time it only manifests itself by *black follicular spots*, which are not comedos. When the follicles are emptied by forceps, they are seen to contain from 10 to 20 downy hairs agglutinated in a black mass which is micro-bacillary (p. 13).

2. After this first stage, in persons between 17 and 25 with fat necks, occurs disseminated *pustular acne* which, according to the intensity of the inflammatory phenomena, maintains the characters of ordinary pustular acne or assumes more and more those of local recurring furunculosis.

3. Even with the most marked functional phenomena, pustular acne, when its elements become numerous and coherent, constitutes

sycosis of the neck, resembling in all its objective and developmental characters sycosis of the beard.

The whole nape, or the whole of a horizontal zone, is riddled with follicular pustules situated on a cushion of inflammatory œdema. This affection, which is of slow progress, and interrupted by acute outbreaks, is extremely disfiguring.

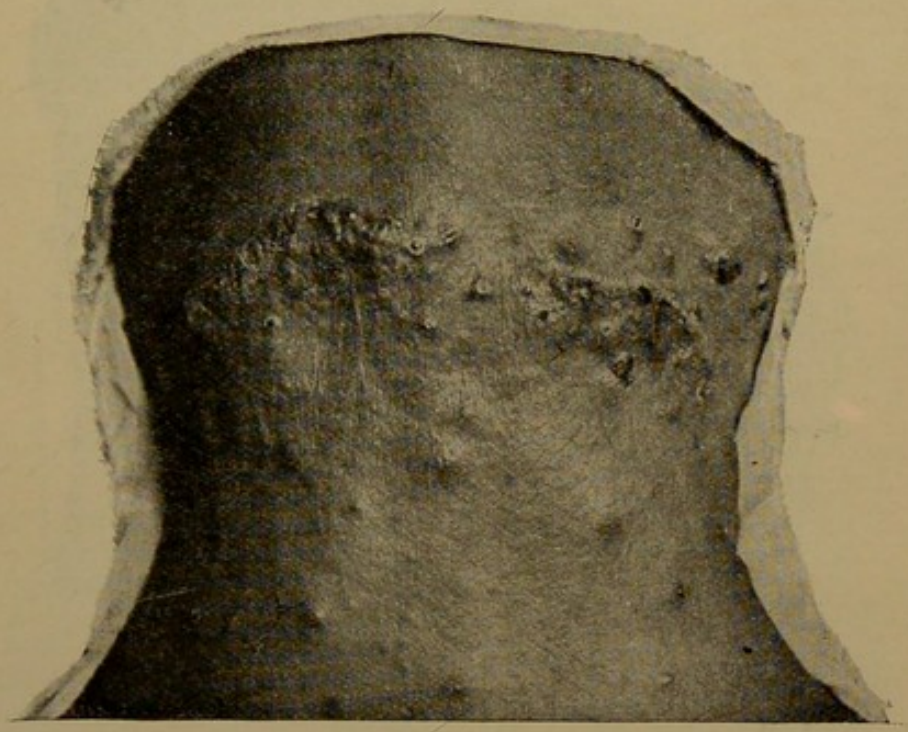


Fig. 64. Sycosiform pustular acne of the neck.
(Besnier's patient. St. Louis Hosp. Museum, No. 1144.)

4. Sycosis of the nape often occurs in the form of a narrow horizontal band which cicatrises below, while increasing above by the formation of new pustules (Fig. 64).

In its fully developed state this special form of sycosis is often accompanied by a horizontal cheloid band, like the line of pustules by which it is bordered. This cheloid, consisting mainly of inflammatory tissue rather than fibrous tissue, causes a more or less deformed projection, above and below which the hairs emerge in bunches.

5. Finally, this cheloid acne of the neck, in rare cases, extends on to the hairy scalp and slowly forms, on the occipital segment, a bald fibrous patch bordered by a circumferential cheloid, riddled with recurrent pustules (Fig. 65). This lesion is connected with the lesion of the neck, of which it is only an abnormal development.

These sycosiform, pustular, cheloid lesions remain for years and slowly decrease. I have never seen cheloids persist after disappearance of the pustules. They become gradually attenuated.

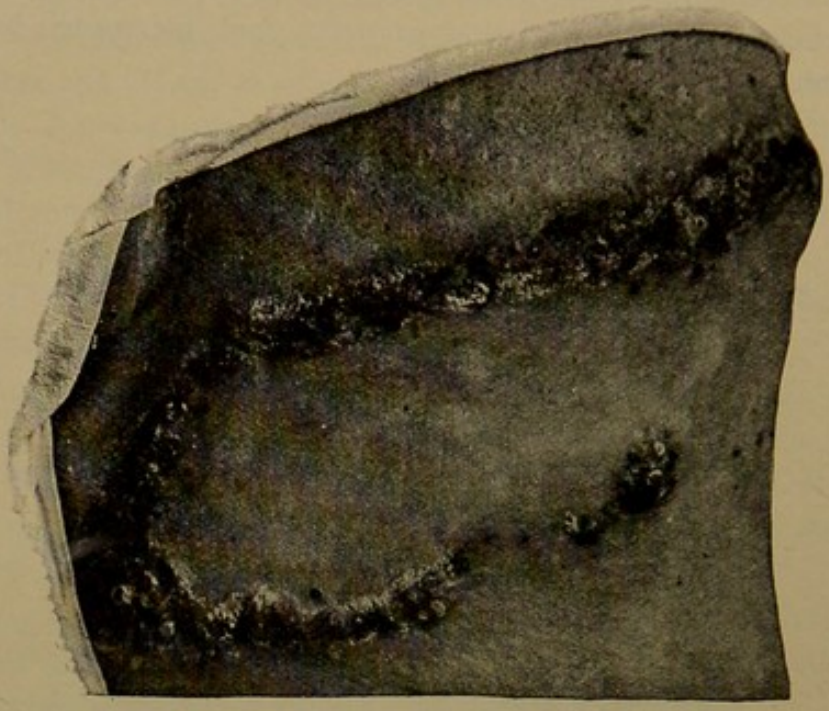


Fig. 65. Cheloid pustular acne: acne decalvans. (Danlos' patient. St. Louis Hosp. Museum, No. 1979.)

The treatment of all these lesions is comprised in three formulæ: avoid injury; treat the recent and active lesions by sulphur, and the chronic lesions by epilation.

1. These lesions are often kept up by the rubbing of stiff collars or rough coats. These causes must be suppressed.

2. The best local application is Vidal's Sulphur lotion:—

Precipitated Sulphur . . .	aa	10 grammes	aa gr. 10
Alcohol 90 per cent			
Distilled water	aa	50 "	aa	ʒfs
Rose water			

This is applied at night by a brush. If the skin is delicate the region should be surrounded by a border of zinc paste to avoid dissemination of the sulphur powder.

3. When there is conglomerated folliculitis (sycosis), and especially in cheloid acne, epilation is necessary and should be carefully repeated several times. It should be performed in the same way as

for favus (p. 199). Local applications are the same as indicated above. If the cheloids persist, they should be treated by linear quadrilateral scarification, but this is rarely necessary here.

General treatment, as in many cutaneous affections, is based on general examination of the subject, and there is no precise line of action. The patient is usually fat and his skin becomes easily con-

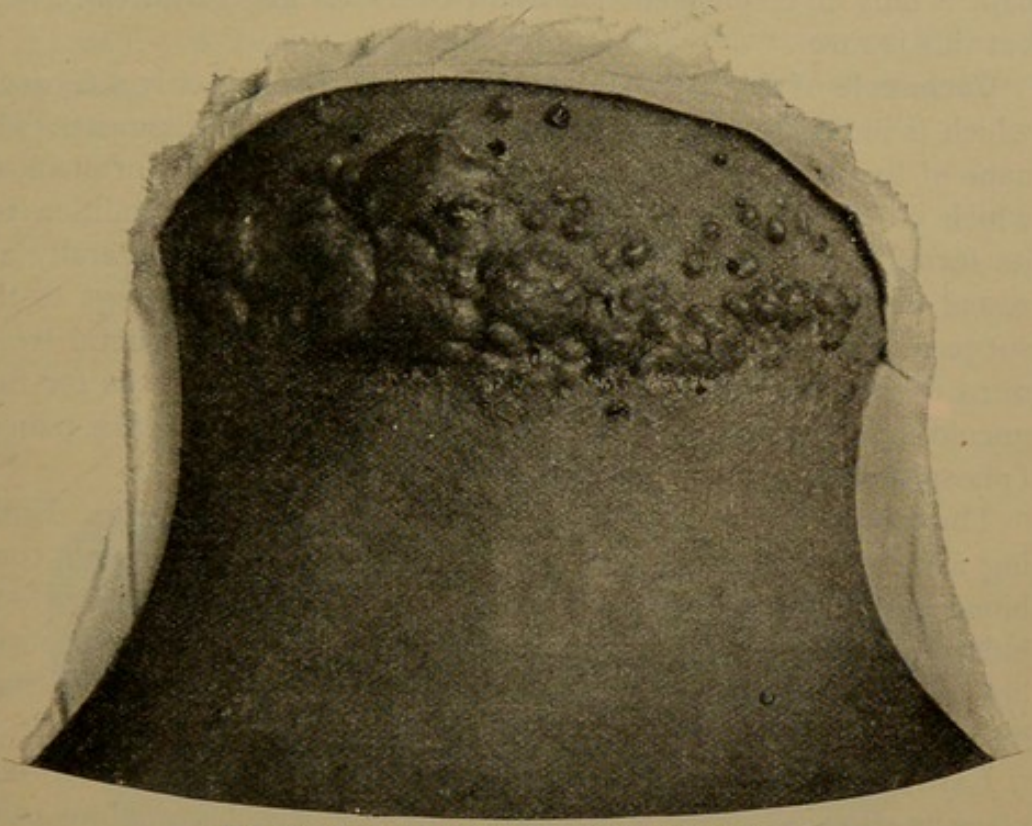


Fig. 66. Pustular, sycosiform chéloid acne.
(A. Fournier's patient. St. Louis Hosp. Museum, No. 2059.)

gested. In such a case overfeeding should be avoided and the intestinal evacuations and diuresis assisted. A vegetarian rather than a meat diet is indicated. These indications, however, do not apply to all cases.

FURUNCULOSIS. PERIFURUNCULAR ACNE. PHLEGMON. CARBUNCLE.

Furunculosis of the nape of the neck is closely allied to acne of the same region. It arises under the same local and general conditions and is only distinguished by the greater intensity of the functional symptoms and the formation of a core in lesions which are at first pustular, like acne. After the furuncle, a perifuruncular abscess

commonly arises. When these lesions are multiple from the first, a phlegmon of the neck may develop with more than twenty openings: this is one of the types of carbuncle of the neck. More often there are only one or two lesions which develop together at some distance apart; but when these diminish and disappear, others are formed; and this may continue for months. Sometimes furunculosis of the nape is only an epiphenomenon in the course of general furunculosis; but this is rare.

Carbuncle of the nape of the neck, as elsewhere, is only a furuncle which is multiple from the first and of excentric development. The nape of the neck is its seat of predilection and the local furunculosis which we have just described is an almost necessary condition for its formation. When well treated from the first it is generally arrested without much trouble; later on its treatment belongs to the surgeon and is beyond the scope of this work. The general treatment of furunculosis of the nape of the neck is the same as for furunculosis in general and depends upon the condition of the patient (phosphaturia, diabetes, emaciation, obesity, etc.).

The treatment of furunculosis is the same as that for acne. Nothing arrests furunculosis of the nape so well as sulphur lotion, combined with epilation of the central hair of the lesion. When local inflammation and pain are severe a poultice of potato starch, made hot and applied cold, and sprinkled with camphorated alcohol may be added.

Lastly, surgical treatment of this affection takes an important place as soon as the lesions become numerous or the symptoms painful. Each furuncle or abscess should be opened deeply with the galvano-cautery, and the appearance of new pustules carefully watched for. This is still more necessary when perifuruncular abscesses arise, or when the furuncles become agglomerated and assume carbuncular evolution. In this case the galvano-cautery, when carefully used, renders great service. When there has been necrosis and slow cicatrisation, the following ointment is useful, as in all atonic ulcers:—

Sub-carbonate of iron	1 gramme	gr.	12
Vaseline	40	"	℥j

TRICHOPHYTOSIS.

The nape of the neck is one of the seats of predilection of animal trichophytons (p. 156). Sometimes there is direct inoculation by

carrying a dead or diseased animal on the neck; at other times the inoculation is indirect, through irritation caused by clothing. Animal ringworms may be recognised by their anomaly of form and evolution. In this region three forms are usually observed.

The most frequent appears to be *Kérion of Celsus* (p. 158), which preserves here the same characters as in the beard. It forms a flat red suppurating patch and is of equine origin.

Secondly, there is a squamous ringworm, characterised by a red serpiginous border, benign evolution and very numerous patches, which appears to originate in the calf or the goat (Fig. 67).

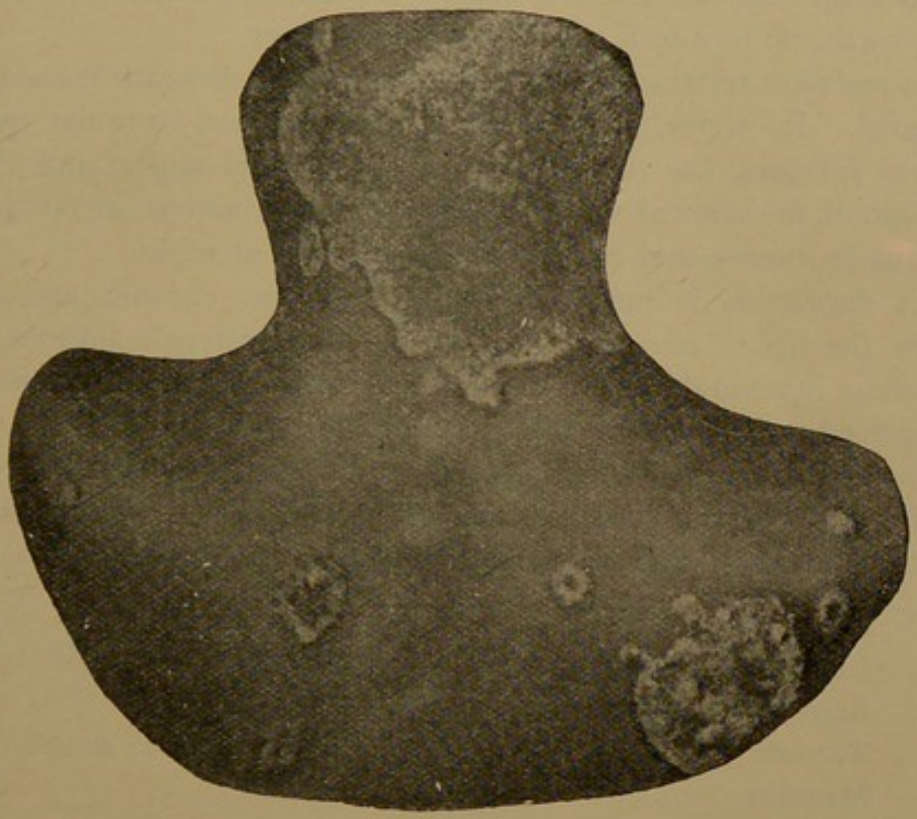


Fig. 67. Trichophytosis of Animal origin (goat).
(Du Castel's patient. St. Louis Hosp. Museum, No. 1893.)

Thirdly, there is a poly-micro-circinate ringworm of extensive development in the form of a band or collar. These lesions are very chronic, lasting for 3 to 10 years and appear to be derived from the dog. They are characterised by a thin red punctate border of vesico-pustules, excoriated by scratching.

The two last species are cured in a few days by applications of tincture of iodine, 1 in 3 or 1 in 4 in alcohol. I have mentioned the

treatment of kérion with ringworm of the beard and scalp (p. 159 & 196).

LICHENOID ECZEMATISATION.

Chronic patches of lichenoid eczematisation may occur in young persons as the local result of an impetiginous eczema, with diminished acidity of the urine and albumen (p. 12); but more often in the adult or among neurotic persons.

The lesion is small, median, lateral or bilateral, red, slightly moist, very pruriginous, not crusted, slightly squamous, of slow evolution and growth, up to 5 to 8 centimeters in diameter.

It is resistant to treatment and the hypodermis beneath it becomes thickened. Its wrinkled surface, divided by nearly regular quadrilateral furrows, has the shining and parquetted appearance characteristic of the clinical syndrome designated lichenisation (p. 547). Pruritus is intense and paroxysmal, especially at night.

This dermatitis is rarely exudative and very chronic, and constitutes the *lichen circumscriptus* of the older French authors. It may occur in a single place, or may form a particular localisation of a lichenised prurigo of various situations (p. 543).

General treatment depends on the condition of the patient, and is not the same in every case. Local treatment gives only mediocre results, but in benign cases anti-pruriginous ointments may be used:—

Glycerole of Starch		40 grammes	℥j
Resorcine	aa	40 centigrammes	gr. 5
Tartaric acid			
Menthol			

In severe cases reducing ointments give appreciable results:—

Oil of Cade		10 grammes	℥ fs
Yellow Oxide of Mercury .	aa	1 gramme	gr. 24
Resorcine			
Ichthyol			
Lanoline		20 grammes	℥j

The formula must be altered to suit each case.

Electric treatment by high frequency currents is based on the hypothesis that the lesion is a neuro-dermatitis, but does not appear to give constant results.

The X-rays may be employed in small doses of 2 or 3 units H, or a half tint B of the radiometer X (p. 196), in order to disperse the chronic subjacent œdema of the lesion.

THE SCALP.

The scalp is a region of great importance, owing to its extent of surface and to the variety of dermatological affections of which it may become the seat. Following the plan of this book, we shall divide this large chapter into three smaller ones, the first of which will include diseases of the scalp in infancy; the second, diseases of the scalp in adolescence; and the third, diseases of the scalp in old age.

This classification is obviously somewhat artificial and those affections which are common to all ages may be found equally in the three chapters. If the reader does not find in one chapter what he seeks, he will discover it in the two others. My excuse lies in the fact that nature does not accommodate herself to our requirements of order and classification.

THE SCALP IN CHILDREN.

From the first months the scalp of the infant may present the fatty epidermic secretion known as "skull cap" . . . . . Skull cap of Nurslings . . p. 175

. . . and an alopecia of the occipital region peculiar to infants of early age . . . . . Occipital Alopecia . . . . . p. 176

At an early age vascular and warty naevi occur, which persist during life . . . . . Nævi . . . . . p. 176

Connected with these naevi is a congenital patch of alopecia which is often only noticed later . . . Congenital Alopecia . . . . . p. 177

Insufficient or excessive development of the hair in infants merits attention . . . . . Atrichia. Hypertrichosis . . . p. 177

Among the dystrophies of the hair we must mention that which causes moniliform hairs . . . . . Monilithrix . . . p 178

. . . and ichthyosis of the scalp, which always co-exists with ichthyosis of the body . . . . . Ichthyosis . . . p. 179

A few words must also be said of the peculiar habit of infants, consisting in incessant automatic epilation . . . . . Trichotillomania p. 180

There exists a chronic, dry and scaly circumscribed dermatitis, called tinea amiantacea by Alibert and Devergie . . . . . False ringworm, Tinea amiantacea . . . . . p. 180

Pediculosis of the scalp occurs at all ages, at least in the female, but more commonly in children . . . Pediculosis . . . p. 181

The scalp presents, either together or separately, the two dermatological types of impetigo. We shall first study true impetigo with honey-like crusts . . . . . Impetigo contagiosa of T. Fox p. 182

. . . and the multiple areas of alopecia to which it gives rise . . . . . Post-impetiginous Alopecia . . . p. 182

We shall next study the impetigo of Bockhart (pustular-follicular) . . . . . Impetigo of Bockhart . . . . . p. 183

. . . The furnucles and follicular abscesses which often follow . . . . . Furuncle. Follicular abscess . . p. 185

. . . The post and perifuruncular alopecias which follow this series of follicular pustules . . . Post-furuncular Alopecia . . . p. 185

. . . and the atrophodermic alopecia which is connected with this series, for it is consecutive to a follicular nucleus which is absorbed without opening . . . . . Atrophodermic Alopecia . . . p. 187

We shall next review the series of traumatic and cicatricial alopecias which occur on the infant's scalp . . . . . Traumatic and cicatricial Alopecia . . . . . p. 188

Lastly, infantile eczema will occupy our attention, under the impetiginous form; or dry red and chronic, occurring at the academic age . . . . . Eczema . . . . p. 188

We next come to the natural group of cryptogamic ringworms. We shall study first the small spored ringworm, or microsporon . . . . . Small spored ringworm . . . . p. 189

. . . Then the common ringworm of children . Large spored ringworm . . . . p. 191

. . . Then the rare ringworms of animal origin, with abnormal symptoms and inflammatory reaction; and among them Kerion . . . . . Ringworm of animal origin, Kérion Celsi . . . p. 195

The treatment of ringworms will be treated at some length . . . . . Treatment of ringworm . . . . p. 196

. . . Especially the treatment by X-rays . . . Radiotherapy of ringworm . . . p. 196

For those who have not a radiotherapeutic installation, we must describe the therapeutics of ringworm before the discovery of the X-rays . . . . . Former treatment of ringworm . p. 199

After these chapters on treatment we shall study favus in its three clinical varieties: the cupped form, the pityriasiform and impetiginous forms . . Favus . . . . . p. 199

We shall conclude this chapter with a short study of ophiasic alopecia of infants . . . . . Ophiasis . . . . p. 202

THE SKULL CAP OF NURSLINGS.

Under this name is understood a progressive agglomeration of

epidermic debris, more or less solid or pasty, forming an adherent yellow layer on the scalp of the young infant. This dries, hardens and becomes like brown paper, when allowed to remain. Some scalps have a greater tendency than others to form this crust, which was formerly often respected by nurses. After a time the stagnation of epidermic debris causes irritation of the subjacent skin and the formation of purulent exudation. This complication is due to neglect and may lead to incomplete but permanent alopecia of the region of the vertex.

Even in less severe forms this condition requires treatment by weak applications of oil of cade or tar, with glycerole of starch. These should be washed off in the morning with ordinary soap and a badger hair brush. The crusts resist removal owing to being adherent to the hairs, and they should never be removed by any hard instrument.

OCCIPITAL ALOPECIA.

The newly born often present alopecia of the occipital region, which results solely from rubbing the hair on the pillow. It is of an oval form with the larger diameter transverse. It requires no treatment, but may lead to errors of diagnosis.

NAEVI.

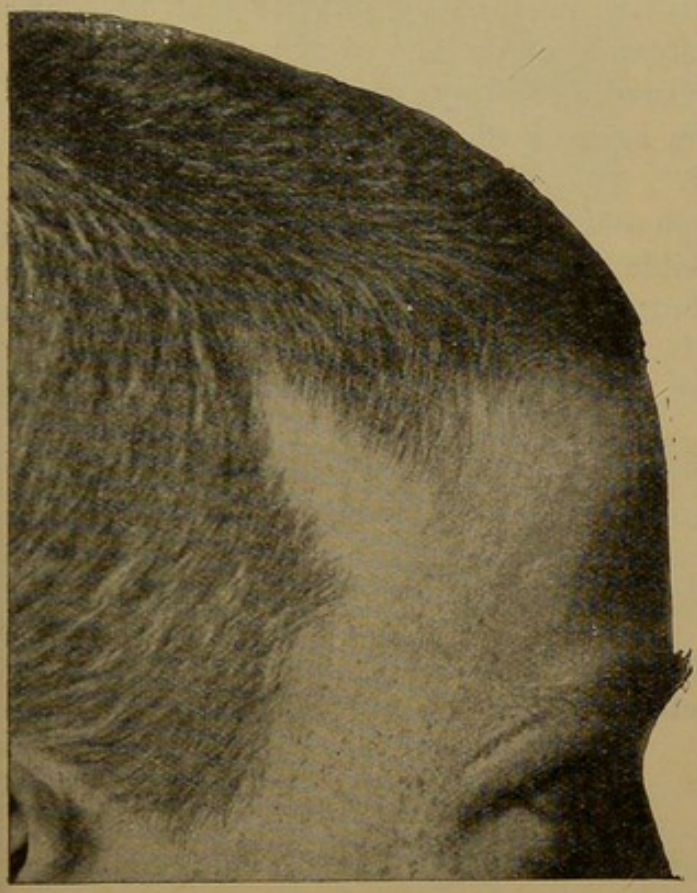
Nævi are perhaps more common on the scalp than anywhere else. Vascular nævi or "port wine stains" are irregularly disposed and hidden by the hair. The most common nævus of this kind is situated in the occipital fossa. This is popularly known as "original blemish." It is of no importance, except that it may be mistaken for a disease; or, when a true lesion occurs in this situation, cause an appearance of congestion.

Flat and warty nævi form irregular tracks with clear borders formed by papular brown elements destitute of hairs. Their geographical form and embossed appearance are characteristic. When small they may only be noticed by chance. The parents usually regard them as congenital.

As long as nævi of this kind do not increase in size they require no treatment; but if they enlarge they should be treated by electrolysis (p. 5).

CONGENITAL ALOPECIA.

By the side of nævi should be placed a congenital alopecia, frequently mistaken for alopecia areata. It may be unilateral or bilateral, and occurs as an oval patch of alopecia about 2½ centimeters in length and 1½ in width, situated on the temple and directed obliquely from above backwards. It may intersect the margin of the scalp, or commence behind it (Fig. 68).



(Sabouraud's patient. Photo. by Noiré.)
Fig. 68. Congenital temporal alopecia.

The parents have never seen it develop: it persists but does not increase in size. The skin is somewhat thin and atrophic: it is not quite smooth but bears on its surface a little down.

No treatment is efficacious. The etiology of this alopecic patch is unknown and it has been wrongly attributed to the application of forceps at birth.

ATRICHIA AND HYPERTRICHOSIS.

The development of the hair at birth and during infancy varies considerably in different subjects. Some children are born bald, while others have hairs several inches long. The hairs may even be darker than afterwards.

Generally, they fall six weeks or two months after birth, and are replaced by a pale downy growth, which forms the new

hair. Some subjects preserve a very poor head of hair during their whole infancy, formed by fine and scanty hairs. I do not consider this a bad omen if it is not excessive. When the hair is mediocre at 8 or 10 years it often develops at puberty and remains good in the adult. When it is too good before full development it is generally invaded by pityriasis at 12 or 14 years, which becomes steatoid at the age of 15 to 18 and causes loss of hair of a paroxysmal and progressive character, which is established between the ages of 18 and 20 and persists during life (see pp. 207 & 208).

Poor heads of hair should not be treated before puberty as long as there is no visible deformity. In this case stimulating lotions may be tried, but they give little result.

Spirit of lavender	25 grammes	ʒj
Alcohol, 60 per cent	250 "	ʒj
Distilled water	25 "	ʒj
Hydrochlorate of pilocarpine	50 centigrammes	gr. 1

Ointments of oil of cade applied at night and washed off in the morning often give better results.

MONILITHRIX.

Monilithrix is one of the most singular deformities of the hair which is met with. The hair appears formed by a series of swellings and constrictions, the swellings being of the diameter of the normal hair. All the hairs of the head may be affected, or nearly normal hairs may be mixed with moniliform hairs in all proportions.

The moniliform hairs are fragile at the points of constriction, and when they are numerous there are always short and irregular hairs in the head. In the most severe cases there are scarcely any hairs at all; they are replaced by a red point, a horny elevation, resembling that of keratosis pilaris, and affecting the whole scalp. Here and there are found the debris of moniliform hairs.

In less marked cases the hair appears scanty, and it is necessary to examine by a lens to see the moniliform appearance.

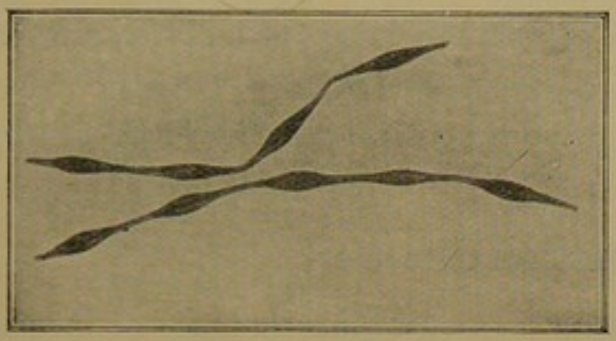


Fig. 69. Moniliform hair. Monilithrix. (Preparation by Sabouraud. Photo. by Noiré.)

This condition is not a disease but the result of a congenital deformity. It is a consanguineous malformation and I have seen 29 examples in the same family in nine generations. The children are born with normal hairs which fall after six weeks and are not replaced. The moniliform state of the hair increases little by little with age.

Like all deformities this condition is incurable. In less marked cases some improvement may perhaps occur after eukeratosic ointments, such as oil of cade, applied at night and washed off in the morning; but the results are not very constant.

ICHTHYOSIS.

Ichthyosis of the scalp, a rare malformation, is always less marked on the scalp than on the body of the same subject. Diagnosis is thus made by comparative examination of the scalp and the body.

It is constituted by brown, thin, dry squames, adherent to the skin and separated at their margins, making them slightly concave. The crown of the head is thus covered with a uniform, crusted layer. Removal of this crust exposes a red, thin, shiny skin, and many downy curled hairs come away with the crust. The crown of the head is nearly bald. or at any rate the hairs are scanty even when the crusts are left alone. This condition leads to permanent alopecia. The only treatment is by tar, applied daily for a long time and continued once a week; this may preserve the hair to a certain extent, but it always remains scanty.

Oil of cade		10 grammes	ʒfs
Oil of birch	aa	1 "	gr. 24
Ichthyol	aa	1 "	gr. 24
Resorcine	aa	1 "	gr. 24
Lanoline		20 "	ʒj

This is washed off in the morning with a badger-hair brush; well rinsed and dried.

TRICHOTILLOMANIA.

Sometimes a child presents large irregular patches of incomplete depilation, situated chiefly on the temples, but sometimes on the crown. These are seen to be riddled with small black spots of hair debris inserted in the skin, which I shall refer to when dealing with alopecia areata under the name of "hair bolus" (p. 203, Fig. 95). There are always tufts of healthy hairs on the patch, and new hairs appear of different sizes. The irregular margin of the patches is furnished with healthy hairs. There are no alopecic hairs. By interrogating the parents it is found that the child epilates itself automatically every time its attention is drawn to it when working, reading, etc. This habit, which we have already studied with the morbid conditions of the moustache, may occur in the adult. In this case the subject is rarely well developed intellectually; but the habit may occur in a child who is otherwise normal. The treatment belongs to the domain of neuropathology.

FALSE RINGWORM. TINEA AMIANTACEA OF ALIBERT-DEVERGIE.

The morbid condition to which this term is applied is a chronic, dry, squamous epidermatitis, limited to one region of the scalp, usually the vertex. It may be primary or secondary. When primary it develops slowly without appreciable cause and occupies the whole vertex. This is covered with a cap of imbricated squames, including the hairs which lie under them, so that when the hairs are pulled back they raise a large squame resembling a fish's scale; white on the surface and yellow in depth. Alibert described a primary weeping stage, which is generally absent.

Between primary and secondary forms of false ringworm

there is the same difference as between eczema and artificial dermatitis. The secondary form arises on an old ringworm, or a patch of alopecia areata, after cure. It occupies exactly the seat of the primitive disease and appears to be consecutive to the traumatism of treatment. Both forms are easily cured by applications of tar and its derivatives.

Oil of cade	10 grammes	℥ fs
Oil of birch, Ichthyol, Resorcine, Pyrogallic Acid, Yellow Oxide of Mercury	aa 1 "	aa gr. 24
Vaseline, Lanoline	aa 10 grammes	aa ℥ fs

This is applied every night for 4 to 7 weeks and washed off every morning. The lesion disappears in two or three weeks, but if treatment is discontinued it reappears. In order to destroy the lesion effectively treatment must be continued for double the time which is apparently required.

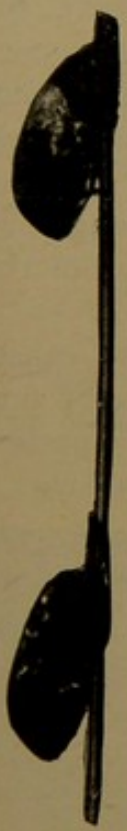


Fig. 70. Egg of pediculus capitis fixed to hair. (Preparation by Sabouraud. Photo. by Noiré.)

PHTHIRIASIS.

We have described in the region of the nape of the neck the maximum lesions of pediculosis of the scalp (p. 165).

This occurs to a less degree on the rest of the scalp. The head louse is a little smaller than the clothes louse. It is of dark grey colour and, like all human lice, belongs to the family of pediculi (Apterous Hemiptera). The shiny black egg forms a small oblong pouch, very adherent to the hair, which it ensheaths with a chitinous socket (Fig. 70). The egg is laid close to the skin and the height above the skin indicates its date.

The abrasions of the skin made by the lice cause much itching and are often complicated by one or both impetigos. (*Pedicular impetigo*). The simplest treatment of pediculosis is to cover the entire scalp for several hours with a thick layer of vaseline, which penetrates by capillary action the

respiratory tubes of the parasites. A complete cleansing removes the vaseline with the scabs and dead lice. The eggs are softened with warm vinegar and removed with a comb.

IMPETIGO CONTAGIOSA.

Impetigo contagiosa, phlyctenular and streptococcic, is more common on the smooth skin than on the scalp; while follicular, pustular and staphylococcic impetigo is more common on the scalp. It is usually secondary to pediculosis and mixed with the impetigo of *Bockhart*. In the nape of the neck the lesions are confluent, but more discrete elsewhere.

Impetigo is seldom seen on the scalp except in the course of impetigo of the face, when the evolution of the lesions is identical. It may, however, occur in the form of a large patch of slow evolution, which may cover an area of several inches (*impetigo scabida* of *Willan*). Impetigo has everywhere the usual characters; the thick amber coloured crust, of the consistency of honey, covering an exulceration, exuding abundance of clear serum, and covered with a thin layer of fibrin giving it a pale lilac colour. When the crusts coalesce they become hard, especially in phtiriasis; and in the large impetiginous placards of slow evolution the crust has the appearance of the bark of a tree.

In secondary impetigo the treatment is that of the cause. That of impetigo is the same in all situations:—sulphate of zinc lotion (1 per cent); nitrate of silver (1 in 15); protective pastes, used with discretion, for excess necessitates difficult cleansing.

POST-IMPETIGINOUS ALOPECIA.

The lesions of impetigo develop slowly on the scalp, because the hair keeps the crusts in place under which suppuration is produced. When the crusts fall, the hairs often come with them, leaving smooth surfaces as large as the crusts, the size of a sixpence to a shilling. The skin is red and smooth, and distinct by its colour from the surrounding skin. Even when the crust has fallen, parts of it are found adhering to the hair round the patch. The eruption of impetigo may include from 6 to 10 lesions, each giving rise to a patch of alopecia, and all appearing almost at the same time. In the common people the crusts may not be

noticed and the alopecia appears to be primary. Impetigo is contagious and epidemic, also endemic in schools. The post-impetiginous patches of alopecia are then mistaken for patches of epidemic and contagious *alopecia areata*. This is the history of nearly all the so-called epidemics of alopecia areata in schools, and the others are epidemics of ringworm. The differential diagnosis from alopecia areata is made by the simultaneous appearance of the patches; their size and identity in dimensions; the presence of the crust or its remains; the co-existence of impetigo of the face, or its marks; the redness of the skin; the absence of club shaped hairs around the bald areas, and the rapid and regular growth of downy hairs on all the denuded surfaces.

Treatment is useless, but always followed by good results which would have occurred without it. If it is necessary to prescribe, the following may be applied:—

Vaseline		30 grammes	℥j
Tannin	aa	30 centigrammes	gr. 5
Calomel			

This may be cleansed in the morning with one part of resorcine in 100 of *Hoffmann's* liquor.

IMPETIGO OF BOCKHART.

This is one of the commonest diseases of the scalp in children. The elementary lesion is a pustule, of a greenish yellow colour, and pierced by a hair. This pustule appears like a millet seed in the middle of a red spot. It may attain the size of half a cherry stone (Fig. 71).

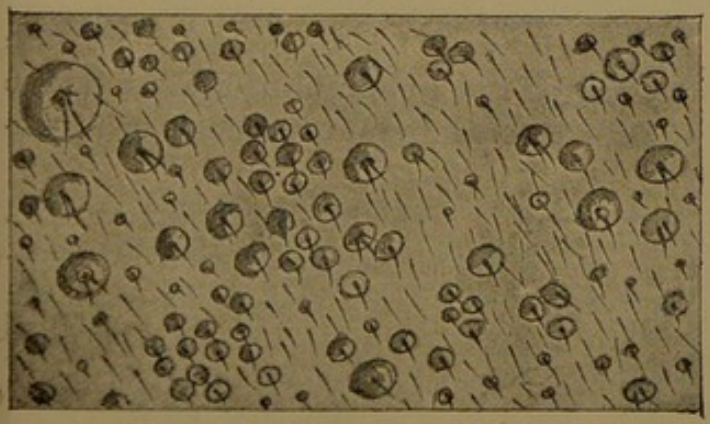


Fig. 71. Elementary lesions of the follicular impetigo of Bockhart. Semi-diagrammatic (Sabouraud.)

During its active evolution, which lasts from 4 to 6 days, the pustule remains surrounded by a red areola.

When it is opened a drop of pus streaked with blood emerges. It usually dries without opening and forms a hard lenticular scab, which may remain in place for one or two weeks.

This pustule is the element of eruptions of varying degrees of intensity. Sometimes a crop of 4 to 10 pustules only is formed, at other times 500 or more. All are accompanied by sub-occipital adenopathy. Some eruptions persist because they consist of small subinvoluted crops.

This affection is often transient, but more often recurrent and remarkably tenacious, sometimes lasting for months or years. It may be primary without any known cause, or secondary to the treatment for ringworm, alopecia areata, pediculosis, etc. In this case it may survive the original cause for some time.

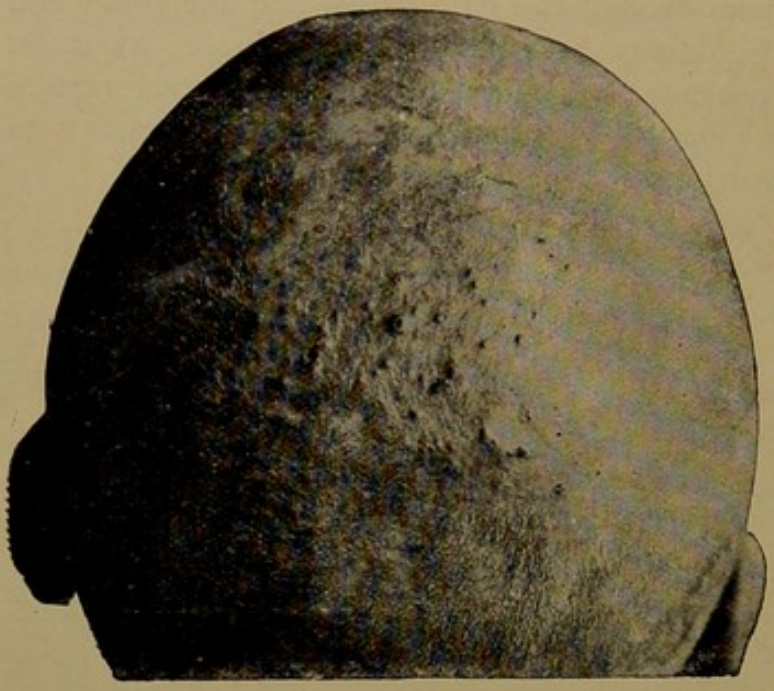


Fig. 72. Pustular impetigo of Bockhart of the scalp. (Sabouraud's patient. Photo. by Noiré.)

When the eruption persists, old and young lesions co-exist, the older ones often forming only a red punctiform cicatrix in the centre of a bald spot. Others degenerate into furuncles or furuncular abscess.

The treatment of this affection is difficult, succeeding in mild cases but failing in severe ones. The best preparations are sulphur lotions and ointments:—

(1) Precipitated Sulphur		3 grammes	gr. 48
Lanoline	aa	15 "	ʒfs
Vaseline			

(2) Alcohol 60 per cent	20	grammes	ʒ ii
Precipitated Sulphur	10	"	ʒ j
Rose water	70	"	℥ j

This affection, like impetiginous eczema, may occur in young people affected with albuminuria, with or without renal lesions, and in these cases it is difficult to cure. The same chronicity may be observed without any perceptible cause. It may be always cured by time.

FURUNCLES AND PERIFURUNCULAR ABSCESS.

The impetigo of *Bockhart* consists of follicular pustules. If the staphylococcic infection which gives rise to them extends the length of the follicle and multiplies deeply, a furuncle or furuncular abscess is formed. These are different forms of the same affection and may often occur in the course of impetigo of Bockhart.

The furuncle, when mature, evacuates a solid necrotic core, while the follicular abscess discharges a few drops of pus. Moist dressings form the best application, after epilation of the central hairs of the lesion. When the furuncle or abscess points it should be punctured with the galvano-cautery. This relieves pain and hastens the evacuation of the core or pus.

Local treatment of furuncle by tincture of iodine, iodised acetone or camporated alcohol externally, and general treatment by phosphorous, yeast, etc., have been recommended; but none of these forms of treatment are constant.

POST- AND PERIFURUNCULAR ALOPECIA.

The follicular pustules of impetigo of *Bockhart,* and still more, furuncles and perifuruncular abscess give rise to alopecia in round areas, 3 or 4 millimetres in diameter, after a simple pustule, or from 1 to 1½ centimetres after a furuncle or follicular abscess (Fig. 74). In the case of an eruption of simple impetigo of *Bockhart,* the head is riddled with small alopecic points in equal numbers to the pustules, each presenting a punctiform cicatrix in the centre.

This alopecia is quite characteristic and it is hardly neces-

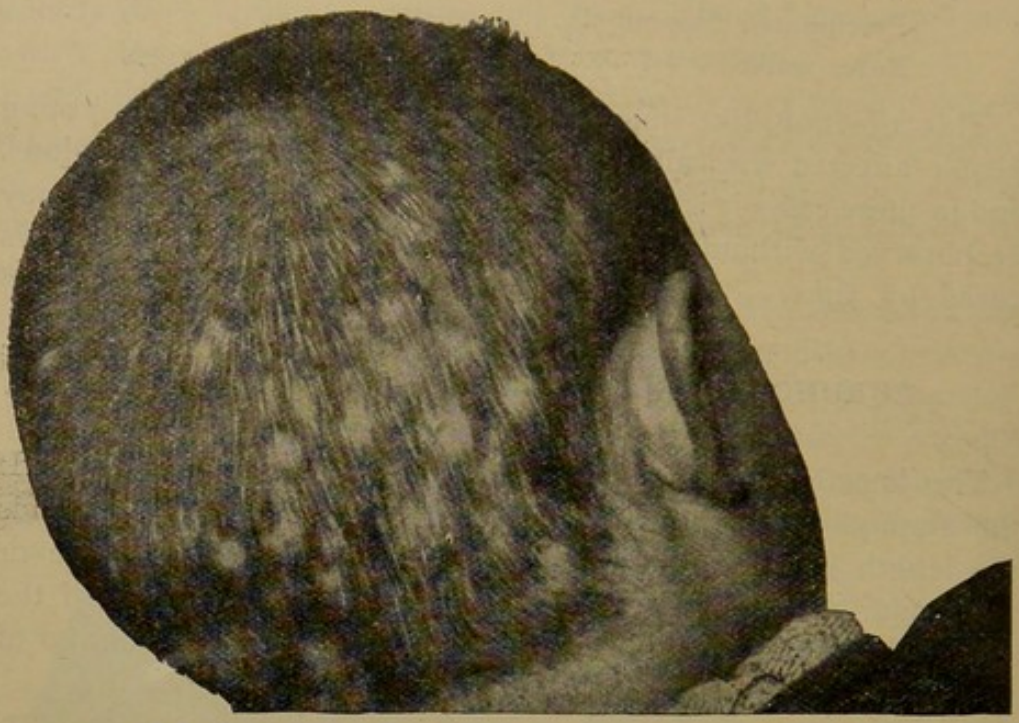


Fig. 73. Alopecia after impetigo of Bockhart of the scalp.
(Sabouraud's patient. Photo. by Noiré.)

sary to add that it has nothing in common with alopecia areata;

Fig. 74. Temporal alopecia consecutive to a furuncle, of which the central cicatrix is seen.
(Sabouraud's patient. Photo. by Noiré.)

that it is no longer contagious and allows the child who presents it to go to school.

When there has been a furuncle, the alopecia is larger but retains the same characters and the same central cicatrix (Fig. 74). The bald area is not bordered with the club shaped hairs of alopecia areata, but the dead hairs, when removed, are often bent at the radicular end (Fig. 75).

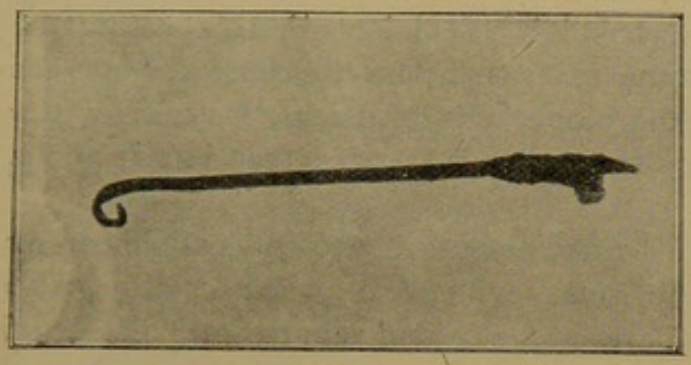


Fig. 75. Dead hair from a furuncle. (Preparation by Sabouraud. Photo. by Noiré.)

This alopecia is cured without treatment, but the duration of baldness is longer than that of post-impetiginous alopecia (p. 182). Even when it is cured, smooth cicatrices remain in the place of each lesion.

ATROPHODERMIC ALOPECIA.

This is a rare lesion, always mistaken for alopecia areata, which should be placed among the alopecias mentioned above.

In the course of impetigo of *Bockhart*, or even apart from any pustular eruption, a deep follicular infection arises which forms a small furuncular abscess close to a follicle. This little abscess slowly aborts and is absorbed. It produces an alopecic area as large as a sixpence, accompanied by local cutaneous atrophy. This area may persist for 6 or 15 months. The symptoms are negative; it does not show the club shaped hairs of alopecia areata. It is single and does not increase in size, but persists for a long time. A small nodosity may be felt for some time in the centre of the patch, which is the abscess in process of resolution, but this symptom itself disappears. Growth of the hair recurs after a year, but for some time afterwards the hairs remain downy and the patch retains its atrophic concavity.

The treatment consists in slight irritation, continued for some time, by applications of glacial acetic acid in spirit of ether (2½

per cent); alcoholic solution of lactic acid (20 per cent); or iodine in rectified benzine (8 per cent).

TRAUMATIC AND CICATRICIAL ALOPECIA.

An alopecia may be caused by a contusion, if the shock is violent, and every skin has its co-efficient in this respect, a slight shock being in some cases sufficient to cause a patch of alopecia. In this case the alopecia is transient, lasting for the length of time necessary for the hair to reproduce itself; about six weeks.

Cicatrices consecutive to a wound are geometrical, linear or angular, and their shape gives evidence of their origin. The cicatrices of abscesses are stellate and depressed; those of furuncle, punched out and polygonal, and those of chronic suppurations, corrugated or smooth.

A cicatrix is often mistaken for non-cicatricial alopecia, but in the latter the follicular orifices are always visible, while absent in a cicatrix. This is important to bear in mind, for I have several times seen a cicatrix mistaken for alopecia areata and treated in the hope of reproducing the hair! All treatment of a cicatrix with this object is illusory. The transplantation of hairs in deep scarifications made in cicatrices has been practised by *Hodara*, but up to the present its value is only theoretical.

ECZEMA OF CHILDREN.

Eczema of the scalp in children, between 3 and 10 years of age, is nearly always mixed with impetigo. Sometimes the impetigo is primary and is characterised by retro-auricular streptococcic intertrigo, blepharitis, etc., and sometimes by the impetigo of *Bockhart*. The eczematous condition which is superadded gives rise to a chronic red dermatitis which is dotted with suppurating follicles.

At other times the eczema is primary and the streptococcus is grafted on it, creating impetiginisation of the eczematous surfaces; or a surface, at first eczematous, may be riddled with secondary follicular pustules.

Eczema of the scalp is never limited exclusively to the scalp and is always characterised by punctate epidermic orifices, hardly visible

to the eye, which exude minute serous drops. This form of eczema is often connected with a general condition. The child is puny, with a pale complexion and œdematous skin. It may have intermittent albuminuria and diminished acidity of the urine. The duration of this affection is variable, lasting for months or years; and it is liable to recurrence.

The first condition of treatment is change of air, if possible at the seaside. These forms of eczema are benefited by sea air. Local treatment is the same as for ordinary impetigo, by zinc sulphate lotion (1 per cent); nitrate of silver (1 in 15); zinc paste (half strength), etc. In impetiginous eczema, or in eczematised impetigo, mild tar ointments give good results:—

Oxide of Zinc	} aa	5 grammes	ʒi fs
Oil of Cade			
Vaseline	} aa	15 grammes	ʒ fs
Lanoline			

SMALL SPORED RINGWORM (MICROSPORON).

Small spored ringworm is the most common of the ringworms: *i.e.*, diseases of the epidermis and hair caused by a cryptogamic parasite. It is characterised by dry, squamous patches, from 1 to 2 inches in diameter, nearly circular and with well defined borders. The hairs on these patches are less numerous than in the normal hair. Some hairs preserve their characters, but others are broken off a short distance above the skin, and covered with a grey coating (Fig. 77). These break off at the level of the skin when they are epilated. A dozen grey stumps may be removed together by the fingers, and this differentiates this form of ringworm from all others.

Sometimes the disease occurs in the form of a single large patch; at other times there may be five to ten smaller patches. These patches may coalesce and form a large patch, more or less polycylic. This form of ringworm may eventually cover the whole head, except in places where islands of healthy skin and hair are left. The disease is extremely slow and chronic and when left to itself persists for 2 to 7 years and terminates in spontaneous cure at about the 15th year. The old patches resemble finely squamous eczema with scattered hairs. Sometimes small spots of ringworm remain in a healthy head of hair. These form small grey areas on which a few

long ringworm hairs may be recognized by their grey covering and fragility.

The disease is contagious during its whole duration. The first place inoculated forms a red, slightly papular macula, situated near the margin of the scalp; an erythema in the form of a rosette (Fig. 77). The redness disappears, the hairs are attacked and become friable, and the patch becomes squamous on its whole

Fig. 76. Small spored ringworm, erythematous at its onset. (Vidal's patient. St. Louis Hosp. Museum, No. 612.)

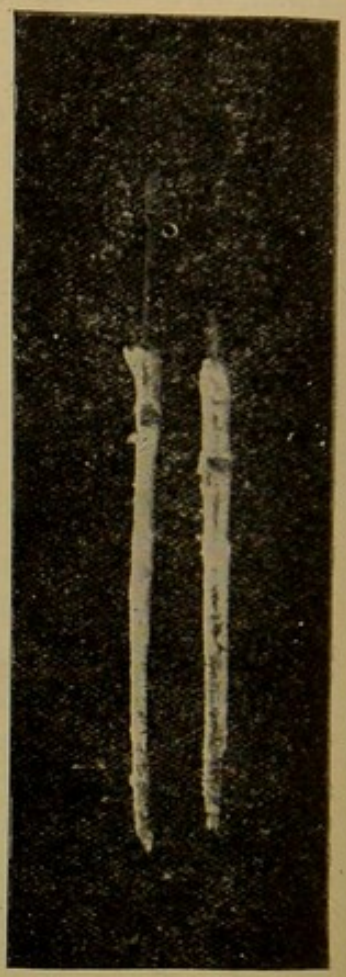


Fig. 77. Hairs affected with small spored ringworm magnified. (Sabouraud's preparation. Photo by Noiré.)

surface. This disease is eminently contagious and epidemic. It occurs in schools, where it may attack almost at once two-thirds or three-quarters of the children in a few weeks.

Microscopic examination of the hair confirms the diagnosis, and should be practised on the short broken hairs, removed by the fingers. When warmed between two slides in a drop of liquor potassæ and examined with a power of 100 to 300 diameters and a small diaphragm, the hair shows a covering of small highly refrac-

tive spores, placed irregularly side by side. According to a classic comparison the hair resembles "a rod coated with paste and rolled in sand." These characters distinguish this species of ringworm from all others, and its parasite, the *Microsporon Andouini* from all the trichophytons and from the Achorion of favus. It can easily be cultivated on various solid media, especially a sugary medium, and forms in a few weeks a circular radiating corpet of white silky down, which is most characteristic (Fig. 81).

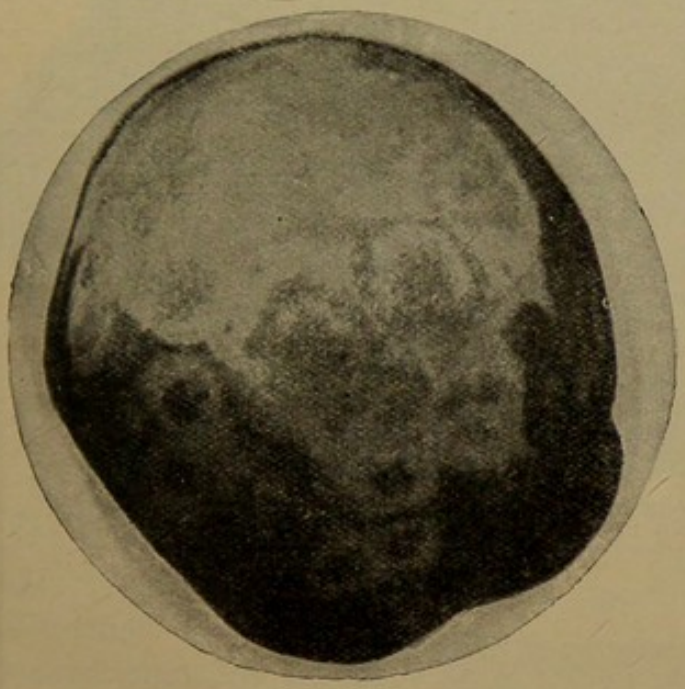


Fig. 78. Small spored ringworm, with patches in the form of rosette. Half the scalp has been epilated. (Sabouraud's patient.)

There are three varieties of this parasite known, besides the human species; two in the horse and one in the dog. They may be inoculated in man on the smooth skin, and form large erythematous patches, and on the beard. On the beard, as in the animal, these varieties of ringworm imitate exactly the microsporon of the child's scalp in all its symptoms. The treatment of this affection and of other forms of ringworm will be explained later on (p. 196).

LARGE SPORED RINGWORM.

This form of ringworm is rather less common than the preceding and also more difficult to recognise. It is characterised by very numerous diseased points marked by a small heap of adherent squames, resembling a dry crust. The diseased hairs are imbedded in the squames. In order to examine them the squames must be raised, when they appear on the under surface as small, white curved roots. When the crusts have been removed by appropriate treatment

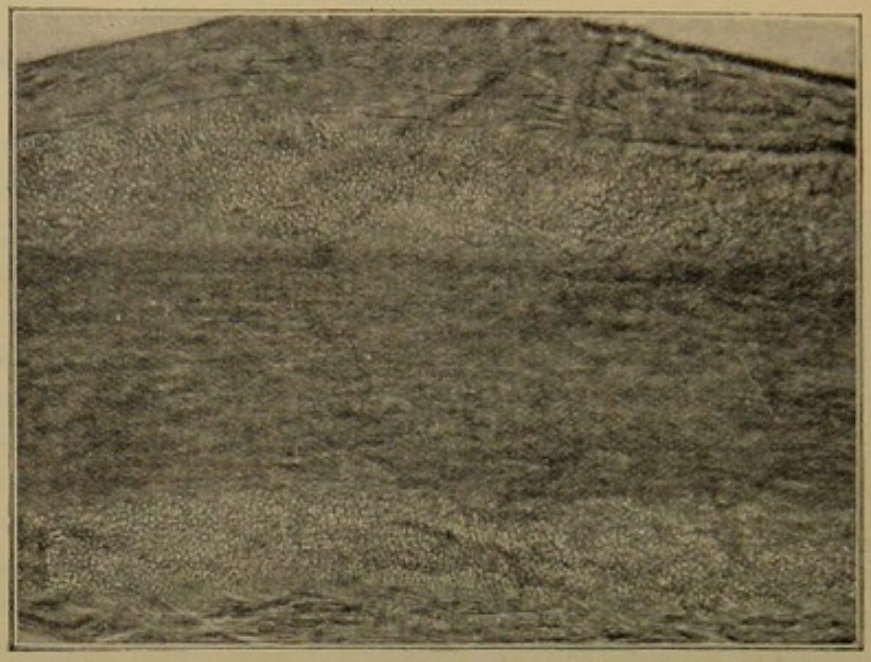


Fig. 79. Hair from small spored ringworm: enlarged 300 diameters. (Sabouraud's preparation. Photo. by Noiré.)

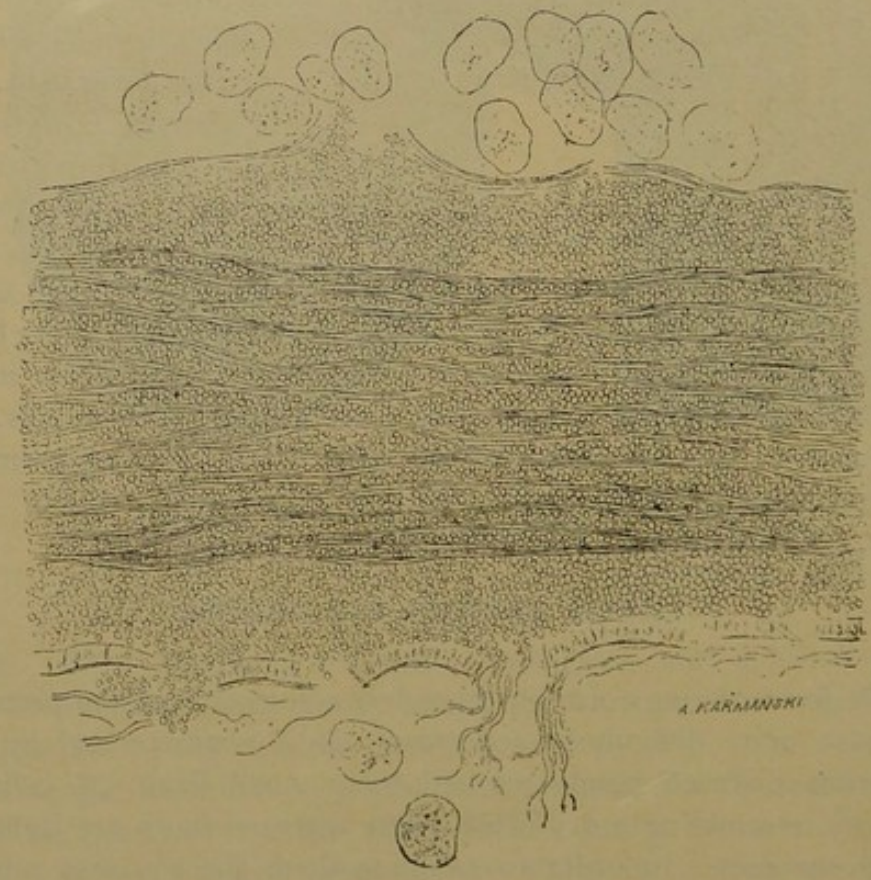


Fig. 80. Hair from small spored ringworm: enlarged 300 diameters. (Sabouraud's preparation. Drawing by Karmanski.)

the hairs appear as short black curved stumps lying on the skin and covered by the horny layer of the epidermis. They cannot, therefore, be removed by the fingers or even by forceps, but must be raised with a needle. By the microscopic examination of these remains of hairs diagnosis can only be made. (Fig. 83.)

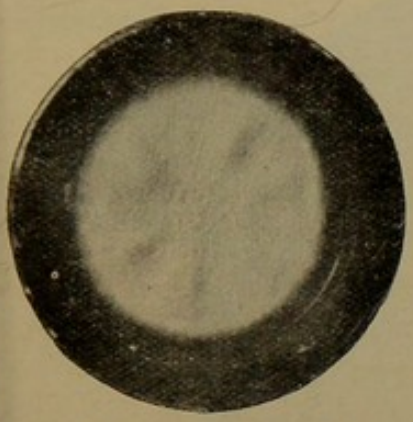


Fig. 81. Culture of Microsporum Audouini on glucosised gelose-peptone, 4 per cent. Natural size: 3 weeks old. (Sabouraud's preparation. Photo. by Noiré.)

The technique of examination and culture are the same as for microsporon (p. 190). The parasite, with the same magnification, appears formed of much larger spores than those of the microsporon, and arranged in regular mycelial chains. All these chains forming an arrangement of parallel filaments are contained in the hair (*Trichophyton endothrix*). The culture on 1 per cent gelose-peptone, glucocised to 4 per cent. has a characteristic crateriform appearance (Fig. 84). In distinction to the small spored ringworm the large spored form consists of numerous small patches containing from 10 to 5 hairs, or even less; larger patches are rare. It is difficult to distinguish by the eye the absence of the missing hairs, for it is not the hair that is seen but the multiple points of pityriasis. The diagnosis, difficult in the case of short hair, is almost impossible when the hair is worn long. In these cases the disease is often revealed by accessory inoculations on the smooth skin of the face or neck; red maculæ, forming as they enlarge segments of circles, finely vesicular at their margins.

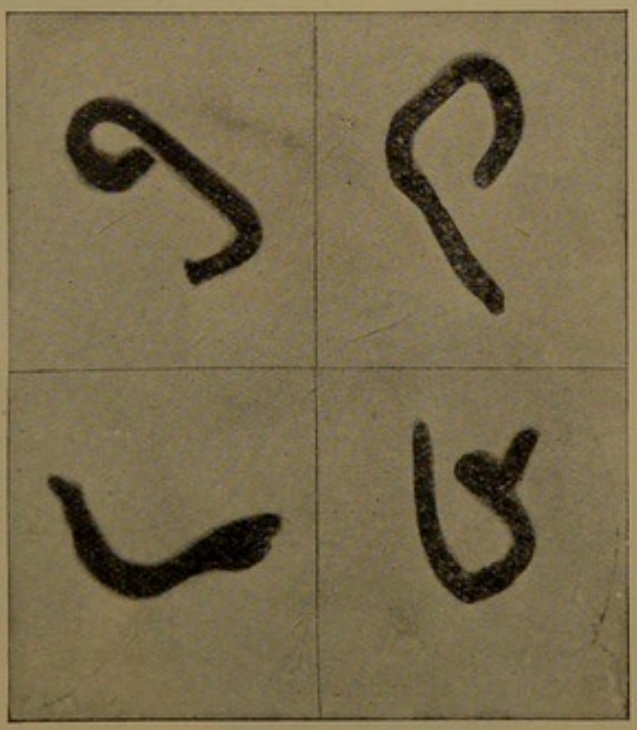


Fig. 82. Stumps of hairs, seen with a lens as they appear under the epidermis. (Sabouraud's preparation. Photo. by Noiré.)

This disease, like the preceding, is contagious and epidemic, and

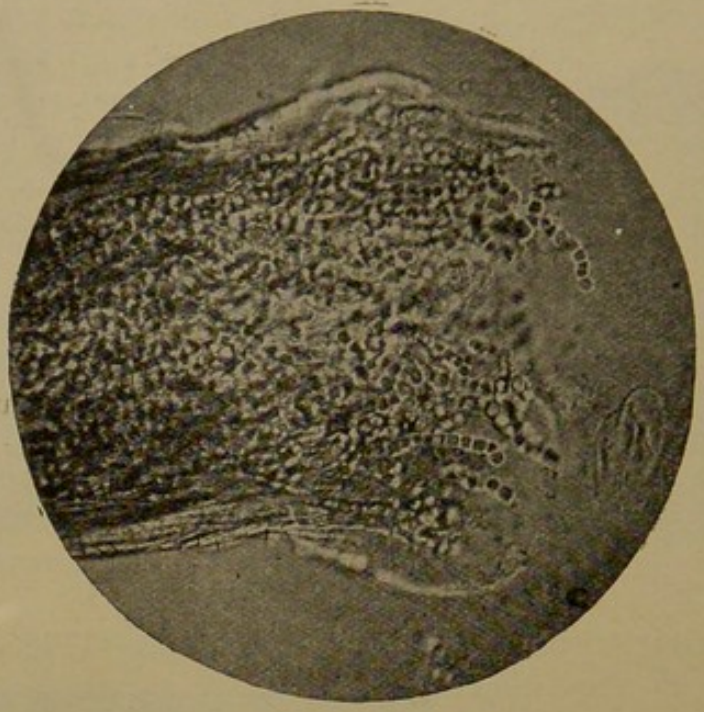


Fig. 83. Hair from large spored ringworm. Enlarged 250 diameters. (Sabouraud's preparation. Photo. by Rothier.)

endemic in the infantile population of all great centres. It is of very slow evolution and long duration, some cases persisting for 8 or 10 years, and even extending beyond puberty in young girls. It generally terminates by spontaneous cure, without leaving any trace. The treatment is dealt with later on (p. 196).

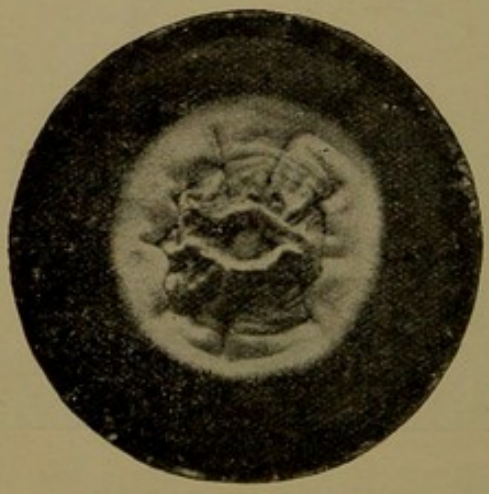


Fig. 84. Culture of large spored ringworm on glucocised gelose-peptone. (Sabouraud's culture. Photo. by Noiré.)

The trichophytons form a cryptogamic family, the species of which vary in different countries. Numerous species co-exist in each country, each having its special localisations and clinical type, which are more or less recognisable (see Ringworm of the beard (p. 157).

RINGWORM OF ANIMAL ORIGIN.

On the scalp of the child there occur types which are much less common than the preceding ones. Their culture is acuminate, brown

Fig. 85. Cultures on glucocised gelose-peptone showing the three chief parasites of ringworm. From right to left Microsporon Audouini: Trichophyton crateriforme: Trichophyton accuminatum. (Cultures by Sabouraud. Photo. by Noiré.)

or violet (*T. acuminatum: T. violaceum*). The ringworm which they cause on the scalp of the child is identical with the preceding, except that there is a large primary patch around which secondary points occur with decreasing frequency.

The *Trichophyton violaceum* may form on the neck a poly-circinate ringworm of elegant design. It may invade the scalp in women in rare cases (one case of 28, another of 62 years). It has also been observed in the nails in children and in the adult (p. 389); also in the horny epidermis of the sole of the foot (p. 399) and the palm of the hand (p. 356).

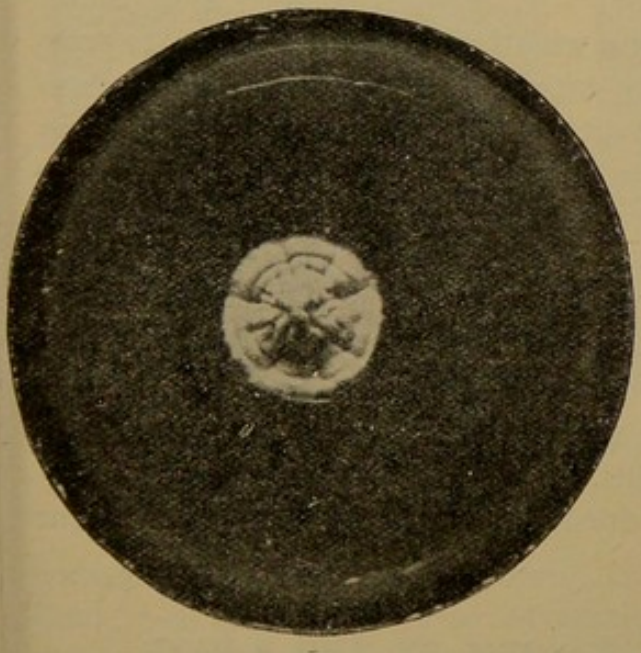


Fig. 86. Trichophyton acuminatum. (Culture by Sabouraud. Photo. by Noiré.) Culture on glucocised gelose: natural size.

These two species are not accompanied by follicular inflammatory reaction, which is seen in other forms of ringworm. (Kérion of Celsus, p. 158).

The hair, in all inflammatory trichophytons, shows a parasite formed of mycelial filaments and chains of spores. This is characteristic of trichophytons, as compared with the arrangement of irregularly placed small spores of Microsporon

Audouini. But in the inflammatory trichophytons the parasite is *endo-ectothrix*, or contained within the hair and invading the follicle around it, causing inflammatory folliculitis. This sign is characteristic of trichophytons of animal origin.

TREATMENT OF RINGWORM.

Prophylaxis. This treatment includes isolation of the contaminated patients. This isolation is relative; but the disease being very contagious for children, every healthy child should be removed from the vicinity of one affected with ringworm. On the other hand adults, who may contract only a circinate vesicular erythema, easily curable by a few applications of iodine, may remain with the subjects of ringworm.

Local Prophylaxis. A patch of ringworm being capable of indefinitely inoculating the adjacent healthy scalp, the latter should be protected. For this purpose an application of tincture of iodine (1 in 5 or 1 in 10) should be made every night to the whole scalp.

Treatment of trichophytons with inflammatory follicular reaction. These trichophytons by expelling the hair and causing suppuration of the follicle are practically *autophagous*. They destroy themselves, and the physician has only to attend to local prophylaxis and treat the local irritation. For this purpose all the hairs, living or dead, on the surface of the Kérion, and the peripheral zone of healthy hairs, should be epilated with forceps; after which poultices of potato starch or simple moist dressings are applied. Pure tincture of iodine is contra-indicated, but it may be used in diluted form (1 in 10 or 1 in 15). Experience, however, shows that it is not efficacious, and that Kérion treated by epilation, cleanliness and moist dressings, is cured in the least time possible.

TREATMENT OF RINGWORM BY THE X-RAYS.

This method, whenever practicable, should be employed in preference to all others. The apparatus which I have established at the Lailler School of the St. Louis Hospital has allowed me to form regulations for the use of the X-rays in the treatment of

ringworm. An ordinary current supplies a dynamo of ¾ horse power, which in turn supplies a static machine with 12 plates. The condensers of this machine collect the electricity produced and conduct it to the two poles of a *Chabaud's* tube, with a *Villars'* osmo-regulator. A *Béclère's* spintermeter is interposed in the circuit, which measures the equivalence, in length of spark, of the internal resistance of the tube. Lastly on each wire is placed the detonator of *Destot* which allows the resistance of the tube to be increased when required. The tube is enclosed in a lantern of lead foil which allows the X-rays to pass only by a lateral orifice. Around this orifice is a cylinder to limit the

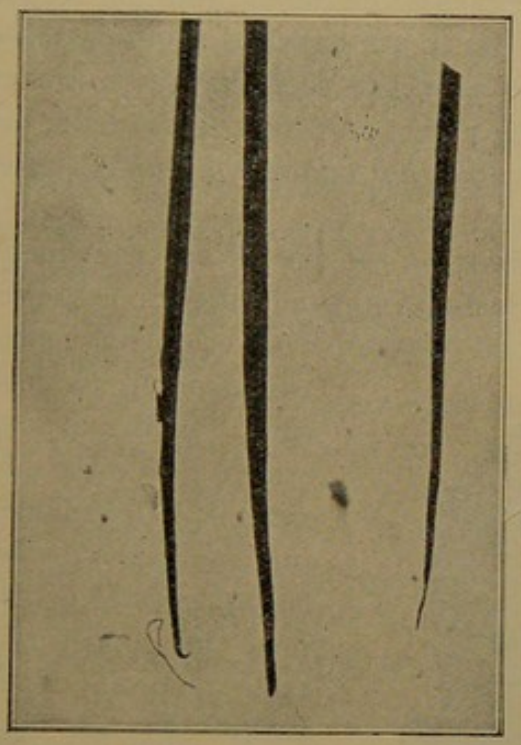


Fig. 87. Roots of healthy hairs from a patch of ringworm 18 days after radiotherapy. (Preparation by Sabouraud. Photo. by Noiré.)

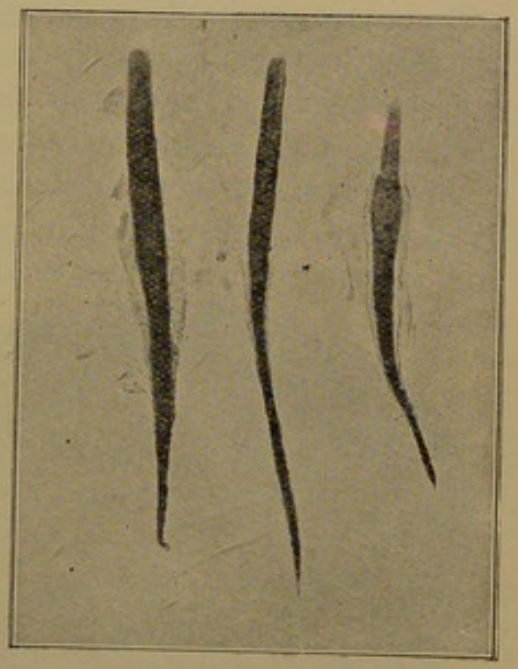


Fig. 88. Ringworm hairs spontaneously expelled 20 days after radiotherapy. (Preparation by Sabouraud. Photo. by Noiré.)

emission of rays to a single useful pencil, and to fix the patient's head at a fixed distance of 15 centimetres (6 inches) from the centre of the tube. To complete this preparation, a pastille of platino-cyanide of barium is placed at a distance of 8 centimetres (3 1-5 inches) from the centre of the tube at a fixed point of the lantern.

This yellow paper becomes brown under the influence of the X-rays and acts as a control apparatus (radiometer X of *Sabou-*

raud and *Noiré*). The sitting is then terminated and the scalp of the patient has received the quantity of X-rays necessary to cause total alopecia of the region exposed, without provoking erythema or radiodermatitis and without preventing restoration later.

A patch of ringworm is thus cured at a single sitting; two patches at a distance from each other in two sittings, and so on. Sometimes it is necessary to depilate the entire head, and in this case the parts treated are covered with discs of lead, to avoid any region receiving a double dose.

To depilate the entire head requires 12 successive sittings, which are of 8 to 13 minutes with the above apparatus, or about two hours in all. The hairs fall in 15 to 20 days after the sitting, and on the 25th day the roots of the affected hairs are expelled spontaneously, still containing the living parasite. On the 30th day there are no traces of hair or of parasite on the patch, and the child is bald, but not contagious. The hair begins to grow again 2½ months after the sitting and is complete in 5 months.

Accidents. If the time limit fixed by the tint of our radiometer is exceeded, whatever the kind of instrument used, there is danger of radiodermatitis, which may be of all degrees, from erythema lasting 15 days, up to scarring, which may persist for several months. All radiodermatitis, even when slight, leads to permanent and almost complete alopecia of the scalp. On the other hand insufficiency of time causes incomplete depilation and the survival of diseased hairs. This necessitates repetition of the treatment and increases the chance of incomplete restoration of hair.

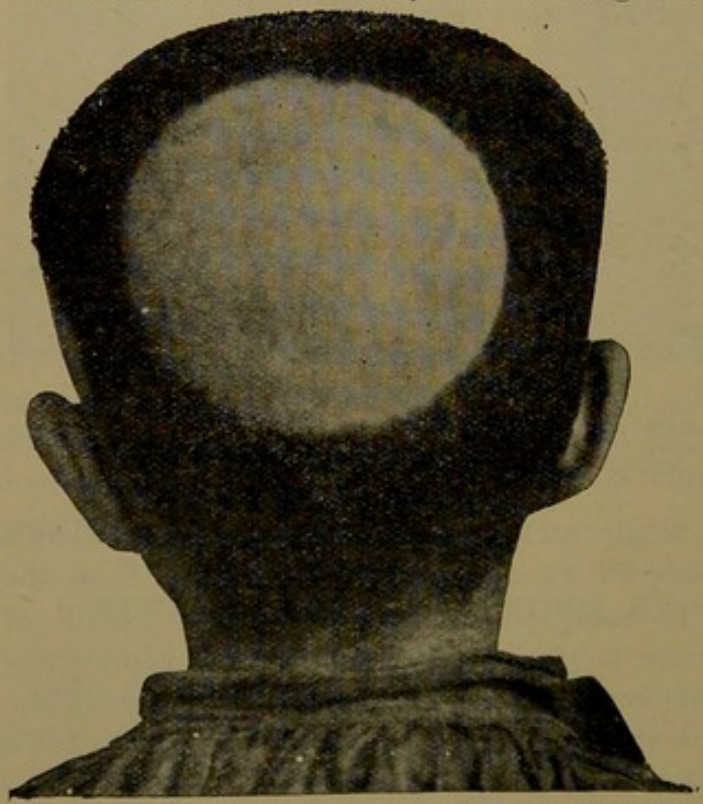


Fig. 89. Surface exposed 30 days after radiotherapy. (Sabouraud's patient. Photo. by Noiré.)

When two consecu-

tive applications of the X-rays are made without precautions, a spindle-shaped space receives a double dose, and even when it only shows an erythema for 10 days, the hair grows badly or not at all. On the contrary, when two adjacent applications do not exactly coincide, bands of hair remain between the surfaces treated, which require new treatment. The X-rays cause a temporary change in the vitality of the region which they touch, and it frequently happens that an eruption of pustular impetigo breaks out on the surfaces exposed. This is treated, as usual, by applications of sulphur. Finally the healthy parts must be protected against contagion by the daily application of tincture of iodine (1 in 5), till depilation is complete.

FORMER TREATMENT OF RINGWORM.

When the necessary apparatus for the production of X-rays is not at hand, ringworm may be treated by the older methods, which include:—

1. Epilation, repeated every 15 days, of the diseased patches and their periphery.

2. The daily application of tincture of iodine (1 in 5) to the entire scalp to avoid re-inoculation.

3. The application of croton oil, every 10 days, to provoke folliculitis (which is the same as causing the conditions which lead to the spontaneous cure of Kérion). But this method leads to permanent cicatrices, following the deep suppurating dermatitis which croton oil produces when imprudently used.

By these methods, and by slow epilation of the remainder of the diseased hairs, the cure of ringworm may be obtained in 9 or 10 months. But with the best epilation and the best treatment a percentage of bad cases remain, the duration of which is unlimited.

FAVUS.

In distinction to ringworm, which is especially an urban disease, favus occurs in rural districts. It may occur at any age. In the ordinary form the disease is constituted by a number of irregular but clearly defined patches, covered with sulphur yellow crusts, like clay in colour and consistence. The crusts are circular and vary in

size, the largest being from one to two centimetres and showing circular "waves." These are the "cups," the smallest of which form

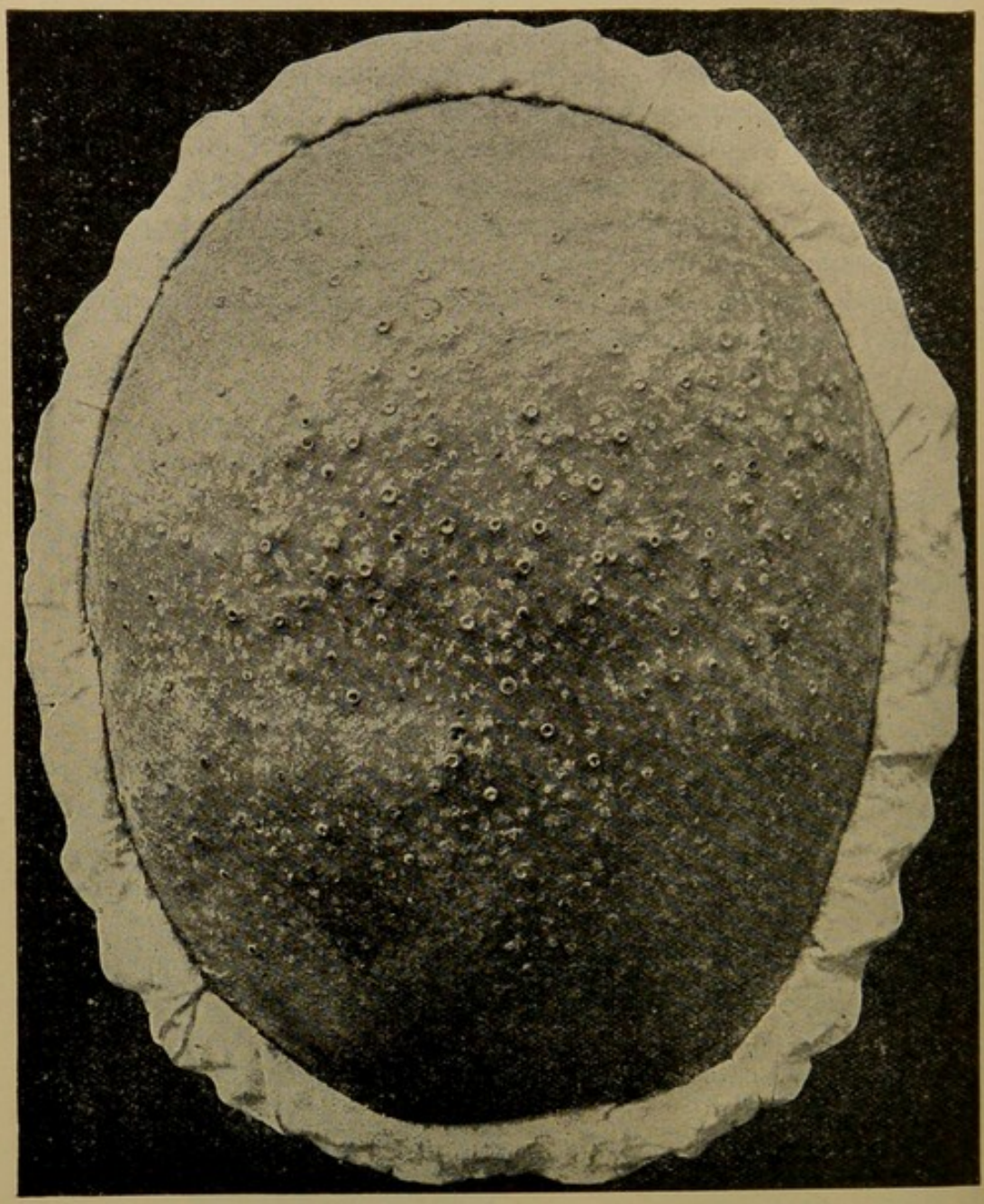


Fig. 90. Favus with small cups after epilation of the scalp. (Besnier's patient. St. Louis Hosp. Museum, No. 548.)

a simple ring round the hair. These cups are transversed by the hairs and set in the skin; they may be detached easily in pieces, leaving an apparently deep bleeding surface. The duration of the dis-

ease is indefinite, the lesions extending peripherally and causing re-inoculation at a distance. Eventually they are incompletely cured in places by cicatrices. Besides the cup-shaped form there are two others; (1) *pityriasiform*, somewhat common, in which the patches, of the same size and evolution as those of normal favus, present no crusts, but a chronically red surface covered with adherent squames; (2) an *impetiginous* form of the same character, but with impetiginous, honey-like crusts. In these cases diagnosis must first be made by the long duration of the disease in one place. All patches of chronic evolution, persisting more than three months in the same place should suggest favus.

The diagnosis rests on the character of the hairs. These are longer than normal, but are decolorised for a centimetre and a half from the base; for this extent they are grey and have lost their gloss. The diagnosis is finally certified by microscopic examination (p. 190). The favus hair shows a mycelial parasite, composed of irregular flexible filaments, not numerous and often dead, when their course is indicated by a bubble of air of the same form. The living mycelial filaments are composed of segments of different sizes and shapes and their sporulating parts are subdivided by trichotomy and tetrachotomy. The cup is not a crust, but an accumulation of mycelium, more regular than those of the hair. The culture of the parasite taken from the cup or from the hair is excavated, yellow, and puffed up, resembling a sponge. Human favus belongs to one species only, the two other species of

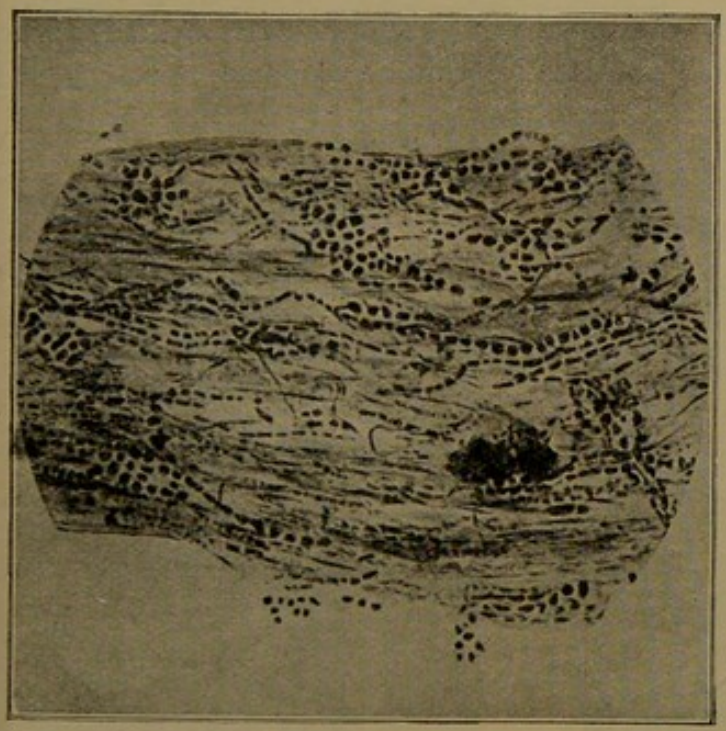


Fig. 91. Hair from favus: enlarged 250 diameters. (Preparation by Bodin. Photo. by Rothier.)

favus described are found only in animals (mice and fowls, etc.).

The treatment of favus, according to *Bazin*, consists in epilation by forceps repeated for 5 or 6 months, to provoke sterilisation of the hair follicles.

. Depilation by radiotherapy is as easily carried out for favus as for ringworm, and is equally curative, but in a fifth of the cases the cure is incomplete. At some points the germs survive and new cups are formed on the skin, while the hairs have not had time to grow again.

Our custom at the Lailler School is to cause epilation by radiotherapy first, and when new cups appear to renew the application to the places which are not cured, a month later.

Favus is not limited to the scalp, but may occur in all regions of the body and on the nails (p. 389).

ALOPECIA AREATA IN CHILDREN.

This was admirably described by Celsus (*De re medica*), who gave it the name of σριχτις. It is a primary alopecia, not preceded

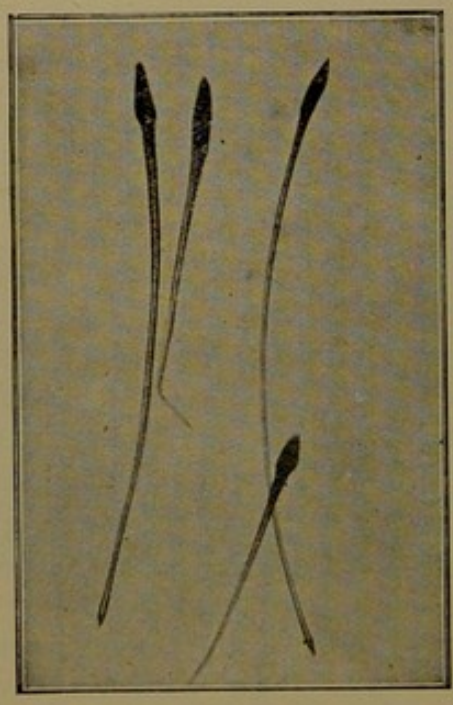


Fig. 92. Club-shaped Alopecic hairs. (Preparation by Sabouraud. Photo. by Noiré.)

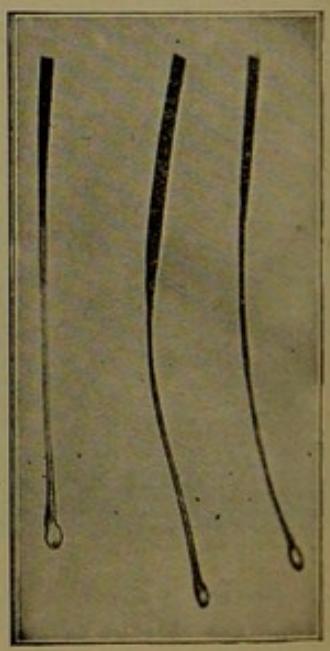


Fig. 93. Alopecic hairs magnified. (Preparation by Sabouraud. Photo. by Noiré.)

by any functional symptom, excepting rarely some degree of local pruritus. The hair falls either diffusely over a limited region, or more usually, in areas which are complete from the first.

This area may be median, occupying the sub-occipital fossa, or lateral and roughly symmetrical, on some part of the occiput. The denuded surface is irregular and smooth. It may become arrested and undergo resolution at any time; on the other hand it may increase and denude the whole scalp and body. On the scalp, areas in process of extension are indicated by the presence of the characteristic hairs, in groups or isolated.

Fig. 94. Débris of atrophic hairs round an alopecic patch.
(Preparation by Sabourard. Photo. by Noiré.)

These hairs, which have been compared to points of exclamation (!), are in process of atrophy; they resemble a piece of needle stuck in the skin. From above downwards they diminish in size and colour, and fall out more or less rapidly. Areas in process of restoration are indicated by the growth of fine downy colourless larger and pigmented normal hairs, which are succeeded by hairs.

Fig. 95. Accumulations of cortical cells of hairs eliminated from the follicles.
(Preparation by Sabouraud. Photo. by Noiré.)

On the alopecic area there are often dead hairs enclosed in the skin, which can be epilated without traction; or black punctiform debris in the hair follicles, which can be removed by scraping. (Fig. 95.) This debris is often mistaken

for a new growth or hair; on the contrary they are hairs in process of dissolution, or the debris of dead hairs.

Alopecia areata of the nape of the neck, during extension, often becomes cured from below in proportion to its extent above. New patches are often seen at the margin, which coalesce with the primary patch (arciform alopecia). At other times it is prolonged above both ears, denudes the temples, and joins by its two extremities in front. On the other hand, the process may be reversed and it may commence by a large frontal notch and extend from before backwards, or become limited above the ears, on one or both sides.

In any case the alopecia shows a remarkable tendency to limit itself to the borders and extend round the head. However, even with this localisation it may be accompanied by patches of all shapes and sizes scattered over the scalp. The alopecia which causes total baldness usually proceeds in this manner.

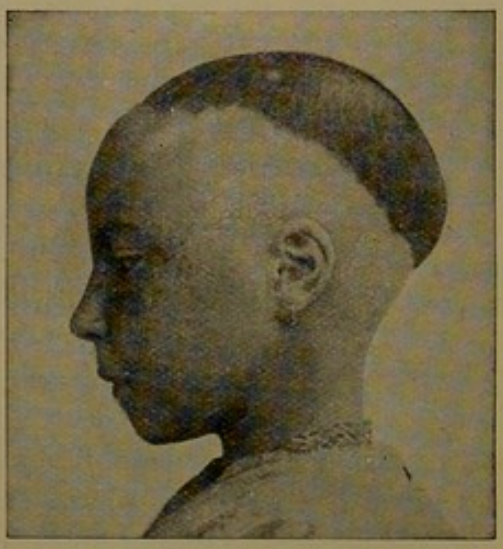


Fig. 96. Ophiasic Alopecia. (Sabouraud's patient. Photo by Noiré.)

The progress of the disease is always slow, but very variable. The average duration is about 17 or 18 months and the most favourable cases are cured in 3 or 4 months. Some cases are never cured. This is especially the case in a diffuse retro-auricular form, which always remains diffuse and incomplete, and terminates by absolute disappearance of the affected follicles. In this form the hair cannot be restored by treatment. In other forms, apparently cured, the disease may recur after an interval of 5 or 15 years. It is sometimes hereditary and consanguineous. As a rule the disease does not appear to be contagious. This disease of hairy localisation seems to be a general disease, for in many cases the nails show traces of alteration. The cause, in my opinion, is absolutely unknown; it usually begins at 4 to 7 years and disappears at puberty; but not always, for some cases are never cured. In children affected with alopecia areata, want of tone of the venous system, choreiform movements and excessive adiposity are often observed. Excepting

alopecic heredity, which I have observed in about 4 per cent of the cases, no hereditary taint appears to be common.

The treatment is unsatisfactory, owing to the etiological uncertainty of the subject. In benign cases local revulsion appears to be of use. This may be obtained by many methods; glacial acetic acid, 1 in 40; lactic acid, 20 per cent; ammonia, 10 per cent; liquid blistering agents followed by cauterisation with nitrate of silver (1 in 15). All these agents may be employed with frequent success, but without absolutely constant results.

Fig. 97. Alopecia areata of child. (Sabouraud's patient. Photo. by Noiré.)

All forms of treatment have claimed successes; sulphur baths, external tonics, alcoholic frictions, internal tonics, etc. These may be prescribed according to circumstances, after careful examination of the patient, but without prejudice or previous theory. The X-rays and phototherapy, especially the former, have several times given surprising results, such as re-growth of a circle of hair in the middle of a bald area. But this growth is only temporary and is not the rule. Alopecia areata still waits for a valid etiological doctrine and a rational treatment.

THE SCALP IN THE ADULT.

Pityriasis, seborrhœa and the so-called seborrhœic eczema, constitute a morbid group which includes half the dermatoses of the scalp occurring between the ages of 15 to 20 years in both sexes.

Ideas on these subjects are so confused that I think it useful to review at first the relationships of these morbid types, in a special page. We are not concerned here with controversial opinions, but with clinical observations.

1. *At 10 or 12 years of age the heads of certain children are covered with pellicles which persist during several years. These pellicles are dry and the condition is not accompanied by any alopecia . . . . . .* — Pityriasis simplex p. 207

2. *From 14 to 18 or 16 to 20, these dry pellicles seem to become progressively fatty and are accompanied by diffuse alopecia, with changes in the ends of the hairs . . . . . .* — Pityriasis steatoides, Alopecia pityrodes . . . p. 208; Trichoptilosis . . p. 210

3. *In males this condition is the second stage of a clinical series of which the third is seborrhoea decalvans of the scalp. The pellicles gradually disappear but the fatty element remains and increases, on the vertex: the alopecia increases, becomes localised and constitutes baldness of the masculine type . . . . . .* — Seborrhœa decalvans. Common baldness . . . p. 211

4. *In women this third stage occurs rarely: it ends, as in men, with baldness of the masculine type . . . . . .* — Masculine baldness in women p. 214

5. *Usually women reach the second stage and remain there. They retain permanently fatty pellicles and a diffuse paroxysmal alopecia of the temporo-frontal region, sometimes in bands of the frontal border of the scalp . .* — Pityriasis steatoides in women . p. 214; Frontal Alopecia of women

6. *Chronic pityriasis is formed by chronically fused elements. Originally it is formed of distinct spots. When it becomes diffused over the scalp it preserves this form, in distinct squamous patches, which may or may not be complicated with eczematisation; i. e. subsquamous exudation. This seborrhoeic eczema is, by Unna, regarded as the natural development of simple or steatoid pityriasis, and the word "seborrhoeic eczema" is applied by him to all the preceding conditions . . . . . .* — Eczematisation of pityriasis . . . p. 215

7. *Lastly, in certain cases the exudation is profuse and a true impetiginous eczema succeeds the pityriasiform conditions, locally or remotely. The Hamburg school still classes most of these moist eczemas among the seborrhoeic eczemas* . . . . . Eczema impetiginodes . . . p. 216

Apart from these morbid forms which are more or less dependent on pityriasis, a dry eczema may occur on the scalp, differing from pityriasis, in its characters and microscopical structure . . . . . Eczema sicca . . p. 216

Psoriasis in all its forms may occur on the scalp alone, or at the same time as on the body . . . . Psoriasis . . . . p. 217

Alopecia areata frequently occurs at middle age, and several types may be differentiated which we shall study separately; many others cannot be differentiated and we shall study these together . . Alopecia areata in the adult . . . p. 219

We shall differentiate from alopecia areata, the cicatricial permanent alopecia with small areas, known in France as the pseudo-alopecia areata of Brocq . . . . . Pseudo-alopecia areata of Brocq. p. 224

We shall next deal with lupus erythematosus, which is fairly common on the scalp, where it presents the most marked atrophic characters . . . Lupus Erythematosus . . . p. 225

We shall say a few words concerning the small, raised, chronic, squamous lesions, with cicatricial evolution, of lichen planus corneus atrophicus . . Lichen planus corneus atrophicus . . . . p. 226

After this we shall study post-infectious alopecias, in general . . . . . Post-infectious alopecias . . . . p. 226

. . . *and syphilitic alopecia, together with the other syphilitic lesions which may occur on the scalp* . . . . . Syphilis of the Scalp . . . . . p. 228

PITYRIASIS SIMPLEX.

Pityriasis simplex is a chronic dermatomycosis of the scalp, limited to continual exfoliation, dry, and without redness of the horny layer. It is associated with the constant presence of the cryptogamic parasite known as the *Spore of Malassez* (1874) and incorrectly under the name of the *bottle-bacillus* of *Unna* (1892). This parasite occurs plentifully in all the squames of pityriasis.

Pityriasis, which always appears to arise by distinct squamous patches, remains afterwards diffuse. It is formed of more or less fine powdery or lamellar squames, which are easily detached from

the horny epidermis and fall on the clothes. This condition is accompanied by slight itching, more marked during sweating. There is no alopecia. "So long as the squames of pityriasis fall, the hairs do not fall."

This condition is very tenacious; treatment removes it, but it recurs. In the course of time it is transformed locally into alopecic pityriasis with apparently fatty squames, which we shall study shortly. In rare cases the pityriasis remains dry for life.

Active treatment only gives temporary benefit. The following ointments may be applied every night and washed off in the morning:—

(1) Oil of Cade		10 grammes	℥ fs
Ichthyol, Resorcine, Oil of birch	aa	1 gramme	gr. 24
Lanoline		20 grammes	℥j
(2) Oil of Cade		10 grammes	℥ fs
Pyrogallic acid, Yellow oxide of Mercury, Resorcine	aa	1 gramme	gr. 24
Lanoline		20 grammes	℥j

Together with the active remedies, weaker preparations may be used as hygienic measures:—

(1) Sulphide of potash	1 part	
Distilled water	300 parts	
Spirit of lavender	25 grammes	℥j
Bichloride of Mercury	30 centigrammes	gr. ½
Coal tar (saponified)	25 grammes	℥j
Alcohol, 60 per cent	250 "	℥j
Glacial acetic acid	5 drops	mj

PITYRIASIS STEATOIDES. ALOPECIC PITYRIASIS.

In the adult, usually towards the 15th or 16th year, the squames of pityriasis become thick and yellow and leave a grease spot on blotting paper. This condition renders them less easily detached and they remain on the scalp. "They fall no more, but then it is the hairs which fall." The hairs fall off more and more; at first in the summer, but afterwards at all seasons; sometimes in bunches, sometimes gradually. In this way is constituted pellicular alopecia, which in the adolescent is a premonitory stage of baldness in women.

the forerunner of chronic recurrent diffuse alopecia. Steatoid pityriasis occurs diffusely on the vertex and the temples, as far as the retro-auricular regions, where it often forms isolated patches. The functional symptoms are limited to more or less marked itching and alopecia.

The hair which falls comes out entire with bulbs in the form of a turnip. They have a tendency to be replaced by new hairs, which in untreated cases also fall out.

The treatment of steatoid pityriasis is the same as that of the dry pityriasis. The more fatty the scales, the more sulphur is added to the oil of cade ointments. Fatty pityriasis should be treated actively for several weeks, followed by lotions to keep the head free from fat. The alopecia ceases with the fatty condition of the surface, and returns with it. This condition persists in women during life, with a maximum of the pellicular condition towards 20 or 25 years and a maximum fall of hairs at 25 to 35 years. In men there is usually an intermediate stage between dry pityriasis and seborrhœa, between the 15th and 18th years.

ALOPECIA PITYROIDES.

This alopecia is paroxysmal and the result of the preceding form of pityriasis. It occurs at first every year in the summer; then begins earlier and ends later, finally becoming continuous, with exacerbations coinciding with temporary increase in the fatty state of the skin and hair. This condition is transitory in men and precedes seborrhœa. In women, who only exceptionally become bald, it is a permanent condition. Thus at about the twentieth year women are divided into two categories; those who never lose their hair and those who constantly lose too much.

This alopecia is always diffuse, but more marked on the temples and forehead. It never ends in making a region completely bald, but renders the hair more and more scanty.

All treatment removing fat is useful in these cases; soap, lotions of sulphur and ether, ammonia, etc., arrest or considerably diminish the fall of hair and favour the new growth which has a tendency to establish itself.

1. Wash once or twice a month with sulphur or oil of cade soaps or with sulphur lotion.

2. Daily friction by means of a brush, with either of the following:—

(1) Hoffmann's liquor . . .		225 grammes	℥j
Spirit of lavender		25 "	℥ss
Distilled water		50 "	℥ii
Nitrate of potash		50 centigrammes	gr. j
Liquid Ammonia		4 grammes	gr. 8
(2) Acetone		200 grammes	℥j
Coaltar (saponified) .	aa	25 grammes	℥j
Tincture of quillaia . .			
Spirit of lavender . . .	aa	25 grammes	℥j
Distilled water			
Hydrochlorate of pilocarpine		50 centigrammes	gr. j

This form of treatment, when long continued and modified according to the form and degree of the alopecia, gives good results, but requires patience.

TRICHOPTILOSIS. TRICHORRHEXIS.

I shall only say a few words concerning a very common lesion of the hair, as well as trichorrhexis nodosa (p. 144) occurring in the scalp of women affected with pityriasis and pityroid alopecia. This

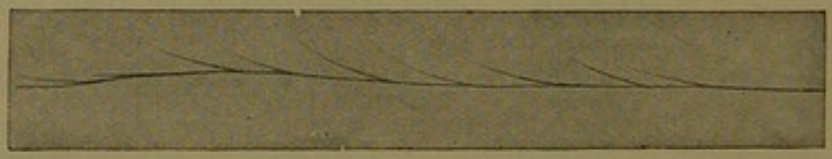


Fig. 98. Hair affected with trichoptillosis.
((Sabouraud's preparation. Photo. by Noiré.)

is trichoptilosis, which is too well represented in the figure to require any further description. The hair resembles a quill pen.

In trichorrhexis the hair presents near its extremity the nodes which we have described in the moustache. These lesions are generally caused by the too frequent use of soap.

SEBORRHOEA DECALVANS. BALDNESS.

Seborrhœa of the scalp, as in all other situations, is not a pellicular disease. but a hypersecretion of sebaceous fat. Its objective symptom and elementary lesion is a cylinder of fat contained in the sebaceous duct, which may be pressed out in the form of vermicular mass, the rudiment of the comedo. This fatty cylinder is the habitat of a colony of micro-organisms formed exclusively by the seborrhœic microbacillus, the presence and species of which are constant and characteristic.

Fig. 99. Medal of which the name of Hippocrates, from "hippocratic baldness" was derived.

The affection begins on the face and extends to the forehead and scalp. Its extension is synchronous with the commencement and development of the alopecia which causes common baldness in men; early

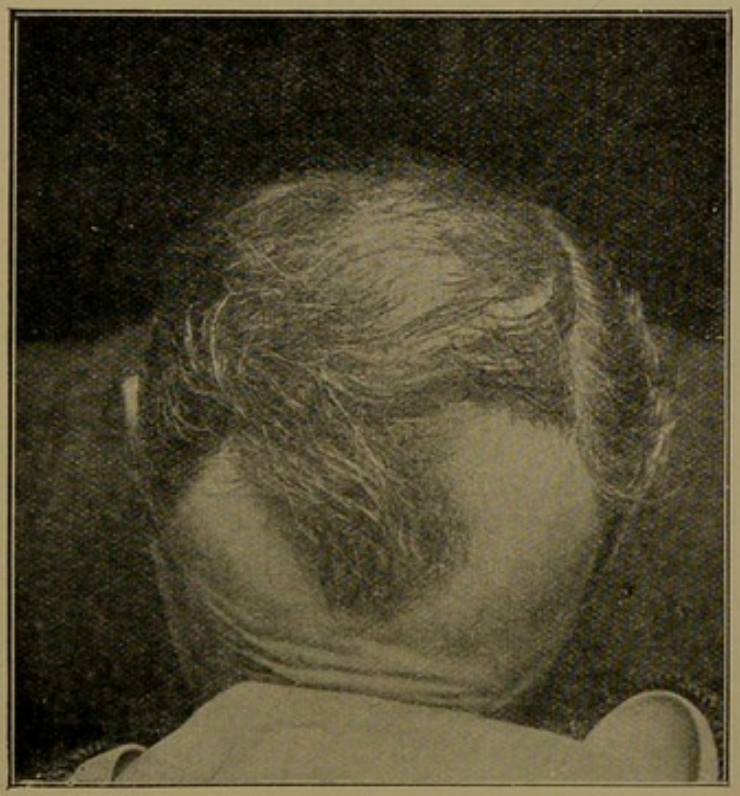


Fig. 100. Seborrhoea decalvans. Common baldness. (Sabouraud's patient. Photo. by Noiré.)

or late. This disease generally follows a fatty pityriasis, which it gradually supplants. Hence, seborrhœa causing baldness appears

clinically as the third stage of a disease, the first two stages of which were pityriasis simplex and pityriasis steatoides.

The alopecia of seborrhœa is much less diffuse and intense than that of pityriasis, and as a rule the younger the subject the quicker the progress. When it commences at 18 it causes baldness at 25, with a fall of three or four hundred hairs daily. When it commences at 25 it only ends in incomplete baldness at about 55 or 60, with a loss of 30 to 60 hairs a day, varying according to season.

The hairs fall out entire with their bulbs. They are reproduced by hairs which fall in their turn, each growth being slower or more scanty, till there is nothing but a downy growth on the scalp.

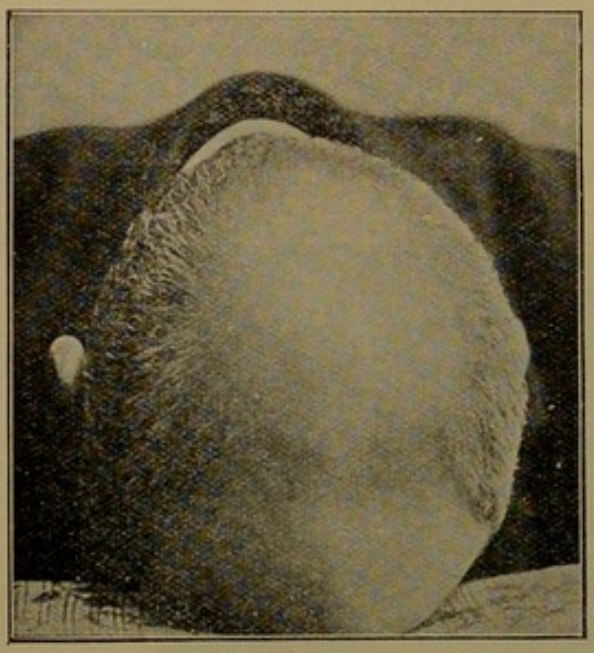


Fig. 101. Typical baldness due to Seborrhoea decalvans. (Sabouraud's patient.)

Sometimes seborrhœa, instead of replacing pityriasis, co-exists with it and forms a clinical picture, incorrectly named squamous seborrhœa. It is really a mixed process, a super-seborrhœic pityriasis.

The treatment of baldness gives mediocre results, but not none at all, as many think. The cure of baldness does not exist in the sense of restoring the hair completely, but treatment of a seborrhœic scalp may retard for many years a baldness in process of extension.

The treatment varies according to the form and age of the disease and the toleration of the skin for useful medicaments. The squamous element must first be treated, when this exists, by sulphur or oil of cade ointments, applied at night and washed off in the morning:—

Lanoline	aa	10 grammes ℥j
Vaseline		
Oil of Cade		
Oil of birch	aa	1 gramme gr. 5
Turpeth mineral		
Precipitated Sulphur		

This clears up the pityriasis and greatly diminishes the fall of hair. It should be followed by repeated soaping every night to remove the sebaceous exudation, the stagnation of which appears to be toxic for the hair; and by friction in the morning by lotions, of which the following are examples:—

(1)	Ether		200 grammes	℥j
	Alcohol, 96 per cent		50 "	℥ ii
	Tincture of Jaborandi	aa	25 "	℥j
	Coaltar (saponified)	aa	25 "	℥j
	Liquid Ammonia		5 "	m. xii
(2)	Absolute Alcohol		200 grammes	℥j
	Tincture of Capsicum		20 "	℥j
	Spirit of rosmary		30 "	℥j
	Sal Alembroth		30 centigrammes	gr. j

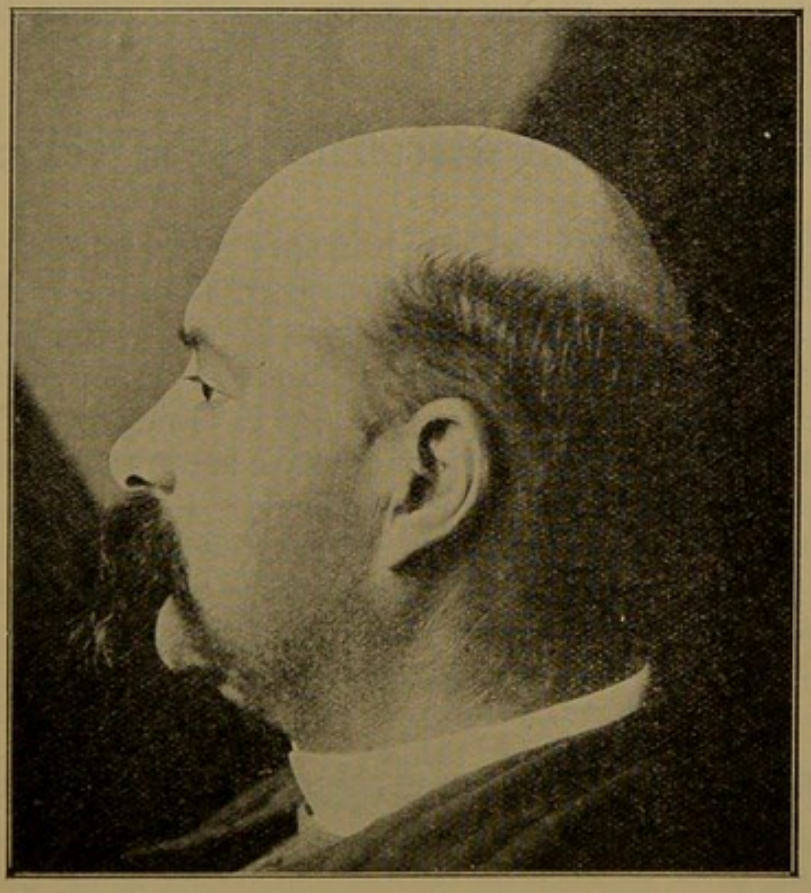


Fig. 102. Common baldness.

(3)	Distilled water		50 grammes	℥j
	Nitrate of potash	aa	50 centigrammes	gr. 5
	Nitrate of pilocarpine	aa	50 centigrammes	gr. 5

In cases where the sebaceous secretion is intense, more active treatment is required, with a basis of sulphur. These may be applied as powders or lotions.

(1) Precipitated Sulphur . . . . . } equal parts
Dried oatmeal . . . . . }

(2) Alcohol, 60 per cent . . . . . 20 grammes ʒii
Precipitated Sulphur . . . . . 10 " ʒj
Rose water . . . . . 70 " ʒj

(3) Sulphide of Carbon saturated with Sulphur (this is very inflammable and causes smarting).

By these measures, varied according to the results obtained, the intensity of the disease may be diminished by half or two-thirds, but in most cases without arresting it completely. However, a delay of 5 to 15 years in the evolution of baldness may be considered to be a satisfactory result in the case of a disease which cannot be cured absolutely.

BALDNESS OF THE MASCULINE TYPE IN WOMEN.

This occurs in women between the ages of 20 and 30, who at about the 15th year have had a hypertrichotic attack of intense pityriasis. In these subjects, who often have the shade of a moustache and excessive development of the body, baldness occurs with exactly the same symptoms and the same evolution as in men, and when left to itself has the same prognosis; progressive and irremediable denudation of the vertex. In women baldness is to be treated in the same way as in men and generally produces better results.

As in men, the disease at the ages of 30 to 35 gradually becomes less intense and progresses more slowly; but at this time the patient, with short hair, will have the appearance of a man three parts bald.

FRONTAL SEBORRHOEIC ALOPECIA IN YOUNG GIRLS.

In young girls, between the ages of 15 and 18, at the time when polymorphous acne of the face occurs, and in constant co-existence with this morbid type, there appears, on the frontal border of the scalp, a mixture of pityriasis, seborrhœa and polymorphous acne with small elements, the whole disposed in a band about an inch

wide, taken at the expense of the front of the scalp and extending from one ear to the other. We have already spoken of this form of alopecia in studying the frontal region (p. 122).

The treatment, if the case is seen at the time of appearance of this local seborrhœa, is that of all forms of acne; sulphur lotion and ointment:—

Precipitated Sulphur	aa	1 gramme	gr. 16
Ichthyol			
Resorcine			
Oil of Cade		5 "	3i fs
Lanoline		30 "	3j

This is cleaned off in the morning with absorbent wool moistened with *Hoffmann's* solution. The treatment requires perseverance. More commonly the lesion is already of old standing when first seen and treatment has no effect.

EXTENSIVE PITYRIASIS. "SEBORRHOEIC ECZEMA."

In a certain number of cases steatoid pityriasis of the scalp takes on unusual development, extending beyond the hair for about half an inch in the form of yellow fatty scales, situated on a red base. (*Corona Seborrhoica.*) This is a dermatological type of adolescence especially common in women. The eruption may extend over a large part of the body, on the seborrhœic regions, i.e., in the natural folds, the groins, axillæ and mid-sternal region; on the face, in the naso-genial furrow, the suprasuperciliary regions and eyebrows, moustache, beard, ear, etc. The lesions are at first covered with fatty scales, and become slightly exudative under the crusts by numerous minute orifices, hardly visible by a lens. These are open histological vesicles, constituting eczematisation (p. 561). These cases may be thus explained as an eczematisation arising underneath a steatoid pityriasis with florid development; eczematisation being one of the most common of the cutaneous reactions to all morbid or therapeutic irritations.

Treatment gives rapid and excellent results, and a cure is generally obtained in 3 to 6 weeks in the most favourable cases. These cases are divided into two groups.

If the skin is strong, sulphur and mercurials are indicated:—

Cinnabar		1 gramme	gr. 16
Precipitated Sulphur		3 grammes	gr. 48
Vaseline		30 "	℥j

If the skin is sensitive tar preparations are good:—

Oil of Cade		10 grammes	℥ii fs
Ichthyol	aa	1 gramme	gr. 16
Resorcine	aa	1 gramme	gr. 16
Oil of birch	aa	1 gramme	gr. 16
Lanoline		30 grammes	℥j

In doubtful cases ointment of both types may be tried, but with small doses and on limited areas. The patient continues the treatment with that which succeeds best. The prognosis of this affection is generally good, but it may recur. Occasionally cases commence in the same way, but evolve towards the type of more or less chronic or severe dermatitis (p. 590).

IMPETIGINOUS ECZEMA.

Cases occur which begin like the preceding, but evolve towards a clinical type which is much more exudative and crusted. The scalp is soon passed by and the exudation extends to the ears, cheeks, etc. This occurs usually in young people of a chlorotic type. Diminished acidity of the urine and albuminuria should be looked for, and the general condition treated (p. 12).

Local treatment by nitrate of silver (1 in 15) and protective pastes, gives variable results, as in the same morbid type in the child. Mild tar ointments, similar to those employed in the preceding clinical type, also give good results. These clinical types require several therapeutic attempts. I have often seen good results from a cure at St. Gervais, when the lesion was pruriginous; and at St. Nectaire, when there was evidence of albuminuria, even intermittent; orthostatic or digestive.

DRY ECZEMA.

Eczema of the scalp is always characterised by not limiting itself to the hairy regions, and disregarding their boundaries. The squames of dry eczema are of two kinds; the one fine, powdery, micaceous, uniform, forming large parietal placards, the vertex

remaining free; the other, papyraceous and yellow, having a slight tendency to serous exudation, which soon becomes hardened. The second type causes the false *tinea amiantacea* of *Devergie* (p. 180). which appears to be only a form of eczema.

This eczema differs microscopically from pityriasis in the fact that the squames, on bacteriological examination, show no flora whatever and no spores of *Malassez*.

The treatment of these eczemas, like that of many affections characterised by hyperkeratosis and dyskeratinisation, consists in mild applications of tar applied at night and washed off in the morning with superfatted soap and a badger hair brush:—

Oil of Cade	aa	5 grammes	3i fs
Oxide of Zinc			
Lanoline	aa	15 "	℥ fs
Vaseline			
Ichthyol	aa	1 "	gr. 16
Resorcine			
Oil of birch			

The prognosis of these forms of eczema is usually good, and the cure rapid.

PSORIASIS.

Psoriasis may be confined exclusively to the scalp, but this is rare. Even in cases where it is at first apparently limited to the scalp, there is more often found an isolated patch on the elbow, knee, abdomen or penis, which confirms the diagnosis.

The characters of the patch of psoriasis are the same on the scalp as elsewhere. It is a dry scaly patch with adherent chalky scales, the removal of which seldom removes any of the hairs which transverse it, and exposes the red epidermis which is soon covered with fine hæmorrhagic points.

The patch may be from less than half an inch to six inches in diameter, but is never of large size without the co-existence of psoriasis of the body. In the case of generalised psoriasis the squamous patches are confluent and may cover the entire scalp to a thickness of half an inch. The hairs preserve their number and transverse the crust as if it did not exist. Psoriasis of the scalp has the same prognosis as psoriasis of the body. It is liable to frequent recurrence, but the recurrences, here as else-

where, are due to absence of care and perseverance in treatment.

Finally, psoriasis of the scalp is, as a general rule, an epiphenomenon in the course of psoriasis of the body.

But a series of lesions exists, psoriasiform in size and appearance, the crusts of which appear to be more fatty than those of ordinary psoriasis. Clinically, these cases and their varieties connect true psoriasis with the figured and nummular forms of steatoid pityriasis with florid development. This uninterrupted chain has given rise to the most controversial explanations and to the identification of ordinary psoriasis with pityriasis, under the name of "seborrhœic eczema."

These questions are settled by the microscope, which shows that most of the "psoriasiform seborrhœic eczemas" or "psoriasiform seborrhœids" have crusts of which the histological structure is that of true psoriasic crusts, and also that they do not possess the special flora of pityriasis. They are cases of artificial psoriasis.

The classical treatment of psoriasis is by tar. When the crusts are dry and thick and the lesions chronic, mordants are added to the tar, such as pyrogallic acid or chrysarobin. When, on the contrary, the crusts are fatty, sulphur is added to the ointment.

STRONG OINTMENT.

Lanoline	aa	20 grammes	aa	℥ fs
Oil of Cade				
Pyrogallic acid . .	aa	1 gramme	aa	gr. 24
Chrysarobin				
Turpeth mineral .				

MEDIUM OINTMENT.

Lanoline	30 grammes		℥j
Oil of Cade	10 "		℥ii fs
Yellow oxide of Mercury .	aa 1 "		gr. 16
Resorcine			
Pyrogallic acid	75 centigrammes		gr. 12

MILD OINTMENT.

Oil of Cade	10 grammes		℥ii fs
Lanoline	30 "		℥j
Resorcine	aa 1 "		gr. 16
Ichthyol			
Oil of birch			

OINTMENT FOR PSORIASIS WITH FATTY CRUSTS.

Oil of Cade		10 grammes	ʒii fs
Lanoline		30 "	ʒj
Ichthyol	aa	1 gramme	gr. 16
Resorcine			
Oil of birch			
Cinnabar	aa	1 gramme	gr. 16
Precipitated Sulphur . . .			

No internal treatment of psoriasis gives appreciable results.

ALOPECIA AREATA IN THE ADULT.

Alopecia areata is one of the dermatological subjects which still remains obscure. I shall divide this chapter according to the facts of my clinical experience.

a. **Alopecia areata in hereditary syphilis.** There is an alopecia areata of old syphilitics and of heredo-syphilitics. In the latter case it commences about the 20th year, sometimes as a recurrence after benign alopecia of childhood. The patient usually presents distinct stigmata of hereditary syphilis; dental dystrophies (*Hutchinson's* teeth, striated, pitted, deformed teeth; molars with crowns deprived of dentine, etc.), arched palate, prognathism of the lower jaw, concave profile, crescent shaped head, natiform skull, dwarfism, deafness by tympanic ossification, interstitial keratitis, sabre shaped tibia, etc. Family history records miscarriages, stillbirths, children dying of convulsions in infancy, and the subject is often the first survivor after several stillbirths. The father is sometimes found to have died of tabes; progressive muscular atrophy or epilepsy at about the age of 50.

This disease is usually severe and may cause the loss of all the hair and affect the nails. Usually it takes the form of permanent alopecia (*E. Besnier*), with continual recurrences and partial regrowth. Treatment appears to be useless, both local and general; even antisyphilitic treatment, which I have never been able to carry out sufficiently, owing to the patients not understanding the reason.

b. **Alopecia areata of Chronic Tuberculosis.** There is certainly an alopecia of chronic pulmonary tuberculosis. Like the preceding form it is of fairly frequent occurrence.

It always co-exists with tubercle of the apex, known or unknown, but recognisable, and appears due to compression of the superior

thoracic sympathetic ganglion by pleural adhesions (*Jacquet*). It seems that this is more an adjacent inflammation than a compression of the ganglion by fibrosis, for the alopecia is cured with the pul-

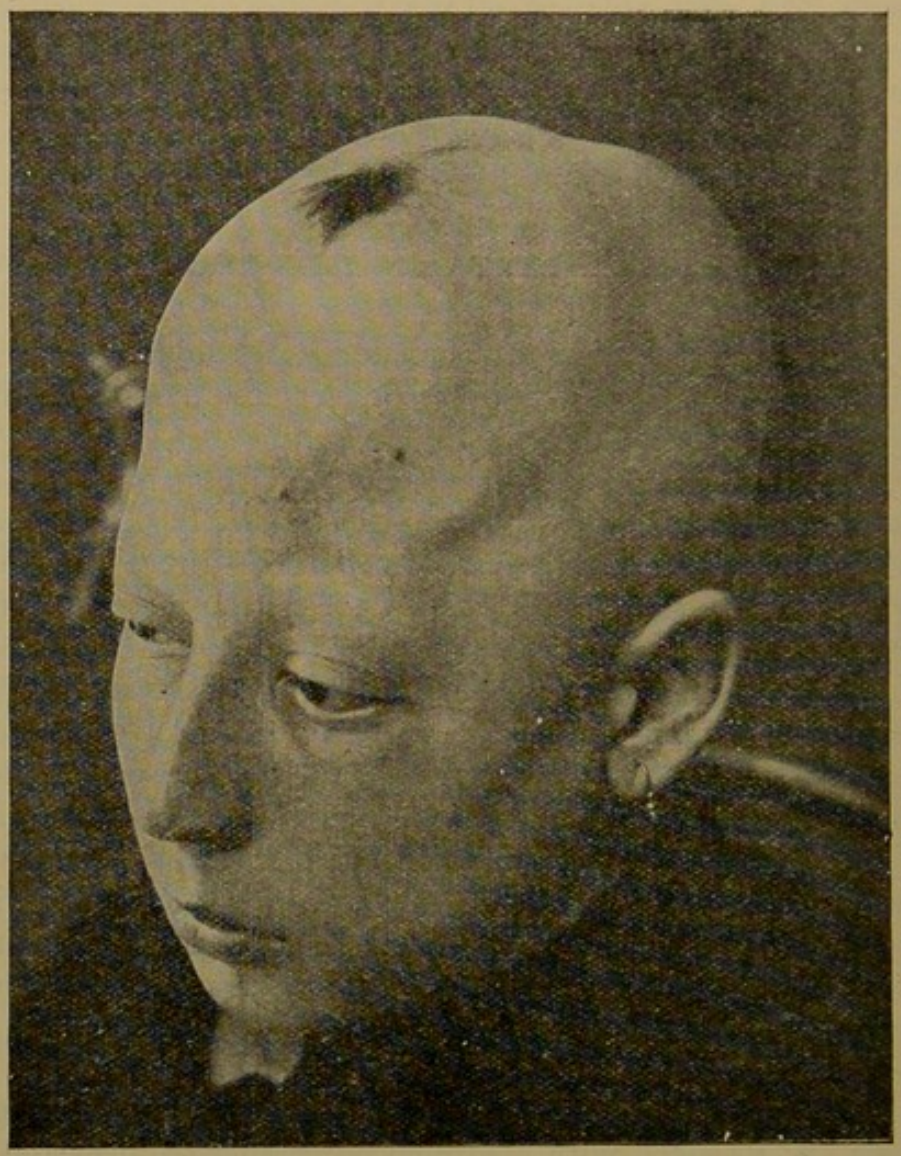


Fig. 103. Nearly total alopecia in a dwarf presenting all the stigmata of hereditary syphilis. (Sabouraud's patient. Photo. by Noiré.)

monary tuberculosis and varies with its fluctuations. It is often cured incompletely. This alopecia has the form of ophiasis of children, occipital and circumferential. It is often accompanied by amorphous alopecic patches, disseminated over the scalp, but more frequent on the occipital region.

The treatment is that of tuberculosis, to which may be added local revulsion, which is of doubtful value in these cases.

c. **Alopecia areata of the menopause or period of involution.** In men or women of about 50 years of age, with hair becoming grey,

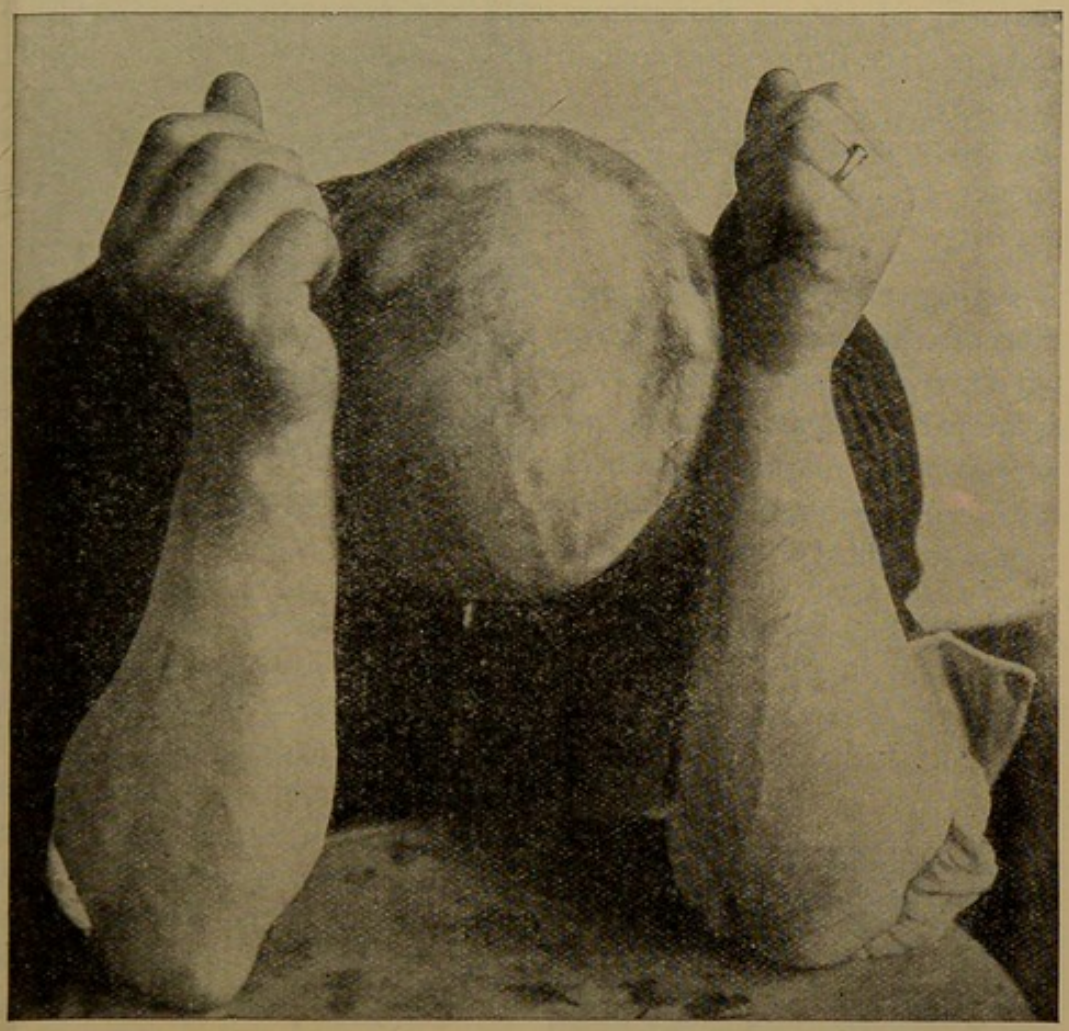


Fig. 104. Alopecia of right arm in a case of alopecia with continual recurrence. (Sabouraud's patient. Photo. by Noiré.)

there is occasionally observed an alopecia in amorphous patches, varying in number and size, occupying the parietal and lateral frontal regions and sometimes the occiput, but generally without any regional election.

This alopecia avoids relatively the white hairs on the alopecic areas. The evolution takes 7 or 8 months and progressive retrogression about the same time. It is generally completely cured in 18 months. Its cause is unknown and treatment consists in correct-

ing everything which is defective in the subject; for instance, ovarian opotherapy in women, etc. Local treatment consists in revulsion, the effect of which is slow and uncertain.

d. Alopecia areata of unknown origin. This forms the great majority of cases. Sometimes it begins in round patches, with a fatty surface from seborrhœic infection, which may extend, multiply and coalesce. The evolution may be benign or severe, and may become general, ending in total baldness. Benign cases may recur sooner or later after the first attack, with the same or different severity.

Benign alopecias present one or two alopecic patches, the extension of which ceases after 3 or 4 weeks, and in which the re-growth of down and normal hairs occurs quickly. Severe alopecias form large patches, slow or rapid in evolution. They are accompanied by more or less marked flaccidity of the skin (hypotonus of *Jacquet*) with a progressive senile appearance. Lesions of the nails are seen in about a third of the cases (p. 388).

There is no theory which explains alopecia areata in the adult any more than in the child. Alopecia areata in tuberculous subjects may only be explained by means of a hypothesis which is not yet verified. Its occurrence in the subjects of heredo-syphilis is a matter of observation, the mechanism of which is unknown. All other forms are still more inexplicable. The theory of the neuralgic and dental origin of alopecia areata (*Jacquet*) is possibly applicable to certain cases, which I think are rare; for a greater number of severe cases of alopecia are accompanied by onychosis. It is difficult to admit onychosis of dental origin, especially on the feet. It is probable, by comparison of severe and benign cases, that alopecia areata not accompanied by onychosis owes the absence of this symptom to its benignity. The

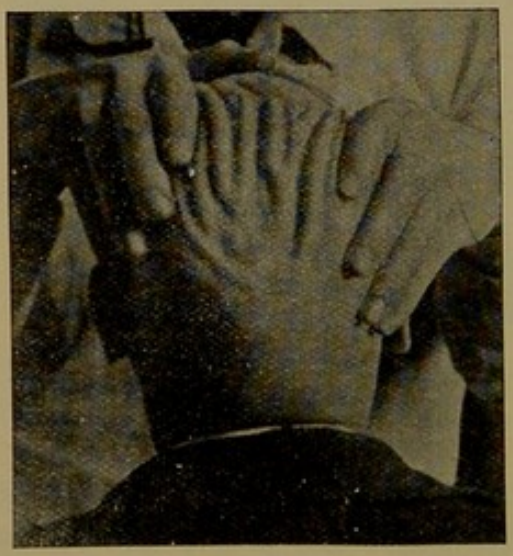


Fig. 105. Tegumentary flaccidity: "Hypotonus" of Jacquet, in total alopecia. (Sabouraud's patient. Photo. by Noiré.)

seborrhœic infection of certain cases, especially those accompanied by hypotonus, is certain, but the factor of this infection in the genesis of alopecia areata has not yet been proved. Moreover it does not accompany cases occurring in children.

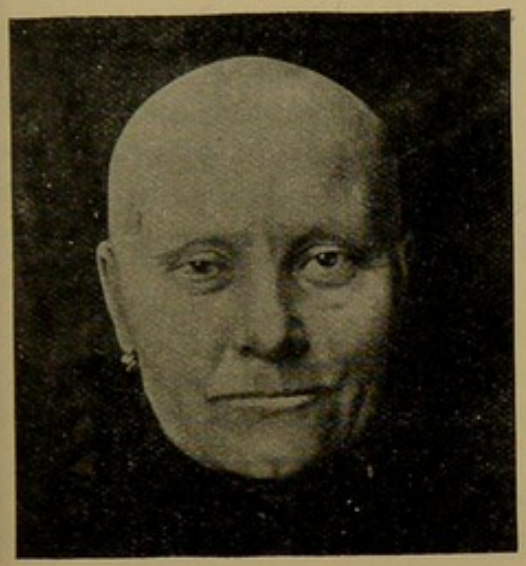


Fig. 105. Total alopecia decalvans. (Sabouraud's patient. Photo. by Noiré.)

The contagion of alopecia areata appears to be absolutely nil and at any rate for practical purposes can be assumed to be so. All the epidemics of alopecia areata which have been described by dermatologists were epidemics of diagnostic errors; alopecic impetigo or ringworm Alopecia areata occurring in families does not indicate contagion any more than psoriasis.

The general treatment should be directed to all abnormalities in the health of the patient. Superalimentation may be prescribed for those who are wasted, and a restricted diet for the obese, etc.

Local treatment is useful in all benign and in many severe cases. Tonic and stimulating lotions may be rubbed daily into the scalp:—

Alcohol 90 per cent.	225 grammes	ʒj
Spirit of lavender	25 "	ʒi
Distilled water	50 "	ʒii
Nitrate of potash	50 centigrammes	gr. i
Glacial acetic acid	4 grammes	gr. 4

Local irritant applications, such as ointments containing sulphur, resorcine and salicylic acid, are useful; also daily friction with the following:—

(1)	Lactic acid	10 grammes	ʒi fs
	Alcohol 60 per cent.	50 "	ʒj
(2)	Glacial acetic acid	1 gramme	gr. 12
	Hoffmann's solution	40 grammes	ʒj
(3)	Tincture of iodine	5 grammes	m. 48
	Rectified benzine	50 "	ʒj

It is also useful to alternate the lotions from time to time, as the scalp appears to get gradually accustomed to them.

In severe and diffuse cases, or in cases with numerous patches of rapid development, tar ointments give good results. They are more easy to apply in men than in women and should be washed off on the following day.

The prognosis depends on the number of patches, their size and rapidity of development, the thinning or œdema of the skin, the evolution of former attacks, the cutaneous reaction to medicament, etc. It should always be guarded. In tuberculous subjects the prognosis is that of their tuberculosis. In heredo-syphilis it is always bad, so far as I have seen.

PSEUDO ALOPECIA AREATA OF BROCQ.

This disease has nothing in common with alopecia areata. It is a follicular cicatricial atrophy occurring in islands disseminated over the scalp, or some part thereof. It generally occurs in adults, but I have seen a case at 12 years. It occurs in both sexes. The hair falls by an insensible process of dry expulsive folliculitis, analogous to that of certain non-trichophytic sycosis of the beard. The affected hairs are easily epilated and may be already atrophic, friable, or normal. It does not regrow and its situation is effaced.

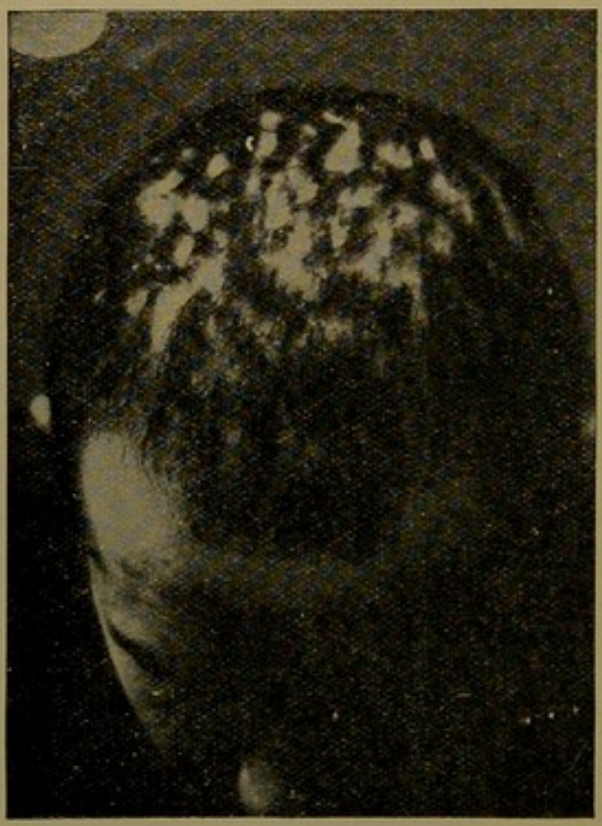


Fig. 107. Pseudo alopecia areata of Brocq. (Brocq's patient. Photo by Sottas.)

There are thus formed smooth, shining surfaces, at first red, but afterwards white and slightly concave. These irregular and amorphous islands extend and coalesce to form large smooth surfaces, on which may be seen here and there a few bunches

of two or three healthy or diseased hairs; the remains of the former boundaries of the separate islands.

The disease extends slowly and in 10 or 15 years depilates entire regions, the vertex or more often one of the parietal regions. The disease is irregular and a-symmetrical; its progress is sometimes remittent, but more commonly progressive. No regrowth can be expected on the smooth surfaces, as they are cicatricial.

The origin of this disease is quite unknown. Treatment consists only in applications of sulphur in different forms, which retards the evolution of the disease, but does not guarantee preservation of the actual state. Between the pseudo-alopecia areata of Brocq and Kératosis pilaris, dry sycosis and especially chronic acne decalvans, there is a series of intermediate clinical forms.

LUPUS ERYTHEMATOSUS.

The scalp is one of the seats of predilection of lupus erythematosus, which occurs here in its most typical form, which *Devergie* has termed "cretaceous herpes." It consists of several irregular patches clearly marked on the scalp and completely bald, each having a red base and a border of adherent chalky squames. These patches can easily be felt and are generally slightly concave; they lead to cicatricial atrophy of the skin without ulceration.

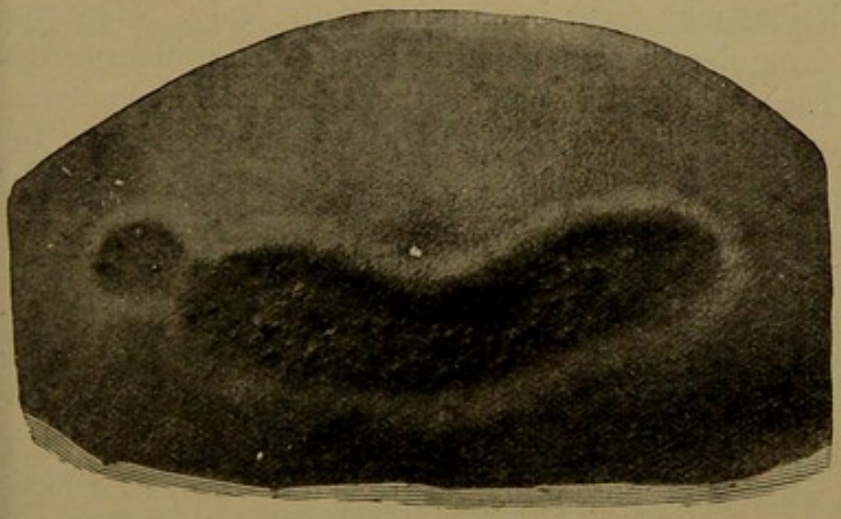


Fig. 108. Lupus erythematosus of the scalp. (Fournier's patient. St. Louis Hosp. Museum. No. 1601.)

The patches are of all shapes and sizes; some smaller than the end of the finger are disseminated, often around larger patches; the

largest are generally close together on the vertex. The lesions are always discrete and there may be a single large patch two inches by one in size; or two similar ones, with two or three smaller distinct patches, but rarely more. The lesions are chronic and slowly extensive or stationary. They may disappear spontaneously, but this is rare.

All methods or treatment are valueless except radiotherapy. For the cure of a patch of lupus erythematosus, from 30 to 35 units of *Holtzneeht* are required; or 7 tints B of our radiometer X, which is equivalent to 7 sittings with a fortnight's interval. Some cases are more resisting and are only cured after a radiodermatitis of two months, represented by a double tint B at a single sitting. These facts are still being studied and they must not be taken as a general rule. Plasters of salicylic and pyrogallic acid (10 per cent) retained in place till a scar is formed sometimes give results, and may be used if radiotherapy cannot be obtained.

LICHEN PLANUS CORNEUS ATROPHICUS.

These rare lesions may occur in all parts of the body. They consist of small, irregular, brown papules, very similar in aspect to warty nævi. They begin insidiously, without functional symptoms; attain a maximum with lesions covered with adherent squames, and terminate by brown cicatrices. These lesions may be seen in patients affected with other dermatological lesions, such as alopecia areata and psoriasis. The duration of the lesions is from 3 to 10 years or more. They come and go irregularly. They are always very discrete, and from 5 to 10 may be found in evolution, one or two on the legs, arms or scalp. Their tuberculous or toxi-tuberculous nature seems to me to be probable, although I have not demonstrated it. The treatment which I propose in the future is the same as for lupus erythematosus (X-rays). The lesions are so rare and of such slow evolution that the patients may be often unaware of them. They must not be confounded with the hyperkeratotic form of lichen planus of *Erasmus Wilson* (p. 553).

POST-INFECTIOUS ALOPECIA.

Every infection, even apyretic and chronic, such as muco-membranous enteritis, when it is severe, may react on the hair. I cannot

review all the diseases, which may cause alopecia. Tuberculous cachexia in the child is accompanied by the formation of a thick down on the whole body; at the same time a number of hairs fall and are replaced by alopecic ones, an inch or more in length. On the whole these heads of hair are scanty and expose the skin.

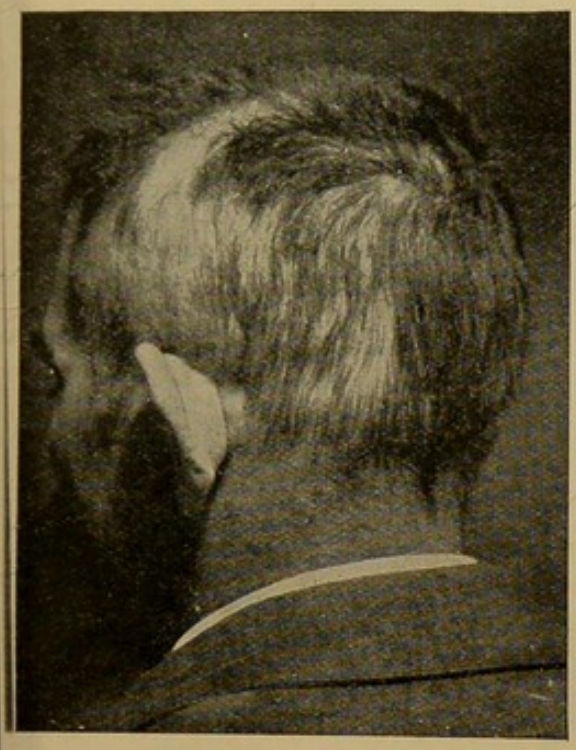


Fig. 109. Post-erysipelatous Alopecia. (Brocq's patient. Photo. by Sottas.)

These cachectic conditions occur in typhoid and the eruptive fevers, but the effect on the scalp is more marked in adults than in children.

It is especially after the 15th year that fevers are followed by marked alopecia. This may occur after measles, small-pox, scarlatina, mumps, erysipelas, diphtheria, influenza and the chief visceral infections; pneumonia, peritonitis and appendicitis. Typhoid fever is the most depilating of the infectious fevers. A more or less marked alopecia may occur after parturition, even when normal, or after puerperal infection. A slight alopecia may follow those conditions which are accompanied by intense local inflammation, such as erysipelas, and all these have a fixed date for their alopecia. That of erysipelas occurs after 85 days' interval. Cases vary one from another by 5 days, more or less.

These alopecias generally persist for 6 weeks with a maximum at the second or third week. The rate of the loss of hair is variable and appears to depend on the intensity, duration and nature of the infection. Several differences may be noticed between these different alopecias, if they are often observed. That of typhoid is most complete and most diffuse; that of syphilis is parietal and in patches.

The mechanism of these alopecias appears to consist in atrophy of the papilla and cessation of its function, under the influence of toxins in the circulation. The long interval between the infection and the alopecia depends on the slowness of the circulation and elimina-

tion of the toxins, and also on the fact that the dead hair is detached at its base and rises slowly in the follicle, but does not fall at once.

The treatment of these forms of alopecia is always successful because nature is sufficient to repair them partially. The fall is always followed by regrowth, but this is often incomplete when left to itself. Moreover, an infectious alopecia often leads to a pityroid alopecia, which prolongs it indefinitely. All the lotions which we have recommended for pityriasis may be used in infectious alopecias. At the St. Louis Hospital the following stimulating lotion is often prescribed:—

Camphorated alcohol	125 grammes	℥j
Essence of turpentine	25 "	℥i s.s.
Liquid ammonia	5 "	m. 20

This has the disadvantage of soiling the hair, and on this account the following lotions are preferable:—

(1)	Hoffmann's Solution	250 grammes	℥j
	Liquid ammonia .	4 "	m. 8
	Distilled water . .	25 "	m. 48
	Hydrochlorate of pilocarpine	50 centigrammes	gr. 1
	Spirit of lavender .	25 grammes	m. 48
(2)	Anhydrous Acetone, Alcohol: 96 per cent } aa	125 grammes	℥j
	Spirit of rosemary, Tincture of jaborandi } aa	25 "	℥j s.s.
	Glacial acetic acid .	4 "	gr. 8
	Formol	1 gramme	gr. 2

It is advantageous to vary the formulæ employed every 3 or 6 weeks, to prevent the scalp becoming accustomed to any particular one. After an infectious disease the treatment of the alopecia and the regrowth take 6 or 7 months.

SYPHILIS OF THE SCALP.

Syphilitic lesions of the scalp include (1) Syphilitic alopecia, (2) Secundo-tertiary Syphilides, (3) Gummata.

1. Syphilitic Alopecia. This occurs between the 5th and 8th

months. It may follow the general syphilitic infection after an interval of 3 months, and many characters connect it with other infectious alopecias and it often appears 2 or 3 months after the roseola. But all these dates are variable. However, syphilitic alopecia does not occur after the first year of the disease.

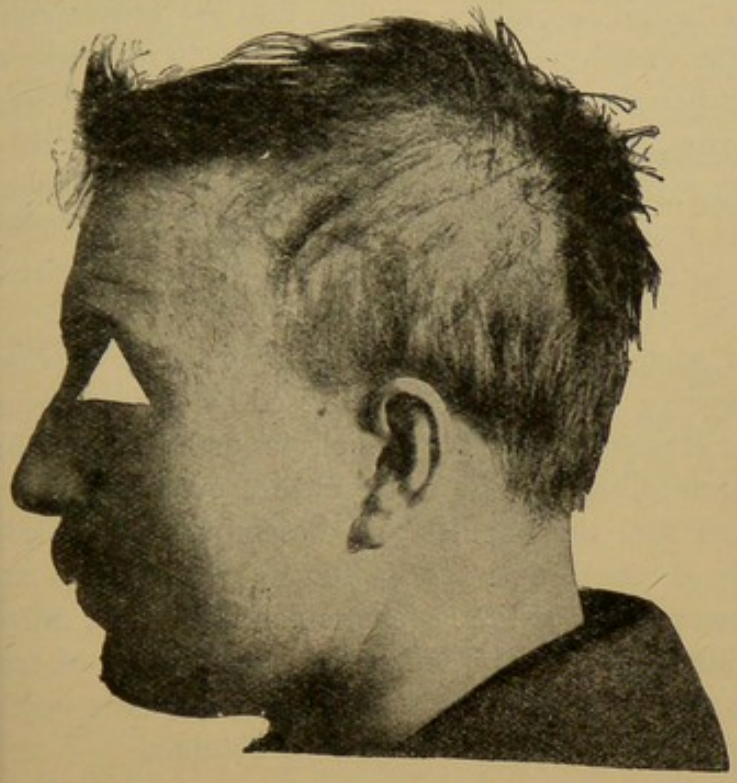


Fig. 110. Syphilitic alopecia, rather more marked than usual. (Sabouraud's patient. Photo. by Noiré.)

This form of alopecia is so peculiar that it has often been sufficient to diagnose an unrecognised syphilis. It is temporo-parietal, irregularly diffuse; and, when the hair is worn short, has the appearance of having been badly cut. At each of these places a tuft of a dozen hairs has disappeared, leaving a "clearing"; these spaces are even visible in women with long hair. The eyebrows are marked with parallel "hatching"; the cervical glands are enlarged and mucous patches may be found in the mouth. The remains of a hard chancre, inguinal glands and sometimes roseola may be visible.

Syphilitic alopecia affects all the hair of the body, but is nowhere so pronounced as on the scalp and eyebrows (p. 140). It lasts from 6 to 8 weeks and is always followed by spontaneous regrowth; but in young men it is often continued by a seborrhœic alopecia of the vertex, to which it predisposes.

The local treatment of syphilitic alopecia is the same as for infectious alopecias; the general treatment is that of secondary syphilis. Even if the syphilis is not treated the alopecia is followed by regrowth, which may give patients a false security. This proves nothing as to the further progress of the syphilis which causes it.

2. Secondary Syphilides of the Scalp. These are of several kinds; roseolous spots and secondary papules, and are only epiphenomena in the course of secondary syphilis. In one case, however, I have seen papules become centres of an alopecic area. The most interesting are the papulo-corymbose or papulo-ulcerative lesions of malignant secondary syphilis (also an epiphenomenon in the course of severe secondary syphilis), and the secundo-tertiary syphilides which may be seen to develop singly on the scalp, or in association with analogous lesions of the neck, face and beard.

They may appear some years after the beginning of the disease; sometimes 10 or 12 years. They are characterised by their distribution in rings of 6 or 8 papules, or in a semicircle, or horseshoe, but always following some design. The circle occurs everywhere, but requires to be looked for; the papules are disseminated on it and each is red and dry or scaly and psoriasiform, or ulcerative and crusted. It is the topography of the lesions which makes the differential diagnosis. This is confirmed by attentive examination of each papule which shows the difference from psoriasis, acne, acne necrotica, etc. The history of former syphilis may be obtained.

Local treatment by ointments:—

Red oxide of lead	aa 1 gramme	gr. 16
Cinnabar		
Vaseline	30 grammes	℥j

or plasters such as emplastrum de *Vigo*, have little effect. The best results are obtained by the daily injections of biniodide of mercury (2 centigrammes); or weekly injections of grey oil (7 centigrammes). This treatment should be continued for a long time, for the infection is of old standing and persistent.

3. Gummata and Syphilitic Sequestra. Tertiary syphilis may attack the scalp in the form of gummata and bony sequestra. These cases are rare, but not exceptional. The gumma has the appearance of an abscess, but the functional signs of local heat and pain are wanting.

The open gumma has the same characters as elsewhere; the circular or crescentic form of the ulceration, the greenish yellow core, the progressive trench between this and the walls of the ulcer and the deep crater left after removal of the core, are all characteristic.

The sequestrum commences more often on the surface than deeply, in the form of a malignant ulcerating syphilide, rather than by a

gumma. Both origins are possible. When the ulceration lays bare the sequestrum, the ulcerating sinuous appearance of the sore, and the offensive odour of the suppurating bone render the lesion horrible. At the beginning the formation of the sequestrum may be painful, but it is more often painless. The elimination of the sequestrum is easy, if the sore is opened sufficiently to allow extraction. However, incarceration of the sequestrum may necessitate surgical measures. These lesions, which are interminable when their nature is misunderstood, are cured in a few weeks by a proper mixed treatment (p. 650).

In the absence of treatment by injections many cases may be cured by the older methods, such as Syrup of *Gibert* or *Van Swieten's* liquor, with iodide of potassium 15 to 60 grains daily.

Local treatment is of little value.

THE SCALP AT MATURE AGE.

At mature age dry, squamous, pityroid eczemas frequently occur, and the red eczemas called "arthritic;" . . . . . — Dry Eczema . . p. 232

. . . Also many artificial traumatic dermatites, among which some arise from noxious dyes . . . — Traumatic dermatitis . . . . . p. 233

It is also at mature age, and more often in women, that pruritus of the scalp occurs, without objective lesions . . . . . — Alcoholic pruritus p. 234

The scalp, like the face, is one of the seats of election of acne rodens, and necrotic and varioliform acne . . . . . — Acne necrotica . p. 235

. . . And the acne polymorphe of abnormal development, which is observed in workers in chlorine . . . . . — Chloric Acne . . p. 236

After having discussed these different morbid types, we shall consider the ultimate evolution of common baldness and the complications which it may present . . . . . — Evolution of baldness . . . . . p. 236

Among these complications we shall study circinate, poly-micro-cyclic pityriasis which almost only develops on the scalp of the bald . . . . . — Pityriasis circinata of the bald . . p. 237

. . . And sclerous atrophy of the follicles, ending in their disappearance by cicatrisation, either on scalps already bald, or on the scalp in women . . . — Alopecia by follicular sclerosis . . p. 238

And we shall study, especially in women, the alopecia tonsurans which is often seen after 45 years — Alopecia tonsurans of women . . p. 239

There exists in the adult and even at mature age, in rare cases, a chronic folliculitis, in patches, analogous to the impetigo of Bockhart of children . . — Chronic folliculitis . . . . . p. 239

This process, like many others, ends in a cicatrix, We shall next review the chief causes of the cicatrices which may be met with on the scalp . . . — Cicatrices . . . p. 240

Lastly, we shall devote a few words to dermatological processes, of little importance in this situation, but which it is necessary to know, and to treat — Molluscum contagiosum. Warts. Sebaceous cysts. Epithelioma . . . p. 241

DRY ECZEMA.

The more an individual advances in age, the more the eczemas which he may present become dry, red and squamous and the less they become moist and impetiginous.[1]

[1] It must be understood that all forms of eczema may occur at any age, but I deal here, as everywhere in this volume, with generalities.

A man, especially when obese, having preserved all his hair, or at least half of it, often presents dry eczema on the regions remaining hairy. This eczema is characterised by excessive itching, which comes on several times a day, especially at night. This itching causes the falling of the pellicles. After each attack the scalp is moist to the touch. On close examination a slight exudation is seen produced from punctiform orifices, which dries between the squames without forming crusts. The skin, which is warmer than usual, is thickened by a hard œdema, which does not pit on pressure.

In severe cases this eczema, although more marked in hairy regions, oversteps the limits of the scalp and extends onto the neck, face and eyelids, causing similar lesions. It may occur in forms which are more exudative or more squamous, and others characterised by more pronounced infiltration of the skin.

Like all other forms of eczema this has no determined etiological cause. It has been attributed to the arthritic diathesis, but this term is vague and of impossible definition. Careful examination of the general condition will often furnish indications for treatment. Alkalies are prescribed for those with excess of urates, and aperient waters to those with oxaluria or skatol or indican in the urine. The gastric and intestinal digestion are regulated by appropriate means; carbonate of lime, magnesia, saline laxatives, drastic purgatives, etc.

The local treatment comprises the use of pastes containing tar:—

Oil of Cade . . . . } Oxide of zinc . . . }	aa	5 grammes	5j s.s.
Ichthyol . . . . . } Resorcine . . . . . } Oil of birch . . . . }	aa	1 to 5 grammes	gr. 16-80
Vaseline		30 grammes	5j

The active agents, the tars and resorcine, may be diminished or increased according to the tolerance of the patient. Also, according to the case, the ointments are removed by very mild soaps, or by sweet oil of almonds.

ARTIFICIAL DERMATITIS.

Artificial dermatitis, on the scalp as elsewhere, may arise from many causes. The most common causes are lotions of turpentine, salol, naphthol, tincture of cantharides, capsicum, etc., or applications of sulphur or alkaline sulphides in the form of powder, oint-

ment or lotion. The scalp reddens very little and the redness is difficult to see; but the patient complains of a sensation of heat, smarting or itching, and the skin is sensitive and appears shrunken. There is always pain in the sub-occipital glands. These forms of dermatitis may be dry and desquamating, but this is rare. They are usually red and moist, and situated on the whole scalp or part of it. Dyes, especially those fixed with an alkaline sulphide, or those which contain paraphenylene-diamine, act exactly in the same way as traumatic medicaments. Their effects are identical and the cutaneous reaction is the same with each traumatic agent.

In these cases of dermatitis, caused by dyes, powders, pastes and ointments, the irritation has a remarkable tendency to extend beyond the limits of the scalp, onto the face, temples, retro-auricular regions, antero-lateral parts of the neck, and even the trunk. These reactions depend not only on the traumatic agent and its dose, but especially on the skin to which it is applied. One skin may be irritated by the mildest application while another does not react to the most irritating. There exist irritable, or *eczematisable* skins. Skins which present these artificial forms of dermatitis have often had "spontaneous" eczema, or will have it in the future.

PRURITUS WITHOUT LESIONS.

Pruritus without lesions occurs in all situations, and from very different causes. It is the same on the scalp. But, as a rule, pruritus of the scalp occurs in women of middle age, and is due to alcoholism.

On examination the scalp is found to be clean, not pellicular and without any lesion. However, the patient, who often has a strange fixity of regard and a rather haggard expression, complains of pruritus which wakes her from sleep, and an intolerable itching "like animals running about and pricking," etc.

The patient has nightmares, dreams of animals, fires, drowning, falling down a hole, etc. In the morning she coughs, spits and has nausea; the hands tremble, etc. Alcoholism in these cases is obvious.

Locally a volatile lotion containing menthol (½ to 1 per cent) may be prescribed. More important is the following regime: On awakening a large draught of decoction of chicory or of ground ivy is taken. This is the method of dilution. With the same view prescribe Vichy water, with a diet in which is insisted the total absten-

tion from alcohol and all fermented drinks. For certain nervous subjects alcohol is a poison, and after three months of this regime the symptoms will have disappeared.

The treatment includes the removal of the irritant substances. Cleansing with fresh oil of almonds is usually sufficient; after which mild ointments, or if these cannot be borne, fresh lard relieves the iritation in a few days.

ACNE NECROTICA.

In its average form acne necrotica is a disease which only attacks the temporo-frontal boundaries of the scalp in men between 45 and 50. In its more severe forms it has no limits and may cover the scalp from the age of 30. It is a paroxysmal disease which recurs several times a year in a more or less intense degree. Each crop contains from 10 to 200 lesions. Each lesion consists of a flat, umbilicated, circumpilary pustule which develops without opening and forms a discoid scab, which falls after some time with the central hair, leaving a varioliform cicatrix. It resembles an impetigo of *Bockhart* with necrosing elements. Each outbreak is accompanied by painful sub-occipital adentitis. In its nature, structure and cause the pustule of acne necrotica is, anatomically and bacteriologically, closely allied to that of impetigo of *Bockhart* (impetigo rodens of *Hillairet-Gaucher*). Both are caused by the staphylococcus aureus, but in acne necrotica the staphlococcic infection is grafted on a primary bacillary seborrhœic infection.

Acne necrotica may be excessively recurrent and each recurrence may be very intense. It is then one of the most incurable of the dermatoses. Perhaps the general health of the patient accounts partly for the incessant recurrence, in the way that glycosuria renders a furunculosis chronic. But we are ignorant of this hypothetical condition and its treatment.

Local treatment is that of acne and of impetigo of *Bockhart*, by means of sulphur and mercury ointments. These are successful against the eruption, but do not prevent recurrence. Patients who are cured without recurrence owe this to the benignity of the disease and the power of their leucocytic defence, rather than to the treatment.

(1) Precipitated Sulphur . . } Resorcine . . . . . }		1 gramme	gr. 16
Vaseline . . . . . } Lanoline . . . . . }	aa	15 grammes	℥j
(2) Precipitated Sulphur . . .		10 grammes	℥j
Alcohol 60 per cent. . . .		20 "	℥ii
Rose Water		70 "	℥j
(3) Precipitated Sulphur . . . } Cinnabar . . . . . }	aa	1 gramme	gr. 16
Vaseline		30 grammes	℥j
(4) Oil of Cade		10 grammes	℥iv
Precipitated Sulphur . . .		1 gramme	gr. 24
Resorcine		1 "	gr. 24
Lanoline		20 grammes	℥j

CHLORIC ACNE.

Chloric Acne has been mentioned with acne of the face (p. 16). It is the polymorphous acne of workers in the preparation of chlorine. On a generalised seborrhœa develop all forms of polymorphous acne, chiefly the comedo and cystic acne. This seborrhœa affects not only the vertex of the scalp, but also the temporal and retro-auricular regions and the back of the neck. An interesting point in this excessive seborrhœa is that, whenever the microbacillary seborrhœic cylinders occur on the scalp, the hair falls. There results a diffuse alopecia of all regions of the scalp, and in large areas. It is a demonstration of the seborrhœic microbacillary origin of common baldness.

Treatment consists in suppression of the cause. Sulphur baths, sulphur lotions and soaps, sulphur pastes and ointments are used in this form of acne with the same results as in ordinary polymorphous acne (p. 15).

ULTIMATE EVOLUTION OF BALDNESS.

The ultimate evolution of baldness depends entirely on the age when it commenced. When it was complete on the vertex at the age of 30 years, at 70 the scalp is reduced to a circumferential band of fine wooly hairs, often scarcely visible. Baldness of the vertex is thus much increased and is augmented by a complimentary alopecia extending from the borders of the scalp towards the centre which has extended beyond the former limits of the scalp by two fingers' breadth.

In baldness of the vertex, which is incomplete at 30 but complete at 50, the hair round the head may be preserved. Generally it is scanty on the temples and around the ears.

Incomplete baldness may be complicated with recurrent pityriasis, which is very often a dry eczema and not a true pityriasis; and with all the eruptions which occur on the seborrhœic substratum (circinate pityriasis and acne necrotica).

Lastly, diffuse sclerous atrophy and the disappearance of a large number of follicles may occur, which is not a result of normal seborrhœic evolution, but a complication of seborrhœa.

Many of these complications have their own special treatment, but that of the baldness itself, at these periods, is the same as for those of which we have spoken above (p. 212).

Sulphur or tar soap may be used every night and the following lotion in the morning:—

Alcohol, 96 per cent	250	grammes	℥j
Coaltar, saponified	25	"	℥j
Tincture of quillaya	25	"	℥j
Liquid Ammonia	5	"	m. 12

In cases where the seborrhœic flux is considerable, daily friction with sulphide of carbon saturated with sulphur causes the excess to disappear, and is one of the best and most simple applications, in spite of its odour and inflammability. It must not, however, be applied to eczematous subjects.

PITYRIASIS CIRCINATA OF THE BALD.

On the bald vertex may arise a pityriasis with ornamental, geographical, poly-micro-cyclic figures, composed of segments of small circles, each with a red border a millimetre in width and covered with small, yellow fatty scales. This is one of the most common types of steatoid superseborrhœic pityriasis (spore of *Malassez*: cocci with grey culture); one of the types of the seborrhœic eczema of *Unna*, and of the "Seborrhœids" of French authors. It is remarkable that these forms of pityriasis only occur on the scalp of bald subjects.

They may be quickly cured by sulphur or tar ointments, applied at night and washed off in the morning.

(1) Precipitated Sulphur . . .			
Ichthyol	aa	1 gramme	gr. 48
Resorcine			
Oil of cade			
Lanoline	aa	10 grammes	ʒj
Vaseline			
(2) Precipitated sulphur . . .		3 grammes	gr. 48
Vaseline	aa	15 "	ʒj
Ceratum			

When the pityriasis has disappeared the use of tar or sulphur soap should be continued to keep the seborrhœic skin in condition and avoid recurrent eruptions, such as acne necrotica, which develops on the same soil.

ALOPECIA BY FOLLICULAR SCLEROSIS.

Very often, but not always, a total follicular atrophy develops on the denuded scalp, resembling that caused by the pseudo alopecia areata of *Brocq* (p. 224). Among the empty hair follicles, or those occupied by downy hair, some present a circular elevation and sometimes a slight border at their orifices. This appears to be a sign of infection of the follicle by the accessory cocci of seborrhœa and pityriasis, at any rate the downy hairs removed from the follicles are infected with these cocci down to their roots. This process ends in fibrous transformation and disappearance of the follicle up to its orifice. The interval between the sclerosed follicles become smooth and cicatricial.

This process may also be seen in women of middle age who have hitherto preserved their hair, and appears to be progressive and incurable. In bald men this is not of much importance, as it does not extend beyond the limit of the baldness; but in women it leads to permanent diffuse alopecia.

Treatment by sulphur lotions and ointments generally diminishes the extension of the process, but does not arrest it completely:—

(1) Precipitated Sulphur		
Oxide of zinc	equal parts	
Talc.		
(2) Precipitated Sulphur	10 parts	ʒj
Alcohol, 90 per cent	10 "	ʒj
Distilled water	80 "	ʒj

ALOPECIA TONSURANS IN WOMEN.

Women, towards the age of 45 or 50, often present a slowly progressive alopecic patch on the vertex of the head. This is often attributed to wearing a chignon, or to the mode of coiffure, combs, hairpins, etc.; in fact, to ill-defined causes.

It may occur without pityriasis or local seborrhœa, by a slow process of sclerosis analogous to that studied in the preceding paragraph.

It forms an oval patch of almost complete alopecia, on which the surface of the skin is smooth, cicatricial and often bordered by frizzled hairs, which appear to emerge from their orifices as if from curling tongs.

Sometimes the follicular process is more marked and the follicular orifices are surrounded by a circular horny elevation, or a red, hardly perceptible margin. This alopecia is permanent and as a rule not amenable to treatment. Sometimes, when follicular reaction is indicated by a circumpilary red border, sulphur applications may be prescribed. But I have never seen treatment arrest the slow extension of the process.

CHRONIC FOLLICULITIS OF THE SCALP.

One sometimes sees, although rarely, a chronic follicular process establish itself and increase slowly on the scalp of the adult, and even at mature age or old age. It has the characters of chronic pustular dermatitis (impetigo of *Bockhart*) which we have studied in the child (p. 183), with all its objective symptoms, including suboccipital adenitis. The functional symptoms, local heat, smarting and pruritus, appear to be more marked; the pustules being miliary and cause hardly any projection on the skin.

This process, the particular chronicity of which is not explained, persists for years and ends in the formation of an irregular cicatrix, with a margin at first red, then white, in the centre of lesions which extend peripherally.

In these cases, besides sulphur applications, depilation by the X-rays should be tried, which gives such excellent results in chronic follicular affections (p. 196).

(1) Precipitated Sulphur . . . . . } equal parts
Oxide of zinc . . . . . }

(2) Precipitated Sulphur	aa	10	grammes	gr. 48
Glycerine				
Alcohol, 90 per cent		20	"	℥ii
Rose water		60	"	℥j
(3) Precipitated Sulphur		3	grammes	gr. 45
Oxide of zinc		6	"	℥i s.s.
Lanoline		30	"	℥j
Distilled water q. s.				

CICATRICES.

The scalp is liable to all forms of cicatrices, which when once formed persist indefinitely. The scalp of old people may thus present many cicatrices of different origin.

There are the traumatic cicatrices which are linear, or angular; the cicatrices of boils, which are numerous and punctiform; and cicatrices of acne necrotica, a little larger and varioliform.

There are the cicatrices of cold abscesses and of bony suppurations, larger than the preceding and deep and radiating; the elongated and geographical cicatrices of lupus erythematosus; the multiple irregular cicatrices of the pseudo alopecia of *Brocq;* the cicatrices of favus, irregular in form with one patch larger than the others. The latter and the scars of burns, which resemble them closely, always present surviving hairs disseminated on the surface.

There are also the deep cicatrices of vitriol, and the still more depressed scars of tertiary syphilitic sequestra, under which the bone can be felt to have more or less disappeared.

These are the principal causes of cicatrices of the scalp, but there are many others, and it is impossible to enumerate them all. Those mentioned are the most common.

When a cicatrix is imperfect the deformity may be corrected by linear scarifications of the borders and projecting seams. By this means bridled and irregular scars may be made regular and flat; but this is all that can be done. *Hodara* has proposed reimplantation of hair, taken from the head of the same subject, in deep scarifications of the surface of the cicatrix. The results which I obtained in the single case in which I tried this difficult and painful method were mediocre. In many other cases I have tattooed the surface, and the results appear to favour the practice of this method when the cicatrix cannot be concealed by false hair or by the surrounding normal hair.

VARIA.

The scalp may present many dermatological types, less important than the preceding, concerning which a few words may be said.

Molluscum contagiosum. This forms a discrete or abundant crop of soft, round, pink, raised and crateriform lesions, the cavity of which is occupied by a semi-horny substance which may be expressed by the finger nails. This lesion, which is more common on the face, and in the child, may occur on bald scalps and attain considerable dimensions. The treatment is the same everywhere, by means of the curette, which is almost painless and gives good results.

Warts. Villous warts, covered with small horny projections, are somewhat rare on the scalp, but may occur in children, adults and in the aged. They may be treated by applications of chromic acid (30 per cent), or salicylic acid (50 per cent), or by the galvano-cautery.

Sebaceous cysts. Sebaceous cysts may occur in adults or in the aged. When they are closed they should be removed surgically; the application of caustics is contra-indicated. When the cysts are open and obstructed by a fatty core, the tumour may often be evacuated by this orifice by separating the cyst with a blunt probe and expressing the contents slowly.

Epithelioma. Epithelioma is rare on the scalp except when supercicatricial. It has the same ulcerative or proliferating characters as elsewhere. As in all cases of superficial epithelioma, radiotherapy should be tried first (p. 33).

THE NECK.

The neck presents the following dermatological lesions most frequently:—

Those caused by fleas, bugs and mosquitoes . . Parasitic lesions p. 242

The congestive patches which emotional persons often present, called pudic erythema . . . . . } Pudic erythema . p 243

The traumatic lesions called dermographism . . Dermographism p. 243

And true urticaria; essential or ab ingestis . . Urticaria . . . . p. 244

The "rosette" lesions of erythema multiforme . } Erythema multiforme . . . . p. 244

The circular, squamous lesions of pityriasis rosea Pityriasis rosea . p. 245

Eczemas secondary to eczemas of neighbouring parts . . . . . } Eczema . . . . p. 245

The collar of grey lesions called pigmentary syphilide of the neck . . . . . } Pigmentary syphilide of the neck p. 246

The grey infiltrated and mammillated lesions of acanthosis nigricans . . . . . } Acanthosis nigricans . . . . . p. 247

The molluscum pendulum observed on the neck of old people . . . . . } Molluscum pendulum . . . . . p. 247

It is usual to class actinomycotic tumours among the dermatological lesions and we shall consider them with this region, in which they are most common . . . . . } Actinomycosis . p. 248

I shall finish with a few words on tertiary serpiginous syphilis, which sometimes occurs in this region . . . . . } Serpiginous syphilis . . . . . p. 259

The semeiology of glands of the neck will next be considered with the sub-occipital glands of the impetigo of Bockhart and of phitiriasis; with the sterno-mastoid gland of chancre of the tonsil, etc. } Semeiology of glands of the neck . . . . . p. 259

With the retro-cervical glands of secondary syphilis . . . . . } . . . . . p. 251

With the lateral cervical glands of scrofula . . . . . p. 251

With the submaxillary glands of lingual cancer . . . . . p. 252

And the subhyoid gland of chancre of the tongue . . . . . p. 252

FLEAS. BUGS. MOSQUITOES.

The region of the neck is one of the regions most frequently attacked by parasites, such as fleas, bugs, mosquitoes, caterpillars, etc.

The flea-bite forms a red areola a few millimetres in diameter centred with a red point of puncture.

The mosquito-bite is an oblong oval papule, resembling a nettle sting. It is intensified by scratching and the central puncture appears as a scarcely visible pink spot.

The bug-bite often resembles that of the mosquito and presents a reddish violet point of puncture, with a red areola like the flea-bite.

On the neck of the shirt may be found black punctiform spots which are the traces left by the flea or bug.

The treatment is almost nil. A drop of strong carbolic acid (5 per cent) relieves the itching, and ointments of carbolic acid or guaiacol have been recommended.

PUDIC ERYTHEMA.

Certain persons, especially young girls, on the slightest emotion, or when they undress, present sudden patches of redness, disseminated over the neck and chest. They form large irregular blotches with clearly defined margins. They do not project above the skin and must not be confounded with dermographism. This condition indicates excitation of the nervous and vaso-motor systems. It requires no treatment and only requires mention to avoid errors of diagnosis.

DERMOGRAPHISM.

The neck is a region of predilection for urticarial reactions.

It is especially a region where dermographism has its maximum intensity. This is a cutaneous urticarial reaction due to traumatism, especially by the clothes. It forms long trails of urticarial swelling, partially surrounding the neck and often disposed in several rows. The diagnosis is certified by the finger nail applied to the region, which causes the affection to appear in a few minutes.

The treatment is palliative and consists in the application of carbolic and menthol ointments, or glycerine of starch and resorcine:—

Glycerine	40 grammes	ʒi
Starch	15 "	ʒiii
Resorcine	1 gramme	gr. 12
Tartaric acid		
Menthol		

High frequency treatment may be prescribed when the arterial tension is above normal, and by lowering this may diminish the most disagreeable functional symptoms of this peculiar condition. But this is not always the rule.

URTICARIA.

Urticaria may be a recurrent affection, or accidental. When recurrent it is attributed without proof to the absorption of intestinal toxins, or to defective function of the liver and kidneys. It is seen, however, in patients who appear normal in all respects. In women the attacks are repeated monthly before the periods.

In other cases it is due to indigestion, caused by mussels, oysters, shell-fish, tainted food, etc. In this case the neck is affected, but not more than other parts of the body.

Urticaria consists of a large number of flat papules, from a fifth to two-fifths of an inch in diameter, oval, irregularly scattered and more or less confluent in different regions.

The papules are white or pale lilac in colour, very pruritic and intensified by scratching. In certain cases the centre of the papule is occupied by a minute vesicle which is ruptured by scratching. The papule lasts from 4 hours to 2 or 3 days, and the crisis of urticaria has the same variable duration.

Local treatment is the same as for dermographism. Internal treatment consists in supervision of the ingesta, to avoid those which may be at fault. The menstrual function should be regulated when it is irregular or retarded, with capsules of apiol twice a day, or when there is painful menstruation by ovarian extract for ten days before the periods.

Urticaria will be also considered with the general dermatoses (p. 531).

ERYTHEMA MULTIFORME.

The neck is one of the three common regions in which the lesions of polymorphous erythema occur; the two others being the wrists and the ankles.

The lesions vary in number and dimensions in the same subject, and in appearance according to age.

They arise as red macules which become oval as they increase in

size. They have a red border and a livid centre, and thus take the characteristic form of a rosette. They never desquamate nor discharge. They are developed in 2 to 5 days; the eruption fades from the 5th or 6th day and disappears on the 10th.

Erythema multiforme has been explained as a toxic eruption, but without absolute proof. It generally follows about 8 days after an infection, which is usually a more or less characteristic angina. The eruption is often accompanied by malaise and articular pains.

The treatment is the same as for benign eruptive fevers, by rest in bed, restricted diet, warm drinks, and tonics when the subject is debilitated. The eruption may recur, but at long intervals.

PITYRIASIS ROSEA.

Pityriasis rosea of *Gibert* is not specially a disease of the neck, but develops chiefly on the trunk and the first segment of the limbs. However, it has the peculiarity of presenting its last elements on the neck, and does not extend beyond the horizontal line of the inferior maxilla.

The elements are oval, bistre coloured patches, with a red desquamating border The squames are attached at the border and free towards the centre of the patch.

The etiology of this affection is unknown and the treatment nil. Irritating applications should be avoided, as eczematisation may be produced. The duration of the disease on the neck is two or three weeks; the total duration 6 to 10 weeks. It never recurs.

ECZEMA BY PROPAGATION.

The antero-lateral parts of the neck have a fine skin and are among the first to be attacked by placards of eczema by propagation. Thus, in an eczema of the face caused by dyes, when this has a tendency to extend, the neck is covered with red, irregular patches, often composed of small confluent lesions with a moist surface. The neck is also affected by eczema of the folds, as in the elbow, popliteal space and groins.

But eczema in this region is nearly always secondary to an eczema of neighbouring parts; the scalp, face, axillæ or breast.

It is difficult to formulate a treatment for these forms of eczema,

which may be of very different nature. Like all secondary eczemas, they may be treated more mildly than in the case of more marked eczema in its first localisation. Mild ointments and pastes are useful, such as oxide of zinc (10 parts in 30 of vaseline).

PIGMENTARY SYPHILIDE OF THE NECK.

This occurs on the antero-lateral part of the neck, on both sides equally, and the lesions descend as far as the clavicular regions.

The lesions are very easy to recognise when once seen, but very

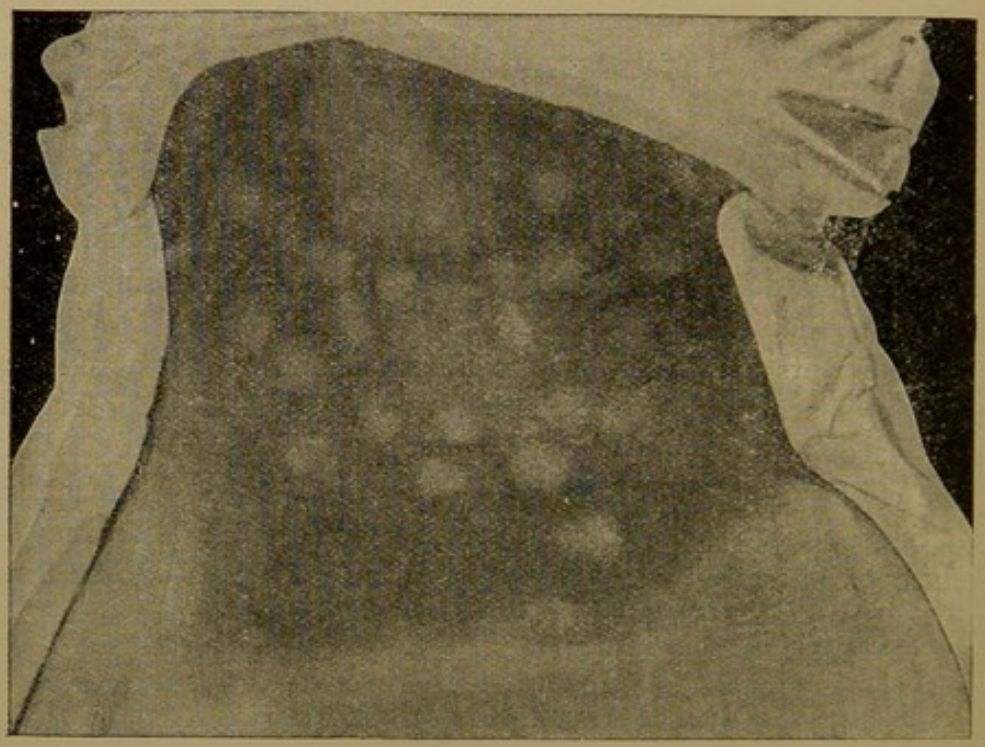


Fig. 111. Pigmentary Syphilide of the neck.
(Fournier's patient. St. Louis Hosp. Museum, No. 559.)

difficult to describe. Most often they resemble what a roseola would be if the spots were bistre instead of rose colour. On a pale base are seen from 10 to 30 disseminated large grey spots, with ill-defined borders. At other times there is a leuco-malanoderma, i.e., parts paler than the normal skin and other parts bistre coloured; the whole resembling a badly applied wash of diluted Indian ink. This eruption, the origin of which is not well understood and described differently by authors, appears to follow closely on the roseola. It

is thus a secondary lesion, and is more common in women than in men. It persists a long time and disappears about the 15th month of the disease.

Diagnosis is certified by the retro-cervical adenitis; sometimes by the roseola, which may be still visible; by the adenitis secondary to the chancre; by parietal alopecia which is often contemporary with it, and by the recent history of a chancre.

Local treatment is nil and general treatment that of secondary syphilis (p. 650).

ACANTHOSIS NIGRICANS.

This is a rare dermatosis, symptomatic of certain cachexias, especially the cancerous cachexia, and more particularly cancer of the stomach. Its proximate cause is unknown. Its localisation on the neck is far from exclusive, for this morbid condition first attacks the gums (p. 42), and in a general way all the regions of the skin with folds of flexion (p. 612).

At these places the skin becomes ashy grey in colour and presents singular transformations. It is thickened, the normal folds are accentuated, and the surface resembles that of a condyloma seen under a lens. It is covered with small round tumors, of various sizes and infinite number; as if the dermal papillæ were enlarged so as to be visible to the eye. These give a mammillated sensation to the touch wherever this cutaneous transformation occurs. This condition is chronic and progressive, and owing to its cause, ends in death, and requires no local treatment.

MOLLUSCUM PENDULUM.

This singular lesion is constituted by a small sac of soft, flabby, wrinkled and pedunculated skin, situated on a healthy and normal surface.

Molluscum pendulum is a persistent lesion which increases very slowly and is never transformed into a malignant tumour. When situated on the neck they generally occur in men or women who have passed the 40th year and increase in number and size with age. Certain individuals whose skin is prematurely senile show them from adult age. The antero-lateral surfaces of the neck may present from

2 to 50 of different sizes, the largest being often less than a grain of wheat and pedunculated, and affecting the diagrammatic form of tears.

The physician is only consulted for these lesions by men who are afraid of cancerous degeneration, and by women who regard them as unsightly. The treatment is simple, and consists of removal by the galvano-cautery.

ACTINOMYCOSIS.

Actinomycosis is a disease with sub-cutaneous tumours, generally caused by the *Actinomyces Bovis*, but sometimes by another species of the same family of fungus. This fungus appears to live on grass in the saprophytic state. Inoculation of the disease has often occured by husks of barley, wheat or oats. The point of entry is the throat; the usual point of development the sub-axillary and lateral cervical regions.

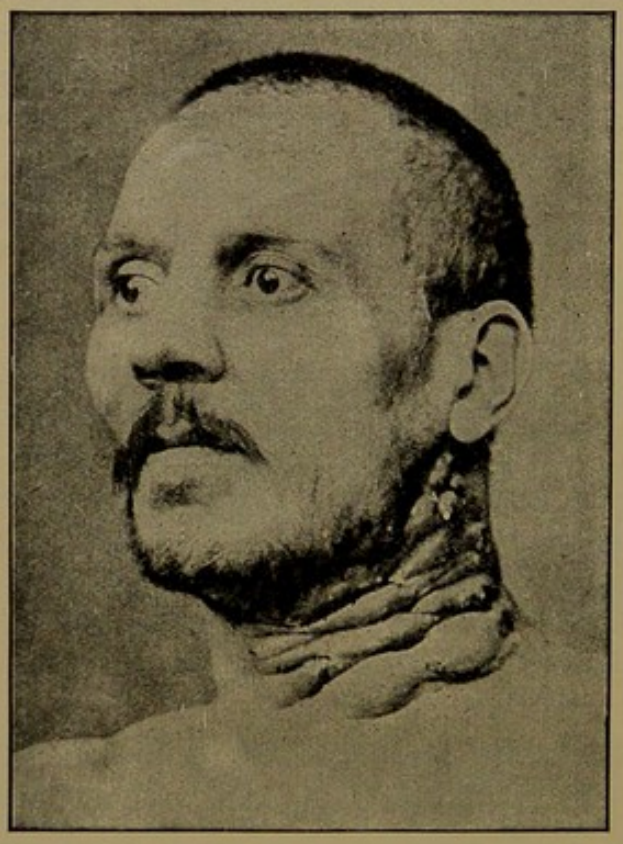


Fig. 112. Actinomycous of the neck (after Illich).

The tumours of actinomycosis have a wooden hardness which very few other tumours except fibro-sarcoma and schirrus carcinoma can simulate. They slowly attain an enormous size, and may cause metastases, probably by the veins and not by the lymphatics. The tumours may ulcerate; one part of the mass becoming adherent to the skin, opens and discharges a little pus, in which are found yellow lumps, the size of barley grains and of stony hardness, which often remain impacted in the orifice of the abscess.

These yellow grains when examined by crushing between two glass slides, fixation by acid sublimate, and coloured by *Gram's* stain, show a parasite formed in the centre by a felting of fine violet

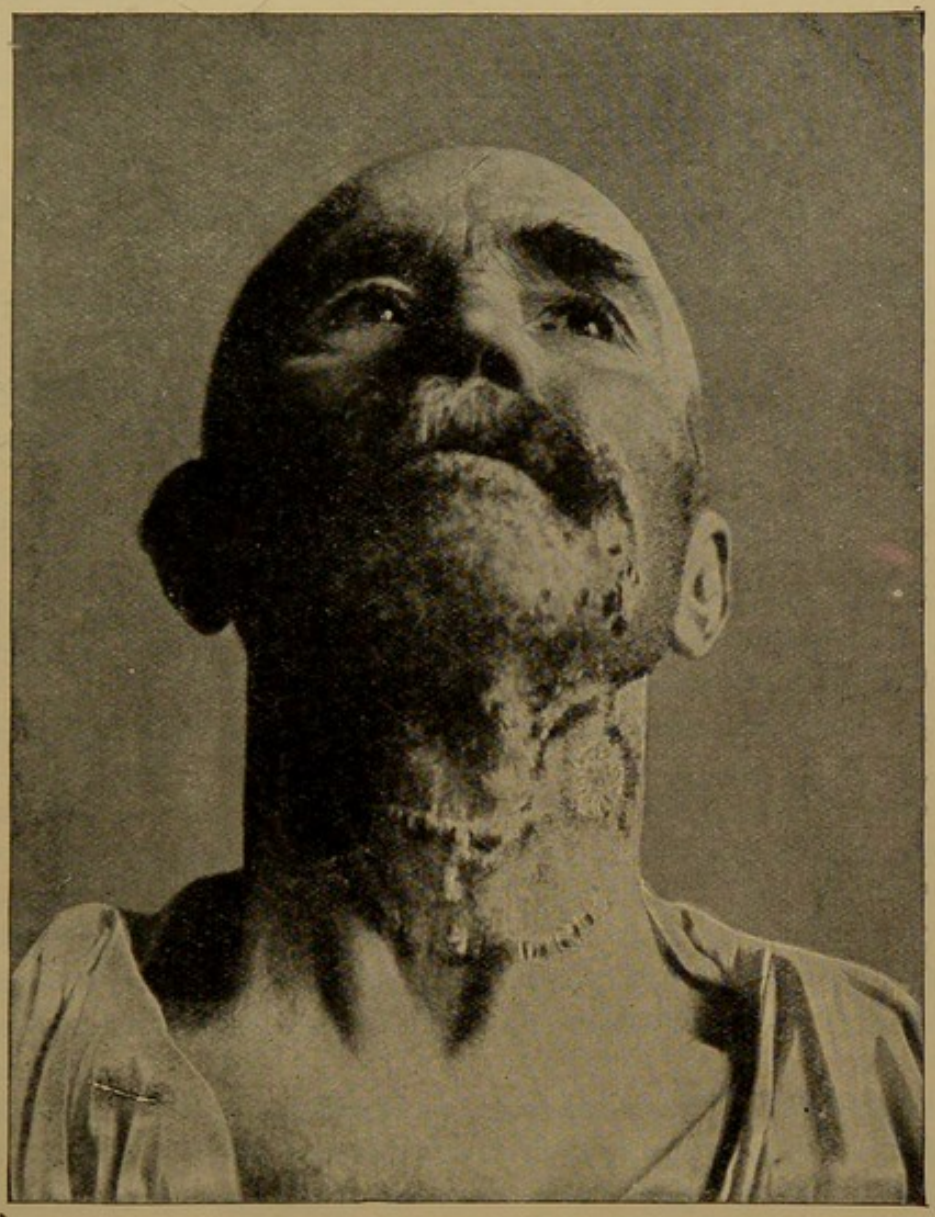


Fig. 113. Secundo-tertiary circinate syphilide. (Sabouraud's patient. Photo. by Noiré.)

mycelium (1-3 to 1-2 μ), surrounded by yellow clubs disposed in rays (*αχτωσ*). This appearance is characteristic.

Treatment by large doses of iodine of potassium sometimes succeeds (1 to 10 grammes daily); but there is danger of œdema of the glottis. Excision is rarely practicable.

The action of the X-rays is unknown. Withiout intervention the

issue is fatal; the development of the tumour causes obstruction of the pharynx, or compression of the recurrent laryngeal nerve or the vagus with laryngeal crisis or syncope. Although the cachexia is less than in cancer, it takes part in the general condition in which the patient succumbs.

SERPIGINOUS SYPHILIS.

Apart from the roseola and secondary papules, which the neck presents like other parts of the body, secundo-tertiary or tertiary serpiginous syphilides may develop. They occur generally in the form of a circular or polycircinate border; sometimes as copper coloured corymbose papules. The border itself is composed of papules placed together in the form of a band, sometimes covered with adherent psoriasiform scales.

The lesions are of extremely slow evolution, lasting for months when left to themselves and often healing on one side while they extend on the other. These lesions indicate a syphilis of long standing. They have no gravity in themselves, but prove that the disease is still active and dangerous.

Treatment should be mixed and continued till the lesions have entirely disappeared.

SEMEIOLOGY OF THE GLANDS OF THE NECK.

The glands of the neck may become large and palpable in all regions and from many causes; nevertheless there are certain common and characteristic types of adenitis which it is necessary to consider here.

Occipital Glands in impetigo of Bockhart and pediculosis in children. Whenever a child presents a pustular eruption of the scalp, there develops, often in a few hours, a large and painful gland on each side of the occiput, on the borders of the scalp. This gland is sensitive enough to be perceived by the child.

The same glands are seen, in phtiriasis of the scalp when it is accompanied by impetigo. The glands never suppurate, but persist as long as the eruption, or a little longer. They are almost pathognomic of these eruptions. When impetigo of *Bockhart* (p. 183) is recurrent, which is the rule, each eruption is heralded by the glands several hours in advance.

Sterno-mastoid Glands of chancre of the tonsil. This is large, unilateral and situated under the centre of the sterno-mastoid muscle. All the glands of this region on the same side are enlarged and feel like almonds when rolled under the finger; or they may form a common mass. But the *indicator gland* is as large as a nut and causes a projection visible to the eye. It is hard, slightly painful and difficult to palpate owing to the muscle lying over it. Examination of the corresponding tonsil generally reveals the chancre, which persists for some time (p. 67). The patient always recollects having had a unilateral tonsillitis which lasted four or five weeks. There is hardly any doubt as to the diagnosis even when the chancre is not seen, and a roseola may be expected in a short time.

Retro-cervical Glands in Secondary Syphilis. At the secondary period all the lymphatic glands are indurated and become perceptible to palpation. Those of the neck are especially recognisable in thin women, in whom they are visible under the skin. The most marked are those situated at the back of the neck. They feel like almonds to the touch; they are mobile, nearly painless, and of the consistency of balls of India rubber. In doubtful cases their presence is of great importance. Search should be made for the pigmentary syphilide of the neck, glands in other situations, roseola and other corroborative signs.

Lateral cervical Glands of Scrofula. Tuberculosis, when it affects the glands, generally attacks the anterior cervical glands, probably because the naso-pharynx is a common port of entry for the tubercle bacillus.

The sub-hyoid gland is rarely affected; the sub-maxillary glands in general slightly enlarged, and the sterno-mastoid group affected in totality.

All the glands of this region are increased in size and agglomerated together. They are painful, or at least sensitive. This condition persists for years and becomes slowly aggravated. The pain varies from pain on pressure to continuous pain due to the formation of an abscess. But the glandular abscess may form slowly without any pain (cold abscess), ending in a fistula which does not heal. The fistulous orifice is often the centre of a chronic fungoid lesion, which belongs more to the surgeon than to the dermatologist. Excision of tuberculous glands gives very mediocre results, and the dermatologist may often obtain better results by cauterisation with chloride of zinc (1 in 15), or with the two crayons of nitrate of

silver and metallic zinc. There are few cases which are not improved by this method, when well carried out.

Glands in cancer of the lip and tongue. An epithelioma of the tip of the tongue or the lip affects the sub-hyoid gland. It is situated in the centre of the sub-maxillary region in front of the hollow of the hyoid bone. It is single, the size of a marble, as hard as wood, and mobile for a considerable time.

Cancer of the base or lateral parts of the tongue affects the sub-maxillary glands, which can be felt behind and below the angle of the jaw; later on the sterno-mastoid glands are also affected.

It is premature to speak of the value of the X-rays in these cases, which requires further investigation. It is a question whether extirpation of the glands should be preferred to the treatment by X-rays, using radiotherapy only for the cicatrix. Prudence requires that these attempts should only be practised on inoperable metastatic glands. However, we must admit that the action of the X-rays is more rapid and more evident on the glands than on the primary cancerous lesions (p. 33).

Sub-hyoid Gland in Chancre of the tongue and lip. The sub-hyoid gland is the indicator of chancre of the tongue. It is not the gland which draws attention to the chancre, but the chancre which is certified by examination of the gland. The gland is single, mobile, rolling under the finger like a ball of india rubber, of which it has the same consistence. Such a gland co-existing with a flat, round exulceration at the end of the tongue, of less than two months' duration, is diagnostic of indurated chancre.

THE AXILLA.

Among the folds of flexion, the axilla has not the dermatological importance of the fold of the groin; yet the number of affections which it presents with predilection is considerable.

The infant presents axillary intertrigo or eczema, in connection with red or weeping eruptions of the face and all the folds . . . . . . — Intertrigo of nurslings . . . . . p. 254

The axillary hairs of the adult are often covered by a sandy deposit, difficult to remove, on account of which the dermatologist may be consulted . . . — Trichomycosis of axilla . . . . p. 254

Phtiriasis of pubic origin may be met with in the axilla, and its treatment may present some difficulties . . . . . . — Phtiriasis . . . p. 255

The skin of the hairy region of the axilla may present pustules in the centre of papular projections, which have long been regarded as hydrosadenitis . . . . . . — Hydrosadenitis . p. 255

Impetiginous eczema of adolescents has a strong predilection for the folds of flexion in general. It is often found in the axillary folds . . . . . . — Eczema of adolescents . . . . p. 256

The axilla is one of the regions where the diagnosis of itch is most easy, for the acarus often multiplies its lesions in front of it . . . . . . — Scabies . . . . p. 257

There is a ringworm special to the folds of flexion, more common in the groins than axillæ, but observed with a certain frequency in the axillary fold . . . . . . — Trichophytosis . p. 257

Erythrasma, more common in the inguinocrural fold, presents also its large, round, scurfy, tawny placards in the axilla . . . . . . — Erythrasma . . p. 257

Also in rare cases, desquamating polycircinate lesions with a double erythematous border, occur in the axilla. These are non-vesicular, mycotic in aspect; but the parasite remains to be found . . . — Mycosis of unknown nature . p. 259

Intertrigo of adults is common in the axilla, either in its simple form . . . . . . — Simple intertrigo p. 259

Or in a chronic suppurating form with hypertrophic dermatitis in placards, very different to chronic intertrigo of the inguinal folds . . . . . — Chronic intertrigo . . . . . p. 259

Acanthosis nigricans, the hyperplastic dermatitis with hyperpigmentation, of cachetics, occurs in the axilla, as in other folds of flexion . . . . . . — Acanthosis nigricans . . . . . p. 260

The same with Darier's disease, of which we shall only say a few words . . . . . . Follicular psorospermosis . . p. 260

We shall end this chapter by taking a survey of the semeiolgy of the axillary glands and their adenitis, which is more or less characteristic in general affections of the skin; in dermatoses and in lesions of the breast and arms . . . . . . Semeiology of axillary glands . . p. 260

INTERTRIGO OF NURSLINGS.

Intertrigo of the axilla, in the nursling, is much less common than intertrigo of the groin. It seldom occurs except in cases where analogous lesions arise at the same time in all the folds. It then consists of remote localisations of an eczema of the type described above on the face, and is amenable to the same treatment (p. 12).

TRICHOMYCOSIS OF THE AXILLA.

In adults with blonde or red hair, it is common to see the axillary hairs curled in ringlets which give to the fingers a gritty sensation.

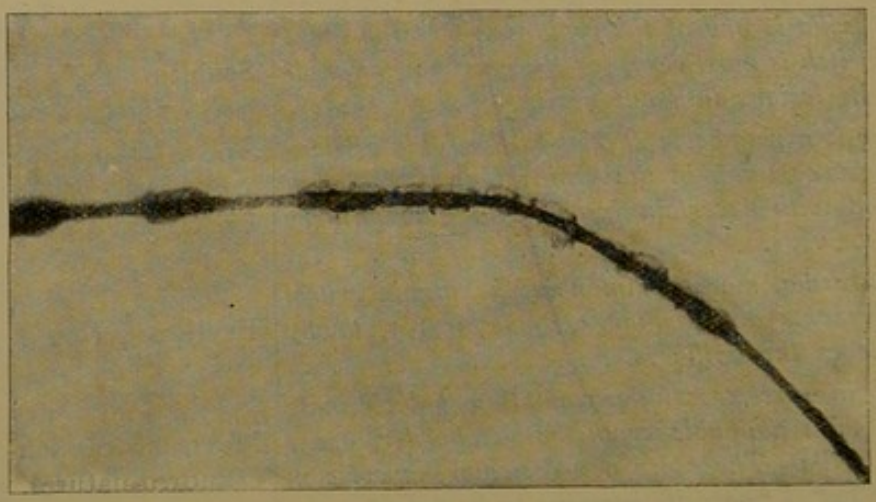


Fig. 114. Hair of axilla affected with nodular trichomycosis, magnified (Sarbourad's preparation. Photo. by Noiré.)

The hairs appear, to the naked eye, thickened for most of their length, and imbedded in a yellow segmented concretion, which is very adherent.

Examined microscopically, this appears to be formed by refrac-

tive, homogeneous crystalline blocks, probably of parasitic origin. The parasites which cause this condition have not been sufficiently studied.

This disease is more common in persons who neglect the hygiene of the skin, but may occur in all classes of society, and at almost any age. It is seldom accompanied by functional symptoms otherwise than slight itching when sweating is profuse. It often co-exists with abundant red sweat, which stains the linen.

The treatment is simple, by means of coaltar soap, or alcoholic solution of saponified coaltar (1 in 7). This generally causes a cure in a few weeks, but recurrence may take place.

PHTHIRIASIS.

The *phthirius pubis* may not uncommonly be seen in the axillæ especially in hairy men in whom the phthiriasis becomes generalised. The crab lice and nits may be found all over the body, and colonies of them in all hairy regions such as the axillæ.

The pullulation may be enormous, especially in those who are ignorant of being infected. In others the parasites are not so numerous. Except in the case of an eczematous subject they should be treated energetically. The axilla is painted with xylol or petroleum ether. Every parasite touched is destroyed by the liquid penetrating the respiratory tubes. All the hairy regions may be thus treated and immediately followed by a starch bath to allay the smarting.

When the skin is too sensitive to stand this method, simple vaseline may be used in large quantities, which impregnates the parasites in the same way. Mercurial ointment has the same advantages, but causes cutaneous irritation in the axillæ and groins. The nits are partly dissolved by acids, and warm vinegar may be used for this purpose, the eggs being afterwards removed by a fine comb.

HYDROSADENITIS.

This name is still incorrectly applied to impetigo of Bockhart of this region. The lesions consist of pustular folliculitis, always more frequent, more coherent and more painful in hairy regions than in smooth parts. They are traumatic or spontaneous. When traumatic they follow scabies and its treatment; irritating applications

of all kinds used for divers purposes, phthiriasis, etc. When spontaneous, they are similar to cases occurring in the beard, pubis, etc. They may accompany a diffuse more or less abundant and generalised eruption of the elements all over the body, preceding or accompanying a true furunculosis. In this case they often accompany hypoacidity of the urine and hypophosphaturia.

The lesions consist of circumpilary pustules, of a greenish yellow colour, more or less agglomerated, numerous and painful. They often present a characteristic peripheral raising of the epidermis around each of them, which gives them the appearance of a cupped papule with a suppurating centre. The implantation of the hairs of the region not being deep, these pustules rarely give rise to true furuncle, but rather to a series of abortive boils.

Local treatment comprises epilation, which is often useful; starch poultices, made hot and applied cold, sprinkled with camphorated alcohol, or saturated boric alcohol; ointments of oxide of zinc, removed daily without soap, by means of oil of almonds. Treatment of the general condition should not be neglected whenever this appears to play a role in the long duration of regional folliculitis.

IMPETIGINOUS ECZEMA.

Impetiginous eczema of adolescents, when very pronounced on the face, is usually accompanied by inguinal and axillary lesions. It is always an exudative epidermatitis of extensive area occupying the whole axillary region. It may be very exudative from the first, becoming more dry and desquamative later on, in benign cases. The subjacent skin is very red during the whole course and the epidermatitis at the periphery is desquamating. In some cases it is complicated by more or less discrete follicular pustules. It is difficult at first to distinguish between primary amicrobial eczema, streptococcic intertrigo and staphlococcic pustulation; these two affections occurring secondarily to primary amicrobial lesions.

The local treatment of this affection includes two distinct phases: during the period of discharge a solution of nitrate of silver is applied (5-15 per cent) the more the lesion appears eczematous and the less intertriginous (concomitant with lesions of the face, inner surface of the thighs and arms, etc.); and solutions of sulphate of zinc (1 per cent) the more the lesion is intertriginous and the less eczematous.

The general treatment, like that of all eczemas, is obscure (vide p. 12).

SCABIES.

The acarus of scabies prefers the regions where the skin is soft and fine, and the folds of flexion fulfil these conditions very well. In the axillary region, the acarus prefers the anterior region of the shoulder, corresponding to the seam of the coat sleeve, to the axillary fold itself. In this region few vescicles or pustules are seen, but many parallel and vertical excoriations made by the nails. It is rare to find among these lesions an intact burrow, and it is then on the costal wall of the axilla. It is the topography of these axillary lesions, rather than their elementary form, which suggests the idea of scabies, and the diagnosis is then certified by lesions of the hands, fingers, penis, etc. For the treatment see p. 539.

TRICHOPHYTOSIS.

The intertriginous trichophytosis which causes the so-called *eczema marginatum* of *Hebra* will be studied better with the dermatoses of the inguino-crural region. It is found in the axilla, but less often than in the inguinal and genital regions.

It is always due to the same species of trichophyton, the saprophytic or animal origin of which we are ignorant (Figs. 118 and 119). It always assumes the same form of large, circular, red patches with a red and vesico-pustular border. The patches may be from one to two inches in diameter and coalesce to form large polycylic placards. They are often symmetrical and chronic, persisting for months in the same place, with scarcely any functional symptoms.

The treatment is that of all ringworms of smooth regions: daily friction with tincture of iodine (25 per cent).

It is easy to cure and only recurs when the treatment has not been sufficiently prolonged.

ERYTHRASMA.

Erythrasma is usually an inguinal or inguino-crural dermatosis and is seen only exceptionally in the axillæ, on one or both sides. It is characterised by reddish brown patches, circular and polycyclic

by fusion, very finely desquamative, non-vesicular, of indefinite duration, easily curable and often recurrent. It is almost unknown

Fig. 115. Axillary ringworm (Trichophyton intertriginis). (Sarboura d's patient. Photo. by Noiré.)

for erythrasma to occur in the axillæ without erythrasma in the groins (p. 265). In all situations it is amenable to the same treatment.

CIRCINATE ERUPTIONS OF INDETERMINATE NATURE.

I have once observed an affection of the axilla of special character, which appeared to be a dermatomycosis; but no particular parasite was discovered.

This case occurred in a young girl of 18 or 20, in the form of two large patches occupying the two axillæ and extending in front of them. Each patch was large, yellow, scurfy, polycircinate with a sharp border, but of double contour, the two concentric marginal lines being of a dark red colour and separated by nearly 2-5ths of an inch of almost healthy skin.

This eruption caused secondary patches on the neck and the bend of the elbow on one side only, while both axillæ were affected.

Successive treatment by tincture of iodine, nitrate of silver, oil of cade and pyrogallic acid caused no improvement; but a cure was obtained in three or four weeks by the daily application of chrysarobin ointment (1 in 30).

This application has also given me the best results in the dermatomycosis of the Far East (Japan, Siam, Cochinchina, Madagascar), and should be tried in all cases of rebellious mycosis.

INTERTRIGO.

I have treated of intertrigo in general with retro-auricular intertrigo. The origin of all intertrigos is the same: they are always streptococcic dermatites. Intertrigo is announced by a burning sensation and smarting on washing. On examination, the fold is red, moist, with a superficial erosive lesion, which the fold separates into two equal and corresponding parts. In more acute cases the lesion is increased by the addition of small flat vesicles with turbid contents, which are transformed by scratching into erosions which enlarge and become fused together. An acute attack of intertrigo is easily curable; a chronic intertrigo often recurs after cure.

The best applications for benign intertrigo are tincture of iodine (5 per cent) or alcoholic solution of saponified coaltar (1 in 7). In more chronic cases nitrate of silver (1 in 20) may be applied, followed by zinc paste (1 in 5).

CHRONIC INTERTRIGO.

Chronic intertrigo of the axilla does not always correspond clinically to that of the groin; the latter occurs at advanced age, in obese

persons with hyperacid urine; that of the axilla is observed in young persons after an eruption of boils, which is common in this situation. A chronic suppurative superficial dermatitis is thus constituted in the axilla, complicated with follicular abscess and vegetations, isolated or in placards, which somewhat resemble the condylomata of chronic suppurations of the anus and vulva.

The treatment consists first in absolute cleanliness, local baths and weak lotions of nitrate of silver (2 per cent) or sulphate of zinc (1 per cent). By this means the most apparent symptoms are improved in a few days. In the interval of applications, isolating dressings of pastes or powders may be useful. When the pseudo-condylomatous state of hypertrophic dermatitis is constituted, applications of perchloride of iron rapidly reduce the exuberant granulations and hasten the cure.

ACANTHOSIS NIGRICANS.

This hyperplastic and hyperpigmentary dermatitis, which especially accompanies the cancerous cachexia, is especially seen round the neck, on the gums, on the tongue and in all the folds of flexion, including the axilla. It has no peculiar sign in this region. This condition has been described elsewhere and is well shown in the figure (Fig. 116).

DARIER'S DISEASE.

I have already spoken of follicular psorospermosis of the face (p. 25) and I shall refer to it again in studying the dermatoses of the inguinal regions (p. 268), where it often attains a considerable development. In the axilla it is rarely well marked.

SEMEIOLOGY OF THE AXILLARY GLANDS.

The axillary glands furnish indications for diagnosis and prognosis in diseases of the breast rather than in those of the arms.

A group of axillary ganglia may be observed in the child in cases of eczema of the folds, and in prurigo of *Hebra* (p. 549); in senile prurigo (p. 551); in ichthyosis histrix and the infections to which it gives rise (p. 518); in mycosis fungoides and in lymphadenitis. But the glands of the axilla are of special value in chancre of the

breast, cancer of the breast, *Paget's* disease of the nipple, chronic eczema of the breast, pustular scabies, etc.

As each of these diseases is described elsewhere I shall only say a few words concerning each of the forms of adenitis and their particular signs.

Satellite Gland of Chancre of the breast. This is single, large, hard, resistant and painless or nearly so. Its size distinguishes

Fig. 116. Acanthosis nigricans of Axilla.
(Jeanselme's patient. Photo by Noiré.)

it from the other glands and it is usually found on the costal border of the axilla. Its presence supports the diagnosis of chancre of the breast in the case of a recent, indurated, painless sore of the nipple or areola, without discharge.

The Glandular Pleiades of Secondary Syphilis. This can be felt in the axilla as in all other regions where the glands can be papulated. There are generally three distinct glands, somewhat

enlarged, hard, distinct and painless, situated along the thoracic wall more or less deeply in the axilla.

The Axillary Glands in tumours of the breast. As in the case of all glands in the vicinity of neoplasms, these indicate a grave prognosis and a tendency to generalisation. They are of great importance in tumours of the breast, *Paget's* disease and ulcerated cancers. Palpation must be made with great care, whenever the diagnosis of a chronic ulceration or a tumour of the breast is in question.

Radiotherapy of the axillary glands generally gives excellent results. applied at the same time as radiotherapy of the tumour, every three weeks. The method is too recent, however, to speak definitely of the duration of the improvement.

In **chronic simple dermatitis** of the nipple and areola, chronic eczema, scabies, pruritus, etc., the glands are all equally affected and generally united in a mammillated tangible mass. The volume of each gland may be doubled or tripled, and in spare persons they may be seen projecting under the skin. They are especially evident in severe senile pruritus and in mycosis fungoides.

THE INGUINAL REGION.

The dermatological pathology of the groin includes intertrigo of the folds of the region, in infants . . . . . Inguinal intertrigo of sucklings . . . . . p. 263

. . . And intertrigo in the adult . . . . . Intertrigo of adults . . . . . p. 263

In the adult the groin may present the dark red squamous discs of erythrasma . . . . . Erythrasma . . p. 265

. . . And herpes circinata . . . . . Inguinal trichophytosis . . p. 266

Indurated chancre may be observed at the base of the penis, and cutaneous mucous patches in the inguinal fold . . . . . Syphilis . . . . p. 267

Glandular soft chancre will be treated with the semeiology of the glands of the region . . . . . Inguinal bubo and phagedena . . p. 267

The inguinal region is also one of the seats of predilection of Darier's disease . . . . . Vegetating follicular psorospermosis . . . . . p. 268

There is a senile, inguinal, intertriginous dermatitis, a little different from true intertrigo of the same situation in the adult . . . . . Senile intertriginous dermatitis p. 268

The dermatological semeiology of the inguinal glands is complex, for the fold of the groin is the lymphatic centre of three regions: of the foot and its septic wounds and lymphangitis of the leg Sub-inguinal adenitis . . . . . p. 269

. . . of the genital organs: hard chancre, soft chancre and bubo . . . . . Genital adenitis . p. 270

. . . of the anus with the adenitis of anal chancre, etc. . . . . . Anal adenitis . . p. 271

There are diseases in which the three groups of glands are affected at the same time; the prurigo of Hebra, senile pruritus, premycotic pruritus, and mycosis fungoides . . . . . Complete inguinal adenitis . . . p. 272

INTERTRIGO OF SUCKLINGS.

The skin of the folds of flexion is fragile. It is badly aërated and often remains moist, leading to epidermic maceration and the irritative lesions which follow it.

In the suckling the causes of maceration are numerous. It appears that the irritative lesions of the folds only occur when the fæces and urine are not normal, as in enteritis, etc. Hence the intestine should first be treated in such cases. When there is glairy

enteritis the diet should be restricted and small doses of calomel given (1-5th grain); two doses every half hour in sugar of milk.

The local treatment when the lesions are moist consists of creams and pastes:—

(1)	Oxide of zinc	7 grammes		3ii
	Vaseline, Lanoline, Rose water	aa 10	"	3i
(2)	Oxide of zinc	18 parts		
	Carbonate of bismuth	2	"	
	Vaseline	20	"	

Powders of lycopodium are also useful: its only objection is its price.

When the lesions discharge, we have to deal, not with a localised process, but with a general eczema of sucklings for which a milk diet is not suited (p. 4). In such cases, before applying creams or powders, and whenever the linen is changed, oxygenated water should be applied to the lesions.

The prognosis is always good, but the affection may last 6 months.

INTERTRIGO OF ADULTS.

In the adult also the fold of the groin is *par excellence* the region of intertrigo. It occurs in three degrees.

(1) In the first it consists of a red fissure, limited to part of the fold; this fissure persists or recurs for some time; it causes itching and smarting after washing.

(2) In the second degree the same lesion is more marked, and on both sides of the fissure are two red surfaces of epidermis in apposition. On this surface the horny epidermis is detached and macerated. This condition exists in the whole fold of the groin on both sides and in the fold between the buttocks.

(3) In the third degree the lesions are wider, more extensive and more exudative; and around them may be seen, even at points where the skin is not in contact, small disseminated lesions, called eczema or eczematisation by some; seborrhœids by others. Sometimes even in the young adult, similar lesions co-exist in the hypogastric fold.

These lesions are tenacious and chronic in proportion to the surface affected. They have been attributed to the rheumatic diathesis,

which signifies nothing till this diathesis is defined. Apart from obesity, which causes irritation of the folds of flexion, we are ignorant of the local conditions which predispose to this state.

The lesion of intertrigo is always microbial; it always contains the streptococcus which can be cultivated by the usual methods (p. 8).

The mildest degree of intertrigo may be treated with tincture of iodine in Eau de Cologne (5 per cent) or saponified coaltar in Eau de Cologne (10 per cent).

More severe cases may be painted with nitrate of silver (1 in 15), followed by a protective paste which must be washed off before each fresh application. In rebellious cases permanganate of potash (1 in 1000 to 1 in 5000) is useful.

ERYTHRASMA.

Erythrasma may occur in the axilla, but its seat of election is the inguinal fold. It is characterised by a brownish red patch from 2 to 3 inches in diameter, finely squamous, always localised to the fold of the groin, but extending towards the thigh.

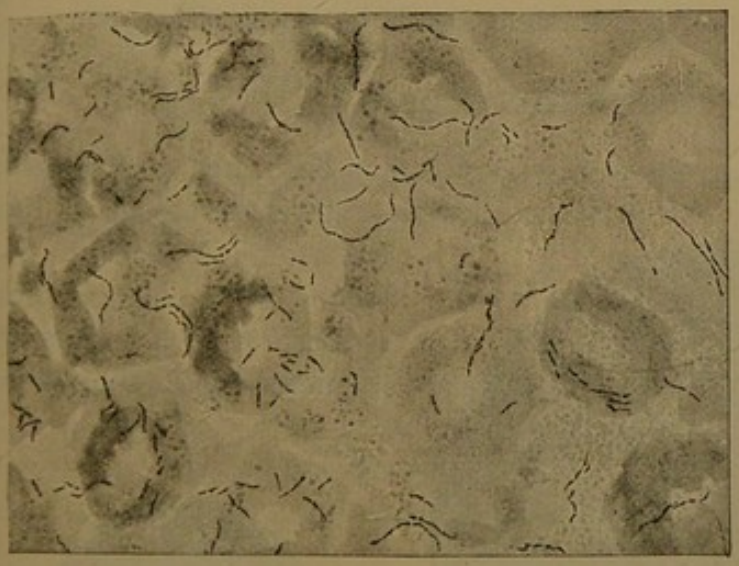


Fig. 117. Extemporary preparation of a squame of Erythrasma. Obj. 1-12. Ocul. 2. Leitz. (Sarbouraud's preparation. Drawing by Gillet.)

The patches of erythrasma are always circular and often occur as several intersecting circles. They have the same appearance on the whole surface, in the centre and at the margins. The dermatosis which erythrasma most resembles is ringworm, but the latter always shows, in these regions, a border which is redder than the centre of the lesion, and this border is slightly raised and always vesicular. Nothing of this kind is seen in erythrasma.

Erythrasma occurs nearly always in the two groins more or less unequally; it also affects the scrotum over a surface corresponding to the affected surface of the thigh.

In very marked cases it occupies both groins, and axillæ, and sometimes occurs on the thigh, in large patches the size of half a crown. The affection is much more common in men than in women; it is monomorphous, chronic, of indefinite duration, and has a tendency to recur after treatment.

The parasite causing the affection is the *Microsporum minutissimum of Von Baresprung*, a cryptogamic parasite of extreme fineness, the dimensions of which approach those of bacteria. It may be demonstrated by collecting the squames by scratching with a glass slide, clearing with ether, and staining with carbolised thionine (1 in 200), or any basic aniline stain. The parasite is seen among the squames (Fig. 117).

The treatment of erythrasma must be continued for some time to give definite results. Tincture of iodine (1 in 10) or permanganate of potash (1 in 1000) are the best remedies. Daily application causes the patches to disappear in 4 or 5 days, and a cure is effected in 15 or 20 days. Possible recurrence must be watched for.

TRICHOPHYTOSIS.

Ringworm of the groin is very common in both men and women, and is confounded by many dermatologists with erythrasma. It has the same situation, the same form in circular patches 2 to 4 inches in diameter, and the same

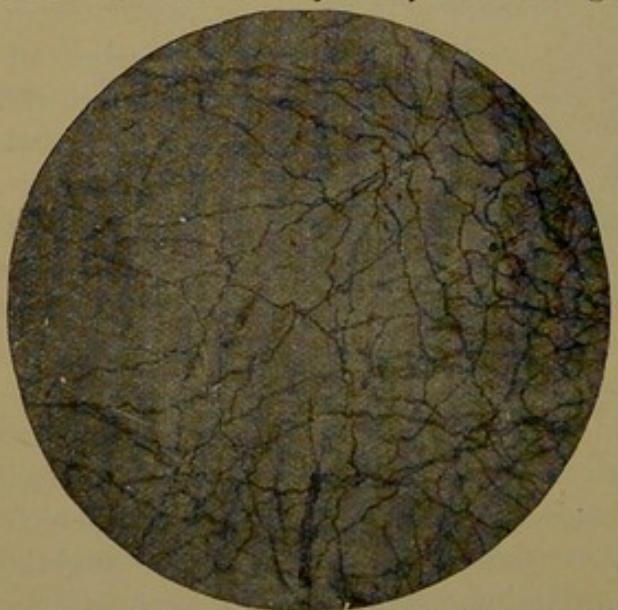


Fig. 118. Squame of inguinal trichophyton (400 diameters). (Sabouraud's preparation. Photo. by Noiré.)

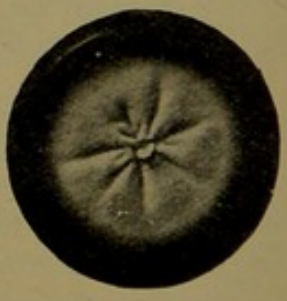


Fig. 119. Trichophyton plicatile of intertriginous ringworm. Culture on gelose peptone.

polycircinate disposition; but the trichophytic patches are larger (Fig. 115), more polycyclic and more irregular than the erythrasmic patches; they are moreover distinguished by the fact that the erythrasmic patch is uniformly brownish red, while the trichophytic patch is brighter red with a finely vesicular margin, the vesicles containing slightly turbid fluid. Microscopic examinations of this fluid or of the squames in the centre of the patch shows the septate mycelial elements characteristic of herpes circinata. Here the mycelium is relatively thin, and the septa wide apart (Fig. 118).

Culture of this parasite shows always the same species of trichophyton (Fig. 119). This species is only met with in intertriginous inguino-scrotal, vulvar, axillary, or sub-mammary ringworms (p. 493).

The treatment is the same as for erythrasma, but requires stronger applications:—

(1) Tincture of iodine		20 grammes	℥ii
Spirit of lavender		10 "	℥i
Alcohol, 60 per cent . . .		80 "	℥i
(2) Lanoline	aa	20 grammes	℥ ss
Distilled water . . .			
Metallic iodine . . .	aa	40 centigrammes	gr. 5
Iodide of potassium			

Intertriginous ringworm is easier to cure and less recurrent than erythrasma.

SYPHILIS.

Syphilis may be represented by hard chancre of the root of the penis; rarely in the groin. It is usually oval and sometimes nearly an inch in its larger diameter. The induration may be very pronounced and cartilaginous. It is always flat with an eroded non-exudative surface. It is often surrounded by a flat epidermic cushion. Its progress and resolution are normal.

The inguino-scrotal or vulvar region often presents secondary syphilides of the florid exulcerated papular type, called cutaneous mucous tubercles. They are sometimes quasi-confluent and bathed in a fœtid sanious liquid. Diagnosis is made by exclusion, as no other morbid condition resembles them. The presence of chancre, enlarged glands and general secondary eruption, etc., generally make the diagnosis clear.

DARIER'S DISEASE.

Vegetating follicular psorospermosis has one of its chief localisations in the groin and lower part of the abdomen.

The elementary lesion is a conical brown crust with a flat surface occupying and dilating the pilo-sebaceous orifices. The latter occupy the centre of a papule, these papules sometimes coalescing in groups, at other times remaining distinct. They are soft in consistence and of a grey colour.

The disease develops in the seborrhœic regions of the face, chest and back (medio-thorax); in the axillæ and groins, and on the hands, etc. In the groins the elementary lesions are confluent. They become more scattered and diminish in size and number away from the centre of the region. The disease generally commences gradually in adolescence; remains chronic, and never undergoes resolution without treatment.

The treatment is symptomatic and not etiological. Since the cause of the disease is unknown it is palliative and not curative. It is exclusively external and consists of reducing and keratolytic reagents:—

(1) Precipitated Sulphur . . .			
Cinnabar	aa	1 gramme	gr. 16
Salicylic acid			
Resorcine			
Lanoline	aa	15 grammes	℥ss
Vaseline			
(2) Oil of cade		10 grammes	ʒiv
Ichthyol			
Resorcine	aa	1 gramme	gr. 24
Oil of birch			
Lanoline		20 grammes	ʒj

The first is stronger than the second. The dose of these reagents must be varied according to the cutaneous reaction of the subject. Prolonged baths containing 6 ounces of bicarbonate of soda and 3 ounces of gelatine to 60 gallons of water also give good results as adjuvants to the external applications.

SENILE INTERTRIGINOUS DERMATITIS.

Old people, especially when obese, often present a dermatitis of the folds which differs considerably from the intertrigo of the same

situation in younger people. This occupies the transverse supra-pubic, the two inguinal and the intergluteal folds. It is very inflammatory, with very marked functional symptoms. The fold may be fissured and very painful. On both sides of the fissure are two more or less eroded or dry surfaces; always of a purple colour like the lees of wine and sometimes as large as the hand.

I have seen this dermatitis in a gouty subject with tophi, tendinous contractions and severe attacks of gout; in a man affected with dry arthritis and sublaxation of the knee; in a woman with senile morbus coxæ, and at other times without articular manifestations, but nearly always in subjects with hyperacid urine, and of an advanced age.

This intertriginous dermatitis, which may or may not be infected with streptococci, appears to me to differ clinically from intertrigo, both by its intensity and its chronicity, and the cure is often incomplete. The hyperacidity of the urine must be treated by a season at Vichy, by phosphate and bicarbonate of soda, hydrate of magnesia, etc. Local treatment should be mild, for fear of irritation.

Alcohol with traces of iodine is an application which causes much smarting at first, but relief afterwards. Picric acid (1 in 500) or permanganate of potassium (1 in 5000 to 1 in 10,000) give similar results.

Between the applications very mild creams are interposed between the folds of the skin, by strips of fine linen impregnated with fresh cold cream or fresh lard without any active agent.

DERMATOLOGICAL SEMEIOLOGY OF THE INGUINAL GLANDS.

The fold of the groin contains the lymphatic glandular centres of three regions: the lower limb, the genital organs, and the arms.

(1) The group of glands corresponding to the lymphatic network of the lower limb is situated at the point of junction of the internal saphenous vein with the femoral. It is here that the painful glandular swellings are produced, which accompany septic injuries to the feet, foul wounds, punctures, cuts, peri-ungual suppuration, abscess, traumatic suppurating phlyctenules, lymphangitis due to badly cut corns; suppuration of bursæ around chronic articular deformities, bunions, etc. These lesions do not properly belong to the domain of dermatology.

Ecthymatous ulcerations, ulcer of the leg, and wounds of the leg are accompanied, the first always, the others frequently, by lymphangitis. Chronic ulcer of the leg is accompanied by repeated lymphangitis, which constitute true erysipelas (p. 306); the glands being not popliteal but saphenous.

These simple inflammatory adentites have only a secondary importance in the syndromes which they accompany. They seldom suppurate, and nearly always end in resolution.

(2) Adenitis corresponding to genital lesions occupies the inner two-thirds of the groin. The inguinal group of glands extends for about four inches and includes 5 to 7 distinct glands.

Inflammatory suppurative balanitis, simple or gonorrhœal, is only accompanied by simple and transient glandular reaction.

The adenitis of indurated chancre includes two elements. The "pleiad" of *Ricord* and the indicator gland. All the glands are enlarged and indurated and have the special consistence which is compared to balls of india rubber. These glands are movable and roll under the finger; and in thin subjects they are visible to the eye. They are not sensitive, nor even painful to pressure. They occur nearly equally in both groins. The secondary syphilitic polyadenitis which, becoming generalised in all the glands of the body, constitutes the secondary poly-micro-adenitis of some authors.

Moreover, on the same side as the chancre is seen a gland double the size of the others; it is also rather softer and more sensitive. This is the indicator or satellite gland of hard chancre, which *Ricord* facetiously termed the "Prefect of the groin." No treatment is required for syphilitic glands. In 3 to 6 months the indicator gland becomes the same size as the others, and in 10 to 18 months the polyadenitis disappears and the glands return to their normal size. But several months after the roseola, palpation of the glands, and especially of the inguinal glands, will furnish evidence in the diagnosis of a doubtful case of syphilis.

SUPPURATING BUBO. SOFT CHANCRE.

Sometimes in the course of evolution of soft chancre of the prepuce or glans (p. 421), one of the glands of the groin becomes swollen and presents inflammatory symptoms, including spontaneous pain, increased on pressure. This *bubo* enlarges and becomes adherent to the reddened skin. This becomes purple and ulcerates,

exposing the suppurating gland. The ulcer is deep and irregular, with ragged borders. The pus is thick and sometimes streaked with blood. The evolution is slowly reparatory, and ends after two months in the formation of a large radiating cicatrix which is sufficient for retrospective diagnosis of the affection which caused it.

The swelling when once formed always ends in ulceration; it is not a simple adenitis, but a *glandular soft chancre.* It thus requires treatment like soft chancre by the most active caustics and antiseptics. The method of aspirating the ulcers with a syringe, and injecting camphorated ether or iodoform, may destroy the bacillus of

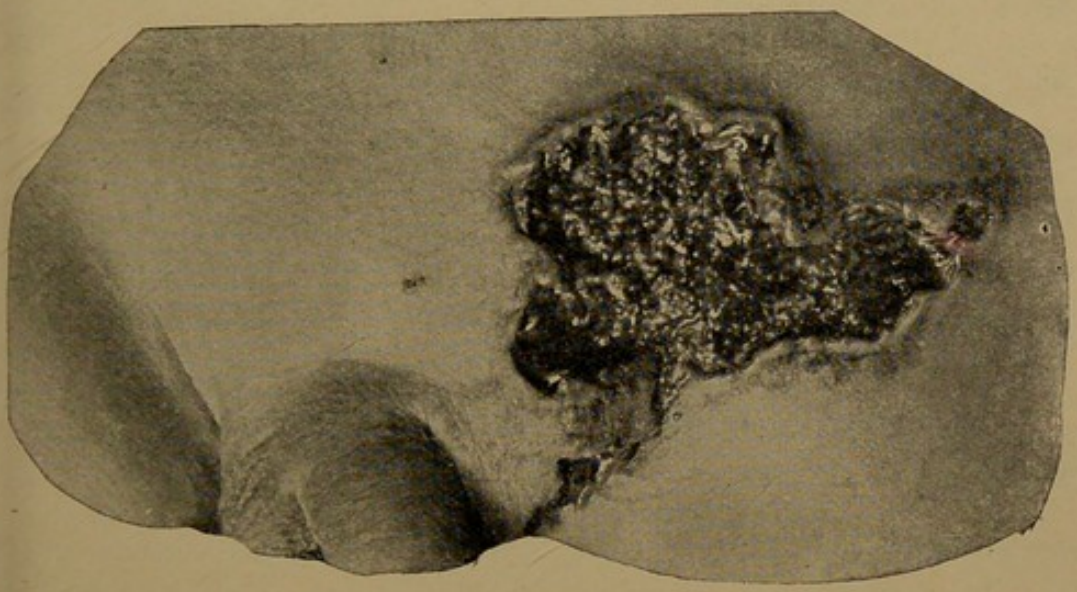


Fig. 120. Phagedenic bubo. (Du Castel's patient. St. Louis Hosp. Museum, No. 2050.)

Ducrey or prevent opening of the abscess; this allows spontaneous absorption because the life of the bacillus is short. The glandular chancre, when opened, may be treated by iodoform ointment (1 in 20) or sub-carbonate of iron ointment (1 in 40); camphorated tannin, etc.

Phagedena of the glandular chancre has been observed like that of soft chancre in all situations (Fig. 120).

The treatment is the same (p. 421).

3. **Glands corresponding to Anal Lesions.** These occupy the external third of the groin. They are best palpated in the standing position. When palpation of the inner two-thirds of the groin is negative, palpation of the outer third should be made carefully.

Chronic inflammations of the arms: hæmorrhoids, fistula and fissures, anal tuberculosis, etc., may cause swelling of the inguinal glands. But when the indicator gland is single and as large as a nut, it certifies an indurated chancre of the anus.

4. **All three groups of inguinal glands** are enlarged in a certain number of affections. In *prurigo of Hebra* in the adolescent, for example, they may be visible to the eye without palpation.

Also in *senile pruritus*, when they are smaller and not so hard. They are equally affected in *premycotic pruritus, mycosis fungoides* and *leucæmia*. But in all these cases the adenitis is only an epiphenomenon, insufficient in itself to settle the diagnosis.

THE THIGH.

The thigh has, strictly speaking, no dermatosis peculiar to itself; nevertheless, it is a region affected by many forms of dermatosis.

The thigh may be divided into two unequal segments. The upper segment, comprising one-third of the antero-internal surface, presents the affections of the groin; while the other segment, consisting of the lower two-thirds and the external surface, has not the same individuality.

The superior internal segment shows the development of inguinal intertrigo	Intertrigo . . .	p. 274
The aberrant placards of erythrasma, circular, red and finely squamous	Erythrasma . .	p. 274
The ornamental designs of inguinal trichophytosis	Trichophytosis .	p. 275
The internal surface of the thigh is a seat of predilection for pruritus	Pruritus	p. 275
And for the lesions which follow or accompany it	Lichenisation . .	p. 275
The inner surface of the thigh presents a soft skin which easily develops moist eczema, and eczema in patches	Eczema	p. 277
Many traumatisms, especially medicamental, may give rise to a peculiar form of dermatitis	Traumatic dermatitis	p. 277
Keratosis pilaris, with its horny follicular elevations, occupies especially the external surface of the thigh	Keratosis pilaris	p. 277
The internal surface of the thigh also presents varices of different sizes, projecting, painful, chronically inflamed, with diverse changes in the skin . .	Varix. Varicose dermatitis . . .	p. 278
Ichthyosis covers the whole surface of the thigh, especially the external, with a hyperkeratotic cuirass	Ichthyosis . . .	p. 278
The desquamation of the bed-ridden, formerly known as pityriasis tabescentium, also occurs on high	Desquamation of the bed-ridden	p. 279
Other eruptions occur on all parts of the thigh. For instance, the purple papular streaks of lichen planus of Erasmus Wilson	Lichen planus .	p. 279
And the pustules of furunculosis	Furunculosis . .	p. 280

I may here mention that the thigh is one of the places where the polymorphous eruptions of *Duhring's* disease (p. 605), and the efflorescence of anæsthetic leprosy (p. 657) are most often observed.

years and ... periodically

INTERTRIGO.

Intertrigo of the groin, in its exudative and semi-crustaceous forms, may extend to the neighbouring regions. It then invades the antero-internal surface of the thigh, forming, in addition to the primary intertriginous placard which has the fold of the groin for its axis, placards identical with those to impetiginous eczema. These patches are about an inch in diameter, irregularly rounded, denuded of the horny epidermis, exudative and covered with crusts, which have the appearance of a yellow crystalline powder like resin. These are secondary patches of *streptococcic impetigo* sown around the primary streptococcic lesions of intertrigo.

The same treatment is applicable to both the primary and secondary lesions: viz., applications of nitrate of silver (1 in 15) and zinc ointment.

Chronic Hyperplastic Intertrigo. Along with the intertrigos I may mention, as in the case of the axilla (p. 259), a morbid type which is not well described by any author. Objectively, this hyperplastic intertriginous dermatitis resembles patches of lichenisation; the neuro-dermatitis of certain authors. The skin of the inguinal or genito-crural fold is thickened, hyperplastic, hard and divided into lozenges by small quadrilateral folds; but, while in lichenised patches the surface of the lozenges is flat, smooth and almost varnished; in this case each lozenge forms a swelling like a cappadine, with a moist surface, neither smooth nor varnished, from which epidermic debris can be detached by the finger. This condition results from maceration and chronic intertriginous infection, which is seen in many cases when the size of the male genitals is increased (Varicocele, hydrocele, etc.); or in women when a muco-purulent vaginal discharge constantly soils the thigh (vaginitis, gonorrhœa, diabetes). Pruritis is always very pronounced.

The treatment consists in suppression of the cause when possible. Locally, weak solutions of tincture of iodine in alcohol (10 per cent), alternating with zinc paste give the best results.

ERYTHRASMA.

Erythrasma of the thigh does not occur without inguinal erythrasma; but the large, circular, russet coloured, dry and finely

scurfy patches of erythrasma, although originating in the groin, have a greater tendency to develop on the thigh than on the hypogastrium. There may also be seen large erythrasmic patches from two to three inches in diameter on the inner surface of the thigh, which only touch the groin in a small part of their extent.

In this case there are often small discs of erythrasma, as large as half a crown, disseminated on the thigh, sometimes as far as the lower third, isolated from the parent eruption from which they proceed.

Their nature is certified by microscopic examination, and the treatment is the same as for erythrasma in general (p. 266).

INGUINAL TRICHOPHYTOSIS.

Inguinal trichophytosis may, like erythrasma, develop on the inner surface of the thigh. It only occurs as an extension of the inguinal lesion and has no symptomatic or therapeutic peculiarity in this region.

PRURITUS AND LICHENISATION.

Pruritus does not usually affect the groin, but the root of the thigh on its inner surface, immediately below the fold. Here is observed the chronic infiltration of the skin with papillary hypertrophy, formerly called *lichen circumscriptus*. This is now named by different authors, neurodermatitis, lichenised prurigo, lichenisation or lichenification.

The skin is raised, thickened and pachydermatous; its fold is double or treble the thickness of normal skin; the surface is smooth, shiny and formed of lozenge shaped flat papules, separated by linear intervals, the whole forming a parquet or pavement. Around these placards are the pruritic lesions of prurigo, with acuminated papules truncated by scratching; each covered with a minute, red, conical scab.

In some cases eczematisation and exudation take the place of lichenisation. In all cases the lesions are of indefinite duration and their functional symptoms—smarting and itching—excessively distressing.

Hitherto there have been two methods for the treatment of these lesions: external anti-pruriginous applications such as:—

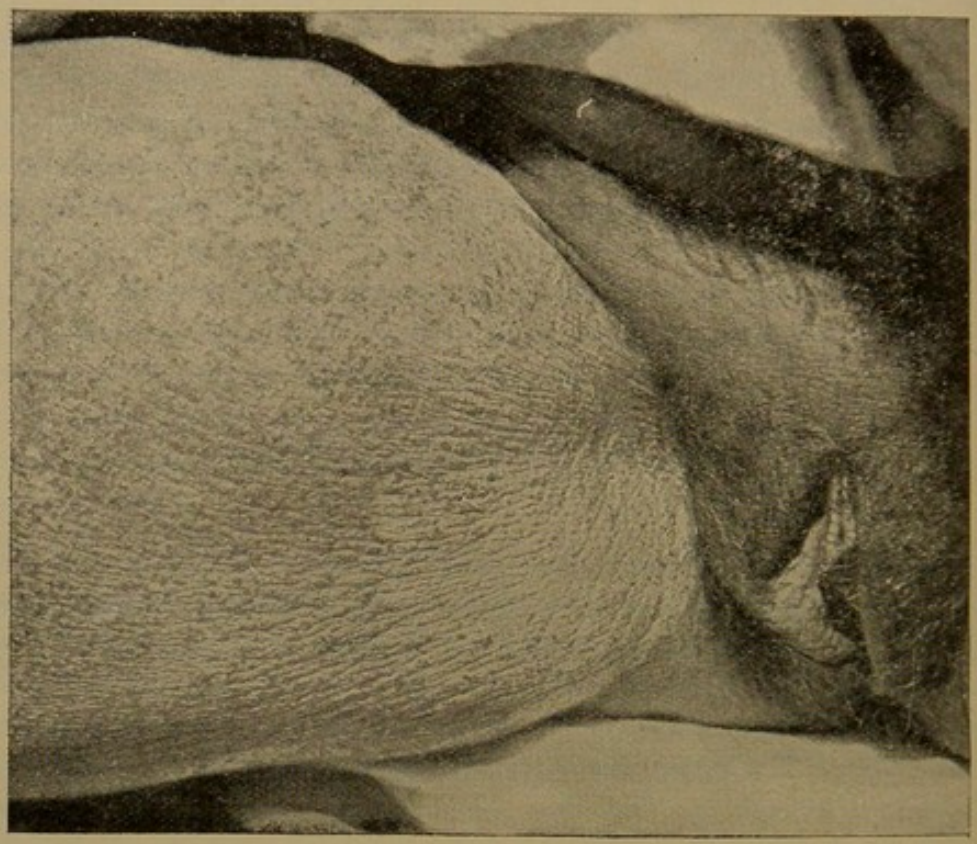


Fig. 121. Chronic dermatitis. Pruriginous eczematisation of the vulva and inner surface of the thigh.
(Brocq's patient. Photo. by Sottas.)

Glycerine of starch		40 grammes	℥j
Resorcine	aa	1 gramme	gr. 12
Tartaric acid			
Menthol			

or plasters of cod liver oil, combined with treatment of the nervous system by warm douches, which have a percussive and sedative action.

Nowadays we can treat the pruritus by high frequency or by the X-rays; and the remaining lesions by reducing applications. These methods give far better results.

Oil of cade		10 grammes	℥iv
Resorcine	aa	1 gramme	gr. 24
Ichthyol			
Oil of birch			
Lanoline		20 grammes	℥j

EXUDATIVE ECZEMA.

Eczema of regions where the skin is fine, as in the folds of flexion, as well as the type of eczema of adolescents, which we have already described in different localisations, may be observed on the inner surface of the thigh. It may occur in a diffuse form, with large placards 12 inches or more across, or in localised nummular patches: round, slightly raised, exudative, papyraceous, with yellow scabs, and often intersected or fissured.

These lesions may be persistent or recurrent, but have no particular prognostic value. The prognosis and treatment are included in those of the general affection.

TRAUMATIC DERMATITIS.

On the thigh traumatic dermatitis often assumes a peculiar figured appearance, which resembles in some respects a parasitic dermatosis. They form a red, dry dermatitis, composed of rounded efflorescences, segmented like wheels or open flowers. Sometimes there occurs a placard composed of 4 or 5 similar efflorescences; at other times the whole thigh is covered with similar lesions, separated by placards of red, dry and more diffuse dermatitis.

These lesions are usually traumatic, following scabies, or medicaments such as styrax, naphthol, balsam of Peru, sulphur, sulphur baths, strong alkaline baths, soft soap, turpentine, etc., etc.

This dermatitis may follow other lesions, such as pityriasis rosea, which have been treated by irritants. The treatment lies in suppression of the cause. Warm baths with starch or gelatine, and zinc paste may be applied locally.

KERATOSIS PILARIS.

Keratosis or ichthyosis pilaris is a morbid condition of the extensor surfaces of the limbs; especially the back of the arms and the external surface of the thigh. It arises at about the age of 14 and persists during life, more or less marked in different cases. The skin of the whole region is purple, owing to bad circulation; the local temperature is diminished; and the skin appears rough owing to the hyperkeratosis obstructing the hair follicles. Very often a hair is found rolled up in the horny plug which it could not penetrate.

The cause of this condition is unknown and the treatment is palliative. Keratolytic agents are often borne in large doses:—

Salicylic acid	} aa	5 grammes	aa	gr. 80
Resorcine				
Vaseline		30 "		ʒj

When the medicament is active, it destroys the horny epidermis of the region, which becomes wrinkled and assumes the appearance of a cobweb pasted on the skin.

When it is wished to increase the power of the active drug a layer of soft soap is previously applied to the skin for a quarter of an hour. Inversely, when the medicament is too active, it may be attenuated with applications of zinc ointment.

VARIX AND VARICOSE DERMATOSES.

Varices of the thigh are common in the upper and lower thirds of the saphenous vein and give rise to the "medusa head" appearance. The sub-cutaneous varicosities give rise to a series of changes in the skin covering them. This becomes dark coloured or villous, by hyperpigmentation and hyperplasia of the papillæ. This lesion may cause a local hyperplasia and a hyperkeratosis similar to that of horny lichen planus.

The lesions are almost irreducible because their cause is persistent. They may be improved by cleanliness of the skin; moderate compression of the varicose region by an elastic tissue, permeable to air; dressings of zinc cream, applied by massage and covered with aseptic lint, under the elastic tissue.

ICHTHYOSIS.

Ichthyosis is a congenital malformation which consists in non-dehiscence of the stratum corneum when mature; *i.e.*, when the horny cells have lost their nucleus.

The skin appears covered, as with a rough coat, by the thickened, coarse and wrinkled horny epidermis, which on account of its permanence absorbs all the dust and becomes of a grey or black colour. In benign cases the skin appears clothed with cobwebs, and is rough to the touch; in more severe cases it feels like a file. Eventually,

especially in regions where the horny epidermis is normally thick, as on the hands, hyperkeratosis is combined with a quasi-papillomatous condition of the skin, which we shall study later on (p. 354-518). On the external surface of each limb the ichthyosis is more pronounced than on the internal surface and the folds of flexion are free, even in very marked cases. The diagnosis of this deformity is easy, if only by its permanence. It is pronounced in early infancy and persists during life. Treatment is simply palliative, by the following ointments, combined with frequent gelatine and alkaline baths.

(1) Glycerine of starch . . . . . ℥j
Resorcine . . . . . gr. 5

(2) Oxide of zinc . . . . . }
Vaseline . . . . . } equal parts
Lanoline . . . . . }
Oil or almonds . . . . . }

DESQUAMATION OF THE BEDRIDDEN.

This is a symptom, and not a disease. Even the healthy skin exfoliates perpetually by an insensible scurf. In a bedridden patient, without proper care of the skin, flakes of old detached epidermis adhere to the new skin, and this becomes especially marked under a permanent occlusive dressing. This *pityriasis tabescentium* (*Seborrhœa tabescentium* of *Hebra*) has no pathological interest. Applications of an inert fat, combined with soaping, will restore the skin to its normal condition.

LICHEN PLANUS.

The region of the thigh is one of those where lichen planus develops its most florid elements and its most confluent eruption.

As elsewhere, the slow, progressive, more or less pruriginous eruption begins by a condition in which the elements are scanty, and the diagnosis is difficult for a non-specialist. Here and there occur red, flat, smooth, shiny elements, grouped in numerous small papules round a larger central one. Gradually the second period arrives, in which the elements are coherent, like those of measles which has well "come out." At this stage numerous red spots and streaks are situated close together on a healthy skin, simulating

an exanthem. On close examination the papules are almost confluent and when they form placards, these are striated with white lines "setting" the papules, which is very characteristic.

Later on a third stage follows, in which each papule is replaced by a pigmentary spot of the same shape, which in its turn becomes effaced.

Lichen planus has no specific treatment; the treatment is purely symptomatic and directed against the pruritus, by means of baths, warm douches, high-frequency, ointments, creams and glycerines; resorcine, tartaric acid and menthol (p. 553).

FURUNCULOSIS.

Furunculosis, even when it tends to become generalised, preserves regions of election. These are especially the buttocks and shoulders; but the thigh has a tendency to develop, in blonde persons, follicular, staphylococcic pustules, which form impetigo of *Bockhart* on the scalp, and which may abort or become true furuncle (p. 185).

In these cases the patient should take a diet containing much phosphorous, and even phosphoric acid; 20 to 40 drops a day in water or beer.

At the same time each pustular element is treated by epilation of the central hair, followed by the application to the open pustule of a drop of tincture of iodine, camphorated alcohol, or saturated alcoholic boric acid. Puncture with the galvano-cautery is also useful in aborting the boils at their commencement.

THE ARM.

The region of the arm presents very few special dermatoses.

It is the region where vaccination is practised, and we shall here deal with vaccinia . . . . . } Vaccinia . . . . p. 281

We shall next study its benign complications; generalised vaccinia; secondary vaccinia by auto-inoculation; false vaccinia; vaccinal roseola, and vaccinal erythema multiforme . . . . . } Benign complications of vaccinia . . . . . p. 282

The severe complications demand a special paragraph for each. In the first place comes vaccinal erysipelas . . . . . } Vaccinal erysipelas . . . . . p. 282

Next ulcerative vaccinia, which is occasionally contagious and epidemic . . . . . } Ulcerative vaccinia . . . . . p. 283

Finally, syphilitic vaccinal chancre which may be inoculated in series . . . . . } Vaccinal syphilis p. 283

The arm is the seat of election for keratosis pilaris, especially in young girls . . . . . } Keratosis pilaris p. 284

Its external surface is one of the regions where ichthyosis may be pronounced . . . . . } Ichthyosis . . . p. 284

The arm, like the thigh, is a region where different kinds of scurfy spots are often seen, incorrectly grouped together under the name of seborrhœids . . . . . } Seborrhœids . . p. 286

The arm is the region for the application of blisters, which may require treatment; and on their cicatrices tubercle and epithelioma may develop, which require treatment without delay . . . . . } Blisters and their cicatrices . . . p. 286

VACCINIA.

"When inoculation has been practised from arm to arm, or directly from the calf (the most efficacious method by far, in refractory cases), in a healthy subject, vigorous and in good condition, who has not been vaccinated for 10 years, nor variolised in the 5 to 10 preceding years, one observes on the third or fourth day a small red papule; on the fifth day the papule becomes a vesicle and is surrounded by a red zone. On the sixth day a small pustule appears which enlarges and becomes umbilicated on the 7th or 8th day, at which time it is complete and of a dull white colour, or by reflec-

tion silvery and pearly. From the 8th to the 10th day it enlarges still more, generally causing itching, and sometimes slight glandular swelling. Most commonly in the newly born, most of the inoculations are accompanied by pustules, sometimes in pairs. Febrile reaction, studied by *Von Jaksch* and *Erich Peiper,* appears 6 times out of 30, from the 4th to 7th day. Rarely it reaches 38° and even 40°, from superposed infection. The fever is always of the remittent type. It is not generally observed in children when revaccinated. The pulse always corresponds to the rise of temperature. During the vaccinal period it is common to see the increase in weight diminish or cease in the infant at the breast. From the 10th to the 13th day the pustule becomes dry. From the 13th to the 30th day the scab is detached, leaving a corrugated surface." (*H. Daucher.*)

BENIGN COMPLICATIONS OF VACCINIA.

In rare cases there occurs a *generalised vaccinia* with the appearance of 20, 50 or 100 pustules all over the body. Cases also occur of *secondary vaccinia,* by auto-inoculation, appearing from the 8th to the 13th day, after the first inoculation. The *false vaccinia,* or better, *vaccinoid,* is a small abortive pustule following vaccination in a child quasi-refractory to the first inoculation. Even in this attenuated form immunity is conferred against variola. The *vaccinal roseola* is apyretic; appears in the 4th to 11th day after vaccination and lasts two or three days. *Vaccinal erythema multiforme* and urticaria are rareties.

VACCINAL ERYSIPELAS.

Vaccination may cause erysipelas in various ways. The vaccine lymph may be taken from human vaccinia complicated with impetiginous super-infection; or the instrument used may be contaminated; or the skin may have been insufficiently cleansed in a child with streptococcic lesions; or the infection may be caused by the point of inoculation being left unprotected in a hospital room containing patients with erysipelas.

These cases are benign or severe, and some are followed by fatal septicæmia. More commonly the erysipelas develops like erysipelas of the face and requires the same treatment.

ULCERATIVE AND GANGRENOUS VACCINIA.

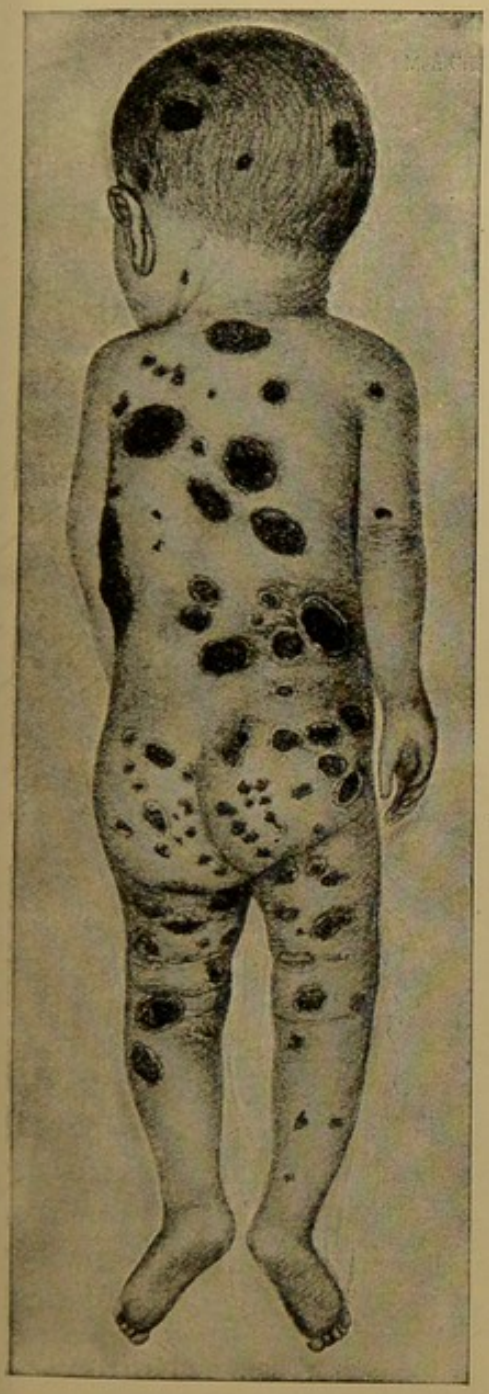


Fig. 122. Gangrenous eruption after vaccination. (J. Hutchinson's patient. Medico-chirurgical transactions.)

Cases of ulcerative vaccinia may be cases of ulcerative ecthyma superadded to vaccinia. The ulceration is deep, from half an inch to an inch in diameter, and is accompanied by intense peripheral inflammation, lymphangitis, painful glands, which may suppurate, and more or less severe general symptoms.

Some authors have described and figured rare cases of multiple gangrene of the skin, spontaneous or secondary. These cases are, no doubt, comparable to that which we shall describe later on under the name of spontaneous gangrene of the scrotum (p. 428). But in this case the points of gangrene are multiple, arising together like the elements of an eruptive fever and developing with severe general symptoms. The issue is generally fatal. The treatment should be that of phagedena in general.

VACCINAL SYPHILIS.

Vaccinal chancre appears from the 10th to the 20th day after vaccination and increases during the following 15 days. It is excoriated and sometimes covered with a thin scab, but never ulcerated. The erosion of the surface may surround the indurated and projecting chancre. The chancre is like a flat saucer, and its induration is very perceptible. Local reaction is slight; the satellite gland is pain-

less and there is neither lymphangitis nor fever. Roseola and secondary lesions occur later on.

KERATOSIS PILARIS.

The external and posterior part, or back of the arm, is the seat of election of this cutaneous anomaly. It is probably of congenital origin, but becomes more pronounced from puberty to adult age; the elementary lesion consists of a small cone of hyperkeratosis occupying each hair follicle.

The skin is generally cold and rather purple from deficient circulation, and rough to the touch. Each hair follicle, often marked by a purple point, is either filled or surrounded by a slightly projecting horny mass, which is conical when the orifice is closed, crateriform when it remains open. The hair of these follicles is always atrophic, and often invisible, enclosed and rolled up in the horny mass.

This lesion, which has been named *ichthyosis pilaris*, is chronic, difficult to reduce, and recurs after disappearance.

The treatment is of the type called exfoliative, employed in ephelides, etc., and consists in the application of sulphur, resorcine and salicylic acid with the object of causing destruction and desquamation of the epidermis.

Glycerine of starch	40 grammes	℥j
Precipitated sulphur	1 gramme	gr. 12
Resorcine	4 grammes	gr. 48
Salicylic acid	4 grammes	gr. 48

If an ointment of this type causes much smarting, it is removed after an hour; otherwise it is left on for several hours, or during the night, and removed in the morning. These applications are continued till exfoliation takes place, and renewed as often as necessary. If there is much irritation it may be relieved by oxide of zinc ointment.

ICHTHYOSIS.

True ichthyosis must be distinguished from keratosis or ichthyosis pilaris, for true ichthyosis is not accompanied by follicular keratosis.

It consists in a hyperkeratosis of the surface, more marked on the extensor surface, and less in the folds of flexion, which are nearly always normal.

It consists in a congenital malformation, which is sometimes

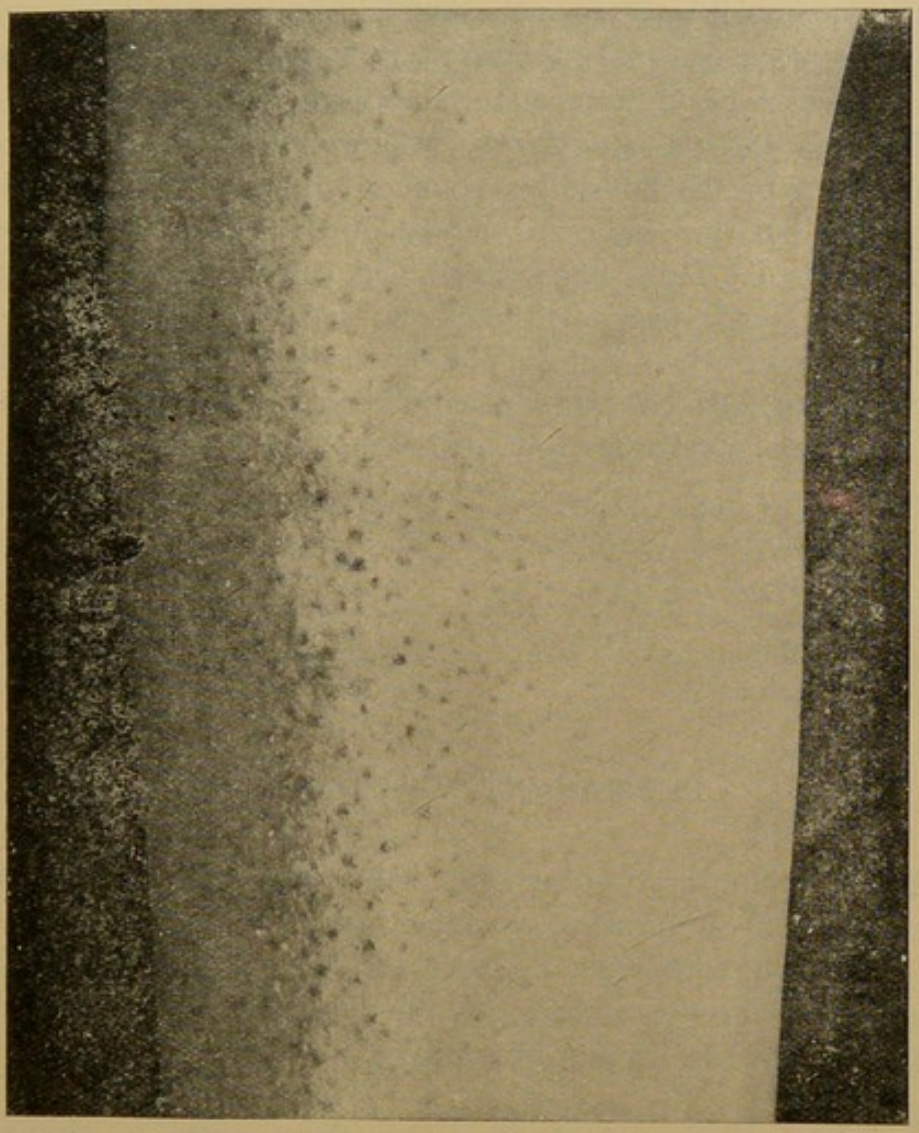


Fig. 123. Keratosis pilaris of the arm. (Brocq's patient. Photo. by Sottas.)

hereditary or consanguineous. It is incurable, but its disfigurement and inconvenience may be diminished by suitable treatment.

The skin may be rendered more supple by means of oxide of zinc creams and glycerole of starch, containing 1 per cent of salicylic acid or resorcine. It is important to warn the patient that the improvement produced will not lead to radical cure.

SEBORRHOEIDS.

The term *seborrhœids* covers an ill-defined group of different and analogous types, characterised by small, disseminated scurfy lesions. Some of the lesions called seborrhœids belong to well defined types; pityriasis simplex (p. 519); the scurfy streptococcic lesion (p. 10); pityriasis rosea (p. 521); psoriasis (p. 525); others are less defined, but are beginning to be so, such as parakeratosis variegata (p. 530), and the parapsoriasis of *Brocq;* others are not at all definite.

The root of the limbs is a common situation for these pityroid eruptions, but they have also a seat of election by which they can be recognised. Thus pityriasis simplex affects the chest; pityriasis rosea the thorax; psoriasis the elbows and knees, etc.

These localisations confirm the diagnosis. Benign scurfy lesions belonging to different types, usually benefit by treatment with weak tar ointments, applied at night and washed off in the morning.

Oil of Cade	4 grammes		ʒj ss
Oil of birch	1 gramme		
Ichthyol	1 gramme	aa	gr. 24
Resorcine	1 gramme		
Lanoline	5 grammes		ʒii
Vaseline	15 grammes		ʒj

PERMANENT VESICANTS. (1).

The old "humoral" ideas often led to the application of a vesicant in front of the arm, in which suppuration was encouraged by epispastic ointments. There are few physicians, nowadays, who believe in the efficacy of this practice. But vesicants are still often held in esteem in country districts, remote from medical advice.

A useful healing application for these sores is ointment of sub-carbonate of iron, 1 in 40.

PERMANENT CICATRICES OF VESICANTS.[1]

The permanent vesicants leave an indelible cicatrix, sometimes keloid or contractile, which may cause much disfigurement.

[1] Translator's Note.—The Author evidently refers to the use of issues and setons.

These may be improved by linear scarifications or long continued plasters of oxide of zinc, etc.

On these cicatrices either a fine tuberculous cheloid, a fungoid, or ulcerated lupus, or an epithelioma often develops, especially epithelioma in middle age. The epitheliomas implanted on a cicatrix are generally severe. These diverse complications may be treated like ordinary cases: The epithelioma by excision followed by radiotherapy of the cicatrix.

THE POSTERIOR SURFACE OF THE ELBOW.

The elbow is the seat of election of many dermatoses and one of the principal localisations of several others.

As on the knees, ichthyosis shows its maximum degree on the elbow . . . . . } Ichthyosis . . . p. 288

Psoriasis also forms its first lesions on the elbow, as on the knee . . . . . } Psoriasis . . . . p. 289

Generalised Xanthoma shows characteristic lesions on the elbow more often than the knee . . . } Xanthoma . . . p. 289

The tuberous and ulcerative lesions of diabetic xanthoma have the same predominance . . . . . } Diabetic xanthoma . . . . . p. 290

Scabies often occurs round the elbow combination of genital, gluteal, digital, and axillary localisations of the affection . . . . . } Scabies . . . . p. 291

In the elbow, as on the knee, there is a subcutaneous bursa, the inflamation of which causes hygroma . . . . . } Hygroma . . . p. 291

In dealing with the common affections of the region, mention may be made of palpation of the Ulnar nerve, and of the results which it furnishes in Lepra . . . . . } Ulnar nerve in lepra . . . . . p. 291

The semeiology of the epitrochlear gland will be studied . . . . . }

ICHTHYOSIS.

The extensor surfaces of the limbs show the most marked lesions of ichthyosis, and on the knees and elbows they are still more pronounced. An ichthyosis which is only distinct on the limbs may be very accentuated on the elbows. The skin is covered with a dry, rough thick layer of keratosis, always segmented, in the folds made by the skin of the elbow in extension. These folds may be red and eroded, especially during the cold weather, in persons who perform manual labour.

The treatment consists in alkaline baths of bicarbonate of soda and the application of resorcine in glycerine of starch (1 per cent).

PSORIASIS.

In the clinical picture of psoriasis, the squamous patches of the elbow take an important place. In normal cases they are the first to appear with those of the knee; and they may remain for years without patches occurring in other parts of the body. They occur sometimes in the form of a single large squamous placard, thickened, grey and limited by a slight red margin. This condition may persist for years, and when the crust falls, it is renewed.

If this thick squame is scratched it comes away in scales, the deeper ones of which are soft and white like soap. If the squame is removed in one piece, which is easy, the exposed skin is covered with characteristic blood points. At other times the lesion is multiple, consisting of small elements grouped around a large one; or all the elements may be small, about 1-6 inch in diameter, each covered with a thick adherent squame bordered with red. The squame and adjacent skin have the same characters in the small as in the larger lesions. Even when the psoriasis is generalized, the lesions of the elbow remain the same. They never undergo spontaneous resolution, but on the contrary, persist and extend, always towards the dorsal surface of the forearm.

The treatment consists first in cleansing in a bath, followed by applications of the following ointments:—

(1) Yellow oxide of mercury Resorcine Pyrogallic acid	aa	1 gramme	gr. 24
Oil of cade		10 grammes	ʒiv
Lanoline		20 "	ʒi
(2) Chrysarabin		1 gramme	gr. 16
Vaseline		30 grammes	ʒi

Solution of chrysarobin in chloroform (10 per cent) may also be used, allowed to dry on the patches and covered with traumaticin.

The treatment takes at least six weeks to cause disappearance of the lesions and should be continued for double the time to prevent recurrence.

XANTHOMA.

Xanthoma of the elbow resembles that of the eyelids, but the lesions are less often in the form of placards; more often round

or oblong and disseminated (Fig. 124).

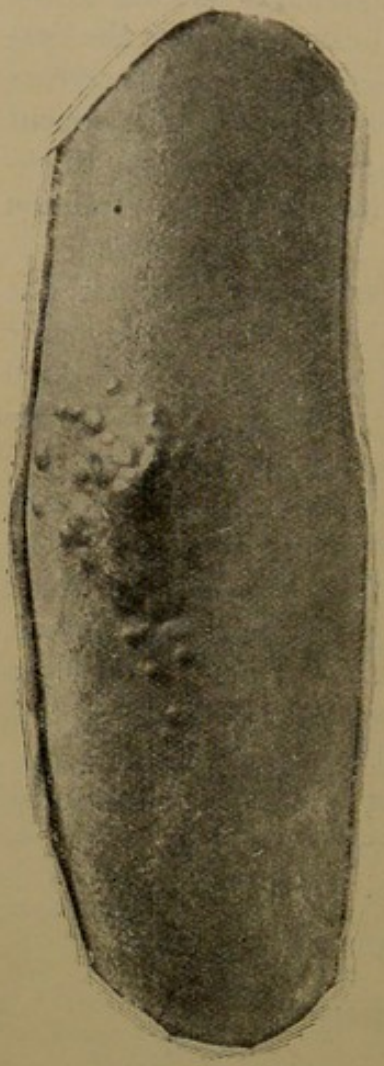


Fig. 124. Xanthoma of the elbow. (Besnier's patient. St. Louis Hosp. Museum, No. 654.)

The elements consist of flat slightly projecting papules, of a yellow or rose colour, rather soft to the touch and quite painless. They generally occur on both knees and elbows; sometimes also on the eyelids. Similar lesions also occur on the back of the fingers, or in their folds, on the buttocks and sometimes elsewhere.

Sometimes xanthoma occurs in the form of a large, soft and mammillated tumour, which, apart from the topographical distribution of similar tumours, resembles molluscum (p. 627). This is xanthoma tuberosum. (Fig. 125.)

In these two forms the treatment is the same as for xanthelasma of the eyelids; viz.: application of a fine galvano-cautery, which causes the tumours to disappear rapidly without leaving scars. No internal treatment gives the same result.

XANTHOMA DIABETICORUM.

Diabetic xanthoma differs entirely from the preceding form. (For the connection between them see p. 632). It occurs in the form of tumours of different sizes, but larger than that of a raspberry. The tumours are soft, purple and sometimes eroded on the surface, or even ulcerated. They occur on the whole external surface of the forearm, although more numerous around the elbow. The evolution is connected with that of diabetes. The treatment is that for diabetes, with local applications and sub-carbonate of iron (1 in 40).

SCABIES.

The principal localisations of scabies are the penis, the front of the axilla, the elbows and wrists, the hands and fingers. The localisation on the elbows is almost constant. Scratch marks, caused by the nails, are the first lesions observed; afterwards excoriated vesicles, capped by a thin brown scab of dried blood. A characteristic burrow is seldom observed. These lesions are situated around the elbow, on a surface about 2 inches in diameter, with remarkable constancy. They are very pruriginous, especially at night. Scabies avoids the head and neck entirely; an important negative sign. Contagion from the patient must be looked for; from mother to child, or from husband to wife, etc. The treatment is the same as on p. 537.

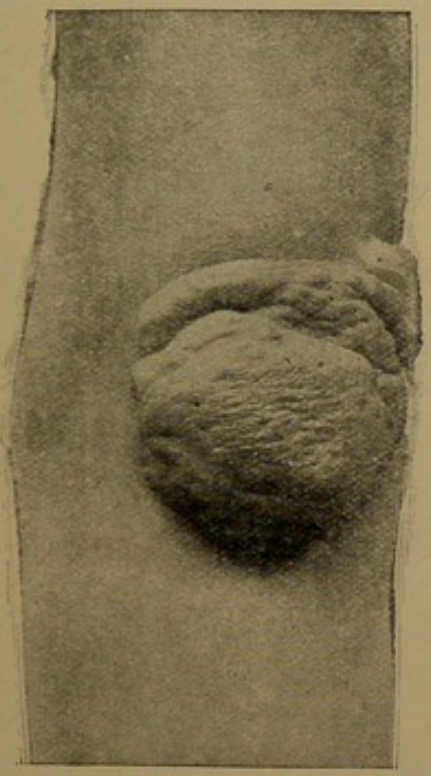


Fig. 125. Xanthoma tuberosum. (Thibierge's patient. St. Louis Hosp. Museum, No. 1770.)

HYGROMA.

Under the skin of the elbow there is a bursa, which sometimes becomes inflamed by trauma; suppurative lesions secondary to scabies; lymphangitis or abscess of the neighbouring parts, etc. The skin is red and hot, with all the signs of abscess. Treatment consists in hot fomentations as long as absorption may be expected; but when suppuration is distinct, incision, irrigation and packing with aseptic gauze are required.

THE ULNAR NERVE IN LEPRA.

The ulnar nerve passes in a groove at the internal and posterior part of the elbow joint. In this depression it may be felt for several inches under the skin.

In leprosy the nerve becomes hard, moniliform or nodose, and is perceptible for an extent of about 3 inches.

This is an important lesion in leprosy and may be observed sometimes at the first period, when the diagnosis may be still uncertain; especially in anæsthetic leprosy, in which lesions of the skin may be scanty and less characteristic than in tubercular leprosy (p. 655).

THE ANTERIOR SURFACE OF THE KNEE.

The knee and the elbow are symmetrical regions with similar dermatological pathology. This region, being described after that of the elbow, will be dealt with very shortly. The corresponding paragraphs of the elbow may be referred to for further details.

Ichthyosis of the knee like that of the elbow often presents a remarkable degree of development } Ichthyosis . . . p. 293

Psoriasis of the knee as of the elbow shows characteristic lesions . . . . . } Psoriasis . . . p. 293

There exists on the knee as on the elbow a hygroma of the prepatellar bursa . . . . . } Hygroma . . . p. 294

And a localisation of xanthoma, more rare and less typical than on the elbow . . . . . } Xanthoma . . . p. 294

ICHTHYOSIS.

In very marked ichthyosis, the skin of the knee is covered with thick, horny, grey placards, very adherent and fissured in all directions. Diagnosis depends on the universal nature of the lesion of the horny layer, which is abnormal over nearly the whole body; the islands existing in the natural folds; and on the congenital nature of the affection. For treatment see p. 518.

PSORIASIS.

Psoriasis of the knee is generally symmetrical, and the knee is usually the first region affected. It is often mistaken by the patient for a callosity and taken no notice of.

It may always be distinguished from a callosity, caused by kneeling in certain occupations, by the fact that the callosity is situated in front of the tuberosity of the tibia, while the patch of psoriasis is in front of the ligamentum patellæ.

This patch may be large and single, round or oval, and about an inch in diameter; or it may consist of two or three patches, which unite to form a polycyclic lesion; or there may be 5 or 10 spots of various sizes, but all similar and squamous, with ad-

herent laminated scales, the debris of which is soapy, white and soft to the touch. On removal of the squame the epidermis covered with blood points is exposed.

Diagnosis is only difficult when the lesions are scanty; otherwise it is the most easy of all dermatological diagnoses. As a general rule, the knee does not present eczematous patches, and the so-called chronic eczemas described in this situation are cases of psoriasis. But psoriasis may become eczematised and moist under the crust. (For treatment, see p. 525).

HYGROMA.

The pre-patellar bursa may become inflamed and cause a hygroma, which may consist of serous infiltration and end in absorption; or may suppurate and form an abscess. The intensity of the local reaction is much less in the first than in the second. The treatment is the same as for hygroma of the elbow.

XANTHOMA.

Generalised xanthoma seldom fails to present lesions on the elbow, but its localisation on the knee is less constant and less characteristic. When the lesions occur they may be of the papular, or of the tuberous variety (p. 290).

THE LEG.

The surface of the leg is one of the cutaneous regions having the most special pathology. This peculiarity is due to its dependent position and the passive congestion and varices which result therefrom.

We shall first study the pathology of the region in the first half of life, with the streptococcic ulcerations of true ecthyma . . . . . Ecthyma . . . . p. 296

. . . furuncle and furuncular eruptions . . . Furuncle . . . . . p. 297

. . . the furunculous ecthyma of staphylococcic origin . . . . . Furunculous ecthyma . . . . . p. 298

. . . the rosette eruptions of erythema multiforme . . . . . Erythema multiforme . . . . . p. 299

. . . the eruptions of purpura . . . . . Purpura . . . . . p. 299

. . . and a chronic dermatitis of a yellow ochre colour, which is special to the region . . . . . Yelow ochre dermatitis . . . . . p. 300

On the limbs, all dermatoses may assume a special aspect; from scabies, which is nearly always pustular . . . . . Scabies . . . . . p. 301

. . . to the round, squamous patches of psoriasis . . . . . Psoriasis . . . . . p. 301

. . . or the eruptions of lichen planus with a congestive purple colour . . . . . Lichen planus . . . p. 302

After middle age eczema of the legs becomes more frequent under diverse forms . . . . . Eczema . . . . . p. 302

. . . And venous stasis, and varices acquire a preponderating influence in the local pathology . . Venous stasis varices . . . . . p. 303

On a varicose skin the slightest causes may create a traumatic dermatitis . . . . . Traumatic eczema p. 304

Ulcer of the leg, which is not always varicose, is a common and characteristic lesion. It also has its own complications; lymphangitis, and the special elephantiasis which it causes; also chronic oedema with pigmentation and papillomatous hypertrophy; lastly progressive cutaneous sclerosis and its consequences . . . . . Ulcer of the leg . p. 304

Syphilis has also its particular localisations on the leg. Besides the flattened tibia of heredo-syphilitics, and secondary periostitis, there are tertiary lesions; diffuse syphiloma of the calf; gummata of the skin and syphilitic ulcer . . . . . Syphilis . . . . . p. 307

We shall conclude this article by the study of rare lesions which occur in the leg with relative frequency. For instance the discrete scattered lesions of lichen corneus with atrophic cicatricial evolution	Lichen corneus atrophicus . . . . p. 310
. . . *also symmetrical alopecia areata*	Alopecia areata . p. 310
. . . *supercicatricial epithelioma*	Epithelioma . . . . p. 310
. . . *tropical elephantiasis, or filariosis*	Elephantiasis . . . p. 311
. . . *and Oriental boil, which is always of foreign importation in our country*	Oriental boil . . . p. 312

ECTHYMA.

In the first third or half of life, physical overwork, standing, excessive walking, chlorosis, apart from cardiac or renal diseases, may cause œdema of the legs, which increases the slightest inflammatory lesion. It is in these conditions that ecthyma, furuncle, erythema multiforme and purpura generally arise in young persons or adults. In adolescents the lesions of ecthyma may result from accidental inoculation; but they only develop in subjects who are overworked, badly nourished or cachectic.

The lesions are few in number and disseminated. They are ulcerated, with sharp-cut borders and a sanious base; sometimes closed by a papyraceous scab covering a seropurulent liquid, sometimes streaked with blood. The lesion has a red areola up to the point of healing. It commences, according to some, by a pustule which opens and becomes excavated; according to others, by a flat phlyctenule which undergoes secondary suppuration and ulceration.[1]

Varities in the size and depth of the lesions have only verbal importance; true ulcerative ecthyma, at whatever age it appears, usually gives evidence of a general disorder; such as tubercle, diabetes, and enteritis in sucklings (*ecthyma cachecticorum*).

Treatment consists in rest, baths and good nourishment; and treatment of the cause when this is recognised.

Locally, the ulcerations may be bathed and dressed with a lotion of 2 parts of copper sulphate and three parts of zinc sulphate in 500. If the ulcers remain atonic, sub-carbonate of iron ointment (1 in 40) should be applied.

[1] This difference of opinion arises from an error in terminology. Ecthyma having been described by Willan and Bateman under the name of rupia, a word which has fallen into disuse, many authors describe the ecthyma of Bateman, which is furunculous abscess, as the beginning of the rupia of Bateman, *i.e.*, the ulcerative dermatitis of which we are speaking.

The prognosis depends entirely on the general condition of the patient; the healing of the ecthyma itself only takes two or three weeks.

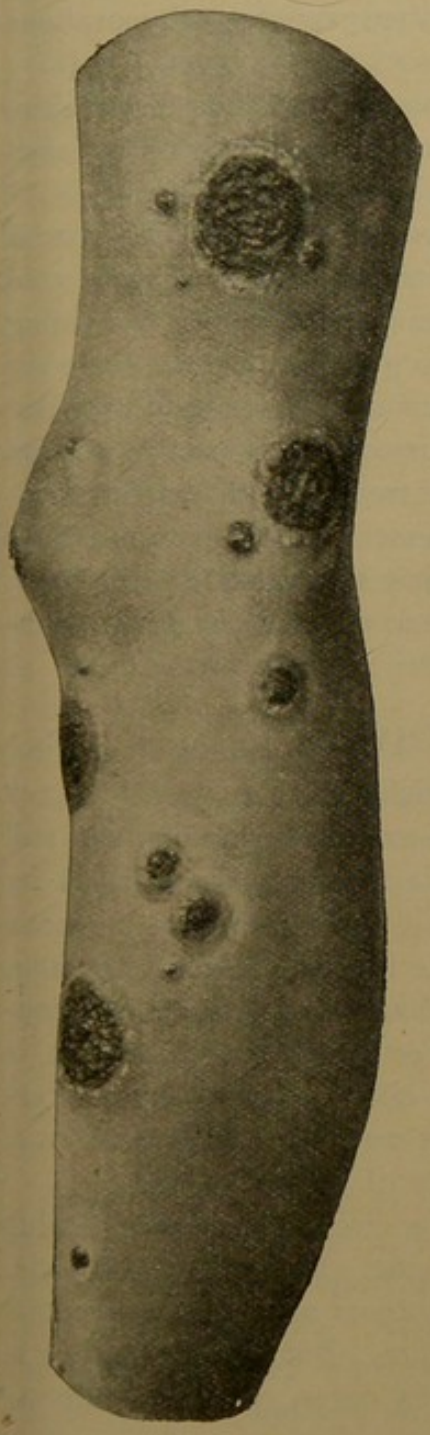


Fig. 126. Ecthyma of modern authors: rupia of Bateman. (Lailler's patient. St. Louis Hosp. Museum, No. 234.)

It is possible that ecthyma may be the result of microbial associations. At any rate cultures of the pus from the ulcerations always show the presence of streptococci. Until more information is obtained the ecthyma of modern writers, or the rupia of *Bateman*, must be regarded as a common impetigo contagiosa, which local conditions have rendered ulcerative. It often coexists, moreover, with impetigo of the face or body. Ecthyma is easily inoculable by vaccination. (*Vidal.*)

FURUNCULOSIS.

When furunculosis is generalised all over the body, the furunculosis of the legs is only a simple epiphenomenon in the course of a staphylococcic infection of the whole cutaneous surface. It is generally related to diabetes, phosphaturia and other cachectic conditions.

When it is localised on the legs it is due to the same local and general causes as ecthyma. Each boil commences as a pustule, the size of a millet seed, situated at the orifice of a hair follicle. The pustule dries up and is removed by scratching, leaving a red spot. Three days later this spot is acuminated, red and painful, and all inflammatory phenomena are increased. Three days later still the boil opens,

expels a green sphacelic core and the inflammation gradually abates.

In furunculosis of the legs, out of 10 pustules, 5 abort, 3 become partially furuncular, 1 becomes a true furuncle and 1 develops into a peri-furuncular abscess. The lesions then appear polymorphous because they are seen in different stages.

This is one of the chapters of staphylococcic infection of the skin, of which we already know so many different types, resembling each other anatomically and bacteriologically, but differing clinically.

The general treatment is the same as for ecthyma. Glycosuria should be treated when it exists. Phosphates and phosphoric acid (10-40 drops a day) often give good results; also baths, containing about an ounce of sulphate of zinc to 60 gallons. Good effects are obtained by galvano-puncture of each pustule as soon as it appears; or in the absence of this, a drop of tincture of iodine may be applied after epilation of the infected hair. The treatment of peri-furuncular abscess is the same as for other abscesses; incision is not always necessary, since the opening of the furuncle still exists. Antiseptics, of any kind, should be used in very weak solutions and with prudence (see artificial dermatitis, p. 304).

FURUNCULOUS ECTHYMA.

In the same way that the two impetigos were confused (pp. 7 & 183) without clear differentiation, so are the two ecthymas still confounded, although they were very explicitly differentiated by *Willan* and *Bateman* at the beginning of the last century. We have described and figured actual ecthyma, the former rupia of *Bateman*, which is a streptococcic ulcer. We shall now say a few words concerning furunculous ecthyma, the old ecthyma of *Willan*. It is usually observed in young people who take excessive horse exercise. It commences on the buttocks as an ordinary furunculosis, which extends to the whole inner surface of the lower limb.

Each furunculous cavity enlarges by a circumferential sphacelus formed of small, distinct cores, side by side. It is not a carbuncle, for there are no important general symptoms and the furunculous crater is primarily formed by a single core. But the appearance is that of a cold carbuncle with contiguous cores, developed successively.

Treatment consists in rest, with the application of sub-carbonate of iron ointment (1 in 40).

ERYTHEMA MULTIFORME.

Erythema multiforme has three seats of predilection; the neck, wrists and legs, with predominance of lesions around the ankles.

The characteristic spots appear almost simultaneously and the eruption is complete in one or two days. The lesions on the legs preserve their usual characters; they are circular, with a bistre coloured centre, a red border, and are in the form of a rosette. The lesions take unusual forms in this region more than others; they may be bullous, or extensively erythematous, each efflorescence having a wide purple border; or purpuric with punctiform hæmorrhages in the areola of each element. Polymorphous erythema generally follows a benign infection, after 3 to 8 days' interval, generally an angina or naso-pharyngitis. The patient is often conscious of infection, which manifests itself by a simple febricula without any signs sufficient to indicate its origin.

The patches and the bullæ, when they exist, appear to be amicrobial. Even the blood when removed at the period of erythema is found to be sterile (*Brocq*). The most probable hypothesis is that erythema multiforme is a toxic erythema. According to some authors *erythema nodosum* is allied to erythema multiforme, but the sub-cutaneous painful red nodosities of erythema nodosum may develop without any cutaneous efflorescence. This is probably due to sub-cutaneous venour thrombosis (p. 605). The evolution is the same as in erythema multiforme.

Treatment consists in rest in bed and low diet. Bullæ should be punctured, but not decorticated. The prognosis is good.

PURPURA.

Purpura may occur in young people in connection with some infection, such as angina, pneumonia, influenza, etc.; or from overwork in young soldiers, vagabonds and alcoholics. Sometimes both causes are combined. At middle age the same causes produce it, but when it recurs it generally indicates a bad state of circulation of the heart or kidneys and requires a guarded prognosis.

As a rule purpura is limited to the lower half of the body and the number of its elements increases in proportion from above downwards to the ankle. The number, size and tint of the spots

also increase in the same direction. The dimensions may vary from that of a grain of barley to patches as large as the palm of the hand (p. 597).

Certain forms of purpura consist of patches of the same dimensions; others vary in size; sometimes all the patches develop and disappear at the same time; at other times the eruption is formed gradually and disappears in the same way. After a certain size the spots assume, after a few days, a "contusiform" tint (*Besnier*), which may cause them to be mistaken for bruises. All degrees occur between an almost invisible purpura and the so-called Vehrloff's disease, which is accompanied by hæmorrhage of the mucous membranes, which may cause death. The immediate prognosis of purpura is usually benign; that of the cause of variable gravity. Each case must be judged by itself.

Treatment must be directed against the source of infection or intoxication. The nose and throat should be disinfected. Rest in bed, laxatives, diuretics and chloride of calcium (p. 597) are indicated; also diminution of arterial tension by high frequency.

YELLOW-OCHRE DERMATITIS.

This term is applied to a condition which is common in varicose, diabetic and obese subjects at about the 50th year. The leg is in its lower half of a uniform yellow ochre colour, on which each follicle appears as a brown point. At the border of the regional lesion are seen isolated elementary lesions, the confluence of which causes the whole appearance. These are irregular, reddish-brown maculæ, centred by a brown follicle. When the hair of the region is abundant, it is diminished. There are no functional symptoms except slight pruritus.

This ill-defined cutaneous condition appears to me to be of the same nature as the purpuras. But it is chronic, and when established extends, but does not retrogress. It is often accompanied by disorders of general health, especially of renal origin, such as interstitial nephritis.

Local treatment consists only in the application of protective pastes. The general condition of the patient must be carefully examined, and the diet regulated.

SCABIES.

The lesions of scabies are less characteristic on the legs than in ther regions, such as the axillæ, hands and penis. Diagnosis is ot usually made in scabies of the legs, because the lesions are early always complicated. On this account they are of special nterest.

Very few burrows are found and the lesions consist chiefly of pen and closed pustules, impetiginous or ecthymatous; lesions aused by scratching, and sometimes eczematous lesions provoked y all causes or by medicinal applications. Also more or less intense nd painful lymphangitis may arise from an ecthymatous lesion. Finally, red and painful œdema completes the picture.

The œdema must be treated by rest in the horizontal position; he lymphangitis by moist dressings, and the ecthyma by lotions of ulphates (p. 10). After this the scabies can be treated with sul-hur in the usual way (p. 537).

PSORIASIS.

Psoriasis is rarely limited to the legs. When it occurs there it has the usual localisation on the knees and elbows, and disseminated patches are found on the body. On the legs psoriasis may occur in all forms, from small spots to large placards. It may even follow the course of a nerve, such as the external popliteal, but this is exceptional. The placards are slightly raised under the squames and of a purple colour. Also they have the peculiarity of being intolerant to drugs, and are reduced with difficulty, the patches on the legs being the last to disappear in cases of general psoriasis. Treatment by composite ointments is the best:—

Oil of birch	aa	1 gramme	aa ʒss
Ichthyol			
Resorcine			
Turpeth mineral			
Oil of cade	aa	15 grammes	aa ʒi
Lanoline			

Sometimes chrysarobin (1 in 30) gives quicker results. Some cases of acute psoriasis require 5 or 6 weeks' rest in bed before they are cured.

LICHEN PLANUS.

Lichen planus (lichen ruber of *Erasmus Wilson*) is even more than psoriasis a generalised dermatosis (p. 553). It never occurs on the legs alone, but usually shows there its special characters. As elsewhere, the lesions form flat, shiny papules, intersected by fine white lines; one large papule being surrounded by a group of smaller ones. But on the legs these lesions may become coalescent, of a deep lilac colour and surrounded by a purple or orange-red areola. Pruritus is severe, but there is rarely œdema and never any other inflammatory symptom.

No special treatment is required, and there is no satisfactory treatment for lichen planus. The pruritus may be alleviated by sedative ointments:—

Resorcine	aa	40 centigrammes	aa	gr. 5
Tartaric acid . . .				
Menthol				
Glycerole of starch		40 grammes		ʒi

ECZEMA.

True eczema of the legs is rare. It may occur by extension from a chronic focus of eczema in the popliteal space or over the malleoli. Of these two types of eczema the first, like the popliteal eczema from which it proceeds, is more common in the adolescent. It is concomitant with impetiginous eczemas of the folds of flexion and of the face, and may be associated with hypoacidity of the urine and orthostatic albuminuria. Eczema of the popliteal space is nearly always impetiginous and streptococcic and extends onto the calf in large patches caused by scratching. Temporary outbreaks are followed by periods of remittence, during which the eczema is again limited to the popliteal space or disappears altogether.

Treatment consists in the application of nitrate of silver (1 in 20 to 1 in 30), alternated with zinc paste. When remission takes place oil of cade may be added to the ointment.

Eczema which extends from the feet to the legs, differs from the preceding type in occurring at adult or middle age. It may become exudative, but generally begins like a prurigo by groups of papules which become excoriated by scratching.

In acute cases accompanied by œdema and exudations moist dressings are useful. The horizontal position with the feet raised is not essential. In the intervals of the acute attacks nitrate of silver (1 in 30 to 1 in 5) should be applied to the last lesions.

This form of eczema may coincide, like many others, with malnutrition and emaciation and only subside after improvement in diet and return to normal weight.

VENOUS STASIS. VARIX. VARICOSE PHLEBITIS.

Owing to the dependent position and almost continual work, the leg is exposed more than any other region of the body to passive congestion, venous stasis, varicose dilatations and the troubles arising therefrom. This predisposition is increased by all inflammatory conditions and *vice versa,* causing a vicious circle which may exhibit nearly all the cutaneous affections of the limb. Varices are not only the mechanical result of venous stasis, but result from many causes, some obscure and hereditary, others due to a chronic inflammatory condition added to mechanical congestion. At intervals this inflammatory state increases and becomes varicose phlebitis, usually limited to a secondary venous branch and characterised by all the inflammatory phenomena: *"calor, rubor, tumor, dolor."*

Varicose phlebitis thus occurs in crises at different intervals which end in absorption and disappearance of the inflammatory signs, or more often by painless induration. These changes may occur at any age in the adult, but are more frequent in middle age. They are predisposed to by obesity, cardiac affections, and pregnancy.

Although these affections do not properly belong to dermatology, they underlie such a large number of local dermatoses and affect their prognosis so much, that the dermatologist should be well acquainted with them and should measure their importance in each case.

The treatment is very limited. There is no treatment for the general condition which causes varicosity and no internal treatment for varix. The want of tone in the walls of the veins and the resulting stasis and œdema may be improved by elastic stockings, the recumbent position, etc., and when necessary by local antiphlogistics and moist dressings during the attacks of phlebitis.

A great number of drugs have been used empirically in varix, such as belladonna, hammamelis, etc., but they are of doubtful value.

ARTIFICIAL DERMATITIS.

Most eczemas of the legs are caused by some form of traumatism; these are artificial dermatites. A dermatitis may occur around the injured spot and often results from the application of drugs, such as arnica, carbolic acid, salol, iodoform, turpentine, etc. These applications are often responsible for artficial dermatitis of the legs, which are *true eczemas, provoked.* They form red, more or less finely vesicular and exudative epidermatites, often infected and impetiginous (pustules and boils), with a lilac coloured fibrinous layer under an amber coloured scab. They are always accompanied by inflammatory œdema and venous stasis, which hinder healing, especially when physical exercise causes them to persist and increase.

Treatment consists in removal of the cause; rest in bed with the legs elevated; moist dressings with boiled water till inflammation has subsided; and afterwards oxide of zinc ointment.

ULCER OF THE LEG.

Ulcer of the leg is one of the commonest and most distressing diseases affecting the poorer classes. It results from many morbid conditions mentioned above, and also gives rise to others. In the pathogeny of ulcer of the leg it is necessary to understand all the causes in the midst of which it is produced. The thinness of the skin in front of the tibia, the resistance of the subjacent bone, the passive congestion, varices and chronic œdema, which diminish the nutrition of the subcutaneous tissues, are all predisposing causes; and as all inflammation aggravates these unfavourable conditions, it often happens that a sore of the leg fails to heal.

Ulcer of the leg may follow an injury, a boil or ecthyma, a mosquito bite, or even a simple excoriation in prurigo. The idea that a wound of a vein is incurable is a popular expression of this clinical truth, that varicose legs are predisposed to atonic ulcerations. The immediate cause of the ulcer may vary; it may be syphilitic, or a chronic streptococcic ulcer, or an ecthyma; but the predisposing causes are always the same.

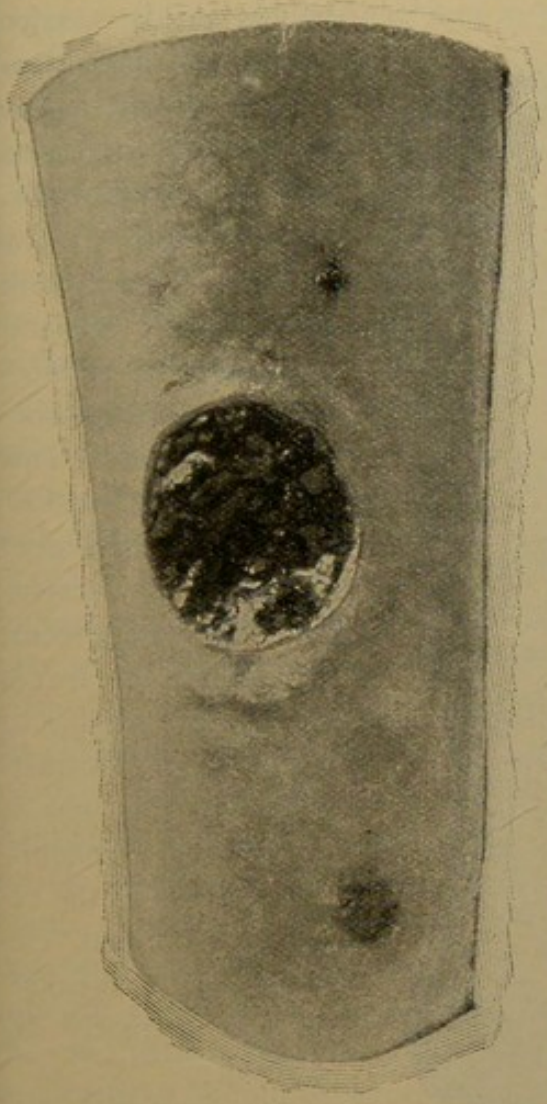


Fig. 127. Simple ulcer of the leg, simulating an ulcerated syphilitic gumma. (Besnier's patient. St. Louis Hosp. Museum. No. 287.)

The primary wound becomes congested and its temperature exceeds that at which cellular exchanges and multiplications are best performed. This presents cicatrisation; the edges of the wound swell up and discharge or granulate ineffectively; the wound becomes infected and an epidermic sphacelus is produced around the primary ulceration; this enlarges and the edges become thickened, sloping and of lardaceous consistence. During this time the hypodermis reacts and becomes slowly fibrous, and the base of the ulcer is formed of cicatricial tissue, without epidermis. The ulcer thus remains atonic, or enlarges, so slowly that a labouring man takes no notice of it; the functional symptoms being slight.

The skin round the ulcer becomes hard and thickened, pigmented and purple, and the surface is slightly scaly. This change may extend over four inches or more beyond the ulcer. The skin gradually becomes more vulnerable to infection and trauma. Other ulcers form around the first and coalesce with it. In this way,

especially in the working classes, ulcerations of 4 inches or more in extent are formed, which render the leg permanently unserviceable.

The duration of these ulcers is unlimited; they enlarge till the uselessness of the limb obliges the patient to lay up. The ulcer heals partly under treatment and then breaks down again. Moreover, it may give rise to complications. Lymphangitis may suddenly arise with local and general symptoms of erysipelas, due to streptococcic infection. This develops like erysipelas and undergoes spontaneous resolution; but it may recur, and each time leaves the chronic œdema of the parts more intractable. In this way is constituted *elephantiasis nostras* as the result of recurrent "elephantiasic outbreaks," as was formerly described.

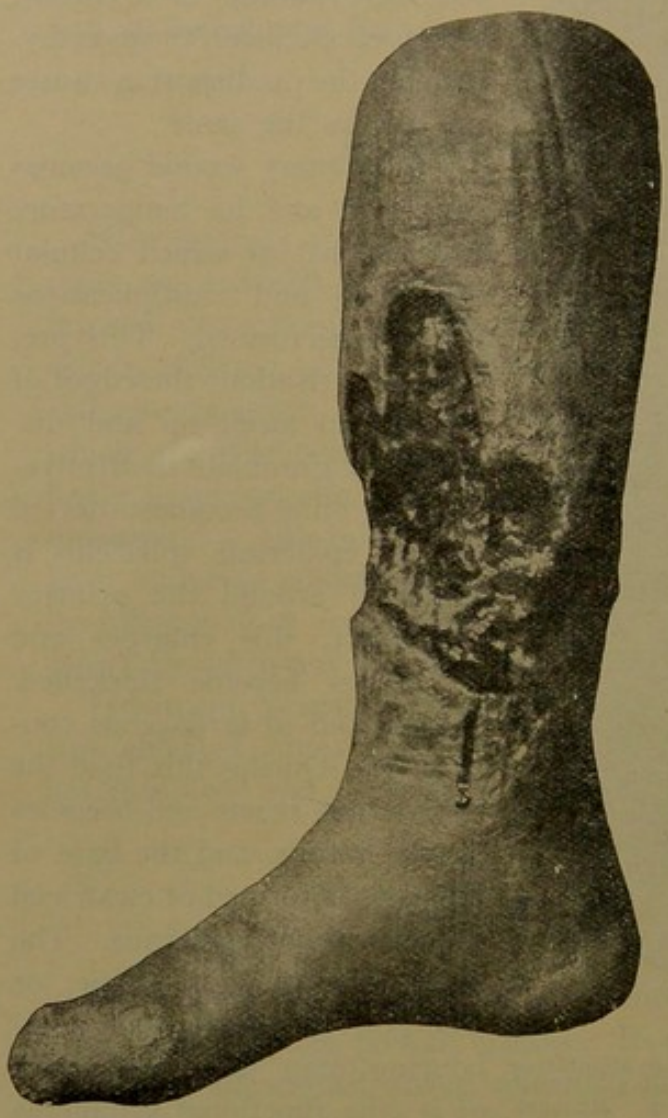


Fig. 128. Varicose ulcer of leg. (A. Fournier's patient. St. Louis Hosp. Museum, No. 1485.)

The chronic dermatitis gradually increases and the surface of the skin assumes the most unusual appearance. Not only is it thickened but the surface is lobulated or villous, bristling with conical papillomatous projections. In some places the dermatitis is exudative and crusted, forming "varicose eczema"; at others the skin

is contracted by fibrous bands, longitudinal, oblique, stellate or circular; the cicatrices of former ulcers more or less healed. The leg then loses its shape and may be from 20 to 25 inches in girth, with holes and protuberances, and sometimes annular cicatricial contractions where it is narrower than the normal leg. Such a condition may lead to amputation, and in patients who are not amputated the limb is often less serviceable than a wooden one. The ulcers during their period of increase and sphacelation exhale a putrid odour, and are occasionally infested with worms.

Treatment. The first treatment in ulcer of the leg, and its resulting chronic dermatitis, is to put the patient to bed. After a week's rest and a daily bath the lesions are transformed; the œdema, redness, and varices have diminished by half; the edges of the ulcer are flatter; the ulcer is not bordered with points of sphacelation, but is nearly dry and free from offensive odour. Dressings of boiled water diminish the circumferential patches of exudative dermatitis, which contract and become covered with epidermis. The ulcer itself is dressed with ointment of sub-carbonate of iron (1 in 40). After 1 to 4 weeks the small ulcers are healed, the middle sized ones diminished by half, and the large ones clean and improving. In order to hasten the epidermisation, the edges of the ulcer may be scarified in radiating or circular lines; the hypertrophic dermatitis and villosities also benefit by scarification every week. After several interventions of this kind the skin becomes level and resumes as far as possible its normal characters. There still remain fibrous inextensible bands and the bases of the large ulcers where the skin is absent. These may be treated by *Tiersch's* grafts, after freeing the edges and scraping. By these methods the functions of the lower limb are restored as much as is possible. Afterwards, especially when the patient resumes work, frequent baths should be taken and the cicatrices should be protected by a layer of non-absorbent wool and the leg kept in an elastic stocking.

This treatment renders serviceable a limb which it is impossible to restore to its normal state when such irreparable lesions are once formed.

SYPHILIS.

Syphilis may manifest itself in the leg by very different lesions. (1) The flattened tibia, concave internally, called "sabre blade

tibia" constitutes one of the most certain signs of hereditary syphilis.

(2) Secondary syphilitic periostitis which occurs with the roseola is often accompanied by severe local pains which may cause errors in diagnosis. Palpation reveals a diffuse, hard and painful thickening of the middle of the internal surface of the tibia, usually extending for 4 or 5 inches. This slight deformity results from a sub-periosteal lesion which persists permanently, after the pain has disappeared in 5 or 6 weeks.

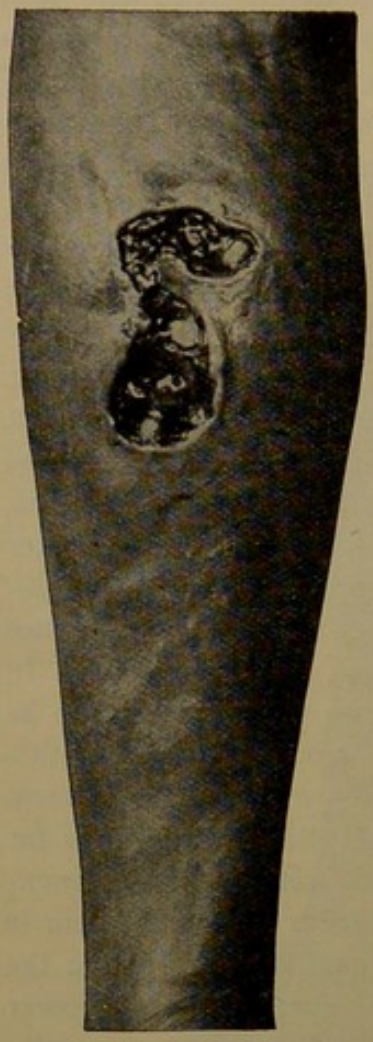


Fig. 129. Syphilitic Gumma of the calf. (Le Dentu's patient. St. Louis Hosp. Museum, No. 662.)

Tertiary syphilis may also give rise to special lesions in this region.

(1) Diffuse syphiloma of the calf occurs usually as an ill-defined red tumour, as large as the palm of the hand, which soon becomes fixed to the skin and to the muscle. The hardness increases progressively and the swelling is not accompanied by functional symptoms proportional to its size. This is diffuse syphiloma of the calf. Diagnosis has to be made from abscess and sarcoma. Mixed treatment causes softening of the mass in 8 or 10 days and disappearance in a month.

(2) This type of diffuse syphiloma indicates the form which nearly all tertiary lesions assume in the leg. They are nearly always hypodermic gummatous processes, some of large size, deep and diffuse like the above; others thin and in sheets, ending rapidly in syphilitic ulcer, which is formed by small, disseminated, irregularly ulcerated gummata.

These processes may occur at all parts of the leg, more often about the middle and on the antero-lateral surface. The first stage is rarely seen. This consists in a more or less coherent crop of small intra-cutaneous tumours, the size of a pea, almost painless, orange-red or violet in colour, which become eroded singly or together, without fluctuation. Their centre is necrotic and is infected much

less than the points of sphacelation in ulcer of the leg. The cores are eliminated and leave an irregular sore with a sinuous and polycyclic margin. Inflammatory phenomena in the surrounding parts are less marked than in ordinary ulcer of the leg.

The syphilitic ulcer is serpiginous and may partly heal without treatment. It is liable to recur and is often seen by the side of cicatrices of former lesions. The olive brown cicatrix encircled with purple is not so characteristic as many authors maintain; but a cicatrix, without being pathognomonic may support the suspicion of former syphilitic ulcer, that of simple ulcer of the leg being irregular and generally surrounded by much more marked chronic dermatitis.

(3) Instead of a crop of gummata, or a diffuse syphiloma, a single gumma may develop on the leg, the size of a walnut, with sub-acute inflammatory symptoms and almost without pain. The swelling points and gives way in the form of a crescent, revealing a yellow core, the hollow of which deepens slowly. The cavity may be as large as a marble, and the ulceration remains atonic till diagnosis is made and treatment commenced.

(4) Lastly, there exists a *tertiary serpiginous syphilide,* very superficial, which forms almost ornamental figures, by a red border covered with a thin and irregular crust. This crust is adherent and, when removed without much force, raises all the subjacent epidermis and the entire thickness of the skin, exposing a small, irregular hole, from which exudes a drop of blood.

All these lesions are amenable to active anti-syphilitic treatment. To verify an uncertain diagnosis energetic treatment may be instituted, by two injections of biniodide of mercury, or one of grey oil in a week; or 1½ drachms of grey ointment by inunction. Pills of protoiodide or sublimate should only be used for this purpose in the absence of other methods.

In spite of the relative discredit into which the iodides have recently fallen, they preserve their value in the treatment of gummatous manifestations, and may be prescribed regularly in doses of 15 to 30 grains daily. The effect takes place in one or two weeks, but the cure may be slow or incomplete if the loss of substance has been considerable. Local treatment may be the same as for simple ulcer of the leg. The emplastrum of *Vigo* may be used for small ulcers, but is a dirty method.

LICHEN PLANUS CORNEUS ATROPHICUS.

This affection is more common on the legs and scalp than elsewhere. It is a rare dermatological type, the nature of which is not exactly determined. It is characterised by a few patches, generally elongated, from ¼ to 1 inch in diameter. The lesion resembles a nævus. It has three aspects; when complete, it is raised and covered with a hard adherent corn, analogous in consistence to that of warty nævi and papillomata, but is not divided into segments like the horny tissue of warts. Under the crust the lesion is raised, dry, hard, and does not bleed. Lastly the lesion often shows at one end, the terminal stage, a smooth slightly depressed cicatricial point.

The treatment consists in destruction by caustic plasters or by the galvano-cautery.

ALOPECIA AREATA.

Symmetrical alopecia areata of the legs is not very rare in cases of alopecia with a tendency to become generalised. It is situated on the middle third, and on the external surface. It is especially observed in subjects in whom the general condition is at fault: nervous asthenia, marasmus, choreiform movements, hereditary syphilis, tuberculous cachexia, etc.

It requires no local treatment, but a stimulating alcoholic lotion may be prescribed for moral effect.

SUPERCICATRICIAL EPITHELIOMA.

On the leg, as in other regions, epithelioma may develop on cicatrices and it presents no peculiar features in this situation. On the cicatrix of a wound, a burn or a chronic sore, develops a mammillated bud covered by the thin and smooth epidermis of the cicatrix. This bud becomes raised, rounded and sometimes pedunculated; sometimes flat and circular. Treatment consists in surgical removal followed by applications of the X-rays to the cicatrix (about 25 units H in 5 or 6 sittings; tint B of the radiometer X.

TROPICAL ELEPHANTIASIS. FILARIOSIS.

Equatorial countries present cases of elephantiasis by repeated erysipelas similar to ours; but they have besides a special elephantiasis, due to the pullulation of *filaria sanguinis hominis* in the blood, the embryo being transported by a mosquito, the *culex mosquito*, and transmitted to man by the bite.

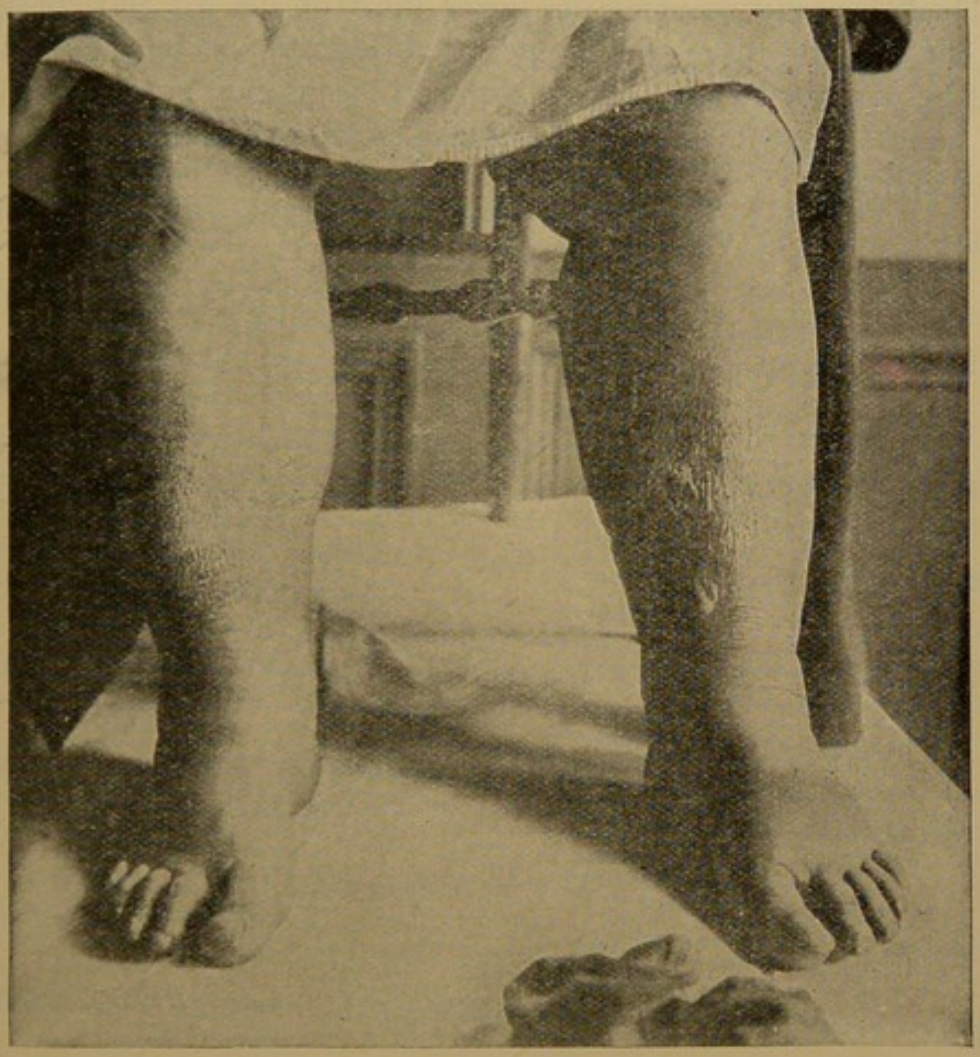


Fig. 130. Filarial elephantiasis. (Jeanselme's patient. Photo. by Noiré.)

It consists in a chronic œdema, often accompanied by lymphatic varices visible on the surface; a kind of pachydermia without hyperchromia. Generally the two lower limbs are affected equally, and sometimes the genital organs. It is a chronic disease with acute exacerbations resembling attacks of lymphangitis. During the

period of exacerbation, microscopic examination of the blood during the night, shows the existence of the filaria, a mobile serpentine larva about 0.8 μ in length. The affection is not, strictly speaking, a dermatosis and is rare in our country.

ORIENTAL BOIL.

This generally occupies the lower third of the leg and consists of one, two or three similar ulcerative lesions, the type of which will be described with its most common localisation on the back of the hand (p. 348). It occurs in Persia, Asia Minor, Turkestan and the Far East.

THE FOLD OF THE HAM AND THE FOLD OF THE ELBOW.

The dermatological pathology of the folds of the ham and elbow are so similar that they may be considered in one chapter.

The prurigo of Hebra occurs frequently in these regions with its pruritic papular eruption and eczematisation . . . . . . — Prurigo of Hebra p. 313

The impetiginous eczema of adolescents, which is usually accompanied by urinary hypoacidity and transitory albuminuria, is often exclusively localised on the folds of the elbows and knees . . . . . . — Impetiginous eczema of adolescents . . . . . p. 314

I shall say a few words regarding the thickening of the skin, known as lichenisation, and the exudative phases known as eczematisation, which are common in the evolution of many dry lesions . . . — Lichenisation Eczematisation . . p. 315

Typical psoriasis avoids the folds of flexion, but steatoid psoriasis (nummular seborrhœic eczema of Unna) does not . . . . . . — Steatoid Psoriasis p. 317

I shall next deal with ichthyosis, which preserves the folds of flexion intact . . . . . . — Ichthyosis . . . . p. 318

. . . and with intertrigo and parasitic eruptions of the folds of flexion; although they are less common in the ham and elbow than elsewhere . . . . — Intertrigo Parasitic Eruptions . . . p. 318

I shall conclude with a few words on the semeiology of the glands of these two regions . . . . . — Semiology of popliteal and epitrochlear glands p. 318

. . . especially the epitrochlear gland of syphilitic chancre of the fingers . . . . . . — Epitrochlear gland in digital chancre . . . . . p. 319

PRURIGO OF HEBRA. LICHEN. PRURIGO IN GENERAL.

The prurigo of *Hebra* is a dermatosis characterised by generalised pruritus and accompanied by a more or less marked eruption of small conical elevations, papular in appearance, in reality hollowed by a small central vesicle, which is excoriated by scratching (papulo-vesicle).

This eruption soon becomes polymorphous, because the lesions have pigmentary traces; the pruritus slowly causes diffuse licheni-

sation of the skin; and the young papulo-vesicles are mixed with others, which have been excoriated and scabbed over.

This affection, which was formerly, and not without clinical reasons, classed among the "benign scrofulides" is by some considered as an autonomous disease; by others as one of the forms of chronic lichen-urticarias, which occur at all ages; usually at the extreme ages, in the child as chronic urticaria, and in the aged as senile pruritus without lesions. Eczematisation of these lesions is frequent, but appears to be an accidental addition to the disease itself. Lichenisation may follow eczematisation, or may occur without it.

The internal treatment of prurigos is theoretical and differs according to opinion. Local treatment is symptomatic and especially anti-pruriginous. Protective ointments and pastes which prevent direct contact of the air with the skin appear to be the best. In severe cases a good plan is to envelope the part in bandages impregnated with cod-liver oil. The ointments should contain a third part of oil of cade.

Prurigo of *Hebra* generally improves with age, and is cured 8 times out of 10; but the disease is paroxysmal, and isolated attacks may occur long after apparent cure.

IMPETIGINOUS ECZEMA OF ADOLESCENTS.

Impetiginous eczema of adolescents, which we have studied on the face, has a marked predilection for the folds of the elbows and knees. The eruption often arises in all points at the same time, in the form of small soft red projections, which become vesicular. Others occur between these, and serous exudation is established over a lozenge-shaped surface, of which the fold of flexion represents the small diameter. The exuded liquid forms yellow, fatty, fissured crusts. The eroded surface is often infected with streptococci and becomes impetiginous. This eruption is more common in the ham than in the fold of the elbow and is very tenacious and troublesome.

Analysis of the urine often shows hypoacidity and temporary albuminuria in these cases, which were formerly classed among the eczemas of scrofula. The clinical relationship which underlies this old classification remains true and indicates the general treatment.

The local treatment should always be active in these regions. Repeated applications of nitrate of silver (1 in 20 to 1 in 10) are

necessary. If these are irritating or badly tolerated a moist dressing may be applied afterwards. Usually they are well tolerated if the parts are covered with zinc paste. When the first irritation has subsided the best local treatment consists in the application of weak oil of cade ointment:—

Oxide of zinc	aa	5 grammes	℥ii ss
Oil of cade			
Ichthyol	aa	1 gramme	gr. 30
Oil of birch			
Lanoline	aa	15 grammes	℥ ss
Vaseline			

ECZEMATISATION. LICHENISATION.

Any chronic irritation of the fold of the elbow and ham may lead to progressive thickening of the skin of the region, as in liche-

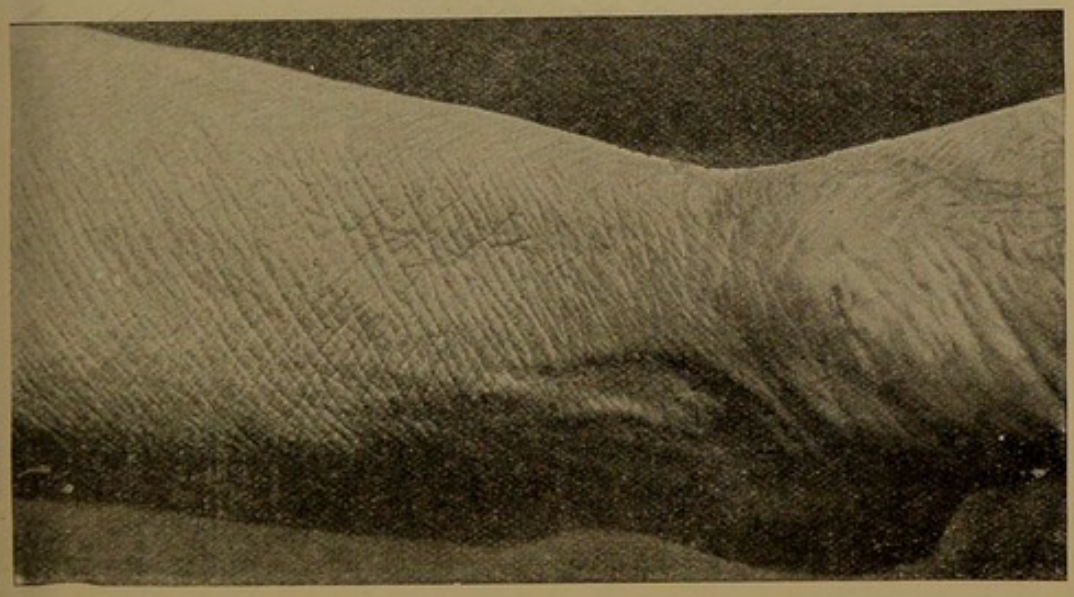


Fig. 131. Associated lichenisation and eczematisation. (Brocq's patient. Photo. by Sottas.)

noid transformation in the forearm; and this may occur when the lesions are always dry as in prurigo, or when there has been eczema and exudation.

This process of *lichenisation*, which represents a particular reaction of the skin to certain chronic irritations, must be considered not as a disease in itself but as a complication of several.

Also, *eczematisation*, which is the production of local or diffuse serous suffusion, the former forming vesicles, the latter creating more or less superficial exudation, may also be considered as a simple cutaneous reaction. Hence the first in date of the phenomena which are accompanied later by eczematisation or lichenisation, remains doubtful. An idiopathic pruritus without lesions, giving

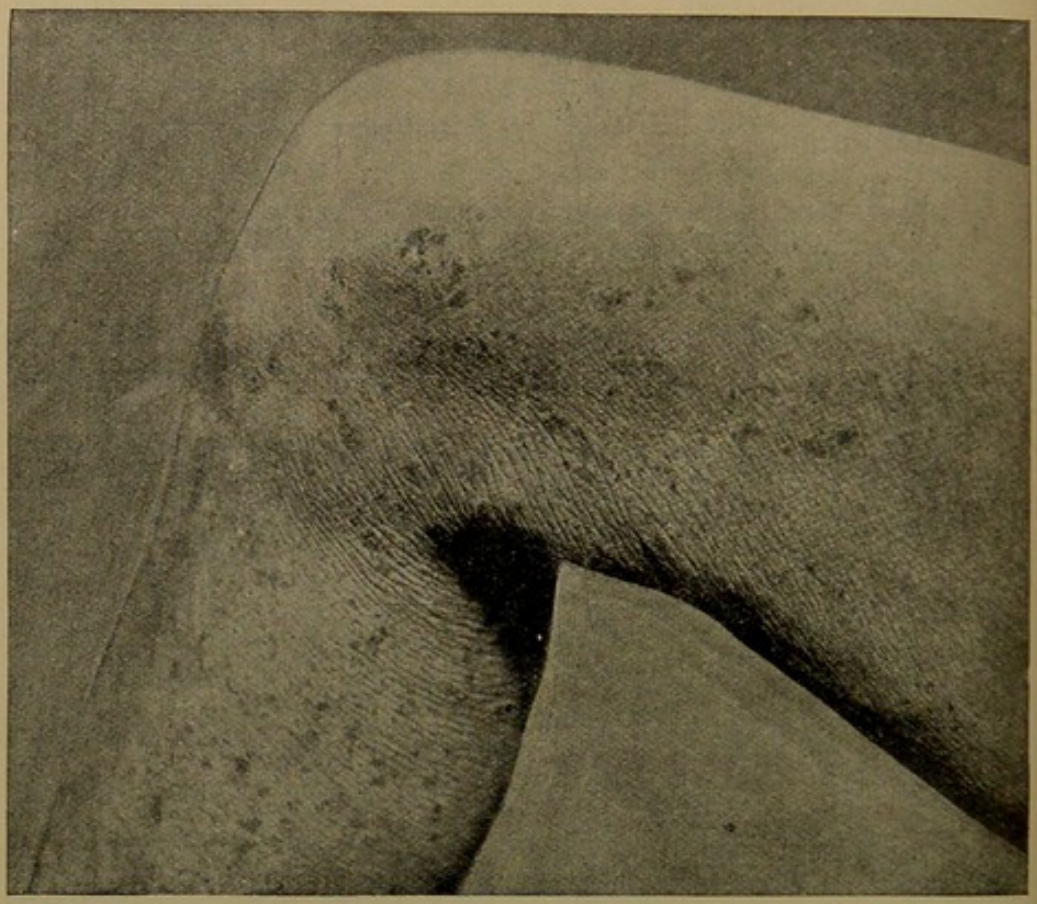


Fig. 132. Same condition as Fig. 131. (Brocq's patient. Photo. by Sottas.)

rise to lesions by scratching has been suggested as the origin of most cases, but this hypothesis is very difficult to prove. All biopsies of a pruriginous skin show histological vesicular lesions, invisible to the naked eye, which might, by an inverse theory, make prurigo an abortive eczema. These theoretical questions are obscure.

Most methods of local treatment are empirical. General treatment varies according to the opinion held of the etiology of these lesions (see p. 564).

STEATOID AND SUPERSEBORRHOEIC PSORIASIS.

Common dry psoriasis has a tendency to affect the extensor surfaces of the limbs, and even confluent psoriasis usually avoids the folds of flexion.

But there is a steatoid psoriasis, also known as the psoriasiform seborrhœid, or nummular seborrhœic eczema of *Unna,* which has a distinct predilection for the flexor surfaces. This was formerly called atypical psoriasis, but should, in my opinion, be named steatoid and superseborrhœic psoriasis. It forms round patches, from a third of an inch to an inch in diameter, covered with a yellow, greasy, squamous crust, which is raised above the skin to a variable extent; from the thickness of a piece of parchment to that of a five-shilling piece. When these squames are removed a red epidermic surface is exposed, which is less infiltrated and bleeds less easily than in common psoriasis. The patches may be few and isolated, or occur in large numbers; but they are rarely confluent except on the scalp. The eruption never forms large polycyclic placards.

Treatment consists in the application of anti-psoriasic ointments with the addition of sulphur. The following are three examples of ointments of increasing strength:—

(1)	Oil of cade . .	aa	5 grammes		℥ ss
	Oxide of zinc .				
	Ichthyol . . .	aa	1 gramme		gr. 48
	Resorcine . . .				
	Oil of birch . .				
	Lanoline . . .		10 grammes		℥i
	Vaseline		15 "		℥i ss
(2)	Precipitated Sulphur	aa	1 gramme	aa	gr. 48
	Resorcine				
	Oil of birch				
	Oil of cade	aa	10 grammes	aa	℥i
	Vaseline				
	Lanoline				
(3)	Precipitated Sulphur	aa	1 gramme	aa	gr. 48
	Oil of birch				
	Chrysarobine . . .		50 centigrammes		gr. 24
	Oil of cade	aa	10 grammes	aa	℥i
	Lanoline				
	Vaseline				

After cleansing, solutions of chrysophanic acid in chloroform (1 in 20) may also be applied by a brush; left to dry, and covered with traumaticin. But this form of psoriasis is less resistant to treatment than the common form, and generally less liable to recur.

ICHTHYOSIS.

Even when ichthyosis is generalised, rendering the whole surface of the body hyperkeratotic, the folds of the ham and elbow form islands when the skin is smooth and normal. This negative fact constitutes an important characteristic, but it is seldom mentioned.

INTERTRIGO. PARASITIC ERUPTIONS.

The intertrigos, erythrasmas, intertriginous trichophytoses, which have a particular affection for the folds of flexion in general, occur less often in the folds of the elbow and ham, because the bottom of the fold is nearly always exposed to the air as the limb is not usually flexed. Nevertheless, these affections occasionally occur in these regions, but always in cases where the primary lesion is in the groin or axilla; the lesions in the ham and fold of the elbow being secondary.

SEMEIOLOGY OF THE POPLITEAL AND EPITROCHLEAR GLANDS.

The glands of the ham and elbow present the peculiarity that, in nearly all infections of the extremities of the limbs, they are less enlarged and sensitive than the glands of the root of the limbs. They are also the last to be affected in most diseases with general glandular reaction, such as mycosis fungoides. The only common exception is the epitrochlear gland, which is the satellite gland of digital chancre, and is also affected in the general glandular reaction in secondary syphilis. I have also seen the popliteal glands react in an adenoid sarcoma of the foot; but this is so exceptional as only to require mention.

THE EPITROCHLEAR GLAND IN SYPHILIS.

The epitrochlear gland may be dealt with in this place, although it belongs to the posterior surface of the elbow. It is generally not easily palpable, and is the size of a haricot bean. In cases of syphilitic chancre of the finger (p. 374) it is tripled in size, of characteristic hardness and easily felt.

In the course of secondary syphilis when generally polyadenitis is established, the epitrochlear gland takes part in the process. Many syphilographers never fail to seek for it. It is doubled in size and rather softer than normal; but this change is not comparable to that which it undergoes when it is the satellite gland of digital chancre.

THE FORE-ARM.

The fore-arm, apart from the elbow and wrist, presents no dermatosis peculiar to itself; but divers affections present a special physionomy in this region.

One of the most frequent, both in children and adults, is the chronic, pruriginous, non-exudative eruption, known as chronic urticaria, lichen, prurigo, or strophulus . . . . . Chronic urticaria chronic lichen . p. 321

Also the traumatic eczemas, which originate on the hands, but extend to the fore-arms . . . . . Traumatic eczemas. Artificial dermatitis . . . p. 321

Among the traumatic eruptions, there is one, constituted by miliary pustules, which is peculiar . Miliary, pustular staphylococcic dermatitis . . . . p. 322

The fore-arm often presents primary or secondary streptococcic dermatites, characterised by serous exudation and thickening of the subjacent skin . . Exudative streptococcic dermatitis p. 323

This thickening may become chronic lichenisation Lichenisation . . . p. 324

To this series may be attached pyodermatitis, furuncles, furuncular abscess, impetigo, and ecthyma, which are superadded or may occur on the healthy skin . . . . . Furuncle, Impetigo, Ecthyma . . . . p. 324

. . . Also lymphangitis, which is more frequent in the extremities than elsewhere . . . . . Lymphangitis . . . p. 325

There is sometimes seen, on the fore-arm, a specific, tuberculous lymphangitis, consecutive to tuberculosis of the hand . . . . . Tuberculous lymphangitis . . . . p. 325

Psoriasis, the primary localisation of which is usually on the elbow, may cover the external surface of the fore-arm . . . . . Psoriasis . . . . . p. 326

Erythema multiforme, usually situated on the hands and wrists, may extend to the fore-arm . . Erythema multiforme . . . . . p. 326

The same may occur with toxic, medicamentous erythemas . . . . . Medicamentous erythema . . . . p. 326

The fore-arm is often the seat of the first outbreaks of the painful, bullous dermatitis of Duhring-Brocq . . . . . Dermatitis herpetiformis . . . . . p. 327

The first papules of the lichen planus of Wilson are most often seen on the fore-arm . . . . . Lichen planus . . . p. 327

CHRONIC URTICARIA. CHRONIC LICHEN.

During the first years of life certain children suffer from intense, paroxysmal itching of the whole cutaneous surface. A toxic origin *ab ingestis* and the hereditary neuropathic state have been suggested as causes, without proof. *Bazin* includes the lesions of prurigo or lichen of this kind among the benign scrofulides. As a matter of fact we know nothing of the real causes of chronic prurigo or lichen; these two words are equivalent in French dermatology (p. 543).

Each attack often begins by an urticaria which quickly disappears, but the pruritus remains. Minute disseminated, incompletely developed vesicles occur, which have been incorrectly called acuminate papules. These are removed by scratching and replaced by a small dry scab. The first lesions disappear and are replaced by a grey spot; others arise, and a dry, hard, thickened condition is constituted, divided into squares by numerous folds. When this condition is complete, with considerable thickening of the skin and exaggeration of its papular projections and folds, the state of lichenisation is produced. The *chronic urticaria,* in which recurrent attacks of urticaria predominate, the *chronic lichen* of the French authors, and the *chronic prurigo* of the present day, are clinical terms, differing but little, of a morbid condition which appears to me to be unique. But there is no absolute proof of the unity or of the plurality of these different clinical forms, or of the existence of one or other, the *prurigo of Hebra* for instance, as a morbid entity.

The treatment consists in the application of zinc paste, and glycerine of starch with menthol, when the itching is intense. Warm douches are also useful in these cases (*Jacquet*). Also each case must be treated on its own merits. If the arterial tension is high, it may be lowered by high frequency; if tuberculosis is suspected high feeding is indicated. If the gastric, hepatic, pancreatic or intestinal functions are affected the cause must be remedied; but not by preconceived ideas as to the mechanism of these dermatoses, of which we are ignorant.

TRAUMATIC ECZEMAS. ARTIFICIAL DERMATITIS.

All mechanical, physical, or chemical irritation of the hands, especially when repeated, may determine eruptions which are termed

artificial, traumatic, or occupational. From the hands they extend to the wrist and, according to their intensity, more or less onto the fore-arm. These are better studied with the region of the hands, where they invariably commence. Certain substances provoke a reaction which is almost specific, such as castor-oil, or turpentine, which causes a superficial miliary phlyctenisation passing on to suppuration. Others give rise to lesions which are clinically and anatomically indistinguishable from those of eczema; others again cause eruptions which are microbial from the first, in spite of their traumatic origin; this being favourable to the pullulation and implantation of microbes pre-existing on the surface. These types will be studied successively. Whatever characters the irritation assume, they generally yield to removal of the cause, and under the influence of moist dressings with boiled water renewed twice a day for several days. The newly formed epidermis is red and shiny and may be covered with zinc paste to complete the cure. But if the exciting cause is renewed the lesions will recur.

PUSTULAR MILIARY DERMATITIS.

Pustular miliary dermatitis of the back of the hands and fore-arms is always of traumatic origin, and is seen in washerwomen, dyers, etc. The skin is red, dry and thickened, and, when closely examined, is seen to be riddled with miliary pustules, the largest of which are smaller than a grain of barley and the smallest the size of the eye of a needle. Owing to the thickening of the skin the pustules do not project, but appear to be imbedded. Most of these pustules develop round a hair follicle, others are scattered anywhere. Their number is sometimes very large, and twenty or more may occur on an area half an inch square. This dermatitis is quite dry and the pustules do not open. Treatment consists in moist dressings and zinc paste.

The mechanism of the dermatitis appears to be as follows: On the surface of the skin, especially in the follicular orifices, there are a number of staphylococci; irritation of the skin reduces its power of resistance and the staphylococci multiply and cause pustular folliculitis. This eruption is usually caused by the staphylococcus with grey culture, but sometimes by the staphylococcus aureus.

EXUDATIVE IMPETIGINOUS DERMATITIS.

The artificial dermatites of the type of true eczema (p. 560) after a few days change their aspect; the serous discharge increases and gives rise to a thin yellow crust. Under this crust is found the pale lilac, sero-fibrinous exudation characteristic of streptococcic infection, and the culture demonstrates the presence of this organism. The process consists in an impetiginisation of a simple epidermitis provoked by previous traumatism.

These forms of exudative dermatitis, especially when kept up by repetition of the initial trauma, may last for many months, and is

Fig. 133. Acute vesicular eczema. (Brocq's patient. Photo. by Sottas.)

then followed by subjacent infiltration, which becomes gradually harder and ends in lichenisation of the skin. But some exudation always remains on the surface of the thickened and papular integument.

The amber-coloured powdery crusts and a trace of exudation revived by the crises of pruritus, show that this lichenisation is subsequent to a primary eczematisation; thus differing clinically from that of the lichenisation of prurigos, which arises without previous eczematisation.

In the acute period moist dressings may be used; later on repeated applications of nitrate of silver (1 in 15) and zinc ointments. If

infiltration and lichenisation are established, the surface should be protected from the air by zinc paste. The acute period is of short duration, but resolution of the chronic infiltration and of the lichenoid cutaneous induration persist for several months.

LICHENISATION OF CHRONIC DERMATOSES.

The preceding paragraphs show that the thickening of the skin and its hard infiltration and hypertrophy, which are manifested externally by the lichenoid and papular transformation of the surface, are not specific for a single dermatosis. It appears that cutaneous lichenisation only represents a mode of reaction of the skin like eczematisation. It constitutes a form of reaction to chronic irritation, such as pruritus, or any other trumatism of the surface, even microbial; but we do not know why certain severe forms of pruritus of extremely chronic nature may never be accompanied by it.

FURUNCLES. FURUNCULAR ABSCESS. ECTHYMA.

The importance of traumatism in the production of microbial epidermatitis having been shown by the preceding facts, it is not surprising that the fore-arm should be a seat of predilection for the agents of pyodermatitis. The staphylococcus aureus causes furuncle and furuncular abscess; the streptococcus gives rise to ecthyma, which is only an ulcerative impetigo.

Furuncle on the hand and fore-arm is often the result of miliary pustular dermatitis, which we have already mentioned. As it is rather more frequent on the hand, it will be referred to with that region. Furunculous abscess is only the necrotic core of a furuncle increased by a layer of pus. Ecthyma commences on the fore-arm, as on the hand, by a phlyctenular impetigo which is transformed into an ulcer, by want of care and by traumatism.

All these microbial lesions are congested, and painful, and are accompanied by œdema, due to the dependent position of the arm, and are benefited by rest of the limb in a sling, and moist dressings. Furuncle is treated in the way described on page 347. Ecthyma may be dressed with ointment of sub-carbonate of iron (1 in 40), which causes rapid healing.

LYMPHANGITIS.

All septic lesions of the hand, wrist, and fore-arm are accompanied by marked inflammatory œdema and lymphangitis. The latter forms red lines, following the course of the peri-venous lymphatics. Lymphangitis necessitates rest of the limb in the horizontal position, prolonged warm baths or moist dressings. It usually ends in resolution, even when intense, as does the axillary adenitis which accompanies it. However, extensive sub-cutaneous abscesses sometimes develop, requiring surgical treatment.

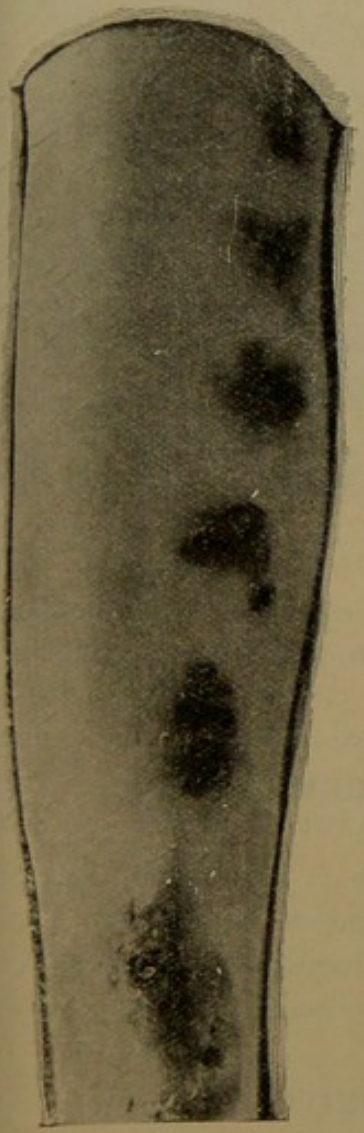


Fig. 134. Tuberculous Lymphangitis. (Hallopeau's patient. St. Louis Hosp. Museum, No. 1997.)

TUBERCULOUS LYMPHANGITIS.

Tuberculous lymphangitis of the fore-arm is a rarity. It may follow a tuberculous ulceration of the hand, a severe lupus, or a tuberculous ulceration due to external inoculation. It generally forms a hard cord under the skin, more or less in the course of a vein, and sometimes mistaken for it. This cord is nodose, irregular and moniliform. Sometimes one of the nodosities softens and forms an open ulcer. These conditions are seldom seen except in cases of advanced phthisis with cachexia, and are terminated by pulmonary tuberculosis. I have, however, seen a case in a person in good health, consecutive to a tuberculous ulceration of the palm; of chronic slow evolution, with non-suppurative axillary adenitis, but without general infection.

Treatment should consist in phototherapy of each nodosity and of the whole lymphatic tract. In default of this, excision of the whole lymphatic tract with the nodosities should be practised.

PSORIASIS.

Psoriasis, primarily situated on the elbow, may cover the extensor surface of the fore-arm with dry squamous lesions scattered like drops of wax on the skin. These preserve their character of absolute dryness and their laminated structure. When the squame is raised the subjacent epidermis bleeds slightly. By

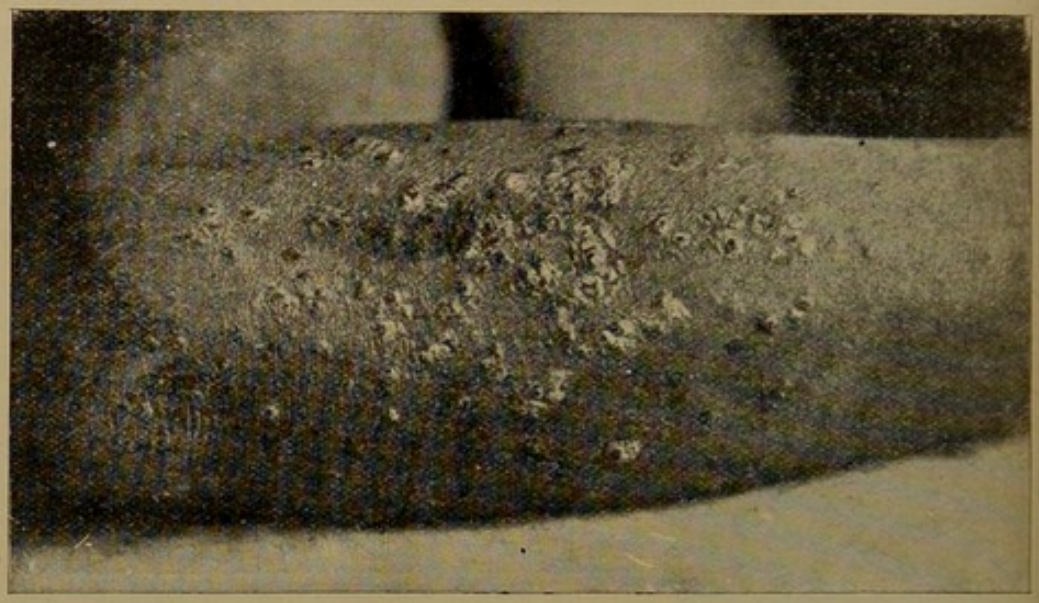


Fig. 135. Psoriasis guttata. (Jeanselme's patient. Photo. by Noiré.)

these characters, the extension of the lesions, or their generalisation in other regions, their indolence and chronicity, psoriasis cannot be mistaken.

ERYTHEMA MULTIFORME.

Erythema multiforme is an affection which is naturally localised to the extremities; the wrists, hands or fingers, and seldom occurs on the fore-arms except by extension. It requires in this region no particular consideration as regards etiology and treatment (p. 244)

ERYTHEMA MEDICAMENTOSA.

The fore-arm is often the seat of medicamentous eruptions; the rubeoliform and pruriginous eruption of quinine; the large flat, red

and pigmentary maculo-papules of antipyrin, etc. These toxic eruptions are nearly always characterised by some anomaly; for instance, the large, flattened, purple, framboesiform tuberosities of bromides, iodides, etc. They must always be thought of in eruptions having strange characters which do not conform to any ordinary category.

DERMATITIS HERPETIFORMIS.

This complex morbid type has no fixed localisation and belongs to the generalised dermatoses (p. 605. Sometimes, however, its painful and bullous lesions occur on the fore-arm. It occurs in two principal forms; the one herpetic, formed of multiple circles; the other bullous, constituted by crops of successive bullæ, some of which are in a state of ulceration while others are forming; while the first have left only a pigmentary trace. The general condition is good and the cause unknown. The patient has usually had similar attacks before, which assist the diagnosis. For treatment see p. 605.

LICHEN PLANUS OF WILSON.

Lichen planus is a generalised dermatosis (p. 553), but merits a few words here, for the internal surface of the fore-arm is perhaps the most common situation of its first elements. They appear first as fine papules disposed in small islands. These papules are reddish-yellow, flat and shiny and traversed by peculiar grey lines. They often remain stationary for several months. The eruption becomes more or less generalised in different cases. Lichen planus, as already stated, has no specific treatment; the symptomatic treatment will be considered later (p. 553).

THE WRIST.

The wrist is not a dermatological region which presents autonomous eruptions.

Erythema multiforme alone may be limited entirely to this region, but more often invades the hand and even the fore-arm . . . . . . — Erythema multiforme . . . . . p. 328

Scabies may present a marked localisation on the wrists, characterised by burrows and abundant vesico-pustules, but these lesions accompany others situated elsewhere . . . . . . — Scabies . . . . . p. 329

Trichophytosis may, by chance, show on the wrist, one or two red vesiculo-pustular patches more or less inflamed . . . . . . — Trichophytosis . . p. 330

Artificial dermatites arise on the hand and invade the fore-arm; they are not localised on the wrists, although they invade them . . . . . . — Traumatic dermatitis . . . . . p. 331

Papulo-necrotic tuberculides, described under so many names (acnitis, atrophic folliculitis, etc.) when they form localised eruptions, have often the wrist as their seat of election . . . . . . — Tuberculides . . . p. 331

I shall conclude by saying a few words on lichen planus, not that it presents any election for the wrist, but because it often shows its most characteristic elements on the palmar surface . . . . — Lichen planus . . . p. 331

ERYTHEMA MULTIFORME.

Erythema multiforme has for its seats of predilection the wrists and ankles. From the wrists it often extends to the hands and forearms, but the wrist remains the usual place of appearance in the first lesions. Erythema multiforme, usually secondary to a benign infection most often of pharyngeal origin, is often preceded by some malaise, but the appearance of the first lesion may be the first symptom. These lesions consist of round, rose-coloured spots with a livid centre, in the form of a rosette. The eruption varies in intensity and may consist of 10 patches or 200; usually from 1 to 15 on each wrist. The spots may be raised at the edge, phlyctenular and even bullous in the centre. The situation of the lesions on the

ankles, wrists and neck is very typical. The treatment is almost nil; and it is one of the most benign eruptions. The cause must be searched for to prevent recurrence.

SCABIES.

The lesions of scabies on the wrists constitute one of the most typical, and the most necessary to know, of the morbid manifestations of this region. They may be more marked on the wrists than in the interdigital spaces and on the hand.

Fig. 136. Scabies of the wrist, showing burrows. (Hallopeau's patient. St. Louis Hosp. Museum, No. 1947.)

The wrist is especially affected on the palmar surface, at the fold of flexion. The lesions consist of burrows, intact and open vesicles. If the lesions are infected, pustules, phlyctenules of impetigo and even ecthyma may occur.

(1) The burrows are chiefly directed transversely; they are about ¼ to ½ an inch in length, as fine as the stroke of a pen, of a deep grey colour, and irregular as a worm track in wood.

(2) The vesicles, usually very small in scabies, may be larger on the wrist, where the skin is fine and expansible. They are clear and slightly acuminated.

(4) Vesicles after suppuration increase in size and remain mixed with clear and non-infected vesicles. This mixture is very characteristic.

(5) The streptococcic phlyctenules of impetigo are larger, less numerous, and often emptied of their turbid contents.

The treatment of scabies is the same here as elsewhere. The treatment of pustular scabies will be mentioned with the hand (p. 344).

TRICHOPHYTOSIS.

The region of the wrist, owing to its thin skin and its exposure to traumatism, is often the seat of trichophytic inoculations of animal origin. Sometimes this consists of a round raised placard of suppurating trichophytic follicles, of equine origin. This form is most common on the back of the hand (p. 346). Or there may be a vesiculo-pustular trichophytosis, in the form of a single or double circle (Herpes iris of *Bictt,* Fig. 137), which appears to originate in the cat. This parasite, like that of Kérion, belongs to the group of trichophytons with white culture. At other times the trichophyton has variable forms and is of varied origin, the family of trichophytons presenting a great variety of species.

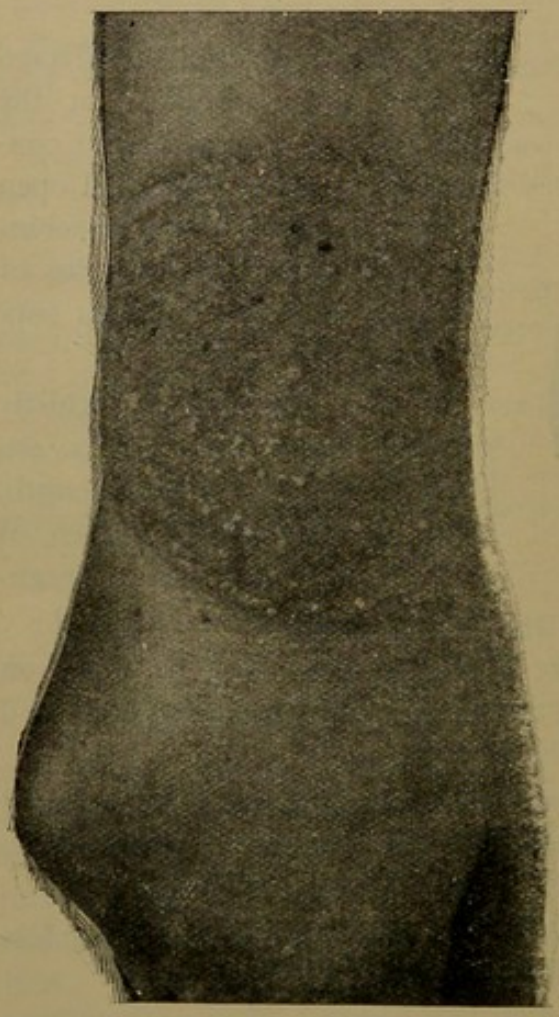


Fig. 137. Vesiculo-pustular circinate Trichophytosis of the wrist.
(Quinquaud's patient. St. Louis Hosp. Museum, No. 1616.)

Trichophytosis is recognised by the circinate form of the lesions, which are vesicular or vesiculo-pustular at the margin, polycircinate by fusion of several circles, few in number and generally localised in one region.

The treatment consists in the application of iodine, which should be in weak solution when the lesions are inflammatory. Two parts of tincture of iodine to 4 parts of alcohol (60%) is suitable for ordinary cases, applied vigorously so as to decorticate the vesicular elements. In inflammatory cases the solution is diluted to 1 in 5

or 1 in 10 and alternated with moist dressings. The cure should not take more than three weeks, and in mild cases a week.

TRAUMATIC DERMATITIS.

Traumatic dermatitis arises on the hand and extends by the wrist to the fore-arm. In average cases the lesions occupy exactly the surface covered by a glove, and stop at the wrist. Traumatic dermatitis of whatever origin has no particular autonomy in the wrist. It is studied with the regions of the hand and fore-arm.

TUBERCULIDES.

The wrist is a seat of election for localised eruptions of tuberculides. Although these may differ morphologically in different cases, they all have a family resemblance, which renders them easily recognisable by anyone who has attentively studied a single case.

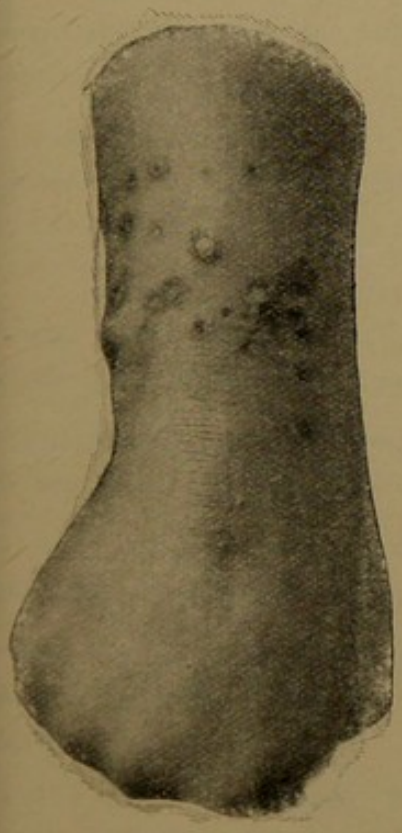


Fig. 138. Papulo-necrotic tuberculides (acnitis). (Besnier's patient. St. Louis Hosp. Museum, No. 1508.)

They are constituted by papular elements of a brownish purple colour, which leave cicatrices surrounded by hyperpigmentation. They are papulo-necrotic eruptions, with a crust in the centre of the retrogressive papules. The red or purple papules and the brown cicatricial traces of former erosions, mixed together in an irregular group, constitute for the tuberculides, in this region especially, a characteristic appearance. The long duration in the place of the eruption and the stigmata of tuberculosis support the diagnosis.

LICHEN PLANUS.

Lichen planus has no predilection for the wrist; it is a general dermatosis, but on the palmar surface it often pre-

sents its elementary characters perfectly. It often occurs here as a group of papules around a larger one. All the papules are reddish yellow or violet, flat, shiny and projecting for half a millimetre above the surface. The larger elements are intersected by fine white lines included in the thickness of the papules themselves, and quite pathognomonic. But the eruption has always a tendency to become generalised and cover the entire body and limbs.

THE BACK OF THE HANDS.

The back of the hands presents a different pathological dermatology to that of the palmar surface.

In the child and adolescent is seen the purple erythema due to cold which is accompanied or not by true chilblains, fissures and rhagades	Erythema pernio. Chilblains. Fissures . . . . . p. 335
In the child and adult occur attacks of erythema known as erythema multiforme	Erythema multiforme . . . . . p. 336
In adolescence, or in adult age, may occur the diverse forms which local tuberculosis may effect; warty tuberculosis and anatomical tubercle . . .	Verrucose tuberculosis . . . . . p. 336
. . . And true lupus in its three forms; flat, raised and ulcerative; the latter leading to mutilation	Lupus . . . . . p. 337
With local tuberculosis, we shall deal with angiokeratoma, multiple verrucose nævi, on the back of the fingers and hands	Angiokeratoma of Mibelli . . . . . p. 338
. . . And especially with the eruptive tuberculides (acne cacheticorum) and the deformitics of the hand which may accompany them	Tuberculides . . . p. 338
I shall say a few words concerning leprous hands in mutilating leprosy	Lepra . . . . . p. 339
. . . and sclerodactylia, although it begins on the fingers and becomes generalised over the body	Sclerodactylia . . p. 339
The hand is a seat of election for the achromic patches of vitiligo, without vitiligo being limited to this region	Vitiligo . . . . . p. 340
Also for melanodermia, which, in general is more marked on uncovered regions	Melanodermia . . p. 341
Xeroderma pigmentosum, which is a kind of malignant lentigo, is localised exclusively on the face and hands	Xeroderma pigmentosum . . . p. 341

The hands are the seat of election of traumatic dermatites of external origin . . . . . } Traumatic dermatitis . . . . . p. 341

The back of the hands present also a singular form of nummular eczema, which may be primary or secondary . . . . . } Nummular eczema p. 342

Attacks of dyshidrosis are also seen on the back of the hands more than elsewhere . . . . . } Dyshidrosis . . . . p. 344

The hand is one of the seats of election of scabies, and we shall consider the symptoms which it presents . . . . . } Scabies . . . . . p. 344

The back of the hands is also one of the seats of election of follicular trichophytosis, called Kérion Celsi . . . . . } Kérion Celsi . . . . p. 346

The vesicular, eroded or crusted elements of impetigo contagiosa are often seen here . . . . . } Impetigo contagiosa . . . . . p. 346

. . . Also furuncles, carbuncle and peri-furuncular abscess . . . . . } Furuncle . . . . p. 347

The back of the hands is one of the seats of election of malignant pustule, or charbon . . . . } Malignant pustule p. 347

. . . also of Oriental boil, named after different regions—Biskra button, Aleppo boil, annamite ulcer, etc. . . . . . } Oriental Boil . . . . p. 348

. . . also of common warts and flat warts . . Warts . . . . . p. 349

Pellagroid erythema, with œdema and shedding of the horny epidermis, is localised typically on the back of the hand . . . . . } Pellagroid erythema . . . . . p. 350

In conclusion we shall say a few words concerning œdema of the hand, which is so common in dermatological and other morbid states . . . . } Oedema . . . . . p. 351

. . . and atrophic telangiectasic dermatitis of the hands in persons exposed to the action of the X-rays . . . . . } Chronic X-ray dermatitis . . . . . p. 351

ERYTHEMA PERNIO. CHILBLAIN.

The name of this erythema indicates its nature. It is due to cold. It forms an enormous chilblain on the back of the hand, sometimes extending to the fingers; at other times it accompanies distinct chilblains of the fingers.

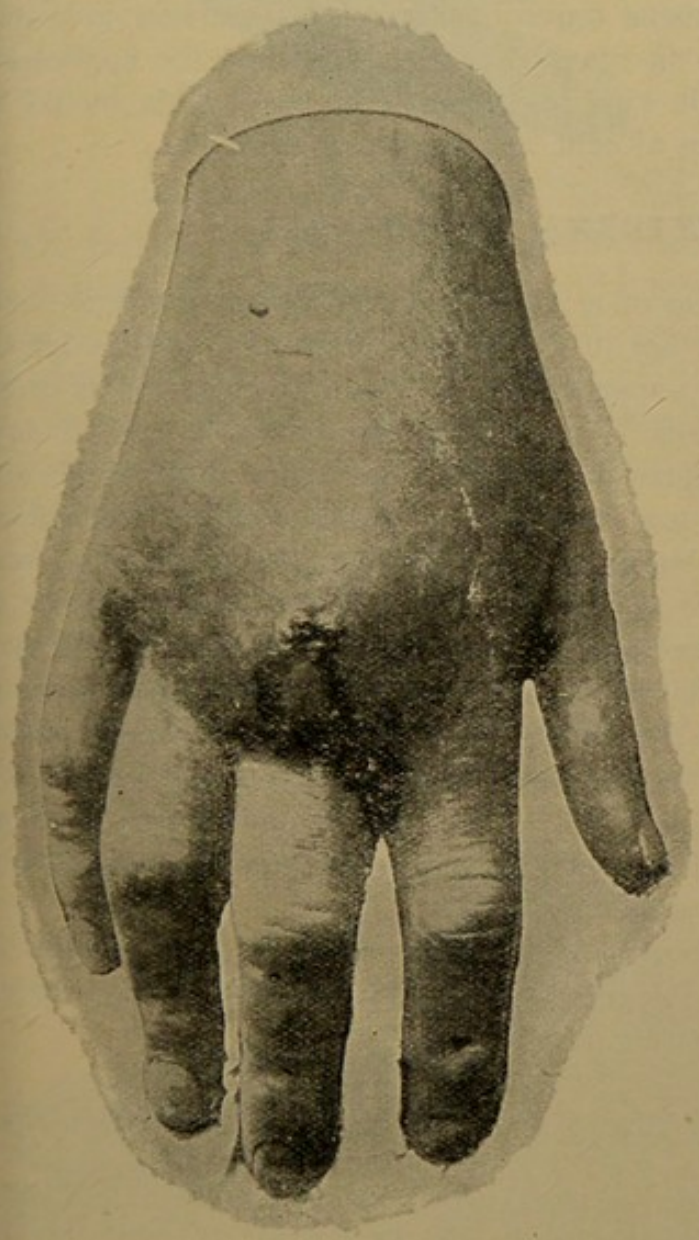


Fig. 139. Erythema pernio. (Besnier's patient. St. Louis Hosp. Museum, No. 636.)

Erythema pernio occurs in the form of a massive œdema. The dorsal surface of the hand is swollen and red, with wrinkled and desquamating epidermis. The epidermis may even be phlyctenular (Fig. 139). The hand is cold.

This form of erythema, like chilblains, is of obscure origin; bad circulation, and ill-defined causes under the names of lymphatism and scrofula.

General treatment is tonic, with iodine. Locally, glycerine dressings.

FISSURES. RHAGADES A FRIGORE.

Cold in certain subjects causes chilblains or erythema pernio; in others it determines painful fissures (chaps), which bleed on the least movement. They are especially common and painful in those subject to manual labour requiring frequent immersion in water.

Treatment consists in removal of the cause and the application of glycerole of starch with resorcine (1 in 30). This should be continued till cessation of cold, and applied every night.

ERYTHEMA MULTIFORME.

The seats of election of erythema multiforme are the wrists and ankles, the dorsal surface of the hands and fingers, and the lateral surface of the neck. It appears to be a toxic erythema, usually originating from the tonsils. It often appears suddenly 4 to 8 days after a slight pharyngitis, occurring on the backs of the hands and wrists in the form of rose-lilac spots, generally circular, in the form of a rosette; with a bistre centre, a livid middle zone and a rose-coloured border. This eruption, which includes 10 to 15 patches of different sizes, but all similar, is complete in 2 or 3 days with very slight local phenomena; sometimes slight arthralgia and shivering. It persists for 5 or 6 days, after which the spots fade away in the order of their appearance. It may be very benign and limited to a few rose-coloured spots without the rosette appearance; or more severe, with peeling of the epidermis. In some cases the spots become phlyctenular or bullous (p. 604)

Local treatment is palliative and symptomatic, and consists in powders and pastes. The tonsils must be treated if the angina recurs, for the erythema often recurs with it.

VERRUCOSE TUBERCULOSIS. ULCERATIVE TUBERCULOSIS.

External tuberculosis is most often contracted by a phthisical subject from contact of the hand with the saliva. It occurs on the back of the hand in the form of an irregular lesion with a dry papillomatous and warty surface; easily excoriated, slightly painful and slowly extensive. It forms the "anatomical tubercle" of the hand. Sometimes the surface tends to ulceration; sometimes even mutilating ulceration.

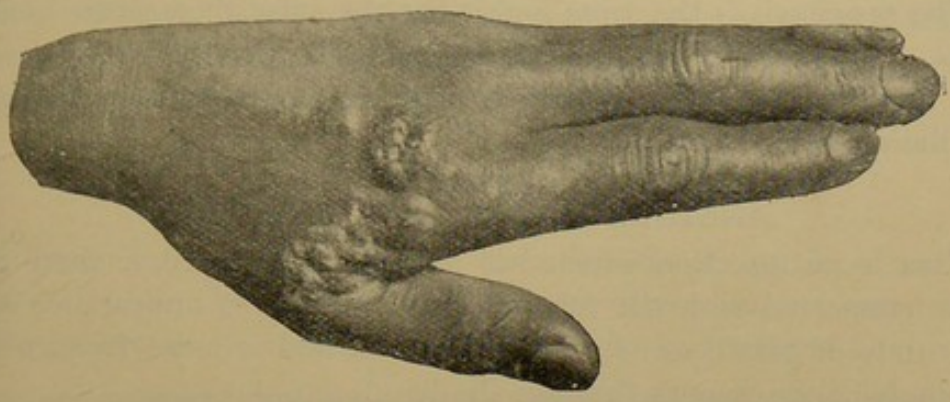


Fig. 140. Anatomical tubercle.
(Besnier's patient. St. Louis Hosp. Museum, No. 936.)

The first form is the less severe and is cured by the sharp spoon. If it recurs the galvano-cautery may be applied. The ulcerative form is more severe. Destruction by the galvano-cautery was hitherto the best method of treatment, but required extensive application to prevent recurrence. Phototherapy heals these forms of ulceration, and surgical methods should only be used when phototherapy is inapplicable (p. 21).

LUPUS VULGARIS.

Besides the above forms, the hand, like other uncovered regions, is often attacked by lupus vulgaris. It occurs in three forms: intracutaneous and non-exuberant; exuberant and fungating; ulcerative and destructive. It has the same characters and evolution as lupus of the face (p. 20).

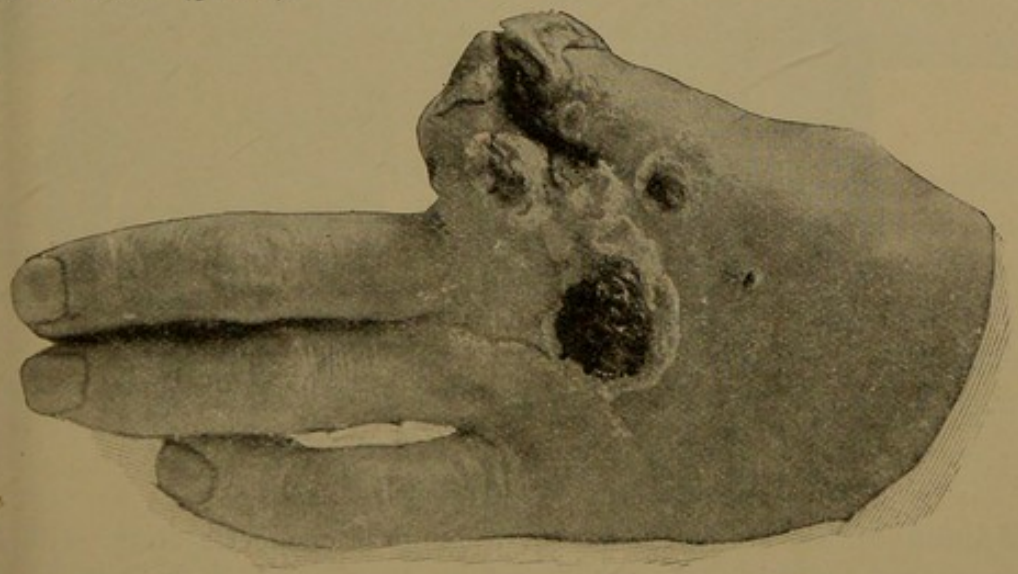


Fig. 141. Mutilating lupus. (Besnier's patient. St. Louis Hosp. Museum, No. 943.)

The prognosis is the same and it has the same therapeutic indications. Intervention should not be delayed, because impotence of the hand occurs rapidly, and sometimes the ulceration becomes mutilating (Fig. 141).

ANGIOKERATOMA OF MIBELLI.

This is an affection which has a tendency to become more and more connected with the tuberculides. It has the appearance of a multitude of small, stellate vascular nævi, and is more frequent on the back of the fingers than on the hands (p. 365).

ERUPTIVE TUBERCULIDES.

Tuberculous infection may manifest itself only by a more or less generalised eruption of papular tuberculides. The tuberculous

Fig. 142. Papulo-necrotic tuberculides in a child. (Sabouraud's patient. Photo. by Noiré.)

affection of the subject leads to a general cachectic state, with a generalised eruption of papular tuberculides, analogous to those of the wrist.

This condition requires no local treatment and the general treatment is that of tuberculosis in general.

The bones were shown to be normal by radiography.

LEPRA.

Although this book avoids almost completely the study of exotic diseases, leprosy plays too important a part in general and cutaneous pathology for its characteristic lesions not to be mentioned.

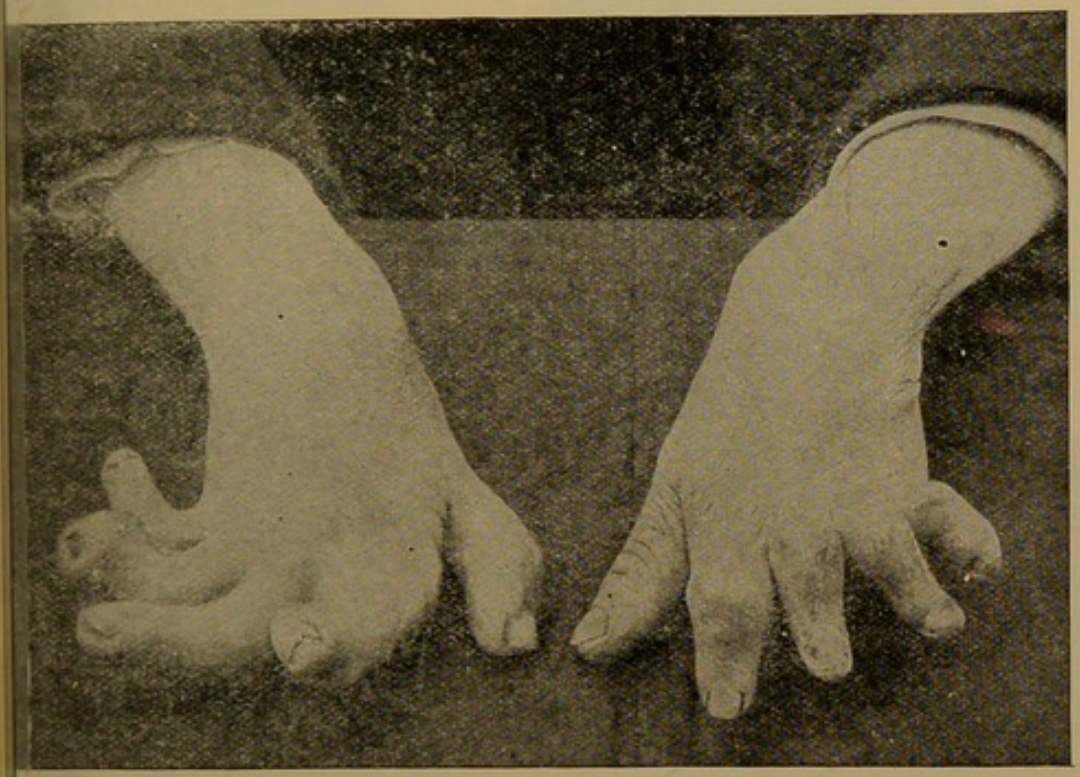


Fig. 143. Mutilating leprosy of the hands.
(Jeanselme's patient. Photo. by Noiré.)

The tendinous, arthropathic and osseous lesions of the extremities are too well shown in the figure to require explanation. The lesions may be only deforming, or at the same time deforming and ulcerative. In any case when this period has arrived diagnosis has long been made by the cutaneous eruptions, nervous disorders and facial lesions, which will be considered later on with the disease in general (p. 655).

SCLERODACTYLIA.

Sclerodactylia commences on the hands and fingers, but is not localised to these parts. Its history will be given with the general

dermatoses (p. 615). It generally begins in women about the fortieth year, by a hard thickening of the skin of the fingers, like a hard œdema or a pachydermia, the skin appearing yellow, with the colour and semi-transparency of old wax. This condition gives rise to fibrous contraction of the dermis, and while the hand is still in the first stage of the disease and appears round and plump, the fingers have become spindle shaped.

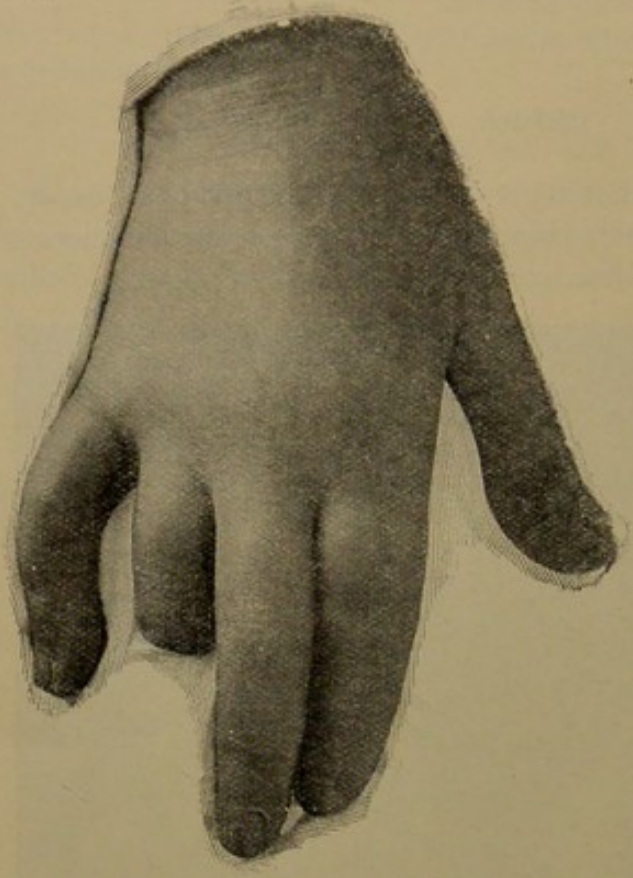


Fig. 144. Sclerodactylia. (Quinquaud's patient. St. Louis Hosp. Museum, No. 1193.)

The course of the disease is very slow. It causes atrophy of the phalanges and successive loss of the ends of the fingers. The half absorbed bone of the phalanges often remains surrounded by a circle of soft fungosities (Fig. 165). The disease ends always in cachexia and death. No treatment is of any avail.

VITILIGO.

The hand, like the face, is one of the seats of election of *vitiligo*. The general history of this affection will be considered later (p.). It is characterised by large irregular patches of white skin, surrounded by an excentrically diminishing zone of hyperchromia. The disease is slow in evolution and

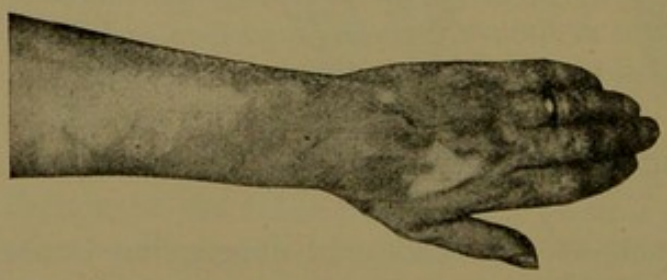


Fig. 145. Vitiligo of the upper limbs in a syphilitic. (Darier's patient.)

allied to dyscromia and melanodermia. It is often impossible to discover a cause for vitiligo, but it may follow syphilis and other infections and also trauma.

MELANODERMIA.

Melanodermia will be studied in the chapter on Dyschromia, with the general dermatoses, although most cases have a predilection for the head, neck and hands. The best known example of this class is *Addison's* disease.

XERODERMA PIGMENTOSUM.

This is a malignant, consanguineous and hereditary lentigo, occurring especially on the face and the back of the hands. It has been described in the section of the face.

Fig. 146. Xeroderma pigmentosum. (Quinquaud's patient. St. Louis Hosp. Museum, No. 1464.)

The dermatosis consists in a series of innumerable hyperchromic spots, which increase in number from year to year. Some of the spots atrophy and are replaced by a cicatrix, others give way to epithelial or sarcomatous degeneration, some of which are eventually fatal.

TRAUMATIC ECZEMA. OCCUPATIONAL DERMATITIS.

Workmen are exposed by a number of manual occupations to traumatic dermatitis, which is characterised by having its maximum intensity on the hands and wrists, and diminishing progressively on the fore-arm. The chief victims are cooks, washerwomen, photographers, printers, masons, etc. The traumatism may be due to too frequent immersion in soapy water, or result from contact with chemical agents, such as chalk, turpentine, pyrogallic

acid, etc. The lesions are always polymorphous and include all the elements of eczema; open miliary vesicles, exudation from the surface of an epidermis deprived of its superficial horny layer, thin serous, papery crusts; also miliary staphylococcic pustules, which may form the major part of the eruption, or be rare and secondary. Lastly, under the crusts, when the lesions are very exudative, is seen the thin lilac coloured fibrinous exudation, which is characteristic of the presence of streptococci, which can easily be proved by cultivation (p. 9).

Treatment consists in suppression of the traumatic cause and the application of moist dressings. After a few days the lesions may be covered with zinc paste, till the cure is complete.

It must be borne in mind that the same traumatisms do not create the same forms of dermatitis in everyone, but are reproduced almost constantly in the same subject. These subjects have a skin originally mediocre, or for some unknown cause are predisposed to eczema. As a rule, occupational dermatitis are anatomically true eczemas, artificially provoked and frequently covered by secondary infections.

ECZEMA IN TRICHOPHYTOID PATCHES. DYSHYDROIC ECZEMA.

These two names designate the same clinical species; an eczema of chronic and recurrent evolution and very rebellious. It is fairly common and should be well known. The primary element is a large vescicle more analogous to those of dyshydrosis than to the much finer ones of eczema in other situations. These vesicles are as large as a grain of barley, clear, hard and tense. They are disseminated on the back of the hands and fingers, on the lateral surfaces of the fingers near their roots, on the borders of the hand, in the interval between the thumb and index finger, on the inner border and back of the thumb and on the thenar eminence, especially near the wrist. These vesicular eruptions may have been provoked by some professional traumatism, in dyers, photographers, etc. They are extremely irritating and subinvolutive and may recur during several months.

Eventually the vesicles form more or less circinate placards, which

gradually assume a ringworm aspect, so marked as to frequently lead to errors in diagnosis. The smaller patches are less trichophytic in appearance, and form incomplete circles, the size of a shilling, with a young, incomplete, red and shiny epidermis. These small patches are bordered with budding vesicles, some of which are open, exposing the red epidermis beneath. The larger cyclic or polycyclic placards on the back of the hand are flat and uniform (two characters eliminating trichophyton), red and shiny. They are slightly elevated and covered with vesicular erosions in different stages, and circled with irregularly disposed vesicles, some open with a red base, others entire.

This form of eczema may accompany a more or less generalised eczema of the body; but more often it occurs alone in the extremities. It is more common on the hands than on the feet, although it may occur in both at the same time. This eczema, with its periods of resolution, fresh outbreaks and periods of quiescence, may last for years if the traumatic cause persists, or if it is not properly treated. Moist dressings and protective pastes cause no improvement, and nitrate of silver only temporary amelioration. Chrysarobin is the drug indicated in this case, and this fact alone suffices to give the affection a distinct personality.

Fig. 147. Dyshydrosis. (Hallopeau's patient. St. Louis Hosp. Museum, No. 990.)

An ointment with 2 per cent of chrysarobin is used at first, with oxide of zinc; later on it may be increased to 3 per cent. In the case of a single patch, recurring in the same place, I have obtained a cure, which lasted for four years, by puncture with the galvano-cautery.

DYSHYDROSIS.

Dyshydrosis is characterised by the appearance of a symmetrical eruption of round clear vesicles, on the back of the hands and their borders, causing much smarting and itching. This eruption may be limited to the borders of the fingers, but is more often generalised on the dorsal surface of both hands. It sometimes occurs on the wrists, fore-arms and feet. It differs from eczema by its absolute symmetry, its sudden appearance, the size of the vesicles, their difficulty of rupture, the cessation of acute phenomena in a few days, and in the retrogression of all symptoms in one or three weeks.

The vesicles resemble a grain of tapioca inserted "between the skin and the flesh," they are not easily ruptured and contain a clear alkaline liquid, which is not viscid like that of eczema. Sometimes the eruption is discrete, sometimes confluent; in the latter case it resembles the artificial traumatic eruptions.

Dyshydrosis is more common among the ephidrotics (p. 353) and occurs generally in spring and summer. It is not caused by retention of sweat in the sweat canals; but its true cause is unknown. It may or may not be recurrent. It always proceeds in the same way by acute attacks, accompanied by functional symptoms, terminating by more or less desquamation.

Treatment by emollients and protective pastes is purely symptomatic. There is no satisfactory internal treatment.

SCABIES.

The localisation of scabies to the wrists, hands and fingers on both their surfaces is one of its chief characteristics. It may occur in two forms; simple and pustular, the latter being more common in the child or adolescent. When scabies is of moderate intensity its primary situation is in the interdigital spaces, in which place a certain number of vesicles in different stages, and scratch marks are found. If the palmar surface of the wrist and hand are examined similar lesions will be found, and the characteristic burrows.

The burrow, which often occurs on the lateral surface of the fingers, resembles a short worm track in wood, and forms a narrow grey irregular line in the horny epidermis, often having a vesicle at

its extremity. The presence of burrows is charactristic, especially on the palmar surface, where they are most frequent, and where most diseases resembling scabies (except prurigo) never occur.

In severe and pustular scabies diagnosis is made not only by the elementary lesion, but by the topography of these lesions united in the interdigital spaces, around the fingers and wrists. Search should be made in other localisations of scabies; the front of the axilla, the elbow, the waist and penis, etc. The head and neck are never affected.

Fig. 148. Scabies Polymorphous symptomatic eruption. (Guibout's patient. St. Louis Hosp. Museum, No. 391.)

The pustular form results from inoculation with true streptococcic impetigo and with the staphylococcic pustular impetigo, in the burrows and vesicles. These repeated inoculations cause a varied appearance. They are carried everywhere by scratching and may create ulcerative lesions (ecthyma). An impetigo of the extremities should always suggest scabies.

The treatment of scabies will be described with the general disease (p. 537). Sulphur ointments form the best applications. According to the degree of secondary infection the pustules are scrubbed, ut the process is very painful; "scrubbing acts on these impetigos like a cataplasm" (*Tenneson*). In cases which are very pustular the impetigo is treated first by the usual methods (p. 10).

TRICHOPHYTOSIS.

It is rare to see ringworm on the back of the hands, except in the form of Kérion (p. 158). Kérion is a trichophytosis of equine origin in the form of folliculitis, grouped in circular patches, and has exactly the same localisation as the nummular "trichophytoid eczema" described above.

Kérion of the back of the hand may assume an enormous development, forming a patch two inches or more in diameter. It is always rounded, elevated, with sloping edges and a red surface, covered with crusts, or follicular pustules. The surface, after cleansing with moist dressings for two days, appears as if riddled with holes, the size of a pin's head; the remains of evacuated pustules. The functional symptoms are slight and distinguish it from carbuncle. The occupation of the patient (groom, saddler, veterinary surgeon) suggests the equine origin.

Cultures may easily be obtained, by smears of pus from unbroken pustules on saccharated gelose peptone (4 per cent), in the form of rays "sprinkled with plaster" (*Trichophyton gypseum*). Microscopic examination of the pus shows an easily recognisable mycelium. Examination of the hairs is more difficult.

Treatment consists more in the application of cataplasms and moist compresses than in antiseptics, and the latter must be very dilute. Tincture of iodine (10 per cent) applied daily leads to a cure in a fortnight.

IMPETIGO CONTAGIOSA.

Common impetigo contagiosa is characterised by flat phlyctenules, generally broken, emptied of their contents and shrivelled. Other elements have lost their horny epidermis, forming flat, oval, crusted exulcerations. These elements are situated on the back of the hands and fingers or around the wrist. They nearly always accompany a more characteristic impetigo of the face, or a periungual whitlow (p. 376). The elements do not remain long in the same place. Each lasts for 8 or 10 days, but the eruption may be prolonged by the development of fresh phylctenules. These arise as small, soft vesicles which develop into large phlyctenules, filled with slightly turbid fluid.

When the eruption is particularly severe (acute benign pemphigus of certain authors), the exulcerations left by the phlyctenules may be as large as a sixpence. They exude a serum which forms a thin crust on the surface and is removed by the least touch.

It is a contagious affection, especially in children, and may become epidemic; in which case it is first inoculated on uncovered regions, but may in some subjects cause generalised but always discrete eruptions. For treatment see page 10.

FURUNCLES. CARBUNCLE. FURUNCULAR ABSCESS.

Like all regions exposed to traumatism, the back of the hands may present furuncles and sometimes carbuncle. Furuncle is generally preceded by a follicular pustule which may remain undetected, after which functional symptoms develop in proportion to the size of the lesion. Local heat, smarting and pain are severe; progressive redness follows, and the furuncle becomes acuminated, with visible suppuration at the summit.

After 3 or 5 days a greenish yellow necrotic core is expelled and the symptoms subside and disappear. When other lesions are produced around the first inflammatory focus a carbuncle is produced. This is seldom of great size, but the pain and inflammatory symptoms are very marked. The tumour is the size of a small nut; sometimes as large as a small orange and then gives rise to considerable œdema and lymphangitis.

Treatment should be at first abortive, by means of the galvano-cautery, applied to the follicle which is the centre of the lesion. Afterwards moist dressings are applied. When a carbuncle appears each "head" should be pierced deeply with the galvano-cautery, so as to open the lesion extensively. A peri-furuncular abscess generally evacuates itself by the open follicle. If there is a tendency to coalesce an incision, with drainage and antiseptic dressings, is required.

MALIGNANT PUSTULE.

Malignant pustule, or charbon, will be described here because its usual situation is on the back of the hands. It may also occur on the face and always attacks the uncovered regions. Inoculation is

more frequent among leather dressers, knackers, veterinary surgeons and horn workers. The anthrax spores are known to resist months of dessication, and during the cutting up the horns are always soiled with the animal's blood. "Malignant pustule" is not a pustule, but a brownish red phlyctenule, very pruriginous and soon broken, leaving a yellow exulceration. The next day a scar is seen occupying the summit of a large acuminated tumour 2 inches in diameter and of a purple colour. When the pustule is irritated a ring of vesicles appears round the scar, and the floor of each vesicle forms a new scar. The prognosis is serious because general infection is imminent. The development is described on page 595.

As a rule malignant pustule tends to spontaneous cure. In the 3 or 4 days following the appearance of the scar a large sequestrum of connective tissue is formed, as large as a nut, which is eliminated like a gumma. After this the local symptoms improve.

Antiseptic treatment, such as injections of 1 per cent carbolic acid round the tumour, appears to be of doubtful value. The permanent warm bath seems to be the best application. Local scarification may be performed if the tumour enlarges.

Extensive removal of the tumour with the galvano-cautery, and also injections of iodine (liquor iodi of *Gram*) in the surrounding tissues, have been proposed. Prognosis depends on the course of the temperature. Although spontaneous cure is the rule, the percentage of deaths is considerable.

BISKRA BUTTON. ORIENTAL BOIL.

Biskra button, Aleppo boil, Annamite ulcer, etc., are synonymous terms for what appears to be the same affection. The cause is evidently parasitic, but unknown.

The lesion forms a chronic ulcer, the evolution of which takes a year to 18 months. Those seen in Europe are always undergoing spontaneous resolution. They are generally situated on the hands, legs and face.

The ulcer has a reddish brown base with hard, sharply cut and irregular edges. Around the ulcer the skin is mammillated, resembling that of chronic dermatoses of the leg, often pigmented and

scaly. When the ulcer has healed it resembles a commencing tuberculous lupus, with its yellow tubercles enclosed in the skin.

The various forms of treatment in use in tropical countries where Oriental boil is endemic, do not appear to be of much value. In

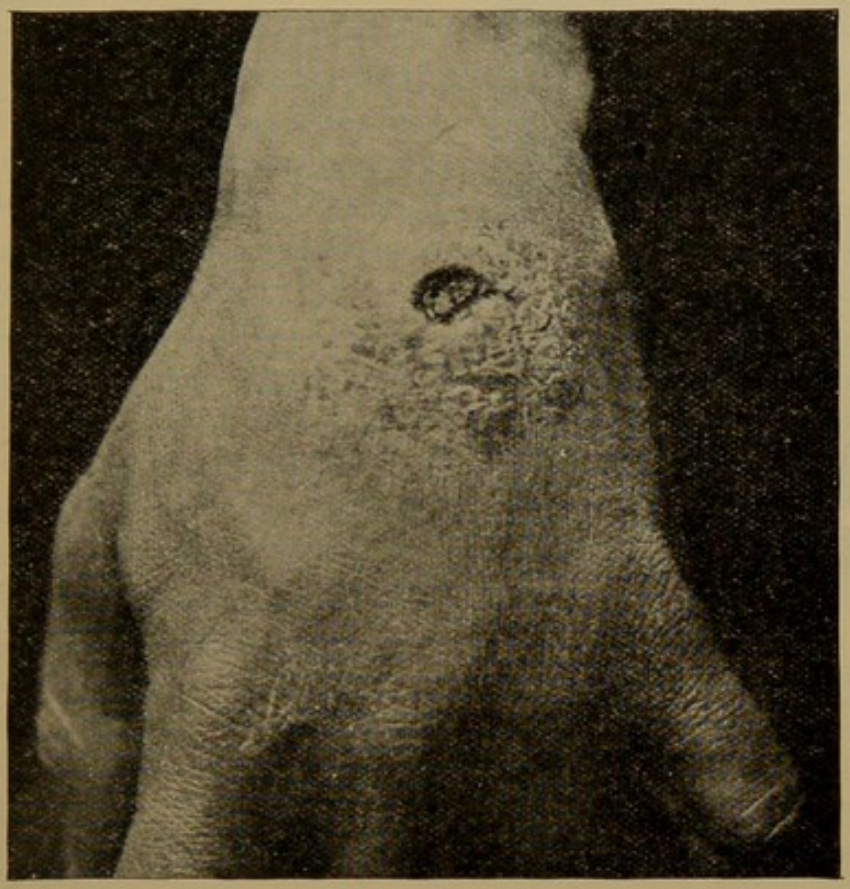


Fig. 149. Biskra button.
(Jeanselme's patient. Photo. by Notré.)

France they are treated as simple chronic ulcer with ointment of sub-carbonate of iron (1 in 40) ; but they also heal spontaneously.

SIMPLE WARTS.

Warts are common on the back of the fingers and hands, but rare on the palmar surface. A wart forms a small, hard, irregular tumour, with a mammillated or villous surface. It is reinoculable in the same subject and sometimes forms groups of several elements which may interfere with function. Peri-ungual warts are painful. Warts are not simple horny tumours, for they bleed if abraded.

Fig. 150. Common warts. (Jacquet's patient. Photo. by Dubray.)

Treatment consists in the use of caustics. Fuming nitric acid applied drop by drop to the top of the wart and continued till pain is felt is a good method when the warts are not numerous. The galvano-cautery, although more painful, is preferable if the warts are numerous; followed by the application of chromic acid (1 in 5) two or three times a week. Flat juvenile wart, which simulates some forms of nævi or certain eruptions of lichen planus, may occasionally be seen on the back of the hand, as on the face. (See p. 119.)

PELLAGRA AND PELLAGROID ERYTHEMA.

Pellagra is a disease of Spain and Italy and is not seen in France. It is a chronic intoxication caused by the use of diseased maize and characterised by anæmia and cachexia, burning sensations in the mouth; and by a peculiar sensibility of the skin, especially of the backs of the hands, to the actinic rays of the spectrum. Pellagrous erythema would thus appear to be a solar erythema occurring in the subjects of intoxication having a sensitive skin.

Pellagrous erythema hence only differs from pellagroid solar erythema by the intensity of the local phenomena which accompany it. The back of the hand is red, swollen and sensitive; the skin is tense and the horny epidermis often raised in bullæ or phlyctenules filled with clear, turbid or brownish serum.

Pellagroid solar erythema is quickly cured by the application of emollients. It lasts for a week or more. Pellagrous erythema lasts longer because pellagra is a disease of the poor; because it is not treated and because the causes persist. In France what is incorrectly termed pellagra includes pellagroid erythema in intoxicated,

broken down, and overworked subjects who have exposed their hands to the sun.

OEDEMA OF THE HANDS.

All acute cutaneous irritation is accompanied by œdema of the back of the hands; solar erythema, traumatic dermatitis, etc. Oedema of the hands may accompany some cachexias, and in this case the lower limbs are always more œdematous than the upper. The œdema may depend on local affections of circulation of inflammatory origin; but then the local cause is evident and the œdema only exists on one side.

Reflex and trophic œdemas have been observed in several nervous diseases; tabes, general paralysis, syringo-myelia, etc. Hysterical œdema is the best known of these. It only occurs in confirmed neuropathics and is generally bilateral and chronic, disappearing suddenly after years. The œdema is hard and colourless; the skin retains the impression of the fingers for several hours, and is cold but of normal colour. There is often loss of power in the limb and the nails may show dystrophic stigmata.

The treatment of œdemas varies with their cause too much to be considered here.

X-RAY DERMATITIS.

This is now a well known accident which has affected all the first operators concerned with radiotherapy. These accidents are not now seen since the necessity of enclosing the tube in an insulating metallic coat is understood.

X-ray dermatitis is an atrophic and telangiectatic dermatitis of the hands and fingers. The skin is smooth and white, and appears too tight on the finger. The natural folds have disappeared. Varicosities arise in the atrophic skin as in the skin of acne rosacea. Here and there a more or less marked warty condition develops, usually a benign epithelioma, but one which sometimes necessitates amputation of one or more fingers.

The following ointment may be used:—

Chlorate of potash	50 centigrammes	gr. 8
Oxide of zinc	5 grammes	gr. 80
Vaseline	30 "	ʒi

THE PALM OF THE HAND.

The palm of the hand is a region of which the dermatological history is important, and presents for consideration two congenital affections:

The one, ephidrosis, is a functional disorder, constituting hypersecretion of sweat . . . . . . — Ephidrosis . . . . p. 353

The other is symmetrical hyperkeratosis of the extremities, which is differentiated by its hereditary and congenital character from the diverse palmar hyperkeratoses which we shall consider later . . — Keratodermia palmaris . . . . . p. 353

I shall next consider the palmar lesions of scabies; simple and pustular . . . . . . — Scabies . . . . . p. 354

. . . and the simple staphylococcic pustules of the thick epidermis . . . . . . — Staphylococcic pustules . . . . . p. 355

. . . and the streptococcic bullæ of phlyctenules of the same localisation . . . . . . — Streptococcic phlyctenules . . . . . p. 355

Trichophytosis, which assumes a peculiar appearance in the palm of the hand, will occupy our attention next . . . . . . — Palmar trichophytosis . . . . . p. 356

Syphilis causes a secondary hyperkeratotic papular eruption in the palm of the hand . . . . . — Secondary Syphilides . . . . . p. 357

. . . and tertiary lesions, often of difficult diagnosis . . . . . . — Tertiary Syphilides p. 358

There is a palmar and plantar keratodermia of adults, having the appearance of congenital symmetrical keratodermia but without its chronicity . — Palmar keratodermia of adults . . p. 359

Chronic arsenic poisoning creates a palmar keratodermia which differs from all others by its etiology and by certain objective characters . . . . — Arsenical keratodermia . . . . . p. 359

Palmar psoriasis, in spite of its somewhat special characters, is diagnosed chiefly by the co-existence of a typical psoriasis in other regions . . . . . . — Palmar psoriasis p. 360

Chronic palmar eczema, which is very hyperkeratotic, is always accompanied by eczema of the fingers and the peri-ungual region . . . . . . — Eczema palmaris . p. 360

Certain manual occupations determine local keratodermias, liable to certain complications . . — Callus . . . . . p. 361

I shall conclude by a few words on local affections which are rarities, for example the fleshy pedunculated tumour of botriomycosis . . . . . Botriomycosis . . p. 362

. . . the palmar localisation of Darier's disease Darier's disease . p. 362

. . . and the contraction of the palmar aponeurosis which a superficial examination may mistake for a dermatological disease . . . . . Contraction of the palmar aponeurosis . . . . . p. 363

EPHIDROSIS.

Ephidrosis, or hyperidrosis, is an exaggeration of the sudorific function. This phenomenon is not rare on the palmar surface of the hands and the plantar surface of the feet. It varies in degree from moistness of the hand up to actual streaming of sweat. The latter degree is most distressing for the patient.

The hands are usually cold and affected with evident circulatory or vaso-motor troubles. The patient often has other local abnormalities, such as spontaneous sub-luxation of the thumb, excessive extension of the fingers, etc.

This affection is almost without any remedy. All those indicated are palliatives: powdered tannin; powdered oat-meal; oxide of zinc or talc, etc., used together or separately. The action of high frequency currents is not proved, or at any rate is not constant.

Ephidrosis may occur in childhood, but becomes increased with age. It appears to retrogress in old age; but, nevertheless, remains during nearly the whole of life, as a constant trouble to the patient. Many cutaneous affections of the hand, such as eczema, often coexist with ephidrosis.

PALMAR AND PLANTAR KERATODERMIA.

This is a congenital deformity, consanguineous and hereditary. It is more frequent in certain countries and villages where marriage is common between relatives. When it is very pronounced it is observed during the first weeks or months of life; when less marked it appears towards the 4th or 5th year.

The palmar surface of the hands and fingers is covered with a horny carapace, which, in marked cases, may attain the thickness of

about a quarter of an inch. It appears to consist of one piece and the folds of normal skin become deep fissures, dividing the mass like a mosaic.

This condition, with individual variations, improves in the summer and increases in the winter. During the winter the fissures may penetrate the epidermis and bleed. Prognosis should be guarded, in spite of rare cases of improvement which have been reported. The functional loss of power may be considerable, but less than in palmar keratodermic eczema.

Fig. 151. Symmetrical congenital keratodermia.
(Besnier's patient. St. Louis Hosp. Museum, No. 1173.)

As in ichthyosis, treatment must be permanent and only leads to temporary objective and functional improvement. After softening the horny epidermis by moist dressings, pumice stone may be applied. Even on the hands maceration of epidermic debris in the fissures often exhales an offensive odour. This will be mentioned with plantar ephidrosis (p. 397).

SCABIES.

Scabies is one of the rare diseases which affect the palm with disseminated lesions; and in a moderately developed case it is rare for palmar lesions to be absent. The burrows are generally typical,

because occurring in a thick epidermis they are not altered by accessory lesions. These burrows are as thick as the stroke of a pen, irregular like worm tracks in wood, a fifth of an inch or more in length. Near one of their extremities there is often an acuminate vesicle. The palmar lesions are never seen without more marked and more polymorphous lesions on the wrists, the interdigital spaces and the back of the hand.

Pustular scabies (Fig. 148) is often accompanied by palmar pustulation. The vesicle becomes infected and forms a large staphylococcic pustule. A pustule on the palm of the hand may be purely staphylococcic (Fig. 152), and several pustules always signify scabies, and are accompanied by dorsal lesions represented in Fig. 148. The treatment is considered on p. 537.

STAPHYLOCOCCIC PUSTULES.

The staphylococcic pustule of the palm is rare; this region being doubly protected against the staphylococcus by its thick, horny

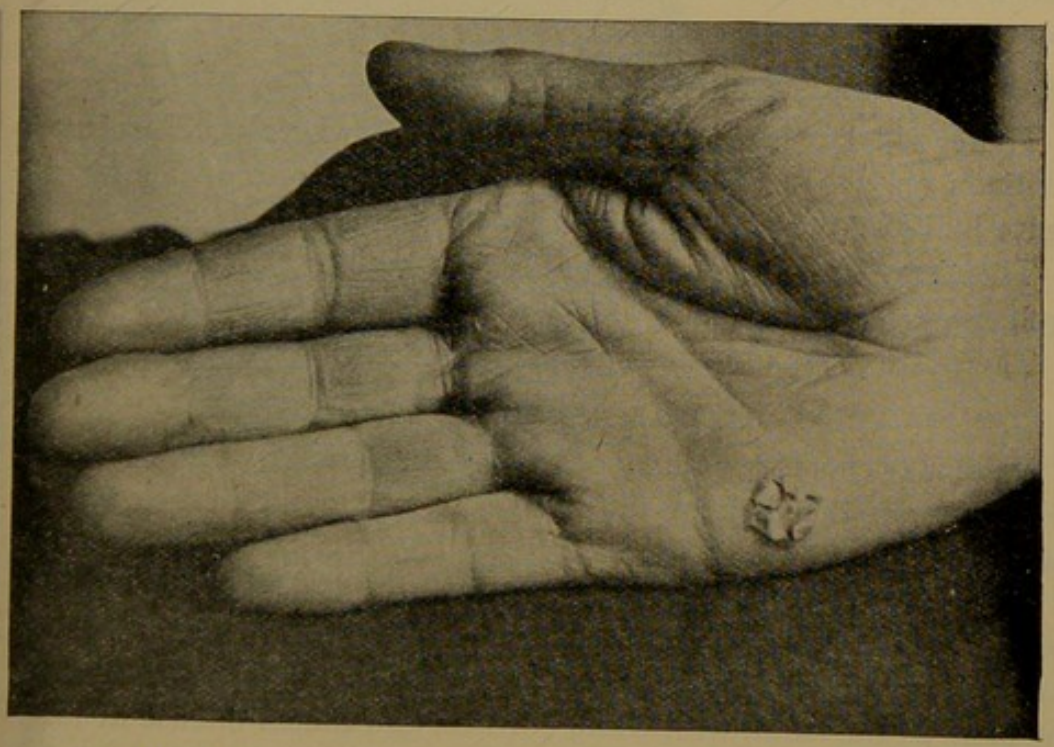


Fig. 152. Staphylococcic pustule consecutive to a septic prick. (Sabouraud's patient. Photo. by Noiré.)

epidermis, and by the absence of hair follicles. When such a pustule occurs it may also be seen on the fingers and hands.

It forms at first a round, flat phlyctenule from a fifth to two-

fifths of an inch wide, full of yellow pus, visible by transparency. This lesion, sometimes apparently spontaneous, is often consecutive to a traumatism, a septic prick or splinter, etc.

It may follow two courses; the phlyctenule may dry and is expelled by the renewal of the horny epidermis underneath it; or in the middle of its floor a deep hole may form; a button-hole abscess forms; local reactional symptoms occur, and sometimes even general symptoms. The pus of the deep abscess may invade the synovial sheath of the palmaris muscles. Some cases are benign, others severe.

If there is delay in opening the superficial pustule a considerable amount of pus may be expressed through the narrow opening by compressing the region. In this case surgical intervention is required.

This staphylococcic pustule at its outset is only the homologue, in a region devoid of hair follicles, of the impetigo of *Bockhart,* the deep sinous and consecutive abscess of which are represented by the peri-furuncular abscess, modified by the anatomical structure of the region.

STREPTOCOCCIC BULLAE.

These will be described with the fingers, where they are more common (p. 370). They have the same appearance on the hands; tense bullæ or phlyctenules filled with turbid serum.

They may be primary or secondary to scabies; but do not cause well marked symptoms.

The pustules should be opened and cleansed.

PALMAR TRICHOPHYTOSIS

Palmar trichophytosis may occur by inoculation *in situ,* or by extension from the back of the hand. It may occur in two forms; benign and severe.

The benign form originates from one of the common ringworms of the scalp in children. It may be seen in medical men, hospital attendants and epilators. It consists in a desquamation of the palm of the hand, with white borders, and causes intense itching. It may be cured by simply cleansing with soap and pumice stone, without the application of iodine. The more severe form is more regularly circular, with a smooth desquamated centre formed of young skin. The border of the lesion is formed of horny, raised and semi-detached epidermis. Around the lesion are closed vesicles

under the horny epidermis, visible by transparency. These are very pruriginous and indicate peripheral extension of the lesion. They do not project because they cannot raise the thick horny epidermis of the region.

In this case also scrubbing with pumice stone is more useful than antiseptics. This should be practised for a week till all the vesicles of the lesion are opened. Moist dressings assist in the process. When the lesion is thus reduced to the level of the skin, weak applications of iodine (1 per cent) complete the cure. Recurrence usually occurs if the cleansing has not been complete. When left to itself the duration of palmar trichophytosis is unlimited. I have seen one last for more than three years.

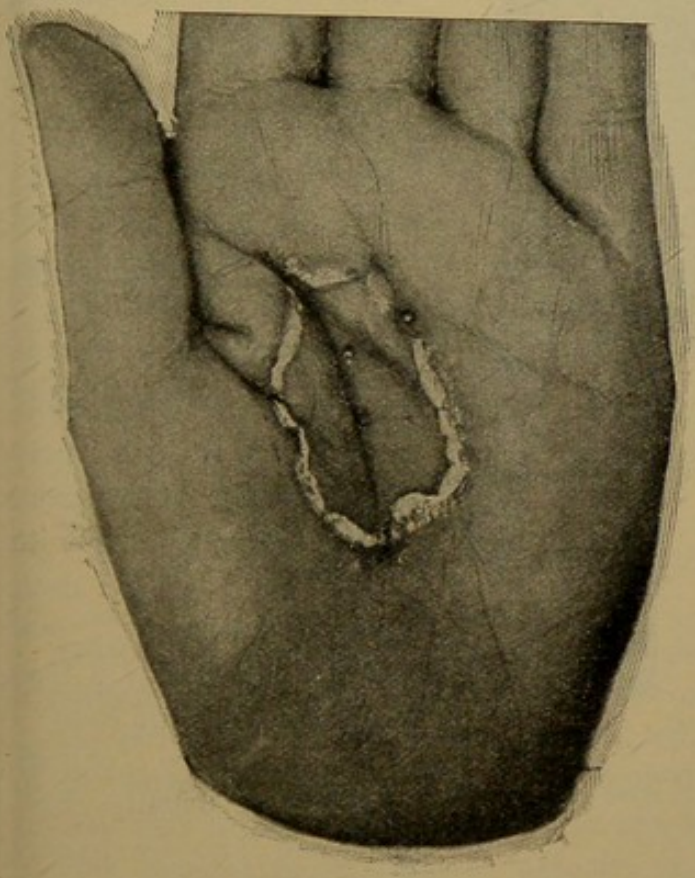


Fig. 153. Palmar trichophytosis. (Fournier's patient. St. Louis Hosp. Museum, No. 1650.)

SECONDARY SYPHILITIC ERUPTIONS.

Secondary syphilis, at the time of appearance of a general maculo-papular or papular eruption, creates papules in the palm of the hand. As there is no other maculo-papular eruption of the body which causes similar lesions in the hand the diagnostic importance of the palmar syphilitic eruption is considerable.

The palmar eruption differs according as the eruption on the body is discrete or abundant, and the papules slightly or strongly developed; but it is generally recognisable at first sight. The

papules are of a brownish colour and obviously situated under the horny epidermis, which is slightly raised over them. When the lesions are florid they are still more apparent, of a characteristic copper colour and visibly raised. This eruption is slow in disappearing. Later on the horny epidermis exfoliates over each papule and this trace of the past lesion differs so much from that of the fully developed lesion that the cause may not be recognised.

Fig. 154. Palmar psoriasiform syphilide. (Hillairet's patient. St. Louis Hosp. Museum, No. 54.)

TERTIARY SYPHILITIC LESIONS.

Tertiary syphilis, psoriasis and eczema may cause lesions of the palm which are impossible to distinguish from each other. However, I will attempt to portray a true clinical picture of each.

The tertiary palmar syphilide is usually characterised (1) by hyperkeratosis; (2) exfoliation; (3) a distinct red border on one side. The horny epidermis is much thickened around the lesion, and beyond the border which represents the active lesion. The exfoliation is irregular, white and lamellar. The border is formed of exfoliated lamellæ, more or less detached. The base of the lesion is not everywhere at the same level, but somewhat irregular. The lesion is bordered by a red, scaly margin; sometimes very clear, but absent in places. It is usually serpiginous. In the centre of the lesion spots analogous to this border may occur, and these cause irregularities in the surface.

The tertiary syphilide of the palm is generally unilateral, but not always, and every hyperkeratotic palmar lesion is not necessarily syphilitic because it is unilateral. It is unnecessary to insist on the importance in such cases of retrospective enquiry for former syphilitic lesions.

The treatment of a syphilis in which these lesions occur should always be intense: by injections of grey oil, etc.

PALMAR KERATODERMIA OF ADULTS.

The congenital palmar and plantar keratodermia described above (p. 353) may develop in a few months in the adult, usually in an attenuated form. It consists of irregular keratodermic masses, not of a uniform layer. Treatment by keratolytic solutions and ointments, and by salicylic plasters (1 in 20 to 1 in 5) are generally successful in a few months. The possible arsenical origin must be borne in mind.

ARSENICAL HYPERKERATOSIS.

Arsenical poisoning gives rise, in the palmar region only, to a hyperkeratosis having a remarkable resemblance to sclerodermia.

The skin is waxy yellow and so thickened as to render movements of the fingers difficult and painful. But the hyperkeratosis is not regular and is generally covered with characteristic horny nodules.

This hyperkeratosis, due to arsenic, is more common than is generally supposed. It may follow the absorption of a moderate dose of arsenic and develop in a few months; but more often it accompanies a chronic intoxication, the arsenic having been usually taken therapeutically. Many diseases which were treated internally by arsenic, at the time when arsenic was the internal drug for arthritis, as iodine was for scrofula, were observed to be accompanied by hyperkeratosis, which was due to the arsenic. Arsenical hyperkeratosis often develops after a local desquamative erythema. When once established it disappears very slowly after the arsenic has been discontinued. Its resolution may be hastened by artificial cleans-

ing. All palmar hyperkeratosis should be investigated with a view to the possibility of its arsenical origin.

PALMAR PSORIASIS.

Palmar psoriasis is often difficult to distinguish from the psoriasiform palmar syphilide just described, and even from hyperkeratotic eczema. The diagnosis is easy when the palmar lesion occurs in the course of a typical psoriasis, which is the usual case; but not otherwise.

The lesions generally begin at several points at the same time, in the form of thick, hard, brown, hyperkeratotic discs, which do not exfoliate till later. When the superficial horny layer is broken and removed the subjacent hyperkeratosis manifests itself by the exfoliation of a number of superposed micaceous lamellæ, which are so numerous and crowded as to appear compressed by a press. When these are removed they leave a kind of round cup, limited by a foliaceous hyperkeratotic border, raised and sloping externally. Nearly always *several similar lesions develop side by side* and after a time fuse together, forming an irregular lesion which continually exfoliates. Diagnosis is only made with certainty by the presence of lesions on the body, the back of the hand or the nails; when these do not exist the case is always doubtful.

The treatment is the same as for psoriasis in general, after complete cleansing. This must be done with great care, as the success of treatment depends on it. Prolonged applications of soft soap are followed by rubbing with pumice stone every day; after which the strongest applications are used, such as pyrogallic, salicylic and chrysophanic acids, and increased according to the resistance of the particular case.

Pityriasis rubra pilaris (p. 369) is often accompanied by palmar hyperkeratosis, but these lesions never occur by themselves and only constitute a regional epiphenomenon in the general disease.

CHRONIC PALMAR ECZEMA.

Acute palmar eczema is rare and easily recognised, apart from the general outbreak of eczema in which it appears.

Chronic palmar eczema is also easy to diagnose when it accompanies a chronic peri-ungual or a generalised eczema, or some other lesion of undoubted eczematous nature. But it is not always so. It is not even proved that the palmar lesions known as palmar psoriasis or palmar eczema are always psoriasis or eczema, and that there may not be a hyperkeratosis with exfoliation limited to these regions which is neither eczematous nor psoriasic. In any case chronic palmar eczema generally occupies the whole palm of both hands, and even the palmar surface of the fingers. It is also often continuous with dorsal lesions of the fingers.

Fig. 155. Fissured form of palmar eczema. (Brocq's patient. Photo. by Sottas.)

The lesion is usually less hyperkeratotic and raised than in palmar psoriasis, but in every case where palmar lesions exist alone diagnosis between psoriasis and eczema appears to me illusory.

The treatment of these two affections in this situation is similar and the prognosis should be guarded, for the lesions are chronic, difficult to treat and liable to recur.

The local treatment of chronic palmar eczema is that of chronic eczema, by progressive doses of salycilic acid and resorcine, after previous moist dressings and cleansing with pumice stone.

CALLUS.

Certain manual occupations, by repetition of the same traumatism in the same place, create callus, or local hyperkeratosis. These occur at the same place in people of the same occupation and serve to diagnose their profession. Thus shoemakers have a large callus situated on the fold which separates the thenar eminence from the hand, and another on the fold of flexion of the fingers on the hand,

on the ulnar border of the hand. The repeated friction which creates the callus generally causes a serous bursa underneath it; and this may become inflamed, with symptoms resembling bunion, but localised under the callus itself. When there is suppuration rapid incision is necessary to relieve the pain caused by the formation of an abscess between inextensible tissues. When the callus occupies the natural folds it may often lead to the formation of a median fissure with callous borders. In this case, after treatment with soap and pumice stone, the fissure may be painted with Friar's balsam.

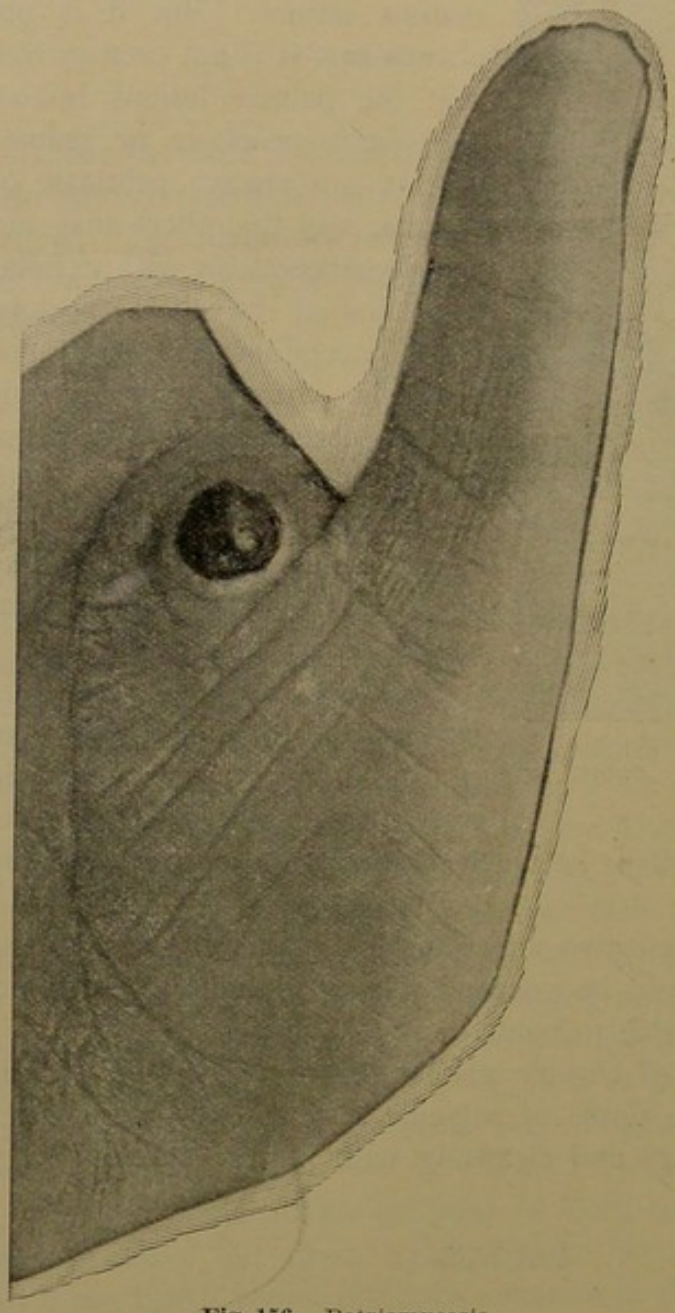


Fig. 156. Botriomycosis. (Nélaton's patient. St. Louis Hosp. Museum, No. 2203.)

BOTRIOMYCOSIS.

Botriomycosis is a rare affection. It forms on the palm of the hand, a small fungoid tumour, red or purple, soft, exulcerating, non-exudative and apparently emerging from the palm. The skin is only attached to it by a thin pedicle.

The etiology of this affection has been much discussed. It appears that the pedunculated tumour, characteristic of botriomycosis, is a

simple fungosity arising from a septic puncture and developed round a staphylococcic colony which causes it. Treatment consists in simple excision and cauterisation of the pedicle. The cure is rapid and permanent.

DARIER'S DISEASE.

Lesions have been described on the palm, but are uncommon in a disease which is itself rare. The hand is covered with horny globes enclosed in the thickened epidermis. Each globe is rather larger than a grain of barley and resembles a grain of boiled tapioca.

The treatment of this localisation should consist in applications of soft soap and pumice stone, or strong salicylic ointment; followed by compound oil of cade ointments (p. 268), which give the best results in the usual localisations of this disease.

PALMAR CONTRACTION.

Palmar contraction, although not a dermatological disease, may be mentioned here. It consists in progressive contraction of the aponeurosis of the palm, beginning generally on the ulnar side. It may be felt under the skin and cannot be mistaken for true sclerodermia.

THE FINGERS.

The back of the fingers resembles the back of the hand to a great extent in its pathological dermatology, and the palmar surface has the most dermatological homologues in the palm.

For this reason we shall divide this chapter into two sub-chapters dealing with the dorsal and palmar surfaces of the fingers respectively. There still remains the end of the finger, in the region of the pulp and around the nail, the dermatological affections of which are distinct enough for a special study. I shall conclude by a sub-chapter on the nails, which are not the least important regions in dermatology.

DORSAL SURFACE OF FINGER.

Chilblains are especially seen on the back of the fingers, and as they appear commonly at an early age we shall speak of them first . . . . . . — Chilblain . . . . . p. 365

After chilblains, small, multiple, vascular angiomata occur with concomitant horny transformation, forming the angiokeratoma of Mibelli . . . — Angiokeratoma . . p. 365

Spina ventosa is a bony tuberculosis which swells the whole finger and gives it the form of a radish . . . . . . — Spina ventosa . . . p. 366

Anatomical tubercle results from the external inoculation of tuberculosis . . . . . . — Anatomical tubercle . . . . . p. 366

The fingers, like the hand, may present diffuse erythema pernio, and the maculæ of erythema multiforme; but this affection is common to them with the hands and we have dealt with it sufficiently with that region . . . . . . — Erythema pernio. Erythema multiforme . . . . . p. 367

Eczema of the finger only assumes a particular character around the nails . . . . . . — Eczema . . . . . p. 367

Dyshidrosis, in its most intense forms, affects equally the hands and fingers, but it may be limited to the fingers and the interdigital spaces and resemble scabies . . . . . . — Dyshidrosis . . . . p. 367

Trichophytosis may be limited to the fingers . .	Trichophytosis . . p. 368
Impetigo contagiosa may cause plyctenules on the back of the fingers	Impetigo contagiosa . . . . . p. 368
. . . also agglomerated pustular folliculitis . .	Panaris . . . . . p. 368
Pityriasis rubra pilaris, although a disease of the whole surface, may present its characteristic elementary lesion on the back of the fingers	Pityriasis rubra pilaris . . . . . p. 369

CHILBLAINS.

Chilblains have a well known predilection for the fingers. In the first stage they form red indurations which, when they are multiple, render the finger moniliform. The finger is cold, red and œdematous and becomes hot and burning at night. In a more accentuated degree the chilblain ulcerates superficially. The exact pathogeny of chilblain is not well known. Children are more predisposed to it, and those adults who preserve the physique and diseases of childhood. Cold, especially when alternating abruptly with heat, is evidently the exciting cause. The treatment is unsatisfactory. The exulcerations when dressed with glycerole of starch appear to heal more quickly, and the use of glycerine for the hands during the night may be useful during the cold season. According to tradition, cod-liver oil and iodine are given internally (vide erythema pernio, p. 335).

ANGIOKERATOMA OF MIBELLI.

This singular and somewhat rare disease is characterised by lesions having the appearance of small vascular nævi, slightly raised and sometimes warty, always multiple, often numerous and situated on the back of the fingers and hands, and sometimes on the scrotum and penis.

The lesions form small purple stars, composed of venous dilatations, surrounded by a fine capillary network. Each of these stars is from 3 to 5 millimetres in extent. The skin is thickened and rather warty in appearance.

These lesions are not congenital but occur in children or adolescents, more commonly in young girls, in successive crops. They appear to be allied to erythema pernio and chilblains, and often fol-

low in their course. This group of lesions has been attributed to the "lymphatic temperament." Certain authors even regard them as toxi-tuberculides. Concerning these controversial opinions, it is only necessary to remember the clinical relationship which they express.

Each varicosity should be treated by the galvano-cautery, which leaves no trace and quickly cures the lesions. With electrolysis the results are much slower and not so perfect.

SPINA VENTOSA.

This affection is usually regarded as belonging to the domain of surgery. It is an infantile type of disease, causing the finger to assume the appearance of a large radish. The lesion is sensitive to pressure, chronic and progressive, lasting often for years before ending in abscess, fistula and amputation of the finger; or, on the other hand, the progressive absorption of the diseased tissues and disappearance of the local symptoms. The restoration of movement depends on the integrity of the articulations.

The lesion should be examined by the X-rays and treated accordingly. Radiotherapy and phototherapy should be the first methods to be tried in the treatment of this affection.

ANATOMICAL TUBERCLE.

Anatomical tubercle is the initial chancre of tuberculosis of external inoculation. It may assume several forms. Sometimes it forms a small warty or papillomatous growth, slightly sensitive to pressure, persisting for months with slowly progressive extension (Fig. 140). The underlying skin is indurated and the growth is not wholly superficial. In this form anatomical tubercle is only the first degree of warty tuberculosis of the hand (p. 336).

In other cases the growth forms a mammillated swelling on the surface of the skin, of slow extension and formed by two or three papulo-tubercles visible under the slightly hyperkeratotic skin.

More rarely, in the centre of this growth, a minute ulceration is produced at the bottom of a fissure, which at first conceals it. This form, which is comparable to ulcerative tuberculosis of the mucous

membrane and tongue, is the most resistant and most serious of the three.

In these three forms complete destruction of the growth and of the subcutaneous induration is necessary. This may be done, under an anæsthetic, by the galvano-cautery, and afterwards dressed with ointment of sub-carbonate of iron (1 in 40). The cicatrisation should be watched carefully for a long time. Tuberculous lymphangitis and adenitis are rare, but they should render the prognosis guarded, and require active surgical treatment; excision followed by phototherapy of the cicatrices.

WARTS.

Warts, which are very common on the back of the fingers, as on the back of the hand, have been described with the more frequent morbid types of this region (p. 340).

ECZEMA.

Eczema of the fingers is included in eczema of the hand. It has no peculiarities in nature or in treatment, except on the end of the finger and round the nail, with which it will be described (p. 385).

DYSHIDROSIS.

Dyshidrosis of the fingers may occur alone without any affection of the hands (Fig. 147) and merits a special description.

Every year, by seasonal outbreaks in the spring and summer, more or less marked crops of vesicles, sometimes abortive, arise on the lateral parts of one or more fingers "between the skin and flesh." These vesicles are only opened by vigorous scratching. They are accompanied by a moderate amount of pruritus and burning. These phenomena occur in small successive outbreaks, lasting one or two weeks, sometimes a month, and disappear to return in the following year.

There is no useful treatment and the prognosis is benign. There are slight cases of dyshidrosis of the hands described on page 000.

These lesions are important, because they are sometimes mistaken for scabies. But scabies is never localised exclusively to this situation and occurs on the hands, wrists, axillæ and penis, which are never affected by dyshidrosis. Moreover, scabies is contagious and dyshidrosis is not.

TRICHOPHYTOSIS.

Cases of trichophytosis, localised to one or more fingers, are not rare. They may occur as follows:—

(1) A single finger may be affected, generally the ring finger under the ring. A vesicular lesion develops, which extending beyond the dorsal region of the finger, encircles it, and develops underneath.

(2) One finger may be inoculated from the next; and several contiguous fingers may be attacked one after the other.

(3) The lesion may develop at the base of a finger and extend to the hand and the interdigital spaces, thus reaching the other fingers and the palm. This lesion, which may appear syphiloid at first sight, is always vesicular at its edges. The characteristic feature of this lesion is that, in spite of the form of the fingers on which it develops, it always forms a perfect circle.

Treatment is much easier on the dorsal surface than on the palmar surface of the fingers and hand. Friction with tincture of iodine (diluted 4 or 5 times with alcohol) cures it in a week; but on the palmar surface this treatment must be preceded by cleansing with pumice stone so as to destroy the horny epidermis.

IMPETIGO CONTAGIOSA.

The turbid phlyctenules of impetigo contagiosa, generally open and shrivelled, accompany a whitlow (p. 376), or an impetigo of the hand (p. 346).

CARBUNCULAR PANARIS.

By this name is designated a pustular folliculitis of the type of impetigo of *Bockhart*, occupying all the hair follicles of the back of

one phalanx. It is an agglomeration of superficial furuncles with objective and functional symptoms which are easy to conceive after the definition of this morbid type. Treatment consists in dressings with sulphate of zinc (1 per cent).

PITYRIASIS RUBRA PILARIS.

This disease will be described with the general dermatoses, along with psoriasis which it resembles (p. 528), but its characteristic points may be mentioned here. Whatever the form, degree of generalisation and intensity of the symptoms of pityriasis rubra pilaris, it is accompanied by one symptom on the back of the fingers which cannot be mistaken.

Fig. 157. Pityriasis rubra pilaris.
(Besnier's patient. St. Louis Hosp. Museum, No. 692.)

On the back of each phalanx in the normal state are hairs, varying in number and development in different subjects. The orifices of their follicles become projecting and hyperkeratotic in pityriasis rubra pilaris. Each becomes a small cone, visible to the eye and sensible to the touch, so that each phalanx assumes the aspect of a file or a grater. This symptom occurs even in atypical forms of the disease and does not exist in any other.

PALMAR SURFACE OF FINGER.

The palmar surface of the finger has few dermatological localisations which are not common to the palm of the hand; but several dermatoses assume a somewhat special physiognomy.

Thus the development of streptococci under the horny epidermis creates large bullæ with peculiar contents . . . . . Sero-purulent bullæ . . . . . p. 370

Staphylococcic pustules, although rare in this region, often lead to penaris . . . . . Staphylococcic pustules . . . . p. 372

Chronic eczema of the palmar surface of the finger has the hyperkeratotic characters of the eczema of thickened horny epidermis in general . . Chronic eczema . p. 372

. . . And may be associated with symmetrical keratosis of the extremities, which may also occur without it . . . . . Keratodermia . . p. 372

Warts of the palmar surface of the fingers are peculiar in form and often painful . . . . . Warts . . . . . p. 372

In concluding this chapter I shall say a few words on trichophytosis of the palmar surface of the fingers . . . . . Trichophytosis . p. 373

. . . And of a dermatological rarity, the epithelial cysts produced by inclusion in the dermis of a detached particle of epidermis in a penetrating wound . . . . . Traumatic cysts . p. 373

SERO-PURULENT BULLAE.

These may be situated on the fingers or on the hands. On the fingers they usually occur on the last phalanx and may be present on several fingers. The lesion forms a large ampulla under the horny epidermis. This is hard, tense and slightly painful. When opened it discharges turbid serum, the microscopic examination of which shows myriads of streptococcic chains (Fig. 158).[1]

[1] This drawing was made after a culture of impetigo in a pipette of serum after 12 hours; but it gives an exact idea of the appearance shown in direct immediate examination of the bullæ.

This benign lesion, owing to its superficial nature, is not well described in the works on dermatology, although it is not rare. It is an element of common impetigo (see pp. 7 & 346), transformed by the special conditions imposed upon it by the thick horny skin of

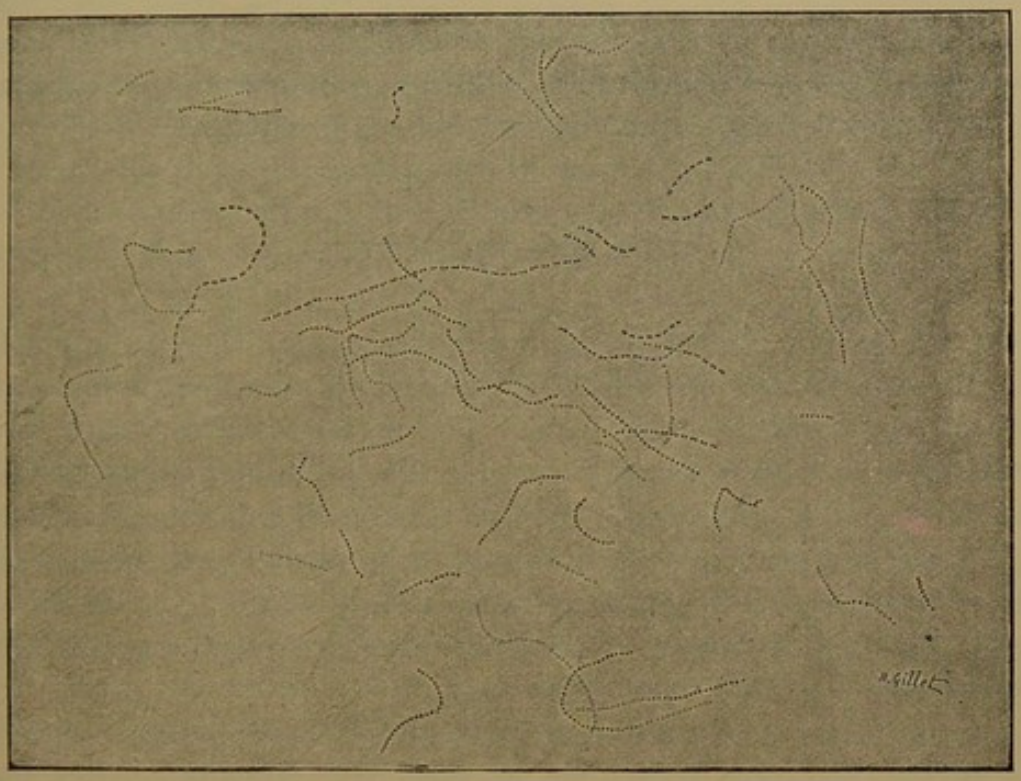


Fig. 158. Sabouraud's preparation.
(Drawing by Gillet. Obj. 1-5 Zeizz. ocul. compens. 4.)

the region, and protected by this against secondary infections. These streptococcic bullæ may co-exist with whitlow (p. 376), with common impetigo of the face, or may directly follow the accidental introduction of a splinter or thorn, etc.

Treatment consists in careful removal of the envelope of the bullæ, taking care not to spread the contents on the hands in opening it; followed by bathing the finger several times a day in the following lotion:—

Sulphate of zinc	3	grammes	gr. 3
Sulphate of copper	2	"	gr. 2
Camphorated distilled water	500	"	℥i

Between these applications the finger may be kept in a moist dressing with the same liquid, but not covered with protective.

STAPHYLOCOCCIC PUSTULE.

This has been studied with the lesions of the palm of the hand, where it is most commonly observed (p. 355). It is a round, flat pustule varying in size and usually consecutive to a septic puncture. It should be opened and cleaned as early as possible, as it may form the origin of a deep abscess, which may communicate with one of the synovial sheaths and form an extensive whitlow.

CHRONIC ECZEMA.

On the palmar surface of the finger, as on the palm of the hand, chronic eczema, either secondary or spontaneous, often assumes a hyperkeratotic and fissured form. The surface becomes thick and scaly, and the folds of flexion cracked. Fissures are produced, even beyond the folds of flexion. It is an eczema of extreme chronicity.

If there is a traumatic cause this must be first suppressed. In all cases where a lesion is hyperkeratotic, mechanical scrubbing is necessary. The lesions, after softening by moist dressings, may then be treated like chronic eczemas (p. 342).

It must be remembered that in most of the fissured lesions glycerine preparations are preferable to vaseline ointments. After the first smarting has passed off they give more relief than any other preparations, and this is an important point in cases of eczema which are often very painful on every movement of the fingers.

SYMMETRICAL KERATODERMIA.

This congenital, hereditary and consanguineous hyperkeratosis has been referred to in studying palmar diseases (p. 353). It may also occur on the palmar surface of the fingers. The persistence of the hyperkeratotic and fissured eczemas of this region may possibly be due to a spontaneous predisposition to hyperkeratosis (p. 359).

WARTS.

Warts on the palmar surface of the finger present a somewhat peculiar symtomatology. They are imbedded in the horny epider-

mis, on which they form a blunt projection, which is painful to pressure, like a corn on the sole of the foot.

This causes a certain amount of functional weakness which requires intervention. Moreover, warts in this region perforate the horny epidermis, but do not adhere to it and are surrounded by a deep furrow, which may become infected.

Treatment is essentially surgical. Under an anæsthetic the wart is completely destroyed by the galvano-cautery down to the dermis. If this is not done deeply enough the wart will recur.

Palmar warts must not be confounded with the occupational callus mentioned above (p. 361).

TRICHOPHYTOSIS.

Trichophytosis scarcely ever begins on the palmar surface of the finger, but often invades it. The general appearance of the lesion is characteristic, forming a perfect circle surrounding the finger.

It is vesicular on the dorsal surface and appears to be hyperkeratotic on the palmar surface; but it is often vesicular also under the thick horny epidermis, which conceals the vesicles. The treatment by scrubbing is described on page 357.

TRAUMATIC CYSTS.

Sub-epidermic traumatic cysts form a rare affection of curious etiology. In certain occupations in which the fingers are liable to be penetrated by instruments, epithelial debris carried by the tool becomes grafted in the depth of the skin and is organised in closed cysts, exactly similar to minute dermoid cysts originating from fœtal inclusion.

These round, semi-transparent, pearly cysts are often multiple on the same finger, and are always localised exclusively to the palmar surface.

THE TIP OF THE FINGER.

The tip of the finger has a special dermatological pathology, which differs from that of the base of the finger or the hand.

Syphilitic chancre, so difficult to diagnose and so often mistaken, is nearly always peri-ungual . . . — Syphilitic chancre p. 374

The same with lupus of the finger, so often mistaken for chronic eczema; and papillomatous tuberculosis, which we have already studied on the back of the hand . . . . . . — Lupus. Papillomatous Tuberculosis . . . . . p. 375

Whitlow, impetigo contagiosa of the nail bed, streptococcic phlyctenular peri-onychosis, has the same localisation . . . . . . — Whitlow . . . . . p. 376

There is a peri-ungual eczema, with special characters and causes, having a peculiar physionomy and treatment . . . . . . — Peri-ungual eczema . . . . . p. 377

And there is a peri-ungual psoriasis, often difficult to diagnose . . . . . . — Peri-ungual psoriasis . . . . . p. 379

Other affections, such as warts, assume special characters, when they occur round the nail, and require mention . . . . . . — Warts . . . . . p. 380

Lastly, certain general affections, such as sclerodactylitis, have a primary localisation in the fingers — Sclerodactylia . p. 380

Certain affections present, at the end of the finger, localisations and manifestations of considerable diagnostic importance; for instance leprosy . . . . . . — Mutilating Panaris . . . . . p. 381

SYPHILITIC CHANCRE.

Syphilitic chancre of the finger is the most common of occupational chancres (medical men and midwives), and one of the most dangerous when it is not recognised in time. It is met with apart from professional contamination. It is rarely seen at its onset, and when fully developed may resemble a whitlow, a tuberculous lesion or a chronic eczema. It is generally situated at the side or base of the nail and enlarges the finger considerably, forming an oblong

hard tumour, from half an inch to an inch in length. Its surface is red and squamous at the edges, sometimes slightly exudative in the ungual groove. There is nothing resembling the eroded saucer-like surface, or the hard, cartilaginous induration of the usual syphilitic chancre. Hence the principal characters of syphilitic chancre are wanting in this situation.

Diagnosis is made by exclusion: (1) from lateral ungual abscess by the absence of painful symptoms and the long duration; (2) from local tuberculosis by the time being too short for this to reach such a development; (3) from ungual eczema, which would not occur on a single finger with this increase in size. In these conditions the epitrochlear gland should be examined; in chancre it is hard, enlarged and characteristic. The chancre is of long duration, lasting for two or three months before becoming covered with epidermis. Poly-adenitis and roseola confirm the diagnosis.

PAPILLOMATOUS TUBERCULOSIS. LUPUS.

The groove of the nail may present two types of local tuberculosis, which are very different: papillomatous tuberculosis and lupus.

Papillomatous Tuberculosis. This occupies the lateral angle of the nail or its base. It forms a rounded or oblong island of

Fig. 159. Vegetating tuberculosis.
(Vidal's patient. St. Louis Hosp. Museum, No. 720.)

"papillomatosis," a slightly raised, warty hyperkeratotic neoplasm. In the bed of the nail, when this is invaded, the velvety structure of the growth is evident. There may be slight exudation.

Peri-ungual lupus is difficult to diagnose, and is often mistaken for chronic eczema. However it only affects a single finger, which is exceptional in eczema. The nail emerges from thick fungating buds, painful to pressure and slightly exudative at the root of the nail. Yellow tubercles, persisting under glass pressure, may be seen,

especially at some distance from the nail; but they are more often absent. Lupus of the nail with its fungosities resembles lupus of the hard mucous membranes, particularly of the gums. After some

Fig. 160. Peri-ungual Lupus. (Brocq's patient. Photo. by Sottas.)

time the long duration and continued increase of the lesion assist the diagnosis.

The treatment of these two lesions is surgical. Under an anæsthetic the fungosities are scraped with a curette, and afterwards the galvano-cautery is applied to all the invaded or doubtful tissue. Radiotherapy (7 units H), or phototherapy should be tried, at any rate after surgical treatment.

WHITLOW. STREPTOCOCCIC PHLYCTENULAR PERIONYXIS.

In its usual form whitlow commences by a grey, crescent-shaped phlyctenule, surrounding one side of the base of the nail. This phlyctenule is filled, not with pus, but with turbid serum. If it is not broken it extends gradually round the nail and may reach the end of the finger, and create under the free border of the nail a phlyctenule more painful than the first, which is usually not very sensitive. More often it is broken by scratching and suppurates.

It is a lesion of impetigo contagiosa and streptococcic, as is proved by culture from the unbroken phlyctenule (p. 7). It usually accom- accompanies impetigo of the face, the back of the hands or the serous bullæ of the regions with horny epidermis (p. 370).

The treatment is that of all streptococcic impetigo, by removing the epidermis and frequently applying the following lotion:—

Sulphate of zinc	gr. iii
Sulphate of copper	gr. ii
Camphorated water	3i

PERI-UNGUAL ECZEMA.

Peri-ungual eczema may occur in three different forms:

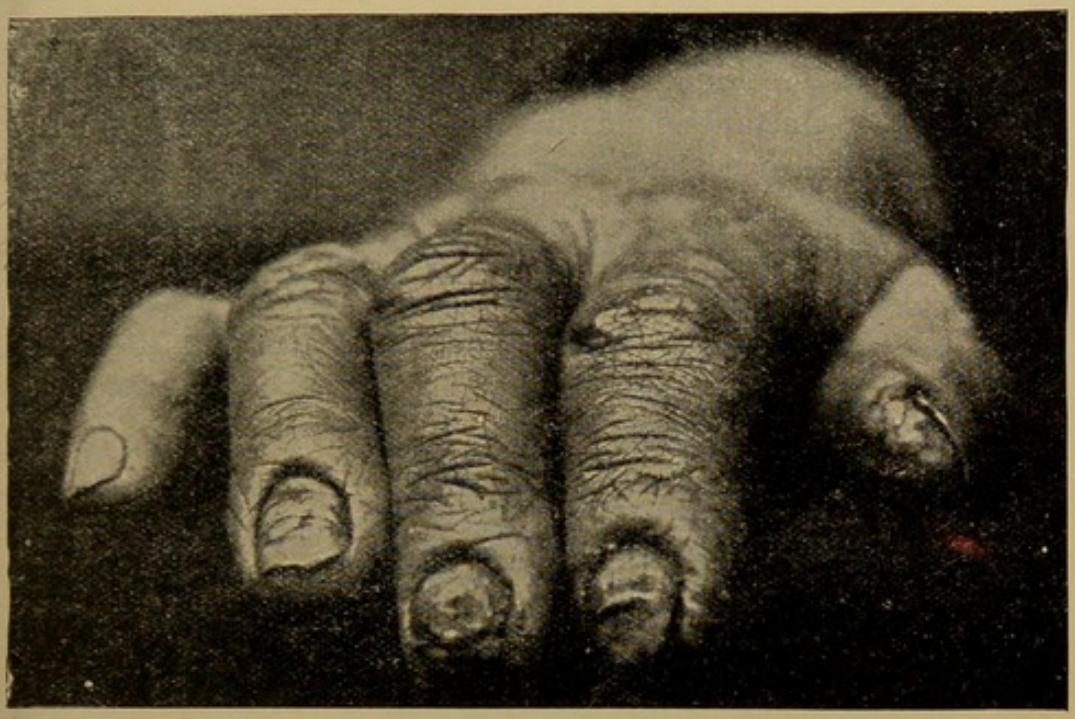


Fig. 161. Peri-ungual and ungual eczema. (Brocq's patient. Photo. by Sottas.)

(1) The nail and the surrounding skin are affected together;

Fig. 162. Hyperkeratotic palmar eczema. (Brocq's patient. Photo. by Sottas.)

but the finger, the hand and the body of the patient are free from

eczema. In this case the eczema is localised to the end of the finger.

These are generally cases of traumatic, occupational eczema, and are common in florists, photographers, and workers in cement and sugar.

In this case the skin on the back of the finger is painful, red, thickened and sometimes exudative, sometimes squamous; the horny epidermis is destroyed and fissured. Treatment consists in suppression of the cause, and the application of nitrate of silver (1 in 5) and protective pastes, to the peri-ungual furrow.

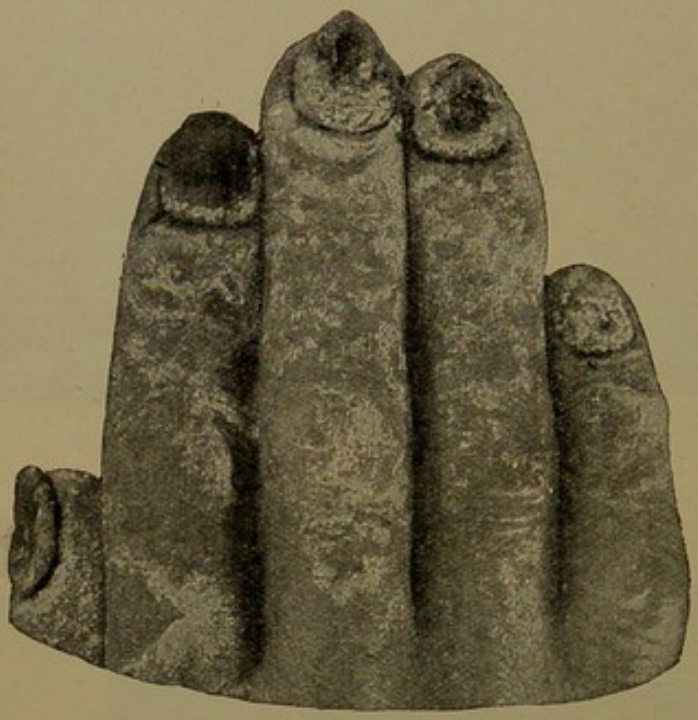


Fig. 163. Eczema of the fingers and nails. (Vidal's patient. St. Louis Hosp. Museum, No. 361.)

(2) Eczema of the ends of the fingers coincides with the same affection of the toes. At the four extremities there is marked hyperkeratosis, not only on the back of the digit, but at the end, and under the free border of the nail, which is thickened, waxy, often fissured and painful. Sometimes there is symmetrical keratodermia of the extremities which is complicated by eczematisation. Most often the cause of this form of eczema and of its localisation is unknown.

Treatment is by means of keratolytic agents; resorcine, salicylic acid (1 in 5 or 1 in 4); paste of soft soap or caustic soda applied with a brush. The hyperkeratotic lamellæ are softened by this means, and the fissures are treated by daily applications of Friar's balsam. Usually preparations with a basis of glycerine are better tolerated than those with other excipients. The peri-ungual lesions are treated in the same way as the preceding form.

(3) Lastly, ungual and peri-ungual eczema may only be a regional episode in a chronic generalised eczema, and in this case it requires special treatment based on the use of nitrate of silver and tar. Its prognosis is that of the general dermatosis of which it forms part.

Oxide of zinc	15	grammes	ʒ iv
Liquid tar	4	"	ʒi
Ichthyol	2	"	ʒ s.s.
Sweet oil of almonds	15	"	ʒ iv
Lanoline	30	"	℥i

PERI-UNGUAL PSORIASIS.

In distinction to eczema, psoriasis rarely affects the skin of the peri-ungual region. The nail is distinctly diseased, but the skin

Fig. 164. Psoriasis of the nails.
(Thibierge's patient. St. Louis Hosp. Museum, No. 1512.)

itself is not affected, except at the root of the nail, which gapes a little, where the epidermic layer normally adherent to the lunula is absent.

But when the skin of the bed of the nail is psoriasic there is usually generalised psoriasis; the skin of the hands and fingers is diseased

as a whole and, even in this case, the skin is not more affected round the nail than on the rest of the finger. The contrary may occur, but this is rare (Fig. 164).

PERI-UNGUAL WARTS.

Simple warts may accumulate in the lateral furrow of the nail and insinuate themselves under the lateral or free border, causing great pain on pressure.

The diagnosis from papillomatous tuberculosis is generally made by the coincidence of other warts on the fingers or hand. Moreover, the warts are unaccompanied by any inflammatory symptom.

They may be destroyed by chromic acid or other caustics; but I have always been obliged to use the galvano-cautery to obtain a definite cure. Anæsthesia is required in all operations in this sensitive region.

SCLERODACTYLIA.

I have already spoken of sclerodactylia (p. 339). It is not a disease of the fingers, as its name appears to indicate, but an affection

Fig. 165. Mutilating Sclerodactylia.
(Fournier's patient. St. Louis Hosp. Museum, No. 580.)

f the whole skin, which will be studied with the general dermatoses
). 615). But it commences on the fingers, extends to the hand, and
radually to the whole limb.

It consists in a thickening of the whole skin, at first increasing the
ze of the finger. The skin is yellow, waxy and translucent. This carapace then apparently becomes contracted and the finger atrophied; and while the hard œdema and hypertrophy reach the hand, the fingers become fusiform and thin at the ends, and may lose their terminal phalanges; the bones of which may project, surrounded by a bed of fungosities.

Fig. 166. Mutilating Panaris in leprosy.
ig. 167. Onychorrexis. (Dubreuilh's patient.)

This disease, which is no doubt of trophic origin, but of which the mechanism and causes remain obscure, terminates slowly by cachexia and death, usually by some intercurrent disease.

MUTILATING LEPROSY.

The multilating forms of leprosy are common
p. 339). They most often occur in tropheneurotic or mixed
eprosy. The usual type is the chronic panaris of *Morvan* with
nuscular atrophy, tendinous contractions and disorders of sensa-
ion, etc.

Ulcers similar to perforating plantar ulcer are produced, which
nd in denudation of the bone and loss of the phalanges. The
ame phenomena have been described in syringo-myelia, not of
eprous origin.

THE NAILS.

I shall first explain the diverse changes of the nail in general	Generalities. . . . p. 383
The nails may be absent; or may maintain, from birth to death, a more or less dystrophic condition, affecting all the nails or several only	Congenital atrophy and dystrophy . p. 384
The nails may become the occasion of a well-known mania; onychophagia	Onychophagia . . . p. 384
All the severe diseases of the organism affect the nutrition of the nails, as that of the hairs; usually manifested by more or less marked transverse furrows	Ungual malformations of severe diseases . . . . . p. 384
Among the onychoses of this region, the syphilitic onychoses require special mention	Syphilitic onychoses . . . . . p. 385
. . . also the onychoses of lepra	Lepra . . . . . p. 385
Certain diseases more than others, because they have a cutaneous determination, influence the form of the nails and cause changes in them; especially eczema and psoriasis	Onychoses of the chief dermatoses. Eczema, psoriasis . . . . . p. 385
Others appear to act on the nails by trophic affections, although this cause has been much abused, and remains hypothetical in many cases, in attempting to explain ill-defined onychoses	Onychoses of the chief nervous diseases . . . . . p. 387
Among the latter the ungual affections in alopecia areata require special mention	Alopecic onychosis . . . . . p. 388
Lastly, the nail may be directly attacked by parasites. There is a favic onychosis	Favic onychosis . p. 389
. . . an onchyosis accompanying trichophytosis	Trichophytic onychosis . . . . . p. 389
. . . another caused by the staphylococcus aureus, which is accompanied by minute sub-ungual abscesses	Staphylococcic onychosis . . . p. 390
. . . and another caused by the streptococcus, which is accompanied by phlyctenular perionychosis	Streptococcic onychosis . . . . . p. 391

Apart from these different types we must bear in mind that many ungual lesions are not yet classified, and that ungual lesions, when they occur alone without concomitant cutaneous lesions, are too often indistinguishable among themselves.

GENERALITIES.

The nail does not react differently to each morbid cause. We can distinguish true onychosis, where the nail is affected alone; and peri-onychosis in which the periphery is attacked. These two types often co-exist.

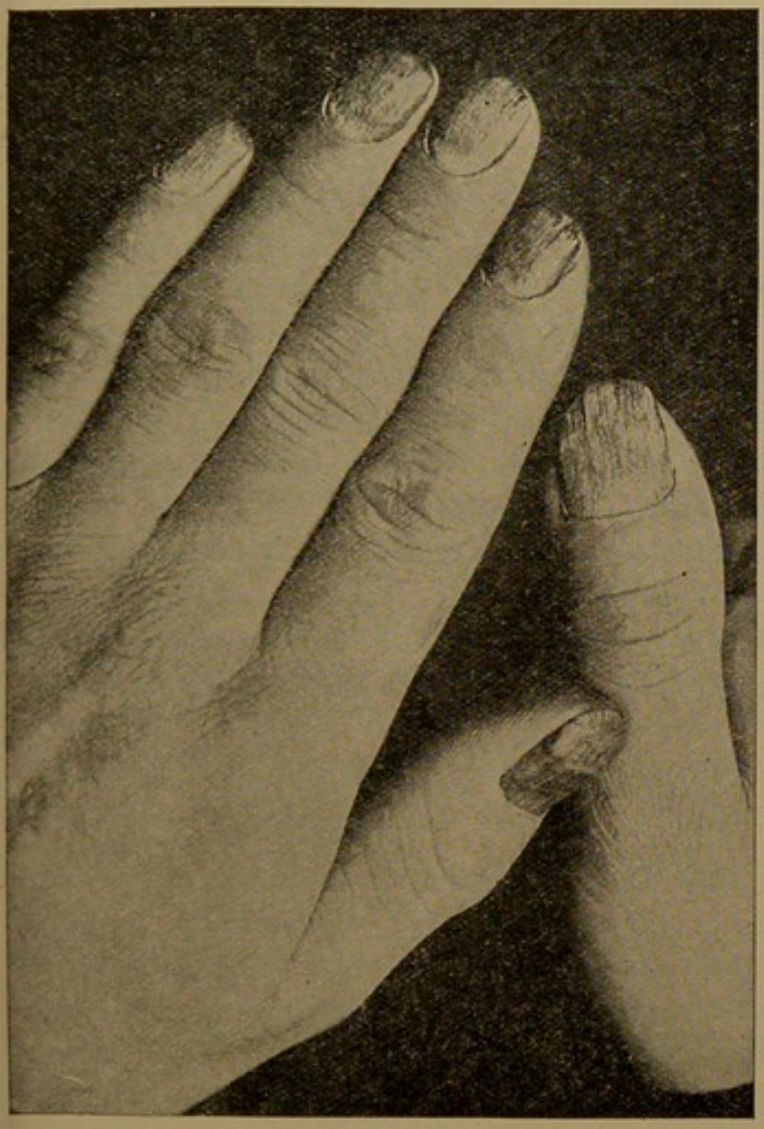


Fig. 167. Onychorrexis. (Dubreuilh's patient.)

When the nail only is diseased it may present three or four morbid types.

(1) In *Pachyonychosis* (*Fournier*), the nail is thickened under the external table, like the pith of a rush.

(2) In *Onychorrexis* (*Dubreuilh*), the nail appears friable longitudinally.

(3) The external table may be *pitted* by multiple holes, which may be scarcely visible or sufficiently marked to cause deformity of the nail.

(4) There may be *transverse striæ*, giving the nail an oyster shell appearance.

(5) There may be *hollowing* of the external table and of the

substance of the nail; a condition which is seen in many of the chief dermatoses.

(6) Lastly, there is *onychogriphosis,* or curvature of the hypertrophied nail in the form of a claw, which is usually only an exaggeration of the oyster shell deformity mentioned above.

From these generalities it follows that the nature of an onychosis is often impossible to determine by itself and that diagnosis must be made by concomitant cutaneous lesions; or when there is a specific parasitic onychosis, by microscopic demonstration of the parasite.

CONGENITAL, ATROPHY AND DYSTROPHY.

There are dystrophies of the nails as of the hairs (vide Monilithrix, p 178), which are often hereditary and consanguineous and often co-exist with other signs of degeneration.

Sometimes all the nails exist, but in a pink membranous condition with little resistance. They resemble infant's nails of the size of those of an adult. At other times there are one or two tranverse striæ terminating by a brown stump, and grooved longitudinally.

The dystrophy may affect the nails of one or two fingers only, on one or both hands. These deformities are irreparable.

ONYCHOPHAGIA.

By this term is meant the habit or mania, which some children and even adults have, of biting the nails. This habit, which is common in its ordinary forms, at a certain age and in a certain degree, approaches a monomania, and resembles the mania for epilation (trichotillomania p. 146 and 180).

UNGUAL DEFORMITIES OF SEVERE DISEASES.

Every severe pyrexia, and every disease, even transitory, having caused severe disturbance of health, may mark a transverse furrow on the nail, proportional to its duration. In certain women child-birth causes the same marks. This striation forms part of the nail and grows with it at the rate of 3 millimetres

(about ⅛ inch) a month (*Heller*), finally disappearing. Many transverse striations seen on the nail in severe dermatoses, are only an exaggeration of the above. To the same type is connected the hippocratic nail, which is most often connected with a chronic pulmonary affection, and resembles onychogryphosis.

SYPHILITIC ONYCHOSIS.

Syphilis may affect the nail in different ways. Sometimes a secondary papule forms under the nail and is visible through it; and as the keratinisation of the nail is disturbed at this point a loss of nail substance follows, which is displaced with the growth of the nail and eliminated. *A. Fournier* has reported pachyonychosis, and *Dubreuilh* hyperonychosis in which the nail is thick and hard.

Ordinary syphilitic onychosis is a lesion of the free border and of the root of the nail. All or most of the nails are affected, in the first year of the disease, with a peri-ungual lesion, especially marked at the angles of the nail, which resembles at first a whitlow. The nails are swollen, somewhat red and painful and present a kind of projecting fluting of brown horny matter, which has the appearance of a small abscess. In fact syphilitic onychosis may suppurate; the bed of the nail is inflamed and a little turbid liquid may be pressed out; but usually it remains dry and painful for two or three months and disappears under the influence of treatment.

LEPRA.

Onychosis also occurs in leprosy, especially in the tubercular stage. The nail is thick, raised, rough and incompletely keratinised. There is also peri-onychosis, the bed of the nail being infiltrated, brownish red and ulcerated at the base. The nail may fall and be replaced by an indolent ulcer. At other times the nail crumbles and persists in the form of a tubercle. (Fig. 143.)

ONYCHOSIS OF SEVERE DERMATOSES.

The nails participate in the dyskeratotic processes which certain severe dematoses present on the body; for instance pemphigus

foliaceus (p. 610); pityriasis rubra pilaris (p. 528); general exfoliating crythrodermia (p. 549); and the pityriasis rubra of *Hebra* (p. 549).

But in all these cases the onychosis is only an epiphenomenon of no great importance in itself, but may, to a certain extent, assist in the differentiation between two analogous morbid types. Therefore I shall not dwell upon them here, but only describe in the following paragraphs, the onychosis of eczema and psoriasis, which are more definite and of greater clinical importance.

ECZEMA.

In severe eczema the nail may be raised by the exudation and and fall at once. If the process continues, the matrix does not form the normal nail substance, but the nail bed is covered with malformed horny excrescences sometimes raised by vesicles (*Dubreuilh*).

There is generally chronic perionychosis, especially in local traumatic, or professional eczemas. But at the same time the nail is eroded, with a rough surface and soft consistence. It is painful to pressure owing to inflammation of the tissues beneath it. These ungual and peri-ungual lesions are very obstinate and liable to recur.

The treatment of perionychosis is all that can be done. The nail becomes healthy when the matrix is cured. (See the treatment of streptococcic perionychosis, p. 376.)

PSORIASIS.

As in the alopecia nail, the psoriasic nail may be pitted, "as if used for sewing" (*Dubreuilh*).

In other cases psoriasis commences by a brown horny thickening under the lateral borders of the nail or under the free border, which appears as a yellow patch. When this lesion is scratched with a needle, horny micaceous debris is removed, leaving a lenticular space. *Dubreuilh* regards this lesion as typical and diagnostic of psoriasis, even without cutaneous lesions. However, it resembles closely those caused by streptococcic infection under the nail.

In other cases the psoriasis nail may lose the whole or part of the external table, becoming hollow and striated, or resembling an oyster shell, and ending even in onychogryphosis. In other cases again progressive hollowing leaves nothing but debris.

Ungual psoriasis is often unaccompanied by peri-onyxis. Psoriasis and ungual mycosis may be most often localised to the nail, but not always.

Fig. 168. Psoriasis of the nails. (Brocq's patient. Photo. by Sottas.)

Treatment is by ointments with pyrogallic acid and chrysarobin, from 1 in 20 to 1 in 10, applied every night for several months. The fingers must be covered with a glove to avoid chrysophanic conjunctivitis. The results are only moderate.

ONYCHOSES OF NERVOUS DISEASES.

Atrophic and dystrophic affections of the nails have been reported in tabes, general paralysis, syringomyelia, nervous leprosy and even in hysteria.

ALOPECIA AREATA.

The ungual changes in alopecia areata are frequent and exist in nearly all cases of general alopecia and in half the cases of severe alopecia. They may even occur in benign alopecia. They occur in three forms:—

(1) The *striated white nail.* Leuconychia is of frequent occurence and when only slightly marked, is quasi-normal. But in certain cases of general alopecia, each nail is striated deeply, and this may persist as long as the alopecia.

(2) The *pitted nail* is riddled with spots the size of the eye of a needle, and varying in depth. Sometimes this lesion only occurs on one nail, sometimes on all; occasionally in a single transverse band on each nail. It is the most common affection of the nail in alopecia.

(3) The *vertically striated* and *notched nail.* This is the onychorexis of *Dubreuilh.* The nail becomes fissured longitudinally and rendered black by dust. At the same time the nail splits in its depth and is infiltrated by air which marks it with yellow fissures, seen by transparency. Lastly, the free border is broken at one of the vertical fissures, so that the nail broken at different levels appears notched.

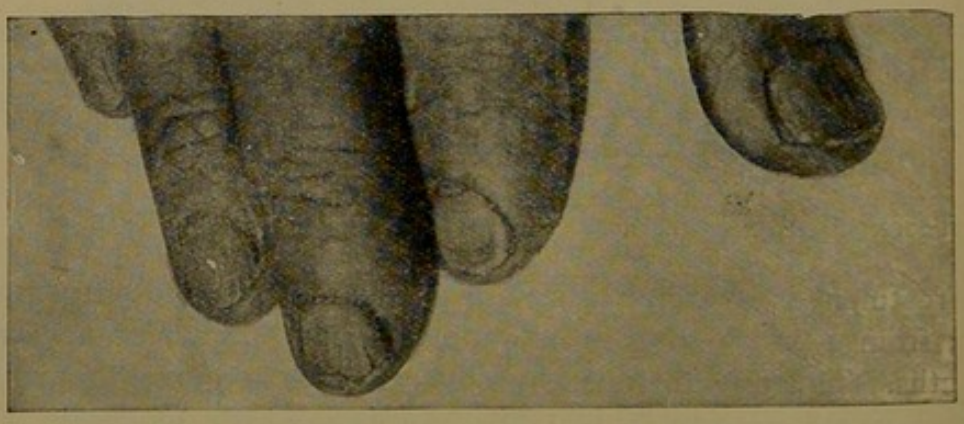


Fig. 169. Onychorrexis in severe alopecia areata. (Sabouraud's patient. Photo. by Noiré.)

As a rule when alopecia areata affects the nails, it suggests that its duration was longer than the aspect on the scalp or beard would lead one to suppose. The mechanism is unknown and the treatment nil.

FAVIC ONYCHOSIS.

Favic onychosis is always accompanied or preceded by favus of the scalp or body. It commences by yellow opaque streaks in the lateral or free borders of the nail, which are visible by transparency. Later on the nail is affected in its whole thickness, and is increased in size at the expense of its density ("pachyonyxis"; like rush-pith). The external table of the nail is preserved, or only destroyed later on.

Deep flaws are produced, at which the external table falls in. Later still the nail only exists in the form of horny debris. This last condition is rare. Usually all the nails, or most of them, are affected on both hands; there is no peri-onychosis.

Diagnosis is made, as in nearly all forms of onychosis, by examination of the lesions of the body and scalp, and is confirmed by microscopic examinations. In cases where the lesions are confined to the nails microscopic examination is sufficient to establish the diagnosis by demonstrating the presence of parasitic elements.

Scrapings of the diseased nail are placed on a slide in a drop of caustic potash solution, warmed, and examined under a power of 300 diameters, without staining. The parasitic elements consist of mycelial fragments, each formed of several cells with double outline, placed end to end. The objective differentiation of the elements of favus and those of trichophyton in preparations made with nail scrapings is difficult even for a specialist. The treatment is that of onychoses in general (p. 390).

TRICHOPHYTIC ONYCHOSIS.

The trichophytons which cause ungual lesions are not usually those which cause the common urban ringworms. Thus in Paris trichophytic onychosis is a rarity. It is generally caused by a trichophyton probably of animal origin, having a violet culture, and is especially a rural form of ringworm. Ungual trichophytosis may occur alone, but more commonly in association with a ringworm of the skin, beard (p. 157), or scalp.

This onychosis occurs in all the fingers, but occasionally one or

two are exempt. It is a chronic affection, which may undergo spontaneous cure, or more often persist without change for years.

It begins at the free border of the nail or in the nail bed, often avoiding a medium island in the external table. The nail is thickened like rush pith, eroded on the surface, sometimes hollowed and reduced to a spongy and uneven surface soiled by dust.

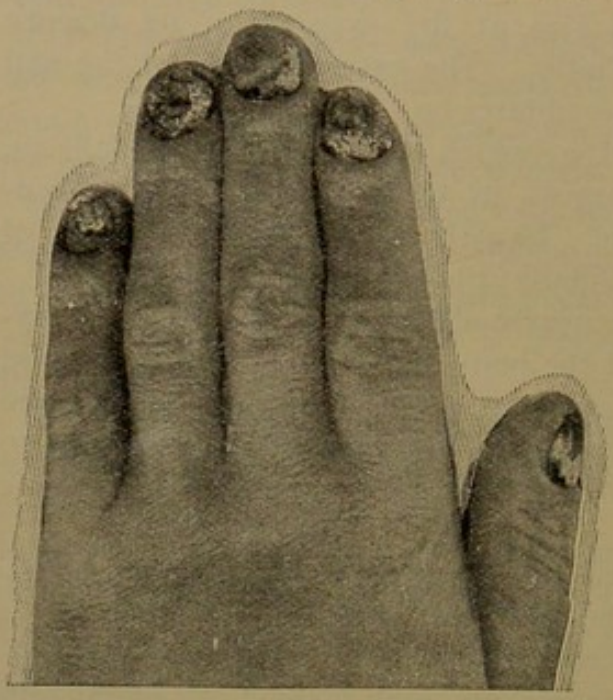


Fig. 170. Ungual trichophytosis. (Lailler's patient. St. Louis Hosp. Museum, No. 1190.)

Microscopic examination is made in the same way as in favic onychosis. The trichophytic mycelial elements are very similar to those of favus, but are more regular and generally form longer chains.

The treatment of mycosic onychoses, favus and trichophytosis is the same, and is medical or surgical. Medical treatment consists in the application of a dressing every night for six months soaked in the following lotion and covered with protective:

Iodine	5 centigrammes	gr. 1/20
Iodide of Potassium . . .	1 gramme	gr. 5
Distilled water	100 grammes	℥i

Surgical treatment consists in successive avulsion of all the nails, under chloroform, and dressing with tincture of iodine (10 per cent).

STAPHYLOCOCCIC ONYCHOSIS. STAPHYLONYCHOSIS.

This occurs in children and adults and is always due to the same cause; viz., inoculation from the saliva by biting the nails.

A minute staphylococcic abscess forms under the angle of the nail, painful for several days, and containing a drop of pus,

which dries up before the growth of the nails renders it visible. It appears as a small mass of horny concentric envelopes, which can be separated by a needle with lamellæ. Microscopic examination shows a collection of staphylococci in the centre.

The nails become chronically infected, or the same cause renews their infection, and small almost painless abscesses form under the free border of the nail. At their onset, firm pressure causes an almost imperceptible drop of liquid to exude. Later on the lesion becomes dry and appears to be only hyperkeratotic,

Both cause and effect must be suppressed. The abscesses are opened with a needle and dressed with sulphate of zinc and copper lotion (p. 376) for several months.

STREPTOCOCCIC ONYCHOSIS. STREPTONYCHOSIS.

This is more a peri-onychosis than an onychosis, and the nail is only affected secondarily.

The lesion commences as described on page 376, but sub-ungual infection is produced and the nail is raised by a thin layer of pus. The process may be acute or sub-acute. When the inflammatory process has ceased, the nail often becomes separated at the sides. It falls off and is replaced.

For treatment see page 376.

THE MALLEOLAR REGION.

In the malleolar region a single morbid type acquires a certain peculiarity; this is prurigo in patches, which is generally symmetrical and accompanied, or not, with prurigo or eczema in patches, in other regions . . . . . .

Eczema and Prurigo . . . . . p. 392

Erythema multiforme also has a predilection for the maleoli, but it is sufficient to mention this, as we have studied elsewhere its objective characters (p. 328).

Purpura, when localised, affects the legs and only occurs on the malleoli when it becomes generalised.

Certain bronze-coloured cachectic dermatites, especially the diabetic, which have an elective localisation for the legs, occasionally affect the ankles.

MALLEOLAR ECZEMA AND PRURIGO.

In the external and internal malleolar regions, chronic eczema, prurigo and prurigo of *Hebra*, may form very special lesions. As a whole they form an oblong placard, with its long axis vertical, only limited by a marked grey pigmentation. On the surface occur vesiculo-papular lesions, more or less raised, vesicular, dry, red and excoriated by scratching.

In cases of true prurigo, the lesions are obtusely papular, slightly eroded, non-vesicular and non-exudative. In eczema the lesions are vesicular, coherent or confluent; and converted by scratching into a slightly infiltrated placard, somewhat raised, red, very pruriginous and slightly exudative after attacks of pruritus.

The objective form of these lesions, in my opinion, matters little so long as they show identical characteristics.

They are rebellious to treatment and sometimes intolerant. As a rule strong reducing agents; chrysarobin 1 in 40, pyrogallic acid 1 in 20, or nitrate of silver 1 in 10, are the most active.

Protective pastes are applied betewen the applications. Plasters with salicylic or pyrogallic acids (1 in 10) may be used as reducing agents. Zinc plasters and pastes protect the lesions from the air and relieve itching (*Jacquet*).

THE DORSUM OF THE FOOT.

I shall only say a few words on erythema pernio; chilblains; dyshydrosis; vesicular eczema; nummular eczema; and traumatic dermatitis of this region

In fact, all these morbid conditions have been studied with the hand, where they are more commonly observed and more typical.

I shall only refer specially to papillomatous tuberculosis, which may attain unusual development in these regions . . . . . . Papillomatous tuberculosis . . p. 394

. . . and lupus, which is often complicated with tuberculosis of the sub-cutaneous tissues; which often occurs in a mutilating form, or may provoke complications which are less common in other situations . . . . . . Lupus . . . . . p. 395

ERYTHEMA PERNIO. CHILBLAINS.

On the foot, erythema pernio (a frigore) in its diffuse or localised form (chilblain) repeats exactly the clinical picture which we have seen on the hands (p. 335).

DYSHYDROSIS.

Dyshydrosis with its rapid eruption of vesicles, resembling grains of tapioca set in the skin, is much more common on the hands than on the feet, and is never seen on the feet without first affecting the hands. This condition is described on page 344.

ECZEMA WITH LARGE VESICLES. NUMMULAR ECZEMA.

Eczema with large scattered discrete vesicles occurs less often on the feet than on the hands (p. 342). Eczema in the form of nummular placards is fairly common on the foot and manifests itself by regular or irregular rounded lesions with a petaloid or floral disposition. The placards are bordered with a red margin

and covered with large uniform vesicles, very pruriginous, and soon destroyed by scratching. These vesicles are not reproduced and are replaced by a kind of red obtuse papulation, which remains pruriginous for some time.

For treatment see page 343.

TRAUMATIC DERMATITIS.

Traumatic dermatites are less common on the feet than on the hands. On the lower limb artificial dermatites arise from improper treatment of ulcerative or traumatic lesions of the leg (p. 304). The dermatites then begins on the leg and generally avoids the foot.

ECZEMA OF THE FOUR EXTREMITIES.

After an artificial dermatitis of the hands and forearms, there is often a similar production of eczematous dermatitis on the lower extremities (acrodermatitis). The mechanism of this is obscure. The propagation to the legs is then only a part of the general dermatosis. For treatment see page 342.

PAPILLOMATOUS TUBERCULOSIS.

This forms a fungating tumour on the dorsum of the foot, formed of a dense mass of small cauliflower fungosities. This

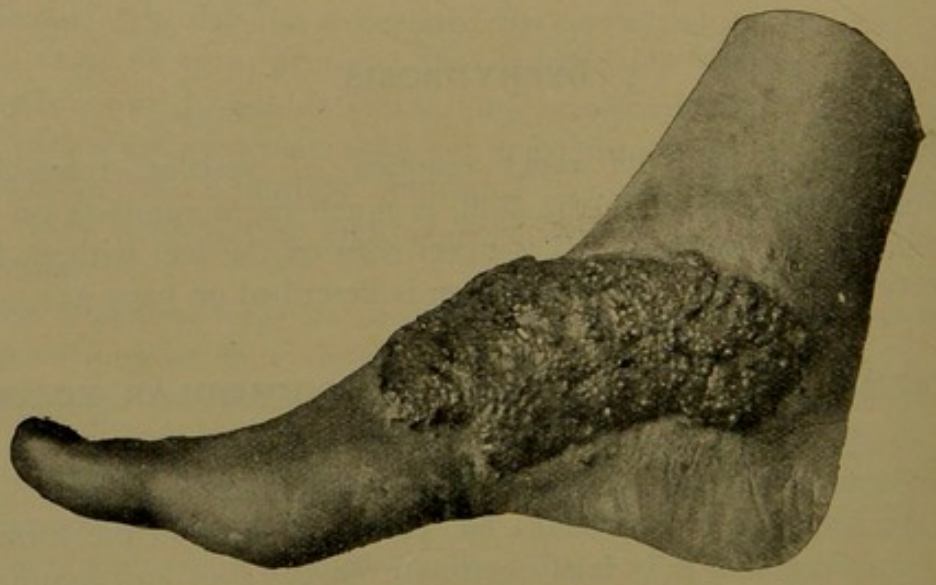


Fig. 171. Vegetating tuberculosis.
(Hillairet's patient. St. Louis Hosp. Museum, No. 685.)

tumour appears to result from external local inoculation, and varies in development in different cases. It is accompanied by a few painful symptoms, never retrogresses, but progresses slowly.

In distinction to lupus and deep forms of tubercle it is easily curable by scraping with a sharp spoon, followed by simple aseptic dressings. The cure is rapid and often complete. If the lesion recurs in the cicatrix the galvano-cautery should be applied.

LUPUS. DEEP TUBERCULOSIS. COMPLICATIONS.

Lupus of the foot is not so rare as might be supposed. It generally begins on the dorsal surface and near the roots of the toes. It has

Fig. 172. Ulcerative lupus of the toes, with erysipelas and elephantiasis. Pseudo-ichthyotic post-elephantiasic keratinisation.
(Vidal's patient. St. Louis Hosp. Museum, No. 674.)

at first the usual characters of intra-cutaneous and non-ulcerative lupus (p. 20), but the sub-cutaneous tissue generally becomes affected and filled with fungosities. The surface ulcerates and the

lupus becomes mutilating, and may cause loss of one or more toes. Tubercle of the bone may continue the process and lead to amputation of the extremity.

In the lower classes these lesions are always badly cared for, and become secondarily infected. Local recurrent erysipelas is produced, and afterwards a progressive elephantiasis of the lower limb, with epidermic papillomatous hypertrophy and pachydermia. The local febrile and erythematous attacks are not due to the initial disease, but are superposed on it.

The treatment of lupus of the foot does not differ from that of lupus in other situations (p. 20), nor that of sub-cutaneous or osseous tuberculosis from that of the same clinical types, in whatever region they are met with. The latter belong to the surgeon.

The erysipelatous complications should be treated by moist dressings. Local antiseptics are required to prevent recurrence, which is the rule and leads to elephantiasis.

THE PLANTAR SURFACE OF THE FOOT.

This chapter, like the others which concern the foot, will be very short, because most of the affections of which it treats are analogous to, or identical with, the same affections of the palmar region (p. 352).

I shall first consider the functional deformities of the skin, such as sweating feet . . . . . . — Ephidrosis . . . . p. 397

. . . and the anatomical deformities such as symmetrical keratodermia . . . . . . — Keratodermia . . . p. 398

I shall next study the parasitic affections; the bullæ of streptococcic infection, contemporaneous with impetigo or ecthyma . . . . . . — Streptococcic bullæ . . . . . p. 399

. . . and the plantar hyperkeratotic and exfoliating trichophytoses . . . . . . — Trichophytosis . p. 399

Accidental keratodermia will next be considered, with plantar corns, bunions and callus . . . . . . — Corns, Bunions, Callus . . . . . p. 400

. . . and hyperkeratotic plantar eczema, often contemporaneous with a similar eczema of the hands . . . . . . — Hyperkeratotic eczema . . . . . p. 400

. . . and eczema in patches, of the plantar arch; often trichophytoid or syphiloid in appearance . . — Eczema of the plantar arch . . p. 401

. . . and plantar psoriasis, indentical with palmar psoriasis . . . . . . — Psoriasis . . . . p. 402

Syphilis will come next with its secondary lesions; but especially with serpiginous tertiary lesions, often of doubtful diagnosis . . . . . . — Syphilis. Tertiary serpiginous syphilide . . . p. 402

After this I shall study chronic trophic plantar ulcers, called perforating . . . . . . — Perforating ulcer p. 402

I shall conclude by a few words on the special exotic actinomycosis, named Madura foot . . . . — Madura foot . . . p. 403

EPHIDROSIS.

Ephidrosis or hyperidrosis is a common and distressing affection, which consists essentially in hypersecretion of sweat. This hyperidrosis occurs on the hands with much less inconvenience; but on the

feet, enclosed in semi-impermeable stockings, with the toes crowded together, the excreted fluid which bathes the macerated epidermis, especially in the folds, becomes a culture medium, and the fœtid odour becomes intolerable.

This infirmity cannot be cured, but the chief inconvenience may be suppressed. Local hygiene must be strict, and daily foot baths are a necessity. The plantar surface of the foot and the interdigital spaces should be painted with a solution of chromic acid 1 to 3 per cent, which causes almost total disappearance of the odour. Weaker doses of chromic acid have not the same effect, and stronger doses may set up a traumatic erythema.

SYMMETRICAL HYPERKERATOSIS OF THE EXTREMITIES.

I have described this congenital and consanguineous malformation in treating of the affections of the palm of the hand, and its

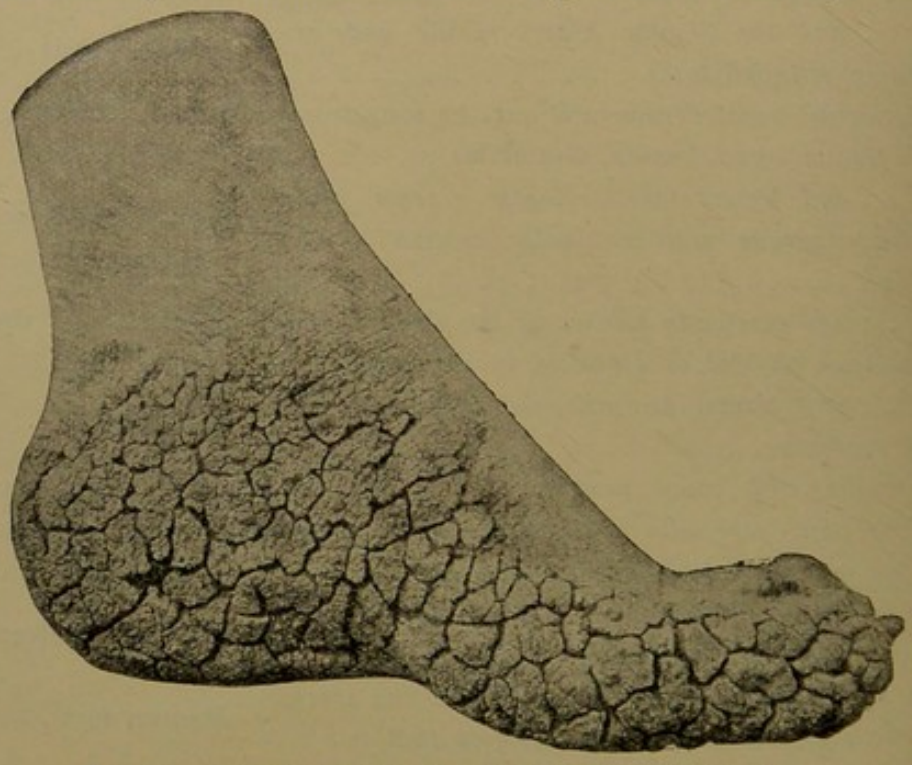


Fig. 173. Symmetrical Keratodermia of the extremities. (Fournier's patient. St. Louis Hosp. Museum, No. 1833.)

objective characters are so well shown in the figure that further description is unnecessary.

The characteristic features are: pain, functional weakness, liability to infection, sweating, maceration and fœtor, which such

lesions invariably present. The lesions require strict cleanliness; moist dressings, scrubbing with pumice stone; chromic acid lotion (2 per cent), etc.

STREPTOCOCCIC BULLAE.

These bullæ are as large as the phalanx of a finger, single or multiple, filled with clear or slightly turbid serum, painful on pressure and on walking, and usually occur in the course of an impetigo or ecthyma of the body (p. 370). They must not be confounded with the simple blisters due to prolonged walking.

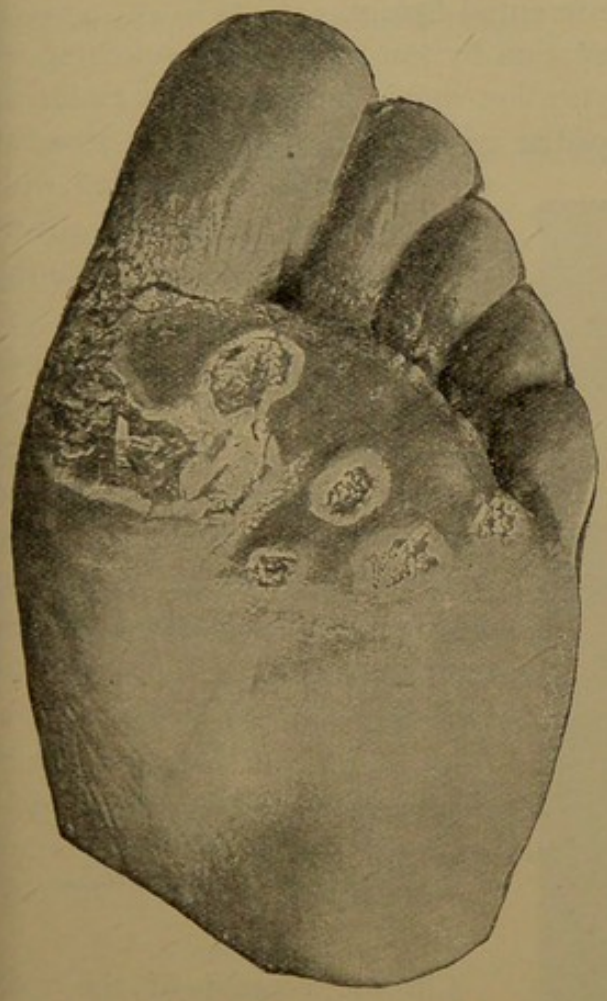


Fig. 174. Plantar trichophytosis. (Besnier's patient. St. Louis Hosp. Museum, No. 1657.)

TRICHOPHYTOSIS.

Plantar trichophytosis is not common. Nevertheless *Djellaleddin Mouktar* has shown that several reputed eczematous lesions were really trichophytic. They nearly always have the same appearance and consist of circular lesions, distinct or fused, situated under the heel or the front of the foot. These lesions are exfoliated in the centre and bounded by a thick collar of raised horny epidermis, in the deep, dry, micaceous, dehiscent squames of which is found the mycelium, in sufficient quantity for microscopic examination.

Under the circumferential collar of raised horny epidermis are formed deep vesicles, which dry up before reaching the level of the

skin. When they exfoliate they are nothing more than dry vesicles or spaces betwen the laminated hyperkeratotic squames.

Treatment consists in scrubbing with pumice and painting with tincture of iodine (30 parts in 70 of alcohol).

CORNS. BUNIONS.

Corns only occur on the plantar surface of the foot. Under the front of the foot they are large and flat, and sometimes complicated by a very painful semi-circumferential fissure.

The best treatment is extirpation by the knife, after softening in a prolonged bath. The decortication should be carried out as far as possible, and when the level of the epidermis is reached, the abraded surface should be touched with a crayon of nitrate of silver, and Friars' balsam applied to the fissure.

Fig. 175. Chronic Eczema of the sole of the foot.

Bunions are bony deformities of chronic rheumatism and require no local treatment. Friction of the shoe may cause the formation of an artificial bursa, which may become hygroma. The treatment of this complication is surgical.

HYPERKERATOTIC AND FISSURED ECZEMA.

Chronic eczema of the foot often assumes the hyperkeratotic and fissured form indicated in the accompanying figure, especially on the front of the foot, the heel and toes.

The squames are thick, hard and horny; painful to pressure because they cover an inflamed skin; separated and divided by

innumerable fissures, still more painful because they may penetrate deeply in the inflamed skin.

This form of eczema is rebellious and difficult to treat. As in all hyperkeratotic disease, the first treatment consists in scrubbing with pumice, after dressings with boiled water containing 10 per cent salicylic acid. When the lesions are reduced to the level of the skin they are treated as chronic eczema in general (p. 343).

Dressings with glycerole of starch, mixed with saponified oil of cade, often give excellent results.

ECZEMA OF THE PLANTAR ARCH.

There occurs in these regions, as the name indicates, an eczema with circinate lesions, very similar to the nummular eczema of the back of the hands (p. 342).

Under the hyperkeratotic debris, the removal of which is painful, is found a circinate, or polycircinate lesion, bordered by red segments of circles, vesicular in places. This lesion, which has some resemblance to trichophytic lesions, and especially to tertiary serpiginous syphilis of the same situation, is very painful, pruriginous and slightly exudative. It is often accompanied by dry, papulo-vesicular eczematous patches on the internal surface of the malleolus and this detail confirms the diagnosis. This dry papulo-vesicular, malleolar eczema is objectively an intermediate form between eczema and the prurigos.

Treatment consists in scrubbing with pumice all the hyperkeratotic lesions, and moist dressings under protective. Afterwards the following ointment is applied—

Oil of cade	aa	5 grammes	ʒ iv
Oxide of zinc			
Ichthyol	aa	2 "	℥i ss
Oil of birch			
Vaseline		15 "	℥i ss
Lanoline		10 "	℥i

A complete cure is sometimes difficult to obtain. The general condition of the patient requires treatment. Recurrence is frequent, but a cure is generally obtained after a few months.

PSORIASIS OF THE FOOT.

Psoriasis is never localised exclusively to the feet. It requires the same treatment on the feet as elsewhere; when on the sole of the foot, scrubbing with pumice, etc. For further details and for psoriasis of the nails see pp. 360, 379, 386.

SERPIGINOUS TERTIARY SYPHILIS OF THE PLANTAR ARCH.

Secondary syphilis manifests itself on the feet in the same way as on the hands (p. 357).

Serpiginous tertiary syphilis appears to have some predilection for the plantar arch and the internal surface of the foot. Its appearance is then very similar to that shown in Fig. 113 (p. 249), which represents a serpiginous syphilide of the neck.

It forms a red polycyclic border, narrower than a finger, covered with striated adherent squames; the whole lesion enclosed in this border is red, infiltrated or hyperkeratotic.

These lesions are sometimes sensitive on walking; and even pruriginous, like all hyperkeratotic lesions. They resemble hyperkeratotic eczema of the same situation; but the latter itches more and its border is less clear, and it is accompanied by pruriginous lesions in irregular patches in other places, especially on the two sides of the malleoli.

All corroborative evidence of syphilis must be carefully searched for. Treatment locally is the same as for palmar syphilis (p. 358). For general treatment of syphilis see page 650.

PERFORATING ULCER.

This term is applied to spontaneous or traumatic ulcers, of chronic evolution, consecutive to peripheral neuritis or local nervous disorders of central origin; tabes, lepra, syringo-myelia, myelitis.

The ulcer is produced at the points subject to friction, generally under the front of the foot; it may be single or multiple. At first it is often taken for a severe corn, and is often traumatic in origin; after the prick of a nail, a piece of glass, etc.; but the wound does

not heal. The ulcer, when fully developed, is round or oval, more or less deep, with a fungating base and raised hyperkeratotic edges. There is usually complete anæsthesia and the sore is very fœtid.

Local treatment should be cautious, as the active methods only cause extension of the ulcer. Sub-carbonate of iron ointment (1 in

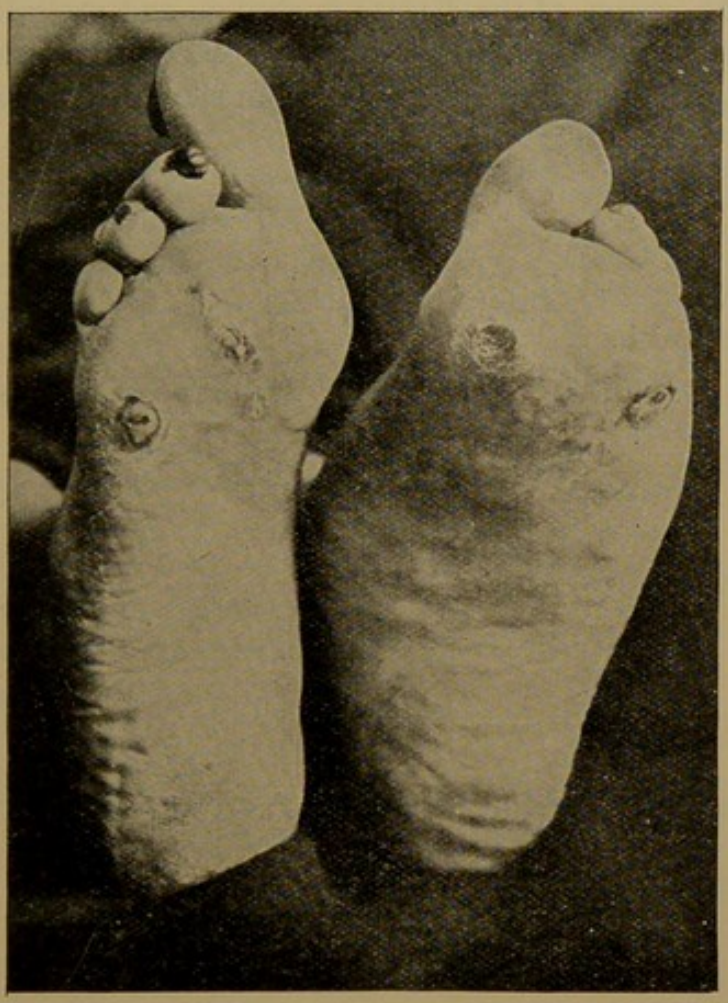


Fig. 176. Perforating ulcer in a tabetic. (Jeanselme's patient. Photo. by Noiré.)

40), or tannoform are useful. This should be covered with diachylon plaster and renewed daily. The causal disease must also be treated.

MADURA FOOT.

This disease, like all exotic diseases, will be dealt with very briefly. It is an actinomycosis of the foot, probably of external origin, fairly common among the natives of the isles of Sunda, and even in

Europeans who live there. The actinomycosis is due to a *streptothrix*, a near relative of the *Actinomyces Bovis* (p. 248), but distinct from it. The disease is characterised by swelling of the foot and the development, especially on the plantar surface, of a tumour of wooden consistence, formed of distinct nodes juxtaposed in a hard œdema. These nodosities tend to spontaneous ulceration like those of actinomycosis. The course of the disease is chronic and progressive, and the treatment entirely surgical; but before resorting to this the action of large doses of iodide of potassium should be tried.

THE TOES.

This chapter will be curtailed in regard to all that I have written concerning the dermatological pathology of the fingers, which naturally resembles, in many respects, that of the toes.

Secondary syphilis often causes interdigital mucous patches which may give rise to errors in diagnosis . . . . . } Cutaneous mucous patches . . . . p. 405

Intertrigo, due to ephidrosis, has, in the foot, special symptoms and treatment . . . . . } Intertrigo Fissures p. 406

Corns are often present on the toes . . . . . Corns . . . . . p. 406

Papillomatous lesions on the toes may require surgical treatment . . . . . } Papillomatous lesions . . . . . p. 406

Chilblains and angiokeratoma resemble those of the hand . . . . . } Chilblain Angiokeratoma . . . . p. 407

For lupus the reader is referred to the paragraph on lupus of the foot . . . . . } Lupus . . . . . p. 407

Retraction of the toes, in the form of a claw, accompanies several cachetic diseases . . . . . } Retraction of toes p. 407

Gangrene of the toes is rare, but may arise from diverse causes . . . . . } Gangrene . . . . . p. 408

INTERTRIGINOUS CUTANEOUS MUCOUS PATCHES.

At the time of the secondary syphilitic eruption of papules and mucous patches, especially when the syphilis is rather severe, there occur between and underneath the toes, exulcerating syphilides, very similar to the cutaneous mucous patches of intertriginous regions.

These lesions resemble broken blisters of the palm, caused by excessive and unaccustomed manual labour. They are at first phlyctenular, but soon become exulcerative. They are situated in all the sub-digital and interdigital folds; they may be discrete or confluent, are nearly always laminated, and exhale a fœtid odour.

The physician who is not familiar with the lesions of syphilis may mistake them for a simple or impetiginous intertrigo, an ecthyma or eczema. In doubtful cases they must be always borne in mind;

but they never exist alone, and signs of recent syphilis are easily found at this period. Local treatment consists in strict cleanliness followed by cauterisation by nitrate of silver. The general treatment is that of secondary syphilis (p. 650).

INTERTRIGO. FISSURES.

Intertrigo of the toes is usually the result of ephidrosis (p.). The interdigital folds are moist, especially between the 4th and 5th toes. In true ephidrosis the sub-digital folds are intertriginous. There is itching and smarting. Scratching removes macerated epithelial debris, and the appearance of the epidermis is pearly white, shining, moist and often fissured.

Treatment of plantar ephidrosis by daily painting with 2 per cent chromic acid should never be neglected; but I have had better results with local friction with 1 per cent permanganate of potash, the fissures being protected by Friars' balsam. Afterwards the toes are separated by wool powdered with oxide of zinc or tannoform.

CORNS.

Everyone knows these lesions. Corns are local foci of keratodermia, sometimes having a raised centre, which is enclosed in the subjacent epidermis, and visible by transparency in the middle of the keratoma, which it centres like an umbilicus. Treatment is preferably by excision with the bistoury, after a prolonged bath. For the "partridge eye," after cutting with the bistoury, the central cone should be removed by a fine circular curette. After these small operations a crayon of nitrate of silver should be applied. Keratomas treated in this way are not reproduced for some time. If these

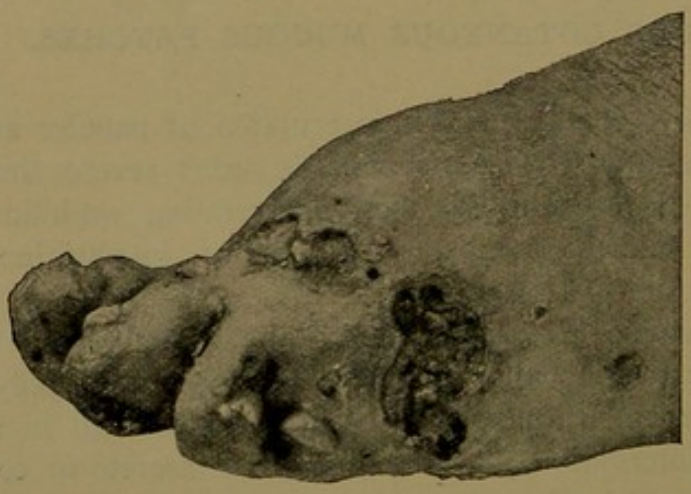


Fig. 177. Ulcerative Lupus. Elephantiasis consecutive to successive attacks of erysipelas. (Vidal's patient. St. Louis Hosp. Museum, No. 674.)

lesions are present in considerable numbers the patient should be advised to wear alternate stockings of different kinds.

WARTS. PAPILLOMATA.

I have twice observed a slightly raised papillomatous lesion covering the little toe and the fourth; this did not appear to be tuberculous, but a flat wart of rapid and progressive development. After different kinds of ineffectual treatment the lesion was successfully excised.

CHILBLAINS. ANGIOKERATOMA.

Chilblains occur on the toes as on the fingers (p. 365). The angiokeratoma of *Mibelli* may also occur on the toes and requires the same treatment as on the fingers (p. 365).

LUPUS OF THE TOES.

This is included with lupus of the foot, which has been described on page 395 (vide Fig. 177).

CONTRACTION OF THE TOES. HAMMER-TOE.

This is a congenital deformity occurring in many subjects, in which the "hammer-toes" overlap each other. But it is also pro-

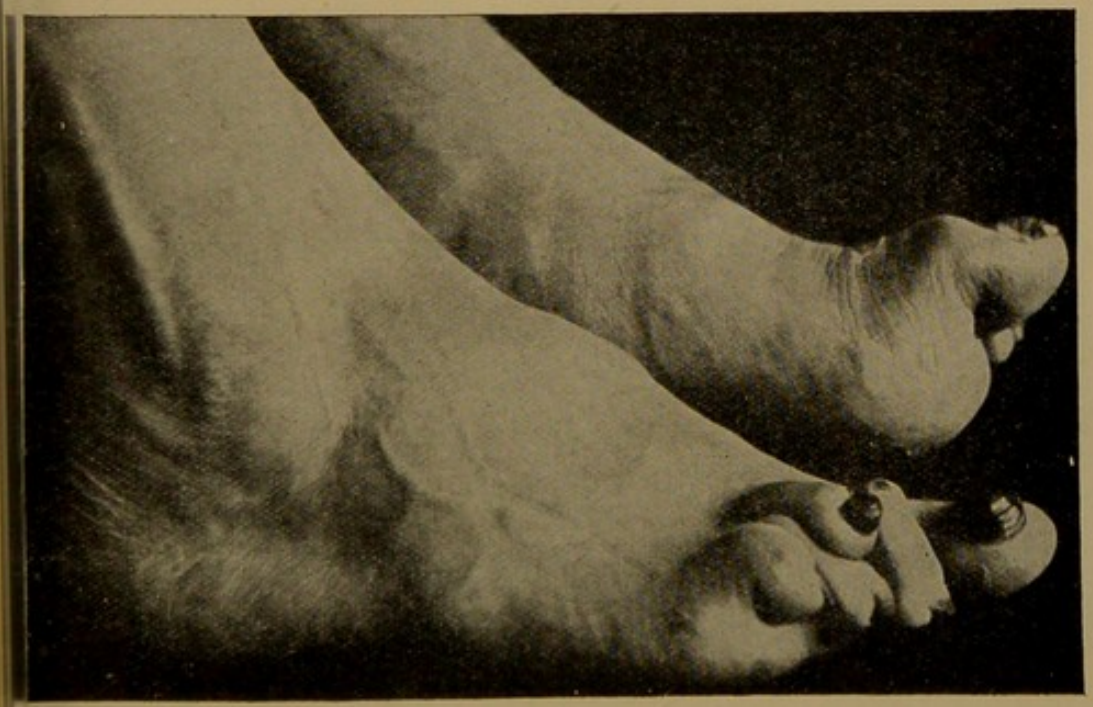


Fig. 178. Onychogryphosis. Tabetic foot with perforating ulcer. (Jeanselme's patient. Photo. by Noiré.)

duced in the course of several cachectic diseases; especially in severe nervous diseases, such as syringo-myelia, leprosy, tabes, sclerosis in patches, and progressive muscular atrophy. In the case represented in the figure it occurred in tabes.

These lesions are often accompanied by deformities of the nails and onychogryphosis. The treatment is purely orthopœdic and generally consists in the wearing of special socks.

GANGRENE OF THE TOES.

Gangrene of the toes may occur in chronic ergotism; in the course of infectious diseases; after septic arterial thrombosis; in atheroma due to endarteritis obliterans, and in diabetes. Also, gangrene by freezing is often seen in wounds on the battle field. The treatment of these cases belongs to the surgeon rather than to the dermatologist.

The nails of the toes may present all the lesions which affect the nails of the hands (vide p. 382).

The onychoses of eczema and psoriasis, and streptococcic peri-onychosis (whitlow) are identical on the hands and feet. The onychoses of secondary syphilis are less common on the feet than on the hands, but present the same symptoms. The onychomycoses (favus and trichophytosis) are rare on the toes, but they are seldom looked for. I have never seen staphylococcic onychosis of the toes, which occurs on the hands (p. 390).

On the other hand, in onychoses of the foot the detachment of the nails and the production of fœtid exudation under them are much more common. Treatment consists in avulsion of the nail and local treatment of the cause during regrowth of the nail. In-growing toe nail may require removal of the whole lateral insertion of the nail. Onychogryphosis is more common on the feet than on the hands, and requires a brief mention.

ONYCHOGRYPHOSIS.

This is not a disease, but a symptom. The nail is hypertrophied, claw shaped, transversely striated like a goat's hoof, or like an oyster

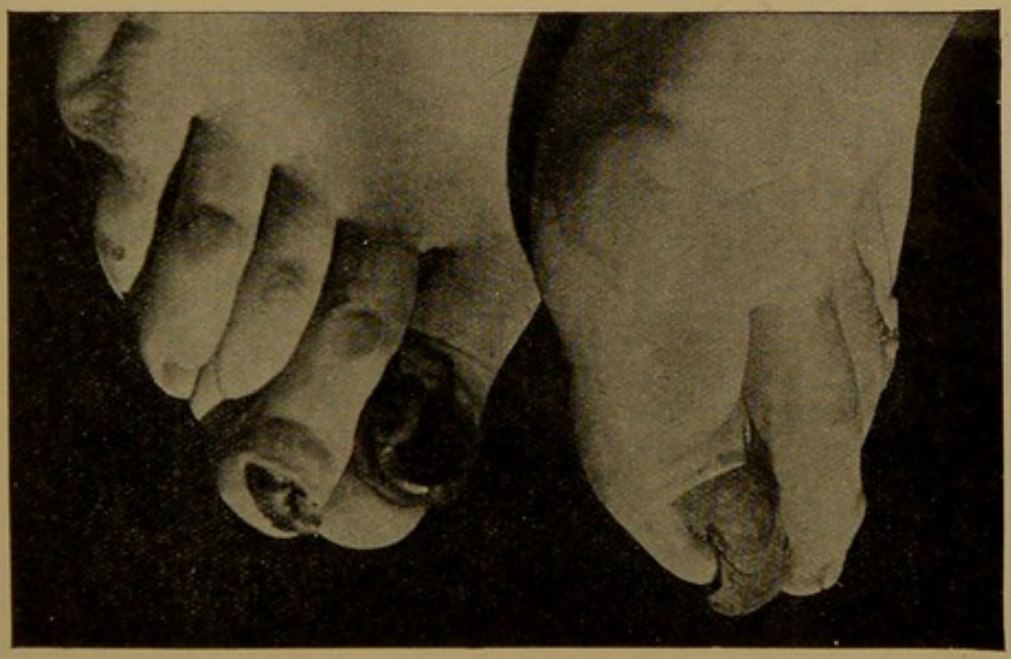


Fig. 179. Onychogryphosis. (Dubreuilh's patient.)

shell. This deformity is especially common on the great toe and is less marked on the other toes. It may be due to local irritation, such as eczema or psoriasis; but is more often consecutive to local traumatism, or to trophic disorders; contraction of the toes, or severe diseases, such as tabes, leprosy, syringo-myelia, etc.

The local treatment consists in cutting the nail after softening by moist dressings. In simple traumatic cases the nail may be removed.

THE GLANS AND PREPUCE.

The region of the glans presents two malformations. Narrowness of the meatus, predisposing to urethral infections . . . . . Narrowness of the meatus . . . p. 412

. . . and shortness of the frœnum, which causes tearing during coitus, and thus becomes the cause of inoculation of hard and soft chancres . . . . Shortness of frœnum . . . . . p. 412

Phimosis is of different kinds. Sometimes the narrowness of the prepuce is congenital . . . . Congenital phimosis . . . . . p. 412

. . . sometimes, even in the child, it is accidental, temporary and inflammatory . . . . . Inflammatory phimosis . . . . . p. 413

In the adolescent there are two kinds of phimosis; one, inflammatory and œdematous, consecutive to gonorrhœa . . . . . Gonorrhœal phimosis . . . . . p. 413

. . . the other due to secondary syphilis; in which the prepuce is hard, fibrous and full of nodosities . . . . . Syphilitic phimosis . . . . . p. 413

All forms of balanitis may give rise to a transient consecutive phimosis; after herpes, for instance . . . . . Herpetic phimosis p. 414

. . . but more often after simple traumatic balanitis . . . . . Phimosis of balanitis . . . . . p. 414

The phimosis of diabetic balanitis is peculiar in aspect and easily distinguished, as the balanitis which accompanies it . . . . . Diabetic balanitis p. 414

Lastly phimosis may complicate the vegetations and balano-posthitis which it causes . . . . . Phimosis of vegetations . . . . . p. 415

After this morbid series, the mechanism and treatment of paraphimosis will be explained . . . . . Paraphimosis . . . p. 415

A few words will be devoted to each form of balanitis; first the primary balanitis; traumatic mercurial, iodide, pustulo-ulcerative, erosive, circinate, etc. . . . . . Primary balanitis . p. 415

Symptomatic balanites will be studied with their causes . . . . . .

The lesions of scabies affecting the glans will be reviewed . . . . . Scabies . . . . . p. 416

. . . also post-gonorrhœal vegetations . . . . Vegetations . . .. p. 417

. . . also syphilitic lesions of the glans and prepuce: hard chancre, secondary papules, common and chancriform gummata . . . . . . Syphilis . . . . . p. 418

Soft chancre, or chancroid, will require a differential description . . . . . . Soft chancre . . . p. 421

Herpes is the origin of many errors in diagnosis Herpes . . . . . p. 422

Diabetic lesions will be described; ulcerative or exulcerative; often misunderstood, but of considerable diagnostic importance . . . . . . Diabetides . . . . p. 423

Lastly, mention will be made of lichen planus, tuberculosis and epithelioma . . . . . . Lichen planus . . . p. 424; Tuberculosis . . . p. 424; Epithelioma . . . . p. 424

NARROWNESS OF THE MEATUS.

Congenital narrowing of the meatus is a condition which nearly always leads to a chronic microbial state of the navicular fossa; the increase in size combined with slight irritation of the surface predisposing to contagion. The meatus may easily be enlarged by a slight snip with the scissors.

Gonorrhœa often leaves behind it a persistent irritation of the navicular fossa, when the meatus is too narrow; also, vegetations may occur there.

SHORTNESS OF THE FROENUM.

Shortness of the frœnum is a more important malformation, for transverse lacerations may occur at each coitus, and expose the subject to any infection which he may risk. Ruptured frœnum is often marked at each end by two small cutaneous masses, about half an inch apart. Many soft and hard chancres and vegetations no doubt occur at the seat of a ruptured frœnum. Division of the frœnum with scissors should be practised on all infants, when it is too short. The frœnum contains a small artery which may require ligature after section.

PHIMOSIS.

By the name phimosis is understood the condition in which it is impossible to expose the glans penis, on account of the acquired or congenital narrowing of the prepuce. Phimosis is of considerable clinical importance.

In the child phimosis may be congenital or accidental. When congenital, which is more common, it varies in degree of tightness; severe cases require circumcision or incision; less marked cases dilatation by forceps. Congenital phimosis is sometimes accompanied by adhesion of the prepuce to the glans by veritable synechiæ, which require to be ruptured.

The child may also present inflammatory phimosis, with local pain and œdema. This is rare and is due to a balano-posthitis caused by accumulation of smegma, or to rough cleansing; sometimes, perhaps, to the practice of masturbation. In these cases boric acid lotion should be injected several times a day between the glans and the prepuce. In two or three days the glans may be exposed and the balano-posthitis treated according to its cause.

In the adolescent and adult phimosis may be due to very different causes, the commonest of which are syphilis and gonorrhœa. The characters of these differ considerably.

GONORRHOEAL PHIMOSIS.

The penis is large, pendulous, much swollen and painful and red at the extremity. Pus emerges from the prepuce, and can be seen to be gonorrhœal if the meatus is visible; if not a microscopic preparation may be made.[1] If there are no gonococci the case is one of balano-posthitis. If it is a case of gonorrhœa it should be treated by local irrigation, moist dressings, etc., and when the inflammation has subsided irrigation of the urethra with permanganate (1 in 10,000 to 1 in 1,000). For technical details see the treatises on venereology. If there is balano-posthitis treat with injections under the prepuce.

SYPHILITIC PHIMOSIS.

The phimosis of secondary syphilis is quite another thing. The penis is much less enlarged and painless. The prepuce is increased in size and sometimes irregular, purple in colour, and feels as hard as india-rubber.

[1] Spread a trace of pus on a slide; dry, and fix by passing two or three times through a flame; stain for 3 minutes with Unna's polychromatous blue; wash with water; dry and examine under an immersion lens with a drop of cedar oil.

The glans penis cannot be exposed, owing to the sclerous ring of the prepuce. A number of nodosities can be felt through the prepuce due to the induration of primary chancres, or secondary papules. The satellite gland may be discovered in the groin, and a roseola or secondary papular eruption may be found on the body. The hard indolent prepuce with lymphangitis or phlebitis of the furrow, hard and indolent, is easy to diagnose, and is not comparable to any other affection. The prepuce, which appears impossible to dilate, recovers its suppleness under appropriate general treatment.

PHIMOSIS OF BALANITIS.

All forms of balanitis may give rise to secondary phimosis. An inflammatory phimosis may occur after *herpetic balanitis* (p. 422). In this case the preputial orifice discharges a slight brownish exudation, streaked with blood. This phimosis is not absolute, and the glans may be uncovered, but the process is painful. Diagnosis may be only hypothetical. The case should be treated by sub-preputial irrigations with boric lotion or sulphate of zinc (1 in 200).

In *common balanitis* phimosis indicates a high degree of inflammation; treatment is the same, by hot fomentations.

Phimosis due to *diabetic balanitis* may occur in middle aged obese subjects. The prepuce is somewhat hard and swollen and often presents painful radiating fissures. A gummy semi-purulent liquid may be pressed from the preputial orifice, in small quantities. Palpation reveals a crown of painful points in the region of the balano-preputial furrow, where diabetic ulcers are situated. Sugar is found in the urine (see page 423).

Phimosis may accompany *vegetations* (p. 417), either because the vegetations have increased the size of the glans, or because they have set up an acute balano-posthitis and inflammatory phimosis. The inflammation may even lead to gangrene of the prepuce. In this case the circumcision should be completed. In the first case the inflammatory phimosis may be treated after the vegetations have been removed.

Lastly, accidental obstacles, such as an epithelioma or chancriform gumma, may cause phimosis.

PARAPHIMOSIS.

When the prepuce is tight and there is a slight degree of phimosis, if it is drawn back to the furrow it may not be able to return; the phimosis has become a paraphimosis. The resulting stricture causes swelling of the glans which opposes more and more the return of the prepuce to its normal place. The prepuce, owing to its obstructed circulation, becomes œdematous.

This condition if left to itself may lead to gangrene, but the patient generally seeks relief as soon as possible.

Treatment consists in the application of vaseline to the whole region and enveloping it in a compress; then the penis is grasped in the hand and slowly compressed for two or three minutes, to remove the œdema. At the same time the prepuce is pressed forward and resumes its normal position.

PRIMARY BALANITIS.

Balanites or balano-posthites; inflammation of the glans, balano-preputial furrow and prepuce are numerous. They may be primary or secondary.

TRAUMATIC BALANITIS.

This consists in a more or less abundant suppuration, chiefly of the balano-preputial furrow, accompanied by pain and œdema. It is cased either by stagnation of smegma or by repeated cleansing after a suspicious coitus. Treatment consists in repeated irrigation with boiled water containing camomile; oxide of zinc ointment, and the avoidance of coitus.

MERCURIAL BALANITIS.

Acute local mercurialism, erythematous or suppurative, has been observed after the application of calomel to vegetations, or with mercurial ointments applied to chancres. The causes must be suppressed and the parts treated by irrigation, baths and simple ointments.

IODIDE BALANITIS.

This may occur in iodism, but is rare. It may assume the neoplastic or ulcerative form, like the cutaneous lesions of the same origin. The cause must be suppressed, and moist dressings and simple ointments applied.

PUSTULO-ULCERATIVE BALANITIS.

The ulcerations have the size, appearance and topography of true herpes, but they suppurate from the first; the ulcers are deeper; the eruption is formed by sub-acute attacks and does not recur, like herpes. *Du Castel* regards it as contagious. The cause is unknown and the treatment the same as above.

CIRCINATE EROSIVE BALANITIS.

This was described by *Berdal* and *Bataille*. It is a contagious, inoculable balano-posthitis, appearing at first as a white accumulation of epithelium which enlarges; the centre consisting of exulcerated epidermis, while the sharply defined lesion is limited by a border of white accumulated epithelial debris. The centre of the lesion heals, while the periphery enlarges. In the debris spirilla are found. They may be stained by eosine or fuchsine in extemporaneous preparations, but cannot be cultivated.

Fig. 180. Scabies of Penis. (Fournier's patient. St. Louis Hosp. Museum, No. 765.)

Mild cases heal in 4 or 5 days; otherwise nitrate of silver (1 in 20), and calomel and tannin ointment (1 per cent) may be applied.

SECONDARY BALANITIS.

Secondary balanitis may co-exist with vegetations, herpes, chancre or syphilitic papules and will be referred to with each of these lesions. They are easily recognised and treated in the same way as primary balanites. Diabetic balanitis is referred to under the name of diabetides (p. 423).

SCABIES.

The burrows of scabies in the glans penis are common and pathognomonic. Many lesions, which at first sight cannot be declared as scabies, are confirmed by the sarcoptic lesion of the glans or penis (p. 425).

On the glans the older lesions form round, red, flat, almost papular spots, on the surface of which the fine folds of skin of the glans are effaced. The younger lesions consist of vesicles or burrows, often excoriated. The burrow may be quite distinct, red and irregular.

The lesion of scabies on the glans is thus polymorphous and not characteristic, but its localisation is more so. Syphilitic papules and psoriasis of the glans are rare, and the surface of the glans scarcely ever presents anything comparable to the vesicular, erosive lesions of scabies. The diagnosis of scabies is certified by the presence of similar lesions on the furrow and penis. (For treatment see page 537.)

Fig. 181. Vegetations. (Guibout's patient. St. Louis Hosp. Museum, No. 78.)

VEGETATIONS.

Vegetations (cauliflower or cockscomb) consist of small papillomatous tumours situated on the genital regions of both sexes; in the male, sometimes at the urethal orifice, but more often in the balano-preputial furrow or the internal surface of the prepuce.

A small simple papular projection forms at first, which soon divides in digitations; these multiply but retain their single pedicle. Other similar papules develop and multiply in the same way. After a time the projecting digitated tumours closely resemble a cauliflower in appearance. They are pink and covered with epidermis and when multiple the opposed surfaces secrete a purulent microbial fluid with an infectious odour. These small tumours act as

foreign bodies between the glans and prepuce and cause constant suppuration.

The affection exists in different degrees. The most pronounced correspond to the figure; medium cases to the preceding description. Slight cases comprise one or two rows of small digitated papules, in the balano-preputial furrow, or along the frœnum, and one or two papules at the meatal orifice.

Vegetations, according to many venereologists, are connected with gonorrhœa, and according to them never occur in patients who have not had gonorrhœa. Experimental proof of this opinion is wanting, but it seems to correspond to clinical observation.

These lesions, when they are not well treated, are very tenacious, recurrent and distressing to the patient. They require continual and careful cleanliness, and repeated treatment. The vegetations should be touched with crystals of chromic acid, taking care to avoid the healthy skin. The patient can apply daily a powder of 2 parts powdered savin, 3 parts salicylic acid and 3 parts powdered talc.

By this treatment vegetations may be cured in 2 or 3 months, but recurrences must be watched for.

HARD CHANCRE.

The hard chancre, the initial lesion of syphilis, is more frequent in this situation than elsewhere. It appears, from 15 to 30 days after the infectious coitus, in the form of a red, non-exudative lesion, in the centre of which the horny epidermis disappears by simple friction. Inoculation in the monkey show that the initial lesion is a flat vesicle, which is almost immediately destroyed. In practice this commencement is not observed, and the first thing seen is the exulceration. This is flat, non-excavated, slightly moist but not suppurating, and enlarges from day to day to attain a maximum of 3-5 inch, 30 days after coitus.

As the sore enlarges a cartilaginous induration develops underneath it, larger than the exulceration. This resembles a disc of cardboard enclosed in the skin. The chancre remains for 4 to 6 weeks; after the fourth week the eroded surface contracts and becomes epidermised, but the induration persists for a long time and may be felt 2 or 3 months later.

Hard chancres vary in size in different cases, and the one described is an average case. It is usually single, but there are many excep-

tions to this rule. A large chancre may be followed in a few days by smaller ones.

After the first few days of the chancre one of the glands of the groin enlarges, on the same side as the chancre; this is the satellite gland. It becomes double its normal size, very resistant and remains for months without suppurating. A few days later the neighbouring glands are affected, forming the "pleiad," but they do not attain the size of the satellite gland. They are all painless.

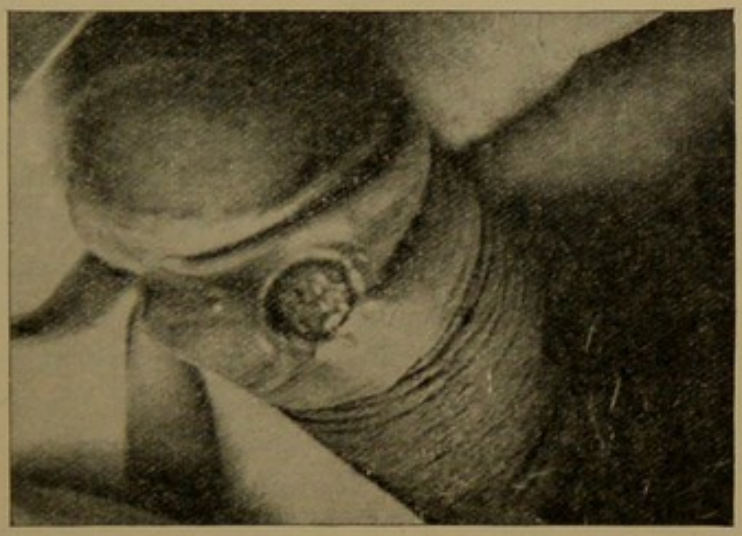


Fig. 182. Indurated chancre of penis. (Jeanselme's patient. Photo. by Noiré.)

The situation of the chancre is variable. It is often seen on the frœnum, especially when this is short and ruptured during coitus; it is also frequent in the balano-preputial furrow near the frœnum, or on the prepuce. It may occur at the meatus, giving the appearance of eversion of the mucous membrane, but it is usually unilateral. Chancre may occur in the urethra and is the origin of numerous errors in diagnosis. It irritates the mucosa, which secretes muco-pus; a superficial examination leads to the diagnosis of gonorrhœa; after a few days the discharge ceases and the patient thinks he is cured of his so-called clap; but the induration under the glans penis can be felt. Chancre of the urethra is, however, relatively rare.

The lymphatic glands of the urethra are pelvic and lumbar, and the absence of palpable glands may add to uncertainty in the diagnosis, till the appearance of secondary lesions.

Every previous erosion favours syphilitic infection. Although clinical experience seems to show that the skin and mucous membrane, when intact, are not easily inoculated by syphilis during coitus and may escape inoculation, on the other hand the erosions of multiple coitus, especially that of the frœnum, and also erosions caused by scabies, render inoculation almost inevitable. The proportion of patients presenting scabies in association with hard chancre, at the St. Louis Hospital, is considerable.

Hard chancre may develop at the same time and in the same place as a chancroid. In this case it is often unrecognised, for it is then ulcerated and suppurating, and the only remaining characteristic is the induration. The glandular changes should be carefully watched and the appearance of a satellite gland, non-inflammatory and non-painful, should make the diagnosis guarded.

The local treatment of indurated chancre is nil. The treatment of syphilis (p. 650) should be commenced at once. This is the opinion which tends to prevail more and more at the present day, when most syphilographers are in favour of rapid and intense treatment. Many, however, even recently, wait for the appearance of the roseola before treatment. This would appear to lose valuable time.

It may be noted that the indurated chancre leaves only a flat and hardly visible cicatrix, which often disappears completely in the course of time. A deep or depressed cicatrix in this situation does not represent a former indurated chancre.

SYPHILIDES.

Hard chancre is the first and the most important of the syphilides of this region, but there may be many others.

(1) Secondary papular syphilides, more or less numerous, disseminated on the surface of the glans and the internal surface of the prepuce. By their multiplicity and induration they cause syphilitic phimosis.

(2) Tertiary serpiginous syphilides and local gummata are somewhat rare and present nothing peculiar in this situation except the cicatrix which they leave. Others, the so-called chancriform gummata, may present a remarkable resemblance to the initial lesion. These gummata have given rise to the belief in double syphilis, or reinoculation of syphilis in an old syphilitic subject, of which there

does not appear to be a single authentic example (*A. Fournier*)[1] These so-called chancres are not followed by glandular induration, roseola, etc. They remain the same till cured by treatment and leave a cicatrix which is much more marked than in true syphilitic chancre.

SOFT CHANCRE.

Soft chancre or chancroid appears from the 4th to 8th day after the infectious coitus, in the form of a vesiculo-pustule which soon ulcerates. It then forms a small ulceration of the same depth and width, which enlarges from day to day in all directions. There is considerable suppuration, and the pus, which is very contagious, may multiply the chancres around the first one. Multiple soft chancres are the rule, and the region may be covered with them. They occupy the frœnum, the balano-preputial furrow, the prepuce and the glans.

They form punched out suppurating ulcers, with a fine red border. They are very characteristic and can hardly be mistaken for anything except the vesico-pustules of progenital herpes (p. 422). But while the vesico-pustules of herpes are agglomerated in a group, the chancroids are placed irregularly. Moreover, the herpetic vesicle is not punched out, is more regular and does not suppurate.

The reinoculation of soft chancre is a method employed since the time of *Ricord* to prove its nature. The pus of the initial chancre is inoculated in the arm of the same patient. It forms a pustule which reproduces, usually in an attenuated form, all the symptoms of the initial chancroid. When their nature has been proved they are treated with sulpho-carbon paste which acts as a caustic. They may also be treated by iodoform powder or ointment, tannoform, subcarbonate of iron, etc. The lesion is very little resistant to antiseptics. Nevertheless it sometimes becomes phagedenic (see Fig. 120). The true causes of phagedena are not known; it is rare at the present time, probably because soft chancres are more rapidly treated.

[1] Translator's Note. It is true that the chancriform gumma may have led to the erroneous diagnosis of a second infection in some instances; but so many cases of re-infection have been reported by competent authorities, in which the chancres appeared in different situations at the two infections, that second attacks of syphilis, or re-infection, must be accepted as an established fact. (Vide Translator's book on Syphilis and Gonorrhœa.)

Microscopic examination is easy in the case of a young chancre. Pus scraped from the border, fixed and stained by ordinary methods, shows a strepto-bacillus in chains (*Ducrey-Unna*). The pus from the chancre shows the same microbe in a diplococcic form, the bacillus only staining at the two ends.

Soft chancre may only give rise to slight glandular reaction; or

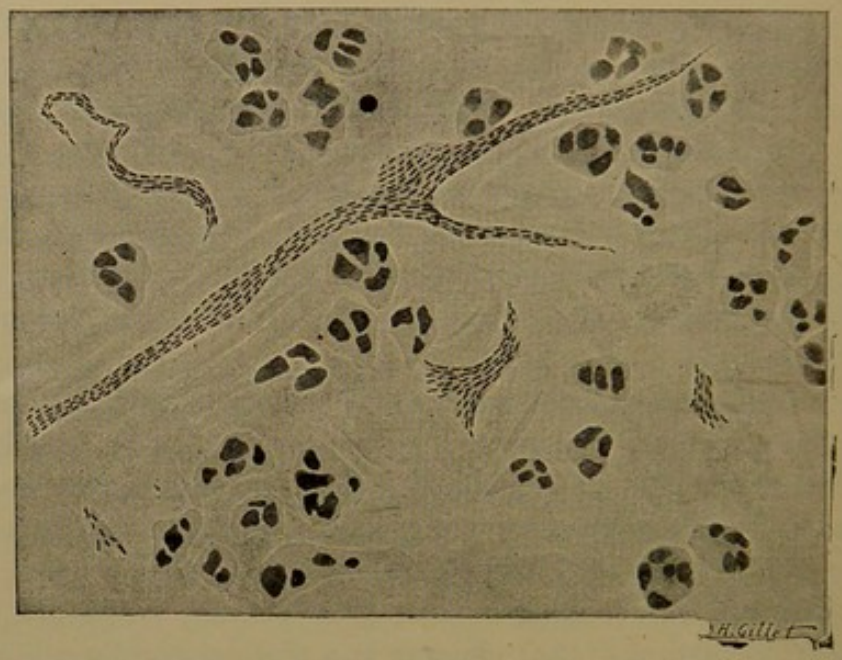


Fig. 183. Bacillus of Ducrey from soft chancre. Fibrinous exudation from the walls. (Obj. 1-12. Oc. 3 Leitz.

one of the glands may become acutely inflamed, forming the bubo of soft chancre, which was studied in the region of the groin (p. 270).

The cicatrix of soft chancre is always more distinct than that of hard chancre. It remains visible indefinitely, and is sometimes sunk in the skin, preserving the sharply cut edges of its initial state.

HERPES PROGENITALIS.

Herpes progenitalis consists in an eruption of herpetic vesico-pustules, grouped in the form of a bouquet, appearing in one or two days on some part of the congenital organs, more often in the balano-preputial furrow; lasting 7 or 8 days, and disappearing on the 10th or 12th. The eruption is very liable to recurrences.

The vesicles occur in groups of 6 to 12; each one oval, and mostly arranged with the larger axis in the same direction. The eruption is preceded by itching and smarting, when a white spot under the epidermis marks the situation of each vesicle; on the next day the turbid vesicles appear, in the form of half an egg cut longitudinally. The largest are 3 millimetres long and 2 wide. They are opened by scratching or dry up *in situ*. When opened each vesicle forms a round, red erosion with a clearly cut margin. They suppurate slighly on one day and dry up on the next, leaving a brownish scab, preserving the form of the lesion. Herpes recurs in the same place, or near it, an indefinite number of times; every month, after every strange coitus, or without any appreciable cause. It often causes nervous depression, and many herpetic patients, in spite of affirmations to the contrary, believe themselves to be syphilitic and regard their relapses as outbreaks of mucous patches. Others are afraid of being inoculated with syphilis by the herpetic erosions and remain indefinitely chaste. It is a fact that all doubtful sexual connexion is rendered more dangerous by these erosions.

There is no satisfactory treatment for herpes. Daily local bathing with carbolic lotion (2 per cent) is one of the best preventive methods. All kinds of powders and ointments have been prescribed for herpes, with variable success.

DIABETIDES.

The diabetides have no physiognomy of their own; it is their negative characters which suggest diabetes.

For instance, a man between 40 and 55 years, rather obese and florid, complains of erosions caused during coitus, which have not healed for two months or more. On examination, disseminated erosions are found in the balano-preputial furrow, slightly exudative and crusted, easily bleeding; with no resemblance to mucous patches, chancres, scabies or any ordinary lesion of this situation. In such a case diabetes should be suspected and the urine examined.

General treatment of diabetes and strict diet are necessary; local treatment comprises the use of powders, such as dermatol, tannoform or oxide of zinc; or better still the sub-carbonate of iron ointment (1 in 40).

As a rule the diabetides heal when the sugar diminishes; but they may recur when the glycosuria returns, so as to cause the patient much distress. However, about three-quarters of the cases yield definitely to treatment.

LICHEN PLANUS.

Lichen planus of the prepuce and glans is only an epiphenomenon in the course of the general eruption. Here, as elsewhere, the eruption is formed by a multitude of small, flat, raised, smooth, shining papules, of a violet-lilac colour, grouped or scattered in different cases, and with a surface traversed by fine white lines.

TUBERCULOSIS.

I have once seen cutaneous and sub-cutaneous tubercle of the glans penis. It consisted of a placard covering one-third of the surface and gave the part a peculiar resistance. It developed slowly and invaded the corpus spongiosum without causing functional trouble, the mucosa of the urethra remaining intact. A biopsy confirmed the diagnosis.

EPITHELIOMA.

Epithelioma of the glans is not very common. It occurs in the form of a raised growth, sometimes pedunculated; sometimes in framboesiform masses, from which almost liquid epithelial agglomerations can be pressed out like vermicelli. Treatment by X-rays should be attempted after removal, or without it.

THE SHEATH OF THE PENIS.

I shall first consider sebaceous cysts which are very common in this region, and by their number may cause a slight deformity . . . . . } Sebaceous cysts . p. 425

Simple or pustular scabies causes characteristic burrows and vesico-pustules in this region . . . . } Scabies . . . . . p. 425

Herpes, with its recurring vesicular eruptions, is an almost perpetual affliction in some subjects . } Herpes . . . . . p. 426

Syphilitic lesions; chancre, secondary papules and tertiary gummata will be dealt with . . . . } Syphilis . . . . . p. 426

. . . also soft chancres, which are rather rare in this region . . . . . } Soft chancre . . . p. 427

On the hypogastric region and on the sheath of the penis, occurs a form of psoriasis with fatty squames . . . . . } Steatoid psoriasis p. 427

I shall conclude with a description of spontaneous gangrene; a rare lesion, but one with special characters . . . . . } Spontaneous gangrene . . . . . p. 428

SEBACEOUS CYSTS.

The sheath of the penis is a common situation for true sebaceous cysts (p. 620); *i.e.*, retention cysts which can be emptied by pressure. A thin, white, caseous filament, like vermicelli, emerges from an imperceptible orifice.

These cysts are the size of a pea, and are very common in certain subjects. They may be cured by puncture with the galvano-cautery and evacuation of the contents, followed by the application of tincture of iodine to the wall of the cyst. Certain intoxications favour the production of sebaceous cysts on the penis and scrotum, such as occurs in workers in chlorine. In such cases suppression of the cause is the first point in treatment.

SCABIES.

The sheath of the penis is a common region for the acarus scabiei. Scabies is only contracted at night, because the acarus is nocti-ambulatory, and sexual connection is the usual cause of contagion. Well marked scabies in men is always accompanied by scabies of the penis. The lesions consist of raised irregular burrows; red, pru-

riginous, disseminated and sometimes connected with a vesico-pustule. Suppurative, polymorphous, vesico-pustular lesions are much less common on the penis than on the hands.

In conclusion: (1) never diagnose scabies in men without having verified the existence of lesions on the penis; (2) remember that scabies is undoubtedly the most common of the pruriginous lesions of the sheath of the penis. For treatment see page 537.

HERPES.

Herpes of the penis is common. It may occur on the external surface of the prepuce, or at the base of the penis, in the form of a single or double group of 5 to 10 vesicles. These soon become pustular and form white spots on a common red base, at first flattened, but afterwards slightly projecting.

The eruption develops in about two days with local itching and smarting. It lasts for 5 or 6 days and disappears in 2 or 3 days, having lasted from 10 to 12 days altogether. The erythematous patch common to all the vesicles subsides, all except a thin red areola round each vesicle, which in its turn disappears when the eruption is gone.

A man is subject to herpes from 20 to 200 times in his life and the attacks arise after known causes; such as coitus, migraine, gastric disorders, angina, or without any perceptible cause. The crop of herpes at the base of the penis often recurs exactly in the same place; on the prepuce it is more varied in localisation.

General treatment is directed against the exciting cause when this is known. Local treatment consists in the daily application of carbolic lotion (2 per cent). At the end of the eruption equal parts of glycerine of starch and resorcine may be applied; or a powder of equal parts of talc, oxide of zinc and starch.

HARD CHANCRE.

Indurated chancre of the sheath or the base of the penis is not uncommon. It is generally grafted on a pre-existing scabies. It is often of larger size than the balano-preputial chancre and its long axis often follows the scabies burrow. In character and mode of evolution it resembles chancre of the glans (p. 418).

SECONDARY SYPHILIS.

The secondary eruption of macules and papules may occur on the penis as elsewhere, especially on the preputial fold, where the accumulation of papules and hard œdema accompanying them, create the syphilitic phimosis described on page 413. Also, lymphangitis and phlebitis secondary to the chancre may be felt as hard cords along the penis. These entirely disappear under treatment.

TERTIARY SYPHILIS.

Tertiary syphilis seldom occurs on the sheath of the penis except in the form of an accidental gumma. It forms a rounded or oval, painless tumour, of slow evolution. On its surface the skin is purple, thin and cold. It becomes fixed and ulcerated and gradually discharges a yellow core. Immediate treatment is indicated, and in doubtful cases a therapeutic test of 3 weeks.

SOFT CHANCRE.

Soft chancres are rarely seen on the sheath of the penis. They usually occur around the glans or in the radiating folds of the closed prepuce. They present their usual characters; irregular ulcers with red borders, punched out, suppurative, non-indurated and easily curable by local cleanliness and the application of mild antiseptics.

PSORIASIS.

There is a clinical type of psoriasis with an elective localisation for the inguinal and genital regions, accompanied by a few lesions of the same type on the scalp. On the penis and hypogastrium it forms rose coloured spots; less red, infiltrated and squamous than those of typical psoriasis.

The squames are pityriasiform, yellowish white and fatty; the type of steatoid psoriasis of adolescents and seborrhœics.

The treatment is that of psoriasis of other regions, but requires rather mild applications:—

Resorcine		
Ichthyol	aa 1 gramme	aa gr. 48
Oil of birch		
Oil of cade		
Vaseline	aa 10 grammes	aa ℥i
Lanoline		

It is of a benign character and, when taken in time, may disappear without too frequent or too obstinate recurrences.

SPONTANEOUS GANGRENE.

This clinical type, which is fortunately rare, is very characteristic in all its symptoms.

After a puncture or erosion, or even without any traumatism, there develops in a few hours, on the sheath of the penis, at its base or around it, a large, deep red placard; swollen, œdematous and very painful. The temperature rises to 40° or 41° C. and gen-

Fig. 184. Spontaneous gangrene. (Gémy's patient.)

eral symptoms soon appear: dyspnœa, nausea, vomiting, sometimes fœtid diarrhœa, intense thirst, delirium and prostration. The local symptoms increase from hour to hour, the sore extends, and in two or three days the whole of the sheath of the penis, the scrotum and hypogastrium are invaded, while the centre of the lesion becomes greenish black and sloughing.

The slough is soft and melted in sanious liquid of a horrible odour. During this time the process increases and appears to be rapidly approaching a fatal termination, when suddenly all is arrested, and a line of demarcation forms between the healthy tissue and the gangrenous parts. The slough, eliminated by the sanious fluid, or removed in pieces, is replaced by granulation tissue. The repair of this extensive loss of substance takes place with extraordinary rapidity and in 1, 2 or 3 months it is completed without much cicatricial contraction, and with a remarkable preservation of the formation of the region.

In a case of this kind the streptococcus literally swarms in extempore preparations. Spontaneous gangrene would thus appear to be a gangrenous erysipelas. In other cases where there is subcutaneous crepitation its extension may be accompanied by proliferation of the anærobic microbes which have been studied by *Veillon* in similar cases.

Treatment is at first entirely surgical, by free incisions, drainage and irrigation. This should be repeated if extension of the lesion occurs. During the period of repair, sub-carbonate of iron (1 in 40), in the form of powder or ointment, is useful, as in all cases of extensive ulceration.

THE SCROTUM.[1]

In the study of this region I shall first consider œdema, intertrigo, erythema and eczema which may be observed in the newly born after digestive disorders	Erythema. Oedema. Eczema of the newly born	p. 430
. . . the cutaneous mucous patches of secondary syphilis of sucklings	Cutaneous mucous patches .	p. 431
. . . the angiokeratoma of Mibelli, which may occur in adolescents as small, multiple, keratotic venous nævi	Angiokeratoma of Mibelli	p. 431
. . . the sebaceous cysts which, in this region, accompany juvenile acne and chloric acne	Sebaceous cysts .	p. 432
I shall say a few words on the crablouse parasite which may affect this region	Parasitism	p. 432
. . . and also cutaneous hydrargyrism, which too often follows applications of grey ointment . .	Cutaneous hydrargyrism . . .	p. 432
I shall mention the epithelioma of the scrotum seen very rarely in chimney sweeps	Epithelioma	p. 433
Syphilis of the adult occurs in the form of cutaneous mucous patches	Syphilis	p. 433
A prurigo of the scrotal raphe exists in neurotic subjects	Scrotal prurigo . .	p. 433
Eczema may occur consecutive to varicocele	Varicose eczema .	p. 434
I shall conclude by a rapid survey of psoriasis of the scrotum, occurring in general psoriasis . . .	Psoriasis	p. 434

OEDEMA. INTERTRIGO. ECZEMA OF SUCKLINGS.

The normal urine has little tendency to create traumatic dermatitis in the suckling; but urine and fœces during enteritis soon become irritating. A red dermatitis follows which begins around the anus and extends to the scrotum and groins. It is accompanied by slight œdema of the scrotum, which is of no importance.

Treatment is that of the gastro-intestinal disorder which is the primary cause of the cutaneous affection. Local treatment in cases of acute dermatitis consists in the application of emollient cataplasms (potato starch, etc.) and simple zinc paste. Lycopodium powder should be applied freely, to avoid direct contact with urine and fœces. The linen should be changed every time it is soiled.

[1] For affections common to both scrotum and groin: trichophytosis, erythrasma, etc., vide *Inguinal region*, p.

CUTANEOUS MUCOUS PATCHES IN INFANTS.

In the suckling, affected with secondary syphillis, the papules become superficially exulcerated, slightly exudative and form what are incorrectly termed cutaneous mucous patches. They are especially numerous around the anus and scrotum, which may present 10 or 20 of them. In this case the number of sores renders the region very sensitive. Apart from general treatment for syphilis local treatment is the same as for intertrigo, described above.

ANGIOKERATOMA OF MIBELLI.

This lesion is usually seen on the back of the fingers and hands (p. 338); its localisation on the scrotum is exceptional. It manifests itself as a multitude of small, purple, venous naevi, disseminated on a rough, slightly pigmented surface. In the two cases which I have observed the scrotum was covered with a hundred or two hundred distinct lesions, and the eruption extended to the lower abdomen and the root of the penis.

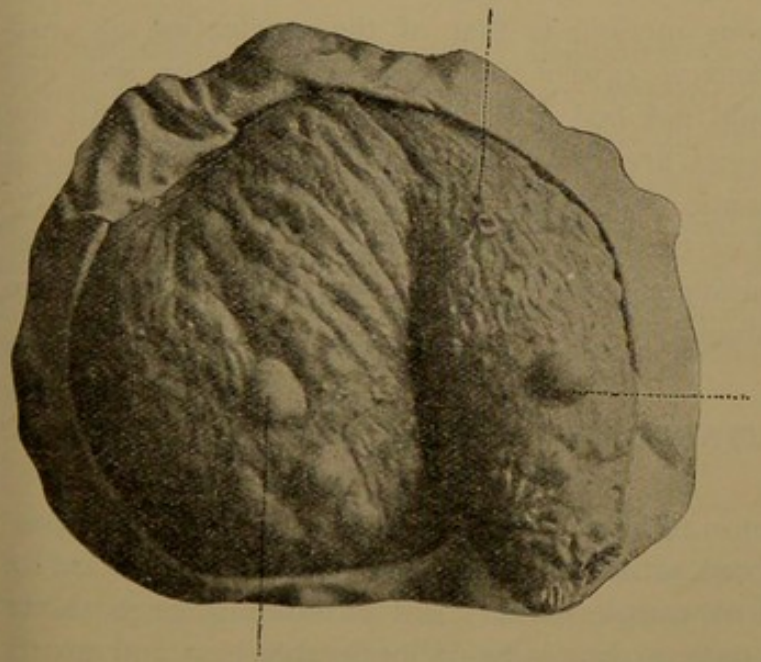


Fig. 185. Chloric Acne.
(Hallopeau's patient. St. Louis Hosp. Museum, No. 2139.)

Treatment is by galvano puncture of each nævus and gives excellent results.

The clinical relationship of angiokeramatoma with erythema pernio, chilblain, etc., is definite. All methods formerly employed in so-called strumous affections may be utilised; such as cod-liver oil, residence at the seaside, etc.

SEBACEOUS CYSTS.

Sebaceous cysts, of the type described in the sheath of the penis (p. 425), may be met with in the scrotum, in more or less abundance and in different degrees of development. They are especially seen in chlorine workers (vide p. 236).

PARASITISM.

The invasion of pediculi pubis may cover the scrotum with "crabs" and "nits." In average cases the nits are first seen as small shiny spots, and blue maculæ are found disseminated on the root of the thigh and the neighbouring parts.

The "crab" appears as a grey spot with apparently a crenated border. It is fixed to the hairs by its four claws and lies flat on the skin and adherent to it. A certain amount of practice is required to perceive them.

In cases where there are only a few lice epilation of the parasites and hairs bearing the eggs, is one of the simplest methods, when performed by a professional epilator.

A more expeditious method is that of the application of purified xylol. This benzine causes much smarting of the skin and the application should not last more than 2 or 3 minutes. All the parasites and the eggs are destroyed instantaneously. There is a risk of slight traumatic dermatitis, but this is avoided by the immediate application of oxide of zinc ointment. This is less annoying than the cutaneous hydrargyrism so often caused by the traditional grey ointment.

CUTANEOUS HYDRARGYRISM.

It is not uncommon to see, in the out patient department of hospitals, a patient whose scrotum, groins and lower abdomen are of a shiny bright red or purple colour, and exfoliating large sheets of epidermis. The patient complains of intolerable heat and smarting, and is often ignorant of the cause thereof. He has had "crabs" and, according to custom, has applied a thick layer of grey ointment to the whole region for 24 hours, and incompletely washed it off. The following day the eruption appears.

If the grey ointment still remains, it must be removed by soaping with a badger hair brush, followed by alkaline and starch baths, oxide of zinc paste or carron oil liniment.

In spite of the grey ointment the lice often persist on the lower abdominal and sacral regions; on the chest and in the axillæ.

CHIMNEY-SWEEP'S CANCER.

This disease is rare and tends to become more so. It may occur in the child or adolescent, on the scrotum, in the form of a vegetating epithelioma consisting of a raised placard, of slow and relatively benign evolution. In the single case which I have observed, the epithelioma had undergone calcareous change and appeared full of chalk, some of which resembled gouty tophi. The severity of this form of epithelioma is very variable and cannot be foretold. Treatment should consist in scraping with the curette and radiotherapy.

SECONDARY SYPHILIS.

In individuals whose personal cleanliness is neglected and who present a florid secondary syphilis, the more or less abundant papular eruption in these regions may become ulcerative, exudative and somewhat pruriginous. These lesions should be treated by soaping twice a day and the application of equal parts of oxide of zinc, vaseline and lanoline; also a powder of equal parts of talc and oxide of zinc. The scrotum may be separated from the thighs by a sheet of dry wool powdered with the same, and a suspensory bag may be worn.

PRURIGO.

This affection occurs in neurotic and overworked persons. It manifests itself at first by extremely severe nocturnal itching. Later on pruritus occurs in the day-time and increases in intensity and in extent of surface, affecting the anal and intergluteal regions. (See pruritus ani, p. 450.)

Prurigo of the scrotum is situated on the perineal surface, on and around the raphe. Eventually a lichenoid state is formed, with

a grey pigmented placard of thickened skin resembling morocco leather.

The itching may be relieved but not cured by zinc paste, or the following application:—

Tartaric acid	aa 30 centigrammes	gr. 2 to 3
Resorcine		
Menthol		
Glycerole of starch	60 grammes	ʒi

High frequency currents and radiotherapy (3 units H) have a good effect on the pruritus. Rest and mountain air should also be prescribed.

VARICOSE ECZEMA.

Varix of the cord, or varicocele, may become the source of a chronic cutaneous irritation, which requires careful treatment. The dartos is always relaxed; the testicles pendulous; the skin smooth, soft, and moist, red and pruriginous. This condition is nearly always complicated by intertrigo of the groin, and after scratching, by eczematisation with exudation and crusts.

The parts should be painted daily with tincture of iodine (20 per cent), followed by simple ointment and powder.

In severe cases sweet oil of almonds may be applied on absorbent wool: in benign cases the parts should be soaped every day. A suspensory bag should be worn, and I have seen good results from an india-rubber ring compressing the scrotum, the skin below the ring becoming contracted and less soft.

PSORIASIS.

In the course of a general psoriasis, patches may occur on the scrotum, but they present no special feature except great tenaciousness.

But in cases of old neglected psoriasis the whole surface of the scrotum may be covered with confluent psoriasis. These cases are difficult to treat and of bad prognosis; they are always inflamed, intensely red, perpetually exfoliating, very pruriginous, and sometimes exudative. The best application is a solution of

chrysarobin in chloroform (5 per cent), covered with traumaticin. The elastic pressure of the traumaticin may possibly diminish the congestion. Sometimes chrysarobin is badly tolerated, and then weak oil of cade ointment diminishes the inconvenience, if it does not remove the lesions.

VARIA.

Cancers of the testicle: sarcoma, epithelioma of the epididymis will not be dealt with in this book. Erythrasma has been studied on page 265; the post-erosive papular syphiloid of *Jacquet* on page 509; vitiligo on page 461; and elephantiasis on page 311.

THE GENITAL ORGANS IN WOMEN.

The complex region presents for consideration erythematous and intertriginous lesions, and œdema of the labia, consecutive to enteric affections in the newly-born	Erythema. Vulvar œdema . . . p. 437
. . . Also epidemic gonococcic vulvitis of little girls	Vulvitis . . . . . p. 437
Urethritis, vaginitis and metritis do not find a place here, but their cutaneous and mucous complications must be considered	Cutaneous complications of vaginal discharges p. 437
. . . especially esthiomenus, an exulcerative, hypertrophic, elephantiasic affection of the labia .	Esthiomenus . . . p. 438
We shall speak of vulvar, palillomatous vegetations, which may multiply around the vulva, especially during pregnancy	Vegetations . . . . p. 438
We shall next say a word on bartholinitis, which is only an abscess, usually gonococcic, of the gland of Bartholin in the labium majus	Bartholinitis . . . . p. 439
Vulvar herpes will be studied with vesicular, pustular or exulcerative lesions grouped "in bouquet"	Herpes . . . . . p. 439
Then, soft chancres; ulcerative, suppurating, multiple and sometimes, but rarely, extensive and phagedenic	Soft chancre . . . p. 440
The initial lesion of syphilis, of which the unlimited induration is special to this region, requires recognition	Hard chancre . . . p. 440
Secondary syphilis forms vulvar mucous patches and condylomata	Mucous patches. Condylomata . p. 441
Diabetes may cause pruritus, erythema and ulceration of the vulva	Diabetides . . . . p. 441
A non-diabetic pruritus may also occur, which is sometimes intense and difficult to treat	Pruritus . . . . . p. 442
. . . and an intertriginous erythema, non-diabetic, generally accompanying chronic senile intertrigo of the inguinal folds and transverse fold of the hypogastrium	Intertrigo of the labia . . . . . p. 442
In conclusion I shall say a few words on psoriasis of the labia majora, which may present peculiar characters	Psoriasis of the labia . . . . . p. 443

. . . and shall only mention tuberculous lupus, epithelioma, syphilitic gumma, etc., which are only seen rarely in this region and which have no special characters.

INTERTRIGO. VULVAR OEDEMA OF THE NEWLY-BORN.

In young girls, during an attack of enteritis, a cutaneous irritation often occurs from contact with abnormal fœces and urine. This may be called by any name, but is obviously of traumatic origin. The skin is red and pruriginous; there is œdema of the vulva and sometimes a slight creamy purulent exudation between the labia.

This condition requires strictly local hygiene; frequent starch baths, irrigation with frequent changes of linen, after every discharge of urine or fœces. A piece of gauze impregnated with oil of sweet almonds should be placed between the labia. The affected skin should be covered with lime liniment, or oxide of zinc ointment. The enteritis, which is the cause of the affection, must also be treated.

GONOCOCCIC VULVITIS.

In little girls an acute suppurative vulvitis often occurs, which microscopic examination shows to be due to the gonococcus. It is very contagious by mediate contact and may be conveyed by means of sponges, towels, night-commodes, basins, thermometers, enemas, etc., without direct transmission or criminal connection. This vulvitis, which rarely extends to the vagina, may be cured by irrigation with permanganate of potash (1 in 3000). It is often epidemic in nurseries and in hospitals, and as soon as a case is recognised contagion must be prevented.

Any case of conjunctivitis must be watched with great care and treated vigorously from its onset. However, in these cases conjunctival contagion is exceptional.

URETHRITIS. VAGINITIS. METRITIS.

Urethritis, vaginitis and metritis, by their chronic discharges and the stagnation of pus between the labia majora, may determine cutaneous irritations of various kinds, but of undoubted traumatic and microbial origin.

In certain cases of purulent metritis, there are seen on the inner surface of the labia, exulcerations with circinate borders, which

are soon followed by cutaneous hypertrophy and transformed *in situ* into suppurating, unhealthy fungosities.

These lesions disappear when the causal metritis is cured without local treatment: the latter is useless by itself. The causal treatment belongs to the domain of gynœcology. Local treatment comprises applications of zinc ointment, to prevent contact of pus with the mucous membrane and skin. The hypertrophic lesions may be treated in the same way as vegetations (p. 417).

ESTHIOMENUS.

In my opinion, the ulcerative, hypertrophic, elephantiasic esthiomenus of the older authors, is only an excessive development of the lesions described in the preceding article and due to the same cause. It does not consist of gonorrhœal exulcerative lesions, as has been stated, nor of tuberculous or syphilitic lesions, but really of banal, chronic hypertrophic lesions, invariably due to a morbid vaginal secretion. It has been attributed to the general health of patients, to dirty habits, etc.; but, it is necessary to insist that the suppression of *vaginal* discharges, which always exist in these cases, leads to spontaneous suppression of the exulcerative, hypertrophic lesions, and more slowly of the chronic subjacent lymphangitic condition, which causes the local elephantiasis.

It must also be borne in mind that all forms of local treatment, which may be useful as auxiliaries, fail as long as the vaginal discharge is not suppressed.

VEGETATIONS.

Vegetations are rare in women in general, only common in prostitutes, which tends to verify the opinion of those who designate vegetations under the name of "gonorrhœal warts."

In women, as in men, they commence as small papular tumours, which become mammillated and then digitated: they multiply and form a multi-digitated tumour, somewhat resembling the head of a cauliflower This vegetation seems to give rise to others, and the vulvar orifice, the internal surface of the labia, the fourchette and the labia minora may soon be covered. The

vegetations are red and epidermised, but the opposed surfaces secrete a purulent, microbial, malodorous liquid, which necessitates continual and scrupulous personal hygiene.

The influence of pregnancy on the development of these growths is undoubted, and they may attain an enormous size and require immediate treatment. Usually they diminish after child-birth, but not always.

When they attain large proportions they should be removed by curved scissors and the bleeding surfaces dressed with a solution of antipyrin (30 per cent) to arrest the diffuse hæmorrhage.

In less severe cases, or to complete the results of operation, the same methods may be used as in the vegetations in males, viz.: cauterisation of each vegetation with crystals of chromic acid ,with care to avoid the neighbouring skin; or powdering with the following:

Powdered savin	} aa	1 part
Salicylic acid		
Talc		2 parts

This should be applied twice daily, after washing with liquor carbonis.

BARTHOLINITIS.

Abscess of *Bartholin's* gland forms a painful swelling in one of the labia. It is most often, but not always, consecutive to a former gonorrhœa, often of old standing. The abscess develops like an acute abscess but with sub-acute symptoms. Simple incision of the abscess is often followed by recurrence, and it may be necessary to enucleate it.

HERPES.

Vulvar herpes in women is not so common as progenital herpes in men. It is generally situated on the inner surface and upper part of the labium. It is preceded by itching and smarting, and appears in the form of distinct vesicles which often coalesce, giving rise to a single ulceration with a yellow base, of polymicrocyclic form, slightly suppurative and accompanied by more itching and smarting than pain.

The concomitance of the periods; the repetition of the outbreaks; their identity in situation and in evolution; the total evolution in 10 days, including 2 of eruption, 6 of maturity, and 2 of retrogression, confirm the diagnosis. The gland of herpes, which is painful, must not be mistaken for the indicator gland of a chancre.

Herpes may resemble a soft chancre, but not a syphilitic chancre.

The treatment is palliative.

SOFT CHANCRE.

In women, soft chancres may occur on all parts of the genital organs and preserve their usual signs. They are most often situated in the fourchette, or on the labia minora, and may be recognised by their multiplicity, their irregular form and punched out appearance, their red border, and abundant suppuration. In doubtful cases inoculation on the arm will settle the diagnosis.

Local irrigation, and dressings of iodoform, tannoform, or subcarbonate of iron ointment, generally give good results.

The evolution of soft chancres must be carefully watched in a pregnant woman, for pregnancy is an etiological factor in phagedena.

In such cases each chancre should be promptly treated with carbo-sulphuric paste[1]; with prolonged sitz baths, and starch poultices at night, applied over a layer of antiseptic ointment, such as the sub-carbonate of iron (1 in 40).

HARD CHANCRE.

In women, the hard chancre may be situated in any part of the genital organs, but is most common on the inner surface of the labia majora. It presents the usual characters; exulceration, induration, indicator gland, etc.; and has the same evolution as chancre in the male. One distinctive character may be mentioned, that is the dimensions of the induration and its absence

[1] TRANSLATOR'S NOTE. Carbo-sulphuric, or Ricord's paste, consists of strong sulphuric acid and willow charcoal; sufficient of each to form a thick paste.

of demarcation. In the male the induration resembles a cartilaginous disc enclosed in the skin; in the female it forms a hard œdema occupying two-thirds of the labium and doubling its size. Moreover, this induration persists after the chancre is healed, and may be felt several months later.

Sometimes when the hard chancre occupies one of the natural folds of the region, it may assume a laminated form, which may resemble the deep ulceration of a soft chancre, especially at the fourchette; but the hard chancre never suppurates, while the chancroid is always suppurative.

MUCOUS PATCHES.

Mucous patches of the vulva appear soon after the roseola and eruption of secondary lesions. They may be few or numerous, small or large, sometimes confluent, and may be situated on the inner surface of the labia majora or minora, the fourchette, etc. They are characterised by their red oval erosion, in the form of a saucer, with grey edges; and by their concomitance with other secondary cutaneous lesions. They may occur in multiple crops, and as a rule the first is the most extensive; but one or two patches are as dangerous as fifty, with regard to coitus. Patients should always be warned of the contagious nature of the lesions.

Local dressings should never be neglected, as they may diminish the risk of contagion. General treament should be intense and carried out under the supervision of the physician as far as possible.

CONDYLOMATA.

Secondary syphilis, especially when florid, may be accompanied by secondary papillomatous condylomata, in the ano-genital region. They will be referred to in dealing with the dermatology of the anal region (p. 448).

DIABETIDES.

Diabetes causes, in women as in men, pruritus, erythema and ulceration of the genital organs.

The pruritus is often the first symptom, or may appear with erythema: it is often severe, with alternate exacerbations and remissions. The erythema covers the labia and extends beyond

them. The two labia have a reddish yellow colour, with a clearly defined border.

The diabetic ulcerations are generally situated between the labia majora and minora, on the inner surface of the labia majora, or the fourchette. They form painful and pruriginous exulcerations; irregular, reddish, crustaceous, slightly suppurative and slow in evolution. These symptoms in a woman of middle age, rather obese, indicate an examination of the urine for sugar.

Local treatment is limited to washing after each micturition and the application of oxide of zinc ointment with carbolic acid or menthol (1 per cent); or the sub-carbonate of iron ointment (1 in 40).

The general treatment of diabetes has much more effect on the diabetides than any local treatment.

VULVAR PRURITUS.

Vulvar pruritus is the homologue of pruritus of the scrotal raphe in men, and may be due to various causes, such as overwork, diabetes, or excitability of the nervous system. The real causes of pruritus are obscure and we are ignorant of the connection between pruritus and prurigo, and between the latter and eczema (p. 546). In any case vulvar pruritus is an affection of middle age; it may be severe, or moderate, and may be accompanied by irritative lesions, or by no apparent lesion at all. Sometimes, as in scrotal pruritus, it creates a state of limited hard œdema, with lichenoid transformation of the skin ("morocco leather skin") and hyperpigmentation. The hair may be worn away by scratching.

Treatment consists in the frequent application of *Van Swieten's* liquor, very hot[1]; or tar diluted with an equal quantity of lanoline. The X-rays also have a remarkable antipruriginous effect.

SENILE INTERTRIGO.

Chronic, senile intertrigo of the fold of the hypogastrium and the inguinal folds, in fat women, is often accompanied by vulvar

[1] TRANSLATOR'S NOTE. Van Swieten's liquor contains half a grain of perchloride of mercury to the ounce.

intertrigo, which may constitute a difficult therapeutic problem. There is œdema and redness of the labia with intense pruritus. The labia are purple, indicating intense congestion. Therapeutic intolerance is absolute.

The urine should be examined, and if there is glycosuria this should be treated. If the pruritus is extreme, an X-ray application should be given of 3 units H, or a half tint of the radiometer X of *Sabouraud* and *Noiré*.

Application of nitrate of silver (1 in 20), followed by simple ointment, is useful; or the following ointment:—

Oil of cade	aa 5 grammes	℥ii ss
Oxide of zinc		
Ichthyol	aa 1 gramme	℥ ss
Resorcine		
Oil of birch		
Vaseline	aa 15 grammes	℥i
Lanoline		

For the internal treatment of non-glycosuric patients and the study of chronic senile intertrigo, (see p. 264 and 268.)

PSORIASIS.

Psoriasis may cover the labia majora and extend round the vulvar orifice in a form which is homologous with the scrotal psoriasis in men. All that I have said concerning the latter is true in this case (p. 434).

Treatment is very difficult, and this form of psoriasis is very intolerant. The application of nitrate of silver may be tried, if there is an eczematous tendency; or chrysarobin (1 in 20) covered with traumaticin if the psoriasis is very dry; but in this case the mucosa should be protected by simple ointment from the irritation of the chrysarobin.

VARIA.

The labia majora may be affected by tuberculous lupus, epithelioma and tertiary syphilis (sclerous or gummatous); but the lesions in this situation have no special characters and only require to be mentioned (vide *esthiomenus*, p. 438).

THE ANUS.

The dermatological pathology of the anus is complex, and like that of many other regions may be divided into chapters according to the age of the patient.

I. *During the first months of infancy an anal eruption of secondary syphilides may occur . . .* — Syphilis of sucklings . . . . . p. 445

The suckling with enteritis presents anal and peri-anal epidermatitis, of considerable semeiological importance . . . . . . — Dermatitis of enteritis . . . . . p. 445

The marginal region of the anus often presents a polymorphous, papular, circinate and figured dermatitis, very syphiloid in appearance . . . . . . — Simple polymorphous dermatitis . . . . p. 446

In second infancy simple anal pruritus often occurs, connected with habitual constipation . . . . . and a parasitic pruritus due to the presence of oxyuris vermicularis . . . . . . — Pruritus of oxyuris . . . . . p. 446

II. *Other lesions may occur at any age but more commonly in adults, such as hæmorrhoids . . . .* — Hæmorrhoids . . p. 446

. . . hard chancre . . . . . . — Hard chancre . . . p. 447

. . . secondary syphilides, mucous patches and condylomata . . . . . . — Secondary syphilis . . . . . p. 448

. . . or soft chancre . . . . . . — Soft chancre . . . . p. 448

. . . which is sometimes phagedenic . . . . — Phagedena . . . . . p. 449

. . . or anal lesions consecutive to gonorrhœal rectitis. Although these belong to surgery, they require to be known by the dermatologist . . . — Gonorrhœal rectitis . . . . . p. 450; Inflammatory stricture . . . . . p. 450

III. *Pruritus ani . . . . . .* — Idiopathic pruritus . . . . . p. 450

Fissures, chronic intergluteal eczema; in its dry and callous form, formerly called chronic lichen . — Anal fissure . . . p. 451; Intergluteal eczema . . . . . p. 451

Intertriginous fissures and intertrigo form a symptomatic group which is common and important to know; more common in middle age . . . . . — Intertrigo . . . . . p. 452

Ano-rectal tertiary syphilis; often called anal stricture . . . . . . — Rectal syphilitic stricture . . . . . p. 452

Ano-rectal cancer . . . . . . — Ano-rectal cancer p. 453

Anal tuberculosis and fissure; very polymorphous and often the cause of serious diagnostic errors. By this résumé the importance of the dermatological pathology of this region is apparent . . . . . .

Anal fistula . . . . p. 453
Warty tuberculosis . . . . . p. 454
Ulcerative tuberculosis . . . . . p. 454
Lupus . . . . . p. 456
Circinate tuberculides . . . . . p. 456
Ano-rectal tuberculosis . . . . . p. 456

ANAL AND PERI-ANAL SECONDARY SYPHILIDES OF SUCKLINGS.

These lesions are seen in infants whom hereditary syphilis has already reduced to the well-known type of the little old man, with wrinkled, flabby skin, too large for the body it covers; or they may occur in apparently normal infants, who seem to have escaped the influence of the syphilitic virus. The gluteal region is more or less covered with secondary elements of the type of the "cutaneous mucous patch"; *i.e.*, the secondary exulcerated papule, slightly raised, moist and sometimes bistre coloured.

These lesions are often more numerous near the anus, where they are found in the radiating folds. They may be confluent and are then hypertrophic and almost condylomatous.

On examination of the body a similar eruption is found on the face, the eyelids and the buccal commissures. Corroborative evidence and examination of the parents and the nurse support an uncertain diagnosis.

Treatment by careful administration of *Van Swieten's* liquor (p.); exclusive milk diet, by the maternal milk if possible, if not by goats' or asses' milk, or cows' milk diluted with boiled water according to age; finally, suppression of suckling by a nurse when she is supposed to be healthy, and careful supervision of this nurse, are the measures to be adopted.

ANAL EPIDERMATITIS OF INFANTS WITH ENTERITIS.

One of the best signs of enteritis in infants is anal and peri-anal epidermatitis. In the most simple and most concealed cases, separation of the anal folds shows a redness and a slightly fissured condition, causing very little discomfort. In more severe cases there is intergluteal eczema and erythema of the margin of the anus with an intertriginous state of the inguinal or scrotal regions.

This condition may set up a more or less exudative eczematisation of these regions and of the surrounding parts. The general eczema which follows or accompanies digestive troubles in infancy usually commences on the face.

Local treatment consists in scrupulous cleanliness, baths and ointments of oxide of zinc and vaseline (1 in 3), and lycopodium powder.

It is hardly necessary to state that the proper treatment of these eruptions is intestinal treatment.

SIMPLE POLYMORPHOUS DERMATITIS OF INFANTS

Figured Erythema. Post-Erosive Circinate Syphiloid of Jacquet

In a great number of cases dermatitis of the buttocks in infants take a special form, which may resemble secondary syphilides. The simple erythema spoken of above may become complicated with superficial erosive lesions, slightly papular, but much redder and less copper coloured than syphilitic lesions; they are often disseminated on a diffuse erythematous base and diminish in number on the buttocks, thighs, flanks and hips, in proportion to the distance from the anus. The eruptions are polymorphous, because they consist of lesions in different stages and are accompanied by itching and smarting. They appear to be abortive lesions of impetigo grafted on erythema. They will be referred to again with the region of the buttocks.

Treatment consists in lotion of sulphate of zinc (1 per cent) and ointment of oxide of zinc. Soaping and irritating antiseptics should be avoided.

ANAL PRURITUS WITH OXYURIS VERMICULARIS.

This is apparently a somewhat rare affection, for I have only seen it twice. The anus is the seat of perpetual itching and the skin is red and desquamating, with macerated epidermis in the folds. Small round worms are frequently seen to escape from the anus, and the child scratches at night.

Treatment consists in sulphate of quinine lotion and the following ointment to the anus:—

Tannin	aa 30 centigrammes	gr. 5
Calomel		
Vaseline	30 grammes	ʒi

HAEMORRHOIDS.

Hæmorrhoids occur in both sexes and at all ages. In their usual form, the only one for which a dermatologist is consulted, they consist of small tumours the size of half a cherry, soft and emptied by pressure and swelling up with the least effort. The colour is that of the neighbouring skin, for they are formed by deep varices and are not intra-cutaneous or immediately sub-cutaneous. Sometimes one or more of these tumours occurs in the radiating folds; sometimes one projects from the anus. Also internal hæmorrhoids may emerge during an effort. The painful symptoms vary, but are especially marked during defecation and when there is constipation. Hæmorrhage is seldom abundant or frequent; it occurs during defecation.

Hæmorrhoids appear and disappear, and only serious cases require surgical intervention. They should be treated with local cold bathing at night and ointments containing belladonna, etc.

ANAL SYPHILIDES. HARD CHANCRE.

Hard chancre, mucous patches, ulcerated papules and condylomata, the syphilitic nature of which is not determined, but which accompany secondary florid syphilides, especially in women, may all occur about the anus.

Hard chancre is generally situated in the anus itself, on a fold of the anal orifice. It presents the usual characters; induration, exulceration, absence of suppuration, and spontaneous cure. It is very often mistaken for a hæmorrhoid by the patient, and too often also by the physician. It is usually single and the indicator ganglion is situated near the antero-superior iliac spine, in the external group of inguinal glands. It requires no special local treatment.

MUCOUS PATCHES.

Mucous patches are generally disposed in the radiating folds; they vary in number and may be discrete or confluent. Diagnosis from soft chancres is made by the absence of the sloping borders and suppuration of the chancroid, the co-existence of secondary cutaneous or mucous syphilides in other places, polyadenitis, etc.

Local treatment by nitrate of silver gives the same results here as elsewhere and the general treatment presents nothing peculiar.

SECONDARY SYPHILITIC PAPULES.

These often occur at the margin of the anus in an exulcerated form. These papules project for 1 or 2 millimetres and are often 3 or 4 millimetres wide. They sometimes preserve their epidermis and are then brownish or ham coloured; but they are often exulcerated like the chancre, and moist but not discharging.

In persons with dirty habits these cutaneous mucous patches may attain an extreme degree of confluence, not only in the peri-anal region, but in the whole inguino-vulvar and ano-vulvar regions. This condition, in its highest degree of confluence and filthiness, is seen in women. There is maceration of the epidermis of the folds and intertriginous epidermatitis; and it is in these cases that condylomata develop.

The treatment of exuberant secondary syphilides comprises baths, cauterisation with nitrate of silver, and the application of oxide of zinc ointment, and zinc and talc powder.

CONDYLOMATA.

Condylomata are raised, pedunculated growths, of semi-solid consistence, polygonal in form by pressure of the buttocks, between which they develop. They are digitated, velvety, almost papillomatous, pink, incompletely epidermised and exudative. They appear to develop by maceration of the syphilitic lesions described above, for they are always seen under those conditions. When first seen they are bathed in pus which covers the exulcerated epidermis, and the mixture of lesions exhales an infectious odour.

Washing with soap and the application of pastes and powders may cause the condylomata to disappear, but it is simpler to remove them with scissors and cauterise the base with nitrate of silver, followed by the applications mentioned above (p. 439).

In a few days the lesions are restored to those of simple secondary syphilis.

SOFT CHANCRES.

Soft chancres of the anus are not uncommon; they are always multiple, often radiating in the skin folds.

The chancres are generally 5 to 10 millimetres long by 3 or 4 in width, and punched out to the depth of 1 or 2 millimetres. Each has a sinuous border with a red margin. The base is covered with an adherent layer of pus, which is not removed by cleaning the ulcer.

The chancres may be reinoculated more or less in the anal region and on the adjacent surfaces of the buttocks. They may cause a

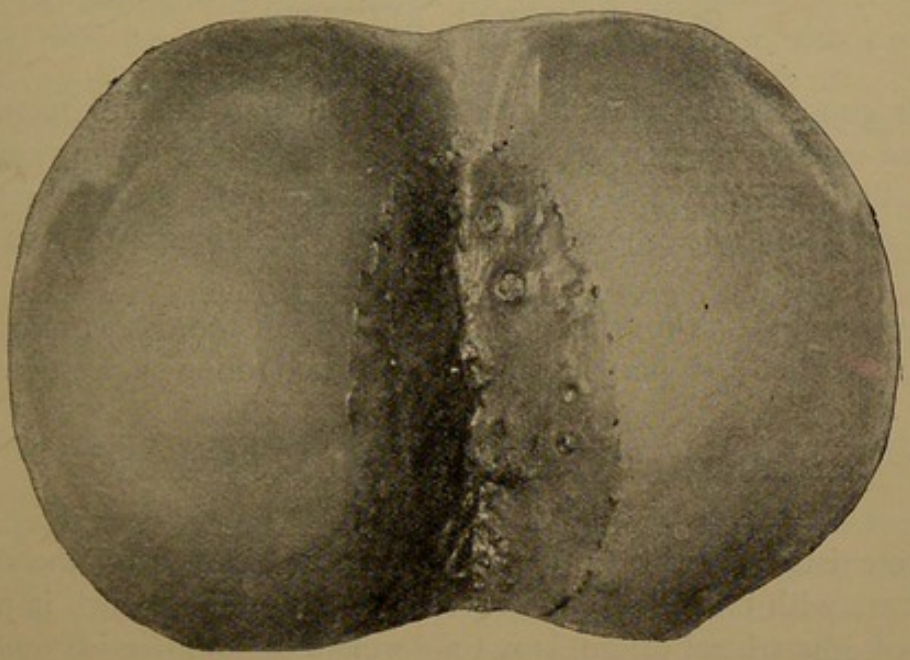


Fig. 186. Simple multiple chancre of the anus.
(Fournier's patient. St. Louis Hosp. Museum, No. 647.)

glandular chancre of the groin, like chancroids of the vulva and penis.

Treatment is the same as for chancroid of the penis. A tampon may be placed in the anus, soaked in iodoform ointment (10 per cent); or sub-carbonate of iron (1 in 40); or cinnabar (1 per cent).

PHAGEDENIC CHANCRE.

Phagendenic chancre is never an indurated chancre; it may be a mixed chancre or more often a chancroid.[1]

[1] TRANSLATOR'S NOTE. It is true that the phagedenic chancre is not typically indurated; but it is usually followed by secondary syphilis.

Phagedena is usually observed in pregnant women, or under local conditions of filth; sometimes without any perceptible cause. Careful cleansing with camphorated ether, or oxygenated water and dressing with sub-carbonate of iron ointment (1 in 40), are generally sufficient to arrest the commencing phagedena. If not, the X-rays may be tried (6 units H of the radiometer X), at intervals of 20 days; but at present there is no certainty in their value.

GONORRHOEAL RECTITIS.

Acute gonorrhœal rectitis is rare, but may occur in concomitance with one or other of the preceding lesions. The diagnosis is certified by the presence of the gonococcus in the pus. It its chronic state it may lead to proliferating rectitis and to inflammatory stricture.

Treatment belongs to the surgeon rather than the dermatologist. Rectal irrigation with permanganate (1 in 5000) may be prescribed.

ANO-RECTAL INFLAMMATORY STRICTURE.

There exists a chronic proliferating rectitis, which covers the rectal mucosa with bleeding fungosities. This condition, which is primarily of gonorrhœal origin, is not a dermatological affection and is beyond the scope of this work. It may, however, determine a dermatitis of the intergluteal fold, which will be dealt with later (p. 451).

PRURITUS ANI.

There is an anal pruritus, which is called idiopathic because the cause is unknown and because it occurs without any lesion of a definite nature. The pruritus is intense and occurs in crises, especially at night, leading to severe scratching. The scratching, which often causes erosions, provokes a quasi-voluptuous sensation and relieves the itching for a time.

Examination of the region often reveals a macerated whitish epidermis, somewhat thickened and striated with concentric marks, due to epithelial debris in the radiating folds.

When the pruritus exists only at the anus the best treatment consists in the local application of pine tar, either pure or diluted with

lanoline or oleum theobromæ. These applications often cause smarting, but relieve the itching immediately, and cause a permanent cure in many cases.

When the pruritus is generalised the same preparations may be used, but general treatment by high frequency, or X-rays, is necessary.

ANAL FISSURE.

Anal fissure is a complication of diverse morbid conditions; rectitis, anal eczema, pruritus ani, etc. It is seldom seen except in neurotic subjects. The fissure may gradually become of considerable dimensions and depth; but it is often minute and hidden in the anal folds.

The fissure causes a reflex constriction of the anus, which is much more painful than the fissure itself. Immediate treatment is required. Formerly forced dilatation under chloroform was practised, but faradisation is often sufficient.

ECZEMA OF THE INTERGLUTEAL FOLD AND ANUS.

Cases occur where anal pruritus, with all the characters described above, is observed at the same time as a chronic eczema of the intergluteal fold. The latter occupies the fold from the anus to the end of the sacrum, and even extends onto the sacral region, where it forms one or two red, raised placards, of chronic duration and constituting a marked induration covered with white psoriasiform scales. At other times the placards are lichenised, papular, parquetted, with a shiny flat surface, and divided into lozenge shaped areas by dry, non-fissured lines.

This lesion extends with the same characters up to the arms, sometimes as an indurated lesion occupying the intergluteal fold, sometimes as a flat laminated lesion with a fissure in the intergluteal fold.

The anal lesion is that which we have described in idiopathic pruritus. The treatment is also the same. Treatment of the eczematous lesions of the fold and of the sacral region is difficult. The best results are obtained with compound oil of cade ointments:—

Ichthyol	aa 1 gramme	gr. 32
Resorcine		
Oil of birch		

Oil of cade	aa 15 grammes	℥i
Lanoline		

In more severe cases more active measures may be employed, such as quadrilateral scarification, double cauterisation with two crayons of nitrate of silver and metallic zinc, etc.

These lesions often occur in feeble and constipated subjects, and the treatment of the constipation is indispensable, combined with a generous diet.

INTERTRIGO OF THE INTERGLUTEAL FOLD.

Intertrigo, which is common on this region in sucklings, also occurs in the adult; either as a simple intertrigo accompanying a similar condition of the inguino-scrotal or vulvar regions, or as a complication of an eczematous state, of the type which we have just described. In the latter case the treatment of the intertriginous fissures is blended with that of the eczematous placards between which they occur. They may also be treated separately, by cauterisation, or by daily painting with friar's balsam.

In simple intertrigo, treatment is the same as that recommended for inguinal intertrigo; soaping, daily friction with weak alcoholic solutions of iodine and coaltar, or ichthyol (10 per cent) are some of the most simple and the best methods of treatment. Active measures are only required in more intense cases; application of nitrate of silver (1 in 5 to 1 in 15); tincture of iodine (1 in 3 to 1 in 10; pastes or powders.

SYPHILITIC STRICTURE.

Syphilitic stricture of the rectum is a tertiary lesion; according to some, quaternary because it may occur 30 years or more after the initial lesion. It is situated above the anus, which is not affected. It consists in a progressive stenosis produced by a ring of neoplastic tissue tending to fibrous transformation; its evolution lasts for years.

It occurs especially in women and manifests itself by progressive obstruction, occurring in crises, which may render colotomy necessary.

Antisyphilitic treatment, although it has an effect on the lesion in an early stage, cannot disperse the fibrous tissue when it is once

formed. The dermatologist, under these circumstances, can only establish the diagnosis and institute intensive treatment, and when this gives no result must have recourse to the surgeon.

Under the title of rectal syphiloma, which is rare, many cases of ano-rectal tuberculosis and some inflammatory strictures, simple or post-gonorrhœal, were formerly confounded.

Treatment consists in weekly injections of grey oil (p. 651) and 15 to 60 grains of iodide of potassium daily. Injections of oil and purgatives should be given to avoid obstruction. Local treatment is limited to the use of antispasmodics and sedatives; suppositories of belladonna, cocaine, etc.

ANO-RECTAL CANCER.

Cancer of the ano-rectal region is not uncommon, and its diagnosis from simple chronic inflammatory, syphilitic and tuberculous lesions may present great difficulties.

Sometimes it is a schirrus carcinoma in the form of a ring; sometimes a lateral epithelioma, which may extend towards the skin and infiltrate the margin of the anus; epithelioma in sheets, or chorio-epitheliomatosis analogous to that of the breast. Lastly, in rare cases *Paget's* disease may be met with (p. 494). In this case only is the lesion a dermatological one; and we shall not dwell upon the diagnosis and treatment of affections which are essentially surgical.

ANO-RECTAL TUBERCULOSIS.

Anal abscess. Fistula. This morbid type may occur during perfect general health, and this is the most common event; or it may occur in a patient with pronounced tuberculosis.

At some distance from the anus a swelling appears with all the characters of inflammation: *tumor, rubor, dolor, calor*; fluctuation is felt and the swelling opened; the abscess gradually heals like an acute abscess. But a fistula persists which discharges a drop of pus every day; or after a time a new abscess forms with the same symptoms and course, at a variable interval after the first. If there is diarrhœa, fœces may pass by the fistula.

Exploration of the fistula with a director shows that it leads into the rectum. With the finger of the left hand the end of the director

is brought outside and the fistula converted into an open wound with the bistoury. The wound is then cauterised. When the fistula has several tracks, or orifices, the same procedure is done for each. A cure generally results, but recurrence takes place if one of the tracks is left unopened.

The tuberculous nature of common anal fistula is certain, and clinical experience often shows that anal fistula often precedes pulmonary tuberculosis. This warning must not be neglected, and super-alimentation, etc., should be advised.

Anal fistula is one of the most benign forms of local tuberculosis and forms a connection between the surgical forms of tuberculosis of this region and those which more specially concern the dermatologist.

Hypertrophic, Warty, or Ulcerative Cutaneous Tuberculosis.—Occasionally there occurs, either at the orifice of a fistula or at the anal orifice itself, a tuberculosis of the hypertrophic, papillomatous

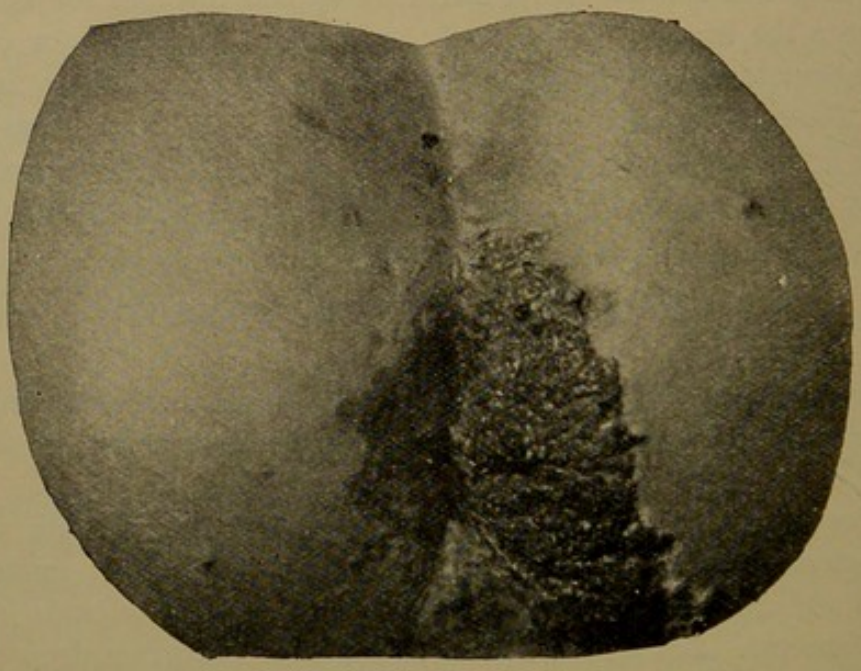


Fig. 187. Warty tuberculosis of the anus.
(Morestin's patient. St. Louis Hosp. Museum, No. 2220.)

type, which is common on the back of the hand and the foot, and

which has a considerable resemblance to secondary syphilitic condylomata of this region. It forms cauliflower growths, varying in size and number and not pedunculated, having generally a base as large as themselves. Sometimes the surface is villous and divided by furrows, sometimes formed partially by a soft mass of fungosities.

With this hypertrophic form must be placed an ulcerative form which is not well known, but not very rare. The ulceration arises at the anus and develops laterally, invading one of the buttocks. This ulceration is deep, with a rough surface and a grey base, sanious or

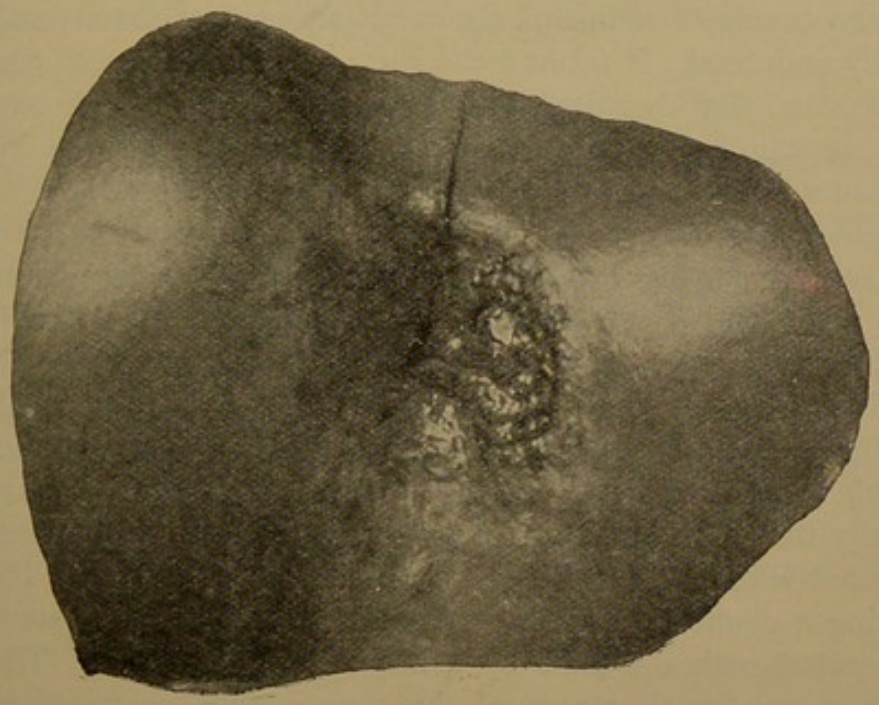


Fig. 188. Tuberculous ulceration of the anus.
(Martineau's patient. St. Louis Hosp. Museum, No. 311.)

purulent and impossible to clean completely. The border is thick, callous and indurated, and its internal surface the seat of incessant and progressive necrosis. Pain is generally slight in both these forms, except when the ulceration extends to the anus or scrotum.

The ulcerative form is much more grave, and extensive surgical terisation with nitrate of silver and zinc. If intra-cutaneous induration remains it may be dealt with by the galvano-puncture.

The ulcerative form is much more grave and extensive surgical removal should be preferred whenever possible, with strict super-

vision of the wound during cicatrisation and immediate cauterisation of any doubtful points which may recur. Apart from removal, the ulcer may be treated with the galvano-cautery, under an anæsthetic. These cases, although grave and of rapid development, heal very well. I have several times seen pieces removed sent for examination as epithelioma. The error is avoided by simple bacteriological examination, for the nectrotic border of the ulcer swarms with turbercle bacilli, and no tuberculous lesion shows more of them.

Lupus. Tuberculous lupus may occur at the anus, but is rare. It has no peculiarities in this region; it arises at the anus, and is generally unilateral. It forms a chronic, congestive, circumscribed patch of œdema, slightly raised above the skin. Under the horny epidermis appear disseminated tubercles, which are rendered visible by pressure under a glass slide, which diminishes the congestion of the neighbouring tissues. There is no special treatment required; this is the same as for lupus of the face in its first stage: viz., phototherapy; and when this is impossible the galvano-cautery at regular sittings. Tuberculous lupus of this region does not usually become ulcerative.

Extensive circinate Tuberculides. Tuberculides of abnormal and rare types are met with in the region of the anus more commonly than elsewhere. These eruptions may assume diverse forms, chiefly that of a large and almost regular circle, with a red border covered with small, pink, raised disseminated nodules. The circle, having a diameter of 3 to 5 inches, is traced on one buttock and is connected with the anus by a kind of prolongation. This lesion may co-exist with others of the same nature, scattered here and there around it. The treatment is the same as for lupus.

Ano-rectal Tuberculosis. This is the homologue of the ano-rectal syphiloma mentioned above. It is, however, much more common and is accompanied by the same functional symptoms. The evolution is analogous, and diagnosis is made by extirpation and examination of a fungosity; or by direct examination of the glairy discharge which usually occurs in concomitance with this lesion. Treatment is surgical.

THE HYPOGASTRIC REGION.

The hypogastrium presents a hairy region, the pubes, where a special pediculosis occurs . . . . — Phtiriasis . . . . . p. 457

Around this region, scabies forms a series of lesions, as characteristic as those on the hands and fingers . . . . . . — Scabies . . . . . p. 459

On the pubic region may be seen acute or chronic pustules, spontaneous or more often traumatic (hydrargyrism) . . . . . . — Pustulation . . . . p. 459

Above the inguinal regions the hypogastrium may present several isolated lesions of pityriasis simplex, which are often unrecognised . . . . . . — Pityriasis simplex p. 460

A localised form of pityriasis rosea may occur here, with normal elementary lesions; circular and pink; abnormal only in their strict localisation . . — Pityriasis rosea . p. 461

An abnormal psoriasis sometimes occurs in this region only or in conjunction with psoriasis of the scalp . . . . . . — Psoriasis . . . . . p. 461

The hypogastrium is one of the seats of election of vitiligo and morphœa . . . . . . — Vitiligo. Morphœa p. 461

Alopecia areata is rarely localised to this region only . . . . . . — Alopecia areata . . p. 462

I shall conclude with intertrigo of the horizontal fold of the hypogastrium, which generally develops with inguinal intertrigo . . . . . . — Intertrigo . . . . . p. 462

PEDICULOSIS.

The pubic region is the usual seat of a phtiriasis caused by a special louse; the crab-louse, or *Pediculus publis* (Fig. 189).

This parasite, which is very distinct from the head louse and the clothes louse, is characterised like all human pediculi, by antennæ with 5 joints, and feet with a single claw; but while in the lice of the body and head the thorax is narrower than the abdomen; in the *pediculus* or *phtirius pubis* it is wider.

Like the other lice, it is reproduced by nits, which are rather smaller than those of the ordinary louse, but of the same shape and glued to the hair in the same manner (Fig. 70).

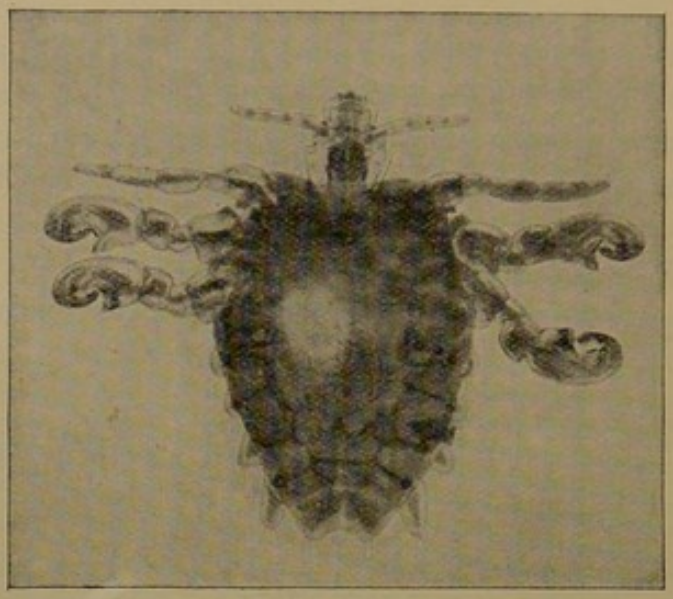


Fig. 189. Pediculous pubis. (Photo. by Noiré.)

The crab-louse is nearly always flattened and glued to the skin, hanging on by its four claws, so that removal is troublesome. It is very difficult for an unpractised eye to perceive them, for they project very slightly and only appear on the skin as minute grey spots among the hairs.

It is discovered by the grey shiny eggs attached to the base of the hairs and very adherent to them. When the pullulation of the parasites has been considerable, slate-blue spots are seen around the pubis and on the thighs, 3 or 4 millimetres wide, which correspond to an intoxication of the skin by poison introduced by the pricks of the parasite. It is possible for excessive multiplication of pediculi to provoke a staphylococcic folliculitis, but this is rare.

The traditional treatment of pediculi with grey ointment (neapolitan ointment, or double mercurial ointment) is not without inconvenience; in certain skins it causes mercurial dermatitis, which is painful and lasts for 4 to 10 days, when the ointment has been left on the skin for 12 to 24 hours without being washed off; an application for 2 hours is sufficient. Alcoholic solutions of sublimate require a strength of 1 per cent to be successful, and are liable to the same risk; also they are uncertain in effect and do not destroy the eggs.

A method which I have used several times is to have the hairs bearing the eggs removed by a professional epilator, and to remove the parasites by forceps. This method may be employed in people with very sensitive skins who have noticed the affection from the

first. This is frequent, for pediculosis occurs in all classes, even the most aristocratic and respectable.

A method which I have already mentioned is the application of *Xylol* or *ether of petroleum*. This causes much smarting, but is rarely followed by traumatic dermatitis. This kills the parasites, but does not destroy all the eggs with certainty, and for several days their possible hatching must be watched for.

SCABIES.

Scabies has a predilection for the hypogastric and genital regions and the root of the thighs. These lesions, which are usually the first in date and are considered by some to be more characteristic than those of the hands, constitute what is called the "calecon" of *Hebra*. These are the lesions of prurigo and especially those of simple scratching. It requires a practised eye to discover true burrows among them; but the topography of the lesions is presumptive, and the diagnosis is completed by careful examination of the sheath of the penis, the glans, the wrists and the palm of the hands and interdigital spaces.

For treatment see page 537.

FOLLICULITIS. SYCOSIS.

A pilary dermatitis of the pubic region is sometimes seen, more often in women. Like certain forms of sycosis of the beard, it consists in a red epidermatitis, desquamative or exudative in different cases and according to the date and the intensity; this superficial dermatitis is studded with disseminated folliculitis. The affected follicles suppurate very little, but remain red and chronically inflamed. It is a troublesome affection, of long duration and difficult treatment.

Sulphur lotions are not well tolerated, and mild sulphur ointments are a little better; but the best applications are composite tar ointments, such as:—

Liquid tar	5 grammes	3i
Ichthyol, Resorcine, Oil of birch	aa 1 gramme	gr. 12
Lanoline	40 grammes	3i

These are combined with epilation of the hairs in the centre of the chief points of folliculitis. The right formula for each case is often found only by experiment. In cases where the folliculitis is secondary and the dermatitis is very eczematous and exudative, applications of nitrate of silver (1 in 15 to 1 in 5) are useful.

Acute or chronic follicular pustulation may sometimes occur in the pubic region, in persons who present chronic sycosis of the beard, the nape of the neck and the eyebrows. These are chronic cases in which depilation by X-rays seems to be the only resource (tint B of radiometer X).

Apart from these very rare cases, acute mercurial pustular dermatitis may occur in this region, from the application of grey ointment for pediculi. This should be treated by antiphlogistic remedies, followed by oxide of zinc ointment (1 in 3) and finally by epilation, if folliculitis tends to become chronic.

PITYRIASIS SIMPLEX.

The hypogastrium, around the pubic region, is often the seat of election of isolated elementary lesions of clinical types which have no tendency to become generalised in these regions. For example *pityriasis simplex* (p. 207) is sometimes seen above the external third of the fold of the groin.

These consist of small circular spots, elongated, pink and squamous at the periphery; the squames being free at their central border, and adherent at the periphery. There may be one, two, or three spots on each side of the hypogastrium, or on one side only. When one lesion fades away another appears. The squames are somewhat fatty, and on microscopic examination show the *parasite of Malassez* (p. 207), which is characteristic of pityriasis simplex capitis, of which these elements represent aberrant lesions.

They are of no importance in themselves and their only interest depends on the errors which they may give rise to. They are generally confounded with all analogous lesions under the name of seborrhœids.

Treatment consists in friction with tincture of iodine (20 per cent in alcohol), followed by an ointment of:—

Calomel	aa 30 centigrammes	gr. 5
Tannin		
Vaseline	30 grammes	ʒi

PITYRIASIS ROSEA.

As a rule the *pityriasis rosea* of *Gibert* presents nothing special in this region; but when regional and limited to 2 or 3 lesions these are misunderstood by nearly all dermatologists and named seborrhœids.

They have all the objective characters of pityriasis rosea; circular spots of a pale violet colour, with an iridescent surface bordered with a fringe of squames. Histological examination shows the identity of these lesions with those of generalised pityriasis rosea.

The duration of the affection is that of ordinary pityriasis rosea. The spots remain for about 2 months and slowly fade away. Treatment is useless. The lesions are irritable and may become eczematous, so that active applications are contra-indicated; oxide of zinc paste is the only useful application. These lesions have no great dermatological importance, but they may be mistaken for syphilides and treated as such; an error which is prejudicial to the patient.

PSORIASIS.

I have described, on the sheath of the penis, a localised superficial psoriasis, with a pink base and fatty squames, consisting of large oval elements, discrete and few in number, which may occur on the scalp, in the groin and on the penis. Very often it is found on the hypogastric region, outside the pubic hairs, or among them. This is usually a benign form of psoriasis, of the steatoid type and frequently superseborrhœic. Recurrences are few and treatment is easy, but rebellious cases occasionally occur. (For treatment see page 428.)

VITILIGO. MORPHOEA.

The regions of the hypogastrium and scrotum are affected more frequently than many other regions by dyschromias and sclerodermias, of the types known as vitiligo (p. 613) and morphœa (p. 616).

Sometimes the affection is exclusively pigmentary, arising in the scrotal raphe and forming large, irregular, white surfaces on the inguino-pubic region. This type is allied to scrotal vitiligo.

Sometimes these are true sclerodermic patches, thickened and indurated in the skin, but not projecting from the surface; of a

white colour, sometimes surrounded by the lilac ring, which is common in morphœa. They occur as one or two oval spots, generally oblique, in the direction of the groin and one or two fingers' breadth above the inguinal fold.

The treatment of vitiligo is nil. That of morphœa comprises electrolysis, unipolar or bipolar, which gives appreciable results. In a case where the sclerodermic patches were thin, numerous and irregular I have seen high frequency give distinct results which have persisted for several years.

ALOPECIA AREATA.

Alopecia areata limited to the pubic region is a dermatological curiosity. Pubic alopecia is generally observed in a diffuse form, in the course of general alopecia decalvans. In vitiligo of this region the hair on the affected spots may become white and fall more or less completely. (For treatment see page 219.)

INTERTRIGO OF THE HORIZONTAL FOLD OF THE HYPOGASTRIUM.

When intertrigo affects one of the folds of the hypogastrium the two others are generally affected also. Intertrigo is seldom limited to one of the inguinal folds. I have, however, seen intertrigo of the horizontal fold without inguinal intertrigo. In these cases there are no peculiar symptoms or flora; the affection is streptococcic here as elsewhere. It may assume a benign form (vide inguinal intertrigo, p. 264), or a severe form (p. 268).

The treatment consists in separating the opposed surfaces, so as to aërate them, by means of a belt. When this is impossible they may be kept apart by dressings.

Local hygiene requires soaping with tar soap and a badger hair brush, when the inflammation is not severe. In the latter case sweet oil of almonds may be used. (For other treatment see intertrigo of the groin, pp. 264 & 269.)

THE SCAPULO-THORACIC REGION.

The scapulo-thoracic region presents for examination true seborrhœa: characterised exclusively by the sebaceous flux, for which this region is a seat of election . . . . . Seborrhœa . . . . . p. 464

Juvenile polymorphous acne, which is always super-seborrhœic, is often seen at its maximum development and often requires serious treatment Acne polymorphe . p. 464

Trichophytosis of the scapulo-humeral and scapulo-thoracic regions is one of the most common, of the unexposed cutaneous regions . . . . . Trichophytosis . p. 465

Favus of the body, secondary to favus of the scalp, is also seen in this region more often than in others . . . . . Favus . . . . . p. 466

Secondary syphilis often causes on the back an acneiform eruption, but one formed of much smaller and more generalised elements, generally scattered all over the back . . . . . Acneiform syphilides . . . . . p. 467

Syphilis often causes, on the nape and scapulo-thoracic region, localised semi-ulcerative eruptions of secundo-tertiary syphilides . . . . . Tertiary syphilides . . . . . p. 468

The upper thoracic region is also the region, par excellence, of transient pudic erythema . . . . . Pudic erythema . p. 469

. . . and one of the regions where the series of roseolas is best observed . . . . . Roseolas . . . . . p. 469

The posterior scapulo-thoracic region is the seat of scratch marks in verminous affections, (vagabonds disease) . . . . . Phtiriasic prurigo p. 469

It is also the region, par excellence, of the small miliary tumours, called eruptive hydradenomas . . Hydradenoma . . . p. 470

It is often the seat of nævi of different forms . . Nævi . . . . . p. 470

. . . and molluscum pendulum which develops in the senile skin . . . . . Molluscum pendulum . . . . . p. 470

I shall conclude with the flat, grey, seborrhœic or senile wart, which develops in the posterior and anterior regions of the thorax . . . . . Senile wart . . . . p. 471

SEBORRHOEA.

Seborrhœa (defined exclusively by the seborrhœic flux and not by the squame), presents an election for the scapulo-thoracic and mid-thoracic regions, which is a matter of daily observation.

In its pure state seborrhœa, which never attains in this region the intensity it may show on the face (p. 13), is characerised by two symptoms: (1) the skin is smooth and almost shiny; (2) all the sebaceous pores are marked by a pale brown spot.

In this stage soaping with sulphur soaps and daily friction with fat dissolving lotions is generally sufficient:—

(1) Resorcine in Hoffmann's liquor: 1 per cent.
(2) Ammonia in equal parts of acetone and alcohol (96 per cent): 1 per cent.

If these are not sufficient salicylic acid in oxide or zinc cream (1 per cent to 7 per cent) may be used at night, and washed off in the morning. These drugs act by exfoliation, and sulphur creams may be used with the same object; or to treat the seborrhœa as acne (p. 465).

ACNE.

Seborrhœa rarely remains in its pure condition in this region and acne is nearly always super-posed. In severe cases the acne occupies the whole trunk, but it has a predilection for the scapulo-thoracic region.

It is characterised as on the face by the comedo, forming *acne punctata,* which becoming more or less inflamed constitutes *acne suppurata* and *acne indurata.* The latter may become cystic. In some cases the acne gives rise to numerous sebaceous cysts. One or other form predominates in different cases, but they all co-exist, forming *acne polymorphe.* I have several times pointed out the etiological conditions of acne; youth, sexual development, and gastric disorders; but the cause which renders acne severe or generalised is unknown. But subjects who are affected with acne often suffer from hypersteatidrosis with a peculiar rancid odour. The condition is no doubt of a chemical nature.

The treatment of acne has already been studied several times. In this region strong measures may be carrried out without incon-

venience, and the exfoliating method is the most rapid and the

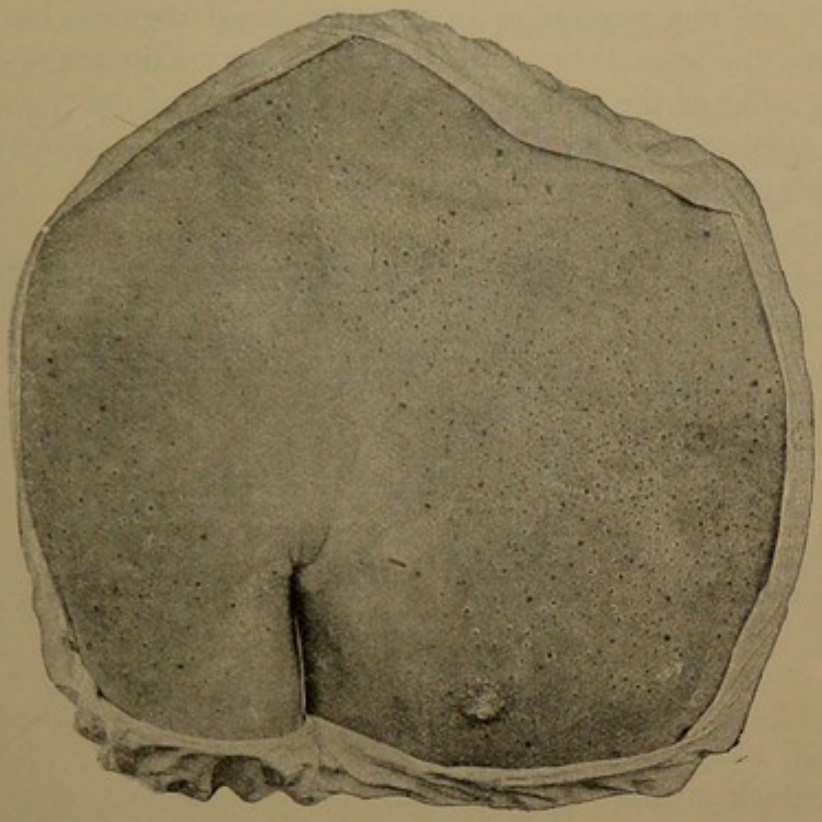


Fig. 190. Acne-comedo. (Fournier's patient: St. Louis Hosp. Museum, No. 1536.)

best. In the following formula the doses of the drugs may be infinitely varied:—

Precipitated sulphur	3 grammes	gr. 48
Resorcine	2 grammes	gr. 32
Salicylic acid	1 gramme	gr. 16
Vaseline	30 to 60 grammes	ʒi to ʒii

This ointment is applied at night and washed off in the morning. The doses may be doubled, or the application may be preceded by soaping with soft soap. If the skin is sensitive it may be treated by sulphur lotion, sulphur baths and sulphur soap (p. 15).

Up to the present sulphur is the topical application for acne. Radiotherapy in weak doses (half tint B) has given encouraging results, but further experience is required.

TRICHOPHYTOSIS.

The trichophytons, especially when of animal origin, are often inoculated outside the hairy regions, in some part of the smooth

skin; the wrist, nape of the neck and the hands and feet. These ringworms are more common in the uncovered regions, but they often occupy the scapulo-humeral region, the germs doubtless entering by the collar of the coat (Fig. 67). The form of the trichophytic circles depends on the species of parasite and the animal from which it originates. The common characters of all these lesions are their circular nature, their relatively large dimensions, their small total number, their single or bi-regional localisation, and the identity of all the patches on the same individual.

The most simple treatment consists in repeated painting with weak solutions of iodine in 60 per cent alcohol. It may be mentioned here that the pure tincture of iodine is little used in dermatology and that the diluted tincture is a thousand times better:—

Fresh tincture of iodine	10 grammes	ʒii
Alcohol: 60 per cent.	40 grammes	ʒi

FAVUS.

Favus, which is most often situated on the scalp (p. 199), may occupy the whole body, including the nails (p. 389). It has, however, a predilection for the scapulo-humeral region and the arms, doubtless because the "cups" fall from the scalp into the collar of the coat and inoculate these regions more readily than others.

Favus of the body is always characterised by the sulphur yellow cups, of various sizes and chalky consistence inserted in the skin. Nevertheless there are two forms of cutaneous favus. The one, herpetiform favus, is constituted by circles with red borders and covered with more or less numerous small cups. The other, "rocky" favus, is formed of numerous large cups, creating by their juxtaposition large placards of crusted appearance (Fig. 191). These placards may increase, but never retrogress without treatment. They may persist for life and are only seen in feeble individuals who object to any kind of treatment.

The treatment consists in moist dressings to soften the cups, which are then removed from the skin. The parts are then painted with tincture of iodine diluted with alcohol (1 in 5). These applications must be repeated often to avoid recurrences, which are so common in hairy subjects that epilation of the whole of the hairs of the region may be advisable.

ACNEIFORM SYPHILIDE.

The acneiform syphilide is one of the later forms of secondary syphilis which occur at the end of the first year of the disease

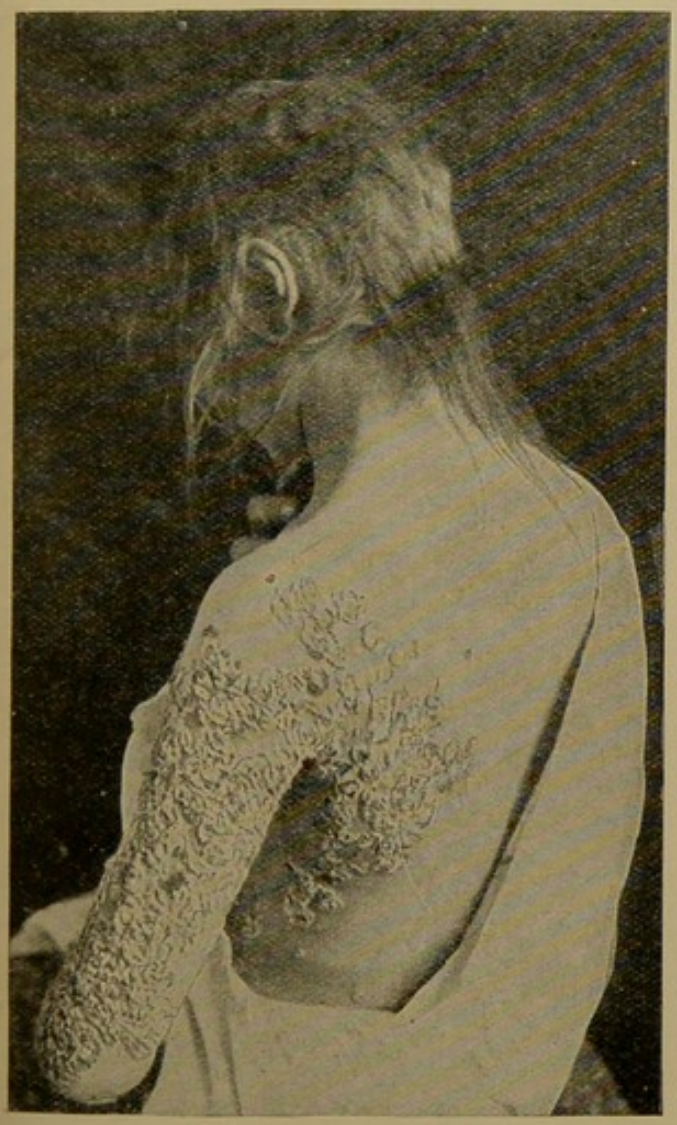


Fig. 191. Favus of the body and arm. (Sabouraud's patient. Photo by Noiré.)

It resembles a red acne, but the elements are much more numerous, more equally distributed, and less polymorphous than in true acne. These elements may cover the whole of the back with fine brownish maculæ, many of them miliary, but all with a follicle in the centre. The brown colour of these elements differs from the red colour of those of recent acne. Lastly, there are no polymorphous, indurated, cystic or suppurative elements; all the lesions are monomorphous.

Analogous lesions are found on the anterior surface of the trunk, in regions which are never affected by acne, such as the flanks and the umbilicus. The diagnosis is confirmed by the presence of adenitis, mucous patches, etc., and by the history of recent syphilitic infection.

SECUNDO-TERTIARY ULCERATIVE SYPHILIDE.

Secondary syphilis having been passed and badly treated, some years later a tertiary serpiginous syphilide may appear, formed of superficial miliary cutaneous gummata, or of larger and more dis-

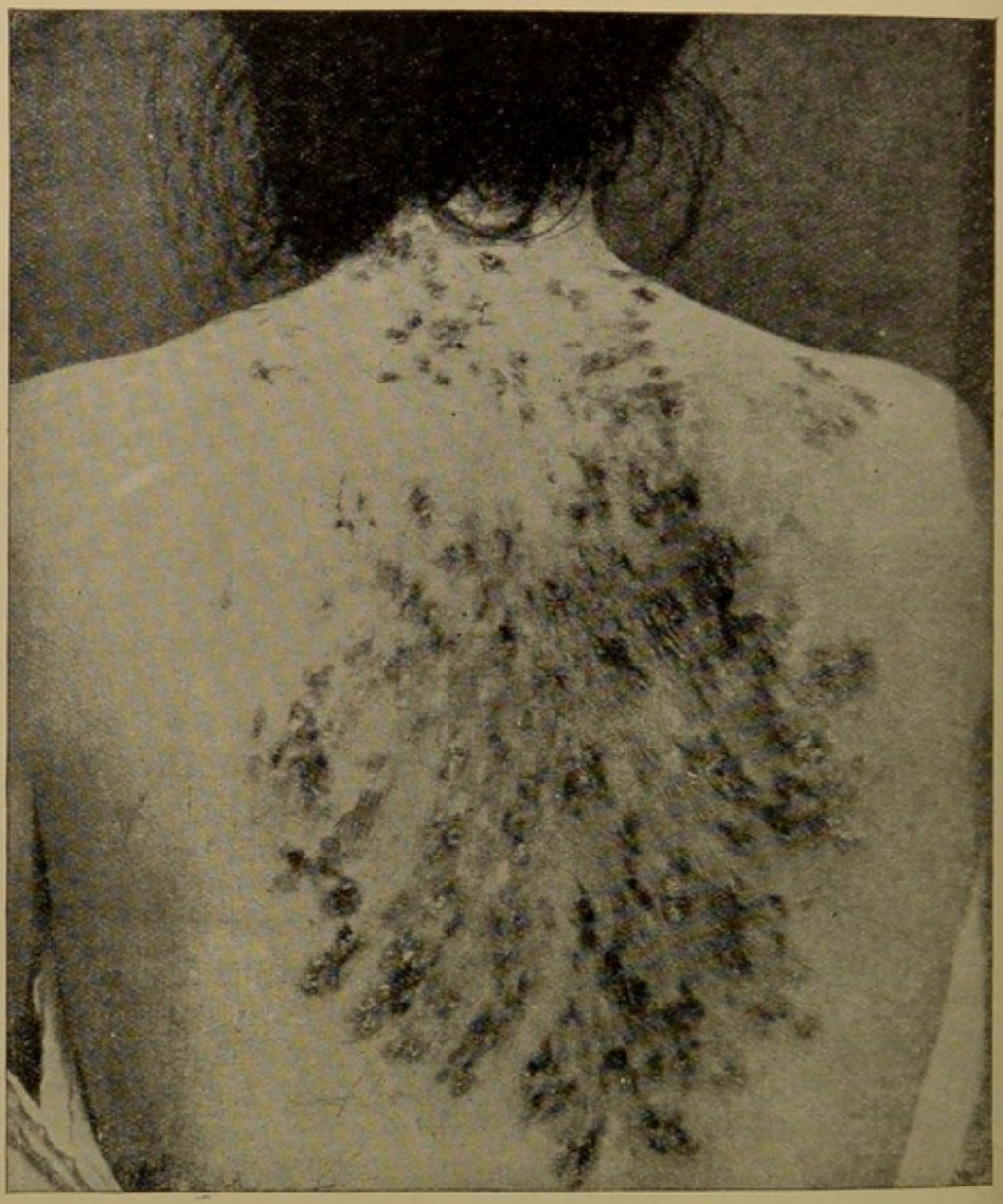


Fig. 192. Tertiary ulcerative syphilides in the form of bouquet. (Jeanselme's patient. Photo by Noiré.)

tinct ulcerative lesions, agminated, but in groups and not in circles. An example of this is shown in Fig. 192, in a region where tertiary lesions are not uncommon.

This should be borne in mind when lesions of this kind are seen, with a serpiginous or ulcerative tendency and limited to a small area.

The therapeutic test will confirm the diagnosis; but these lesions always require active treatment.

PUDIC ERYTHEMA.

Some women, when they undress, under the influence of emotion or embarrassment, or even without perceptible emotion, present on the chest large disseminated erythematous patches, which may be mistaken for a permanent lesion. This transient erythema indicates hyper-excitability of the vaso-motor nerves, which is often on a par with urticarial reactions, dermographism, etc.

ROSEOLAS.

Roseolas of all kinds are first seen on the chest (p. 578). But as they are all (except pudic roseola) observed on the whole trunk, they will be studied with the general dermatoses. However, several roseolas, especially the syphilitic, are more marked in the scapulo-thoracic region and the flanks. This region should always be examined when secondary syphilis is suspected.

PHTHIRIASIS.

The lesions of phthiriasis of the body (*Pediculus vestimentorum*) are always most marked on the back between the shoulders. They are erosive and pigmentary; two characters which are never absent. The pigmentation, diffuse or in patches occupying the situation of recent lesions, is brown or grey and more phenomenal in old standing cases. The erosive lesions are made by the nails, and as the right hand can only scratch the left shoulder, and vice versa, the parallel linear erosions are always transverse and ascending towards the shoulder. The patient often denies his phthiriasis, and it is not he who must be examined, but the seams of his clothes.

Treatment consists in disinfection of the clothes, for the white louse does not remain on the body, and except in very hairy persons,

does not lay its eggs on the hairs of the body, but on those of the clothes. The mercurial fumigations which are often advised are therefore useless. Zinc paste with menthol may be applied on the body to ease the pruritus, but this ceases as soon as the clothes are purified.

ERUPTIVE HYDRADENOMA.

The name eruptive hydradenoma is applied to minute benign tumours, the size of lichen papules, forming slight, reddish brown projections on the skin, where they may occur in hundreds (p. 630). They are sudoriparous cysts, possibly congenital, and nævoid, which attain a size of about 3 millimetres after having remained hitherto invisible. Each forms a small induration in the skin. Their place of election is the throat and they are more common in women. They never give rise to malignant tumours.

They require no treatment except for æsthetic purposes, when they may be treated either by electrolysis as for nævi (p. 5) or by fine galvano-puncture, to reduce each tumour without scarring.

NAEVI.

True nævi, angiomata and lymphangiomata (p. 626) may develop in the scapulo-thoracic region. The physician is most often consulted for nævi in this situation on account of the custom of wearing low dresses in women. The treatment of these lesions does not differ in this situation from that of other regions.

MOLLUSCUM PENDULUM.

In women about the age of 40, with a skin which becomes wrinkled, thin and senile, minute pedunculated tumours sometimes develop, the size of a millet seed. These constitute molluscum pendulum (p. 627). They may easily be got rid of by the fine galvano-cautery. This is instantaneous, almost painless and gives perfect results. Sometimes from 10 to 20 of these tumours may be seen in different degrees of development.

FLAT SEBORRHOEIC WART.

The flat seborrhœic wart is wide and flat as its name indicates, and is scarcely raised above the skin. Its surface is papillomatous and its colour dirty grey. It is one of the lesions often seen in senile, or prematurely senile, skins (p. 622). One or two of these may remain for years; and then, generally after 40, they multiply and may be seen in hundreds. The largest are one centimetre in length, and half a centimetre in width, and project for 2 millimetres. They are always villous, grey or brown. The skin thus has a dirty appearance, covered with unsightly "senile scum." The warts should be destroyed by concentrated chromic acid by the physician; and chromic acid, 1 in 5 to 1 in 10, may be used by the patient. Sulpho-carbolic acid may also be used. General friction of the body with tincture of thuja (1 in 5) is only of mediocre value, and has rather a moral effect. The lesions may be destroyed by the galvano-cautery, but great care is required to avoid scarring.

ANTERIOR AND POSTERIOR MEDIO-THORACIC REGIONS

The anterior medio-thoracic region only presents a few affections which are peculiar to it, but several which occur in this situation assume special characters.

It is first one of the regions par excellence for seborrhœa; hypersteatosis of the skin . . . . . . Seborrhœa . . . . p. 472

. . . and on the seborrhœic soil pityriasis simplex, steatoid, diffuse or more often figured, is a common affection . . . . . . Super-seborrhœic pityriasis p. 473

The medio-thoracic region is, with the costal regions, the one where pityriasis versicolor is most often found . . . . . . Pityriasis versicolor . . . . . p. 474

Normal psoriasis is rare but the form of psoriasis with fatty squames, so often super-seborrhœic, is often found in this region . . . . . . Psoriasis . . . . . p. 476

Lastly, ordinary acne is not limited to this region, but acne necrotica or varioliforme often occurs exclusively . . . . . . Acne necrotica . . p. 477

SEBORRHOEA.

Seborrhœa, or the non-squamous flux of sebum, which we have studied on the face, presents its maximum in several parts of the axial line of the body, one of which is the medio-thoracic region. Youth is the age of seborrhœa, but it is found in the adult between 30 and 40, or later. In these places there is hyper-secretion of both sebum and sweat; *hypersteathidrosis* (*Besnier*). The characteristic element of seborrhœa, the cocoon, is found here, but it is less easily expressed from the skin. The micro-bacillus is found on examination.

Seborrhœa in this region is characterised chiefly by its complications; acne (p. 15), acne necrotica (p. 235), and super-seborrhœic pityriasis (p. 208). It rarely requires treatment by itself (chloric acne, p. 236), but treatment becomes necessary to avoid complications.

Sulphur soap and lotion should be used frequently, and daily friction with the following:—

Hoffmann's liquor	250 grammes	℥i
Spirit of lavender . . . . . }	aa 25 grammes	℥i
Saponified coaltar . . . . . }		
Tincture of iodine	v drops	m.x

This is generally sufficient to keep the skin in good condition. The absolute cure of seborrhœa, in any part of the body, is so far impossible.

SUPER-SEBORRHOEIC PITYRIASIS.

This disease is called by different authors, parasitic eczema (*Besnier*); pityriasis circinata et marginata (*Vidal*); eczema marginatum (*Hebra*); seborrhœa corporis (*Duhring*); and medio-thoracic dermatitis (*Brocq*). It is constituted by pink spots scattered irregularly on the medio-thorax, chest or back, which may assume different forms, the chief characteristic of which is their medio-thoracic localisation.

They commence by a pink circumpilary point which enlarges and becomes a spot with a pink centre and squamous border. Sometimes several spots coalesce, forming a polycyclic lesion. This disease, when untreated, lasts for years; when treated it quickly disappears, but recurs. It is a simple pityriasis allied to pityriasis simplex of the scalp, for it has the same mycotic parasite, the spore of *Malassez* (bottle bacillus of *Unna*, p. 207). The squames are generally fatty, or appear so for the same reason that causes steatoid pityriasis of the scalp (p. 208).

Treatment is simple and consists in daily friction with tincture of iodine in Eau de Cologne (10 per cent), or sulphur ointment and soap. Nothing is easier than to cause the disappearance of this lesion, but it recurs, especially when treatment has not been long continued. Medio-thoracic circinate and marginate pityriasis is generally super-seborrhœic (p. 472) and is kept up by hypersecretion of sweat. These conditions impose scrupulous hygiene of the skin in order to avoid the series of super-seborrhœic affections.

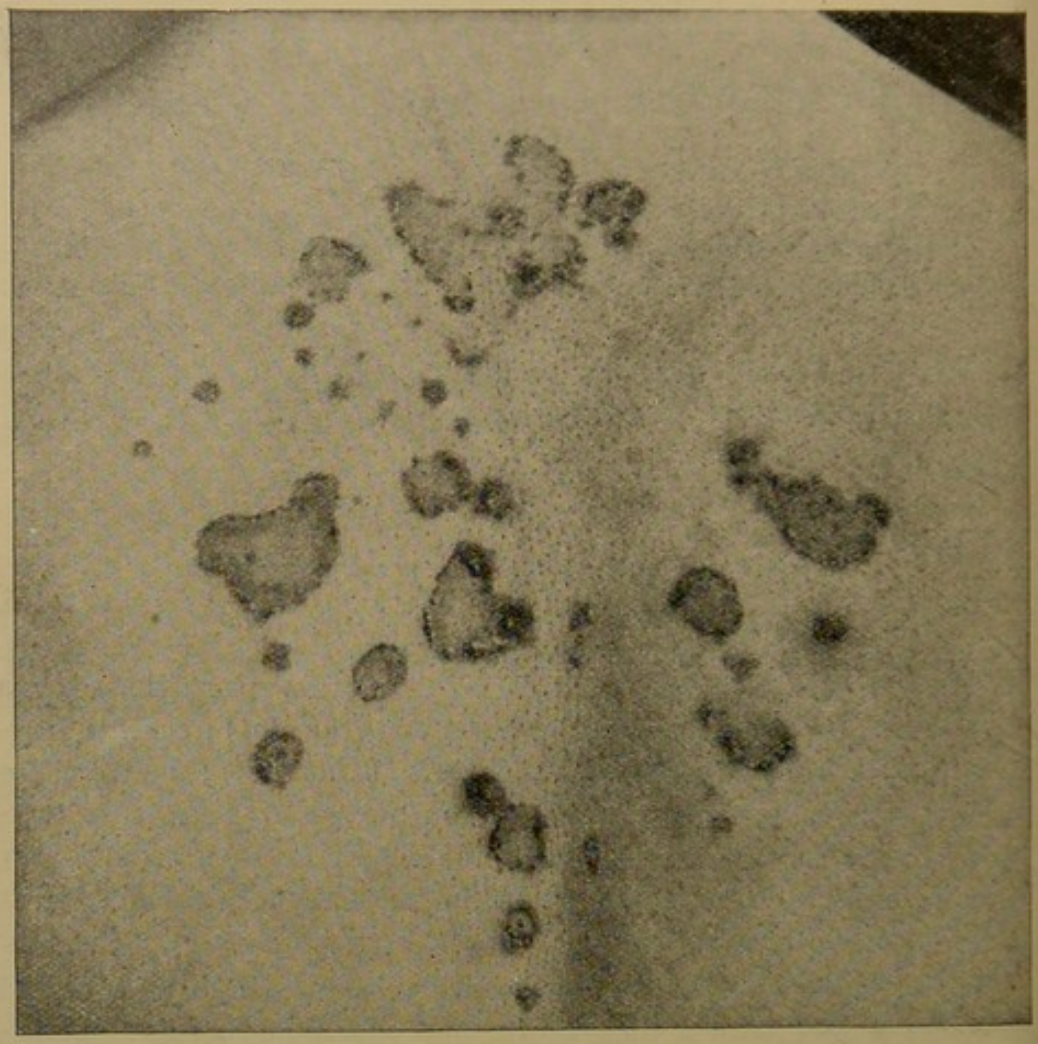


Fig. 193. Steatoid, figured, super-seborrhoeic pityriasis of the medio-thoracic region. (Sabouraud's patient. Photo. by Noiré.)

PITYRIASIS VERSICOLOR.

Pityriasis versicolor is characterised by large, apparently hyperchromic patches, café au lait coloured, disseminated or fused together in placards, and covering a varied extent of the body. The usual region affected is the medio-thorax, where geographical patches occur on the anterior and dorsal thoracic region; sometimes on the abdomen and root of the limbs (Fig. 194).

These patches are not raised and present a characteristic sign: when scratched with the nail a thin wrinkled squame is easily detached, which shows the parasite, when examined microscopically. This is a superficial epidermic mycosis, favoured by hypersteatidro-

sis, and caused by the *microsporum furfur* (named by *Robin*, but discovered by *Eichstedt*).

The squame is prepared in a drop of liquor potassæ (40 per cent) between two glass slides. In extempore preparations it may

Fig. 194. Pityriasis versicolor. (Jacquet's patient. Photo by Dubray.)

be warmed. When examined, without staining, with a power of 300 diameters, it shows a meshwork of mycelial filaments, between which are nests of spores. These spores are of various sizes, single

or double, present a double outline, and are always observed in groups.

Pityriasis versicolor is common in tuberculous subjects for some unknown reason, and is often consanguineous. It is kept up by the wearing of flannel, and by sweating. It may apparently disappear to appear again. It is always chronic and lasts for years, extending slowly, and in rare cases may become generalised over nearly the whole body (Fig. 194). In such cases the treatment is difficult, and chrysophanic ointments are required (1 per cent). In ordinary cases friction with weak iodine solutions in alcohol are to be preferred, repeated daily for several weeks.

Tincture of iodine	10 parts
Alcohol: 60 per cent.	70 parts
Spirit of lavender	20 parts

The disease is apt to recur and the linen should be disinfected.

STEATOID AND SUPER-SEBORRHOEIC PSORIASIS.

Common psoriasis has no predilection for the medio-thorax but psoriasis with fatty squames, or super-seborrhœic psoriasis, has. It is this which is called by some authors psoriasiform seborrhœid, or nummular seborrhœic eczema, etc. It presents, on the chest, its essential clinical characters; the thick, chalky, adherent, foliaceous squame, raised above the skin. The subjacent skin is red, and when the squame is removed, shows blood points. This form of psoriasis shows nearly the same characters as the prethoracic pityriasis which we have just studied. It is chronic, slowly progressive and does not retrogress. Apart from its special characters, the other localisations differentiate it from pityriasis, and also its histological structure.

It is very resistant to external treatment and strong oil of cade ointments are required:—

Resorcine Turpeth mineral	aa 1 gramme	aa gr. 48
Pyrogallic acid	75 centigrammes	gr. 36
Oil of cade Lanoline Vaseline	aa 10 grammes	aa ʒi

Chrysarobin in ointment (1 in 40) or in solution in chloroform and covered with traumaticin, may also be used.

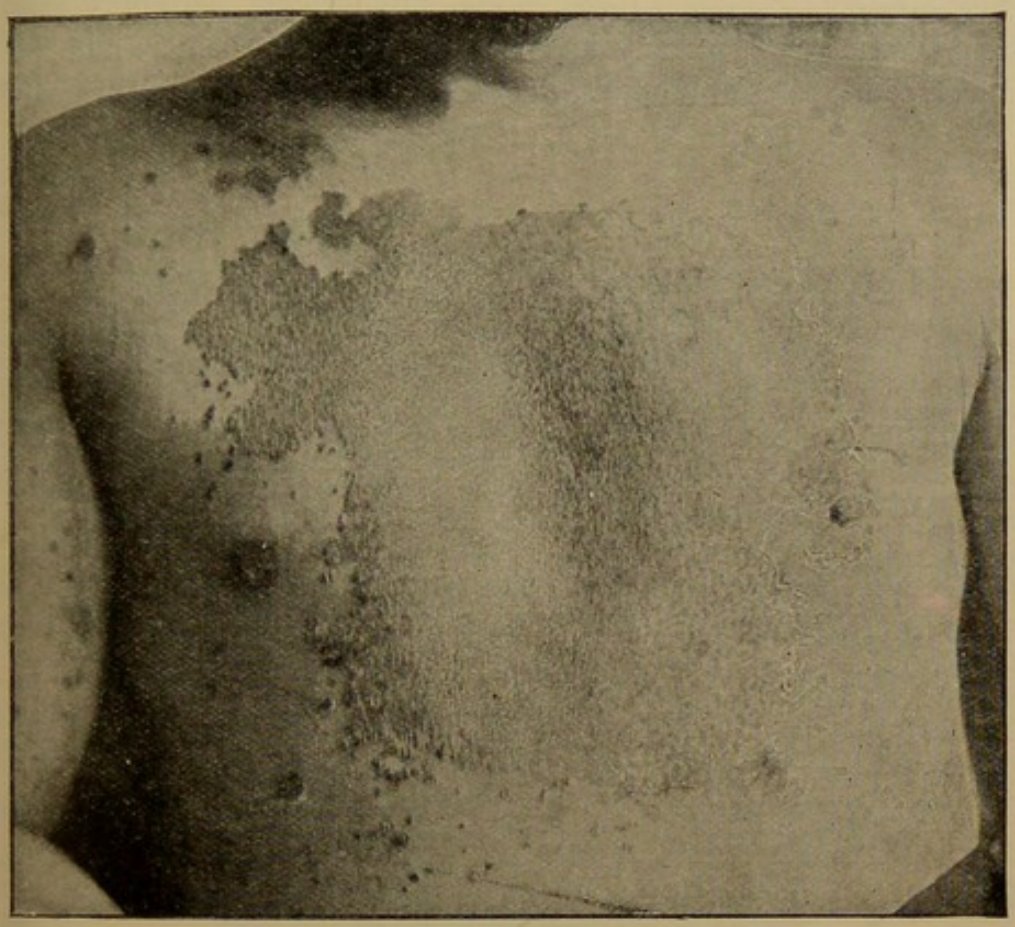


Fig. 195. Super-seborrhoeic psoriasis.
(Sabouraud's patient. Photo. by Noiré.)

ACNE. ACNE NECROTICA.

Acne is not usually localised to the medio-thoracic region, but extends uniformly on the whole of the chest and back (p. 464).

Necrotic acne, on the contrary, has a tendency to limit itself to an ellipitical region about 8 inches long, by 4 wide, exactly in the centre of the medio-thoracic region. However, necrotic acne seldom takes this localisation except in severe cases, when it has invaded the whole scalp, or the face. In this case it also invades the vertebral groove in the medio-thoracic region. It occurs more often in males than females and is as common at 40 years of age as at

18 or 20. There is no particular cause known to explain the etiology of acne necrotica.

The elements consist of flat, wide, umbilicated, peripilary pustules. These grow quickly and dry up without opening and are transformed into minute scabs, set in the skin. These scabs remain

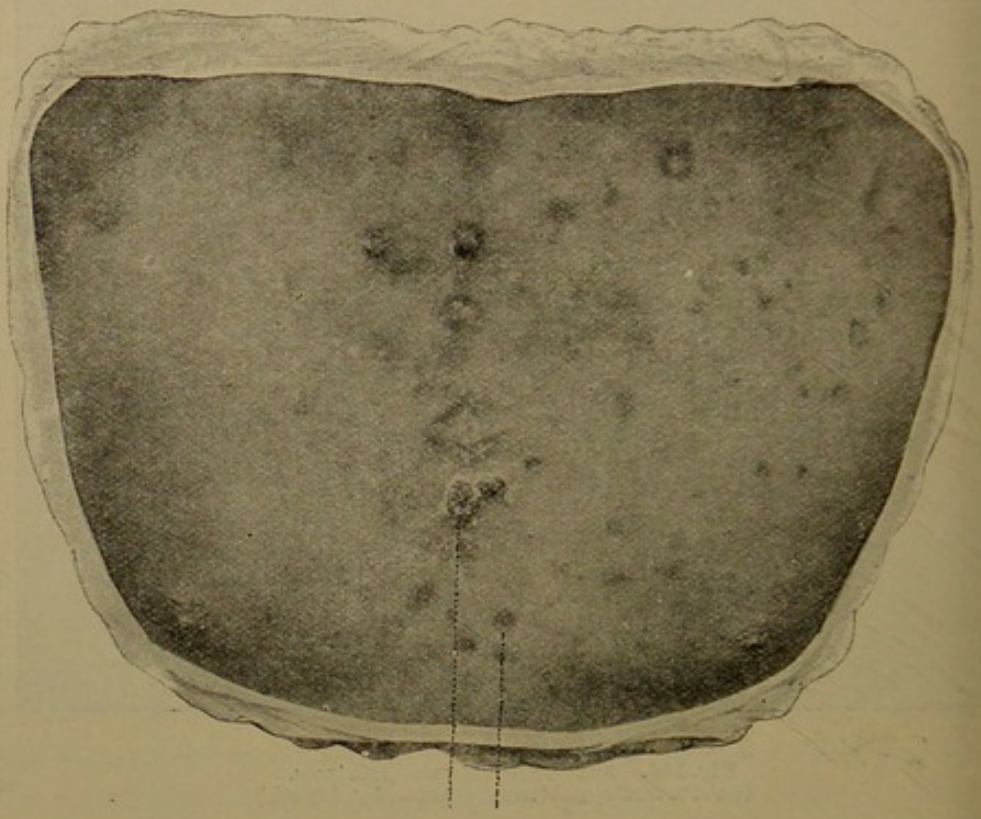


Fig. 196. Presternal Acne Necrotica.
(Besnier's patient. St. Louis Hosp. Museum, No. 498.)
(cr, crust in situ: ci, varioliform cicatrix.)

for some time and leave a varioliform cicatrix after they have fallen.

The disease proceeds by intermittent crops, which may be cured by many applications; but nothing cures with certainty the disease itself, nor prevents recurrence.

The best local applications are sulphur and mercury ointments:—

Precipitated sulphur	3 grammes	gr. 48
Cinnabar	1 gramme	gr. 16
Oxide of zinc	5 grammes	gr. 80
Vaseline	30 "	ʒi

These are applied at night and washed off in the morning. Daily alcoholic friction and weekly sulphur baths are also useful in preventing recurrence. But this affection, which is so benign in most cases, sometimes become formidable by the constant repetition of its outbreaks and the disfiguring scars which they leave.

THE VERTEBRAL GROOVE.

The vertebral groove, like all the axial regions of the body, is particularly predisposed to seborrhœa, which presents itself, not in the fluent form, but as brown spots at the sebaceous orifices . . . — Seborrhœa . . . . p. 480

Many affections develop better on a seborrhœic skin; such as pityriasis simplex of the medio-thorax, also called circinate and marginate . . . . . . — Medio-thoracic pityriasis . . . . . p. 481

This is also the case with a certain form of psoriasis which we have already studied . . . . — Super-seborrhœic psoriasis . . . . . p. 480

And with pityriasis versicolor, but this is less strictly limited than simple pityriasis to the vertebral groove . . . . . . — Pityriasis versicolor . . . . . p. 482

I shall also mention the flat seborrhœic wart, with its grey and villous surface, which often multiplies on fatty skins when they lose their youthful qualities . . . . . . — Flat senile wart . p. 482

SEBORRHOEA.

Seborrhœa, defined by the non-squamous sebaceous flux, has a marked preference for the axial line of the body, and super-seborrhœic affections are found in the whole length of the vertebral groove.

The seborrhœa itself is characterised less by an evident fatty flux than by fine brownish points, marking each sebaceous orifice; rarely by acne, except in the scapulo-thoracic region, where it has already been studied (p. 464).

In this degree seborrhœa only requires mention as the necessary substratum for the development of the affections which we shall proceed to study.

Sulphur baths and soap or alcoholic lotions with tar are generally sufficient to prevent the morbid states which may be superposed.

Saponified coaltar	50 grammes	ʒii
Spirit of lavender	25 grammes	ʒi
Alcohol: 60 per cent.	225 grammes	ʒi

SUPER-SEBORRHOEIC PITYRIASIS.

The circinate and marginate pityriasis of *Vidal*, the seborrhœa corporis of *Duhring*, or pityriasis simplex super-seborrhœica, often shew their most typical elements between the two shoulder blades on both sides of the vertebral groove. They occur on skins the pores of which are visibly seborrhœic.

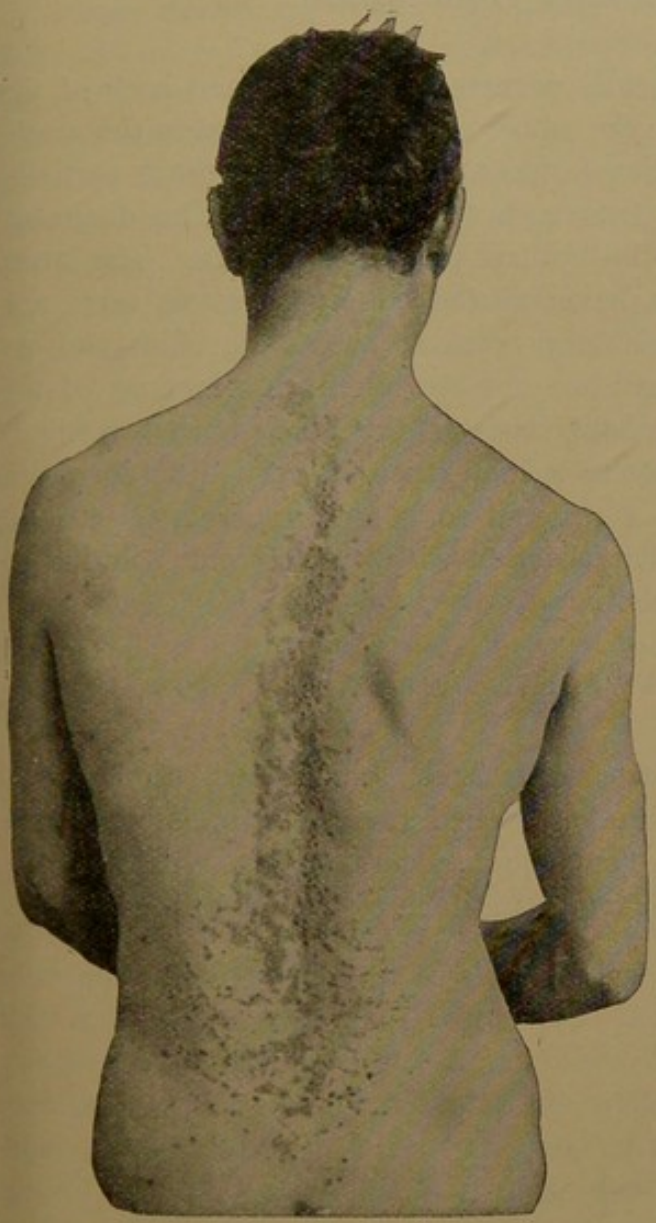


Fig. 197. Psoriasis guttata, limited to the vertebral groove.
(Sabouraud's patient. Photo. by Noiré.)

They consist of small red patches clearly defined by a yellow crusted border, or when this is removed, by a pink moist margin, resembling a nail scratch. This disease is very chronic and liable to recurrence, but has a benign character. The elements may be dispersed by sulphur, mercury, and weak iodine or tar preparations (p. 473), but recurrence is the rule, and is favoured by the hypersteatidrosis of the region (*Besnier*).

SUPER-SEBORRHOEIC PSORIASIS.

There is, as I have remarked before, a form of psoriasis which has marked seborrhœc affinities. I have described a super-seborrhœic psoriasis of the chest (p. 476), and there is a clinical type which may be strictly limited to the vertebral groove. This gen-

erally takes the form of psoriasis guttata and occurs as a band as wide as the hand in the middle of the back, sometimes expanded in larger patches on the sacral region (Fig. 197). (For treatment see page 476.)

PITYRIASIS VERSICOLOR.

Pityriasis versicolor usually occurs on the front and back of the thorax, and it may invade the whole of the back and even the whole body except the extremities (Fig. 194). It is sometimes partially limited to the vertebral groove, but this is rare. The diagnosis has to be made from medio-thoracic pityriasis simplex. The latter consists of patches which have crusted edges; pityriasis versicolor never causes any appreciable projection above the skin, and its café-au-lait colour distinguishes it from all other affections of the same situation. However, pityriasis in the newly-born sometimes causes a florid erythematous lesion which is very different from the typical lesion. This is a detail to be remembered.

Treatment consists in daily friction with a 2 per cent solution of iodine in 60 per cent alcohol.

FLAT SENILE WART.

The flat, grey or brown, seborrhœic, contagious, senile wart, "seborrhœic or senile scum," flattened on the skin, is rarely localised to the vertebral groove, but occurs on the whole of the back and even on the whole trunk and face. (Vide p. 30 and p. 622).

INFERIOR THORACIC REGION.

The lower thoracic region may present all forms of dermatoses, but none which are peculiar to it. The only one which has a certain election for this region is intercostal zona . . . . . Intercostal zona . p. 483

Apart from this eruption, certain dermatoses are common to this region and to the vertebral groove, such as pityriasis versicolor . . . . . Pityriasis versicolor . . . . . p. 482

. . . and the flat contagious senile wart . . . . Senile wart . . . p. 482

Other general dermatoses, such as pityriasis rosea of Gibert . . . . . Pityriasis rosea . p. 521

. . . and lichen planus, present their elements disposed in oblique lines, outwards and downwards following the ribs . . . . . Lichen planus . . p. 555

But these particular topographical distributions do not require description in this region, and the general eruptions will be considered later on.

ZONA.

Intercostal zona is a common lesion on the trunk. It begins either by an intense neuralgia, or by a burning sensation, or by its eruption without any premonitory local symptoms. As in herpes, erythema multiforme, etc., there may be general symptoms of malaise, fever and sore throat; at other times the zona follows a traumatism; but sometimes it occurs without anything which explains or precedes it. It is an eruption of the herpetic type (herpes zoster), forming vesicular bouquets, disseminated along a nearly horizontal line, generally situated at the middle of the thorax, and never occupying more than half the circumference of the body from the vertebral column to the sternum, or a part only of this course.

The vesicular bouquets comprise from 5 to 20 vesicles, and from 3 to 20 similar bouquets may occur along the line indicated, their

major axis being always in the direction of this line.

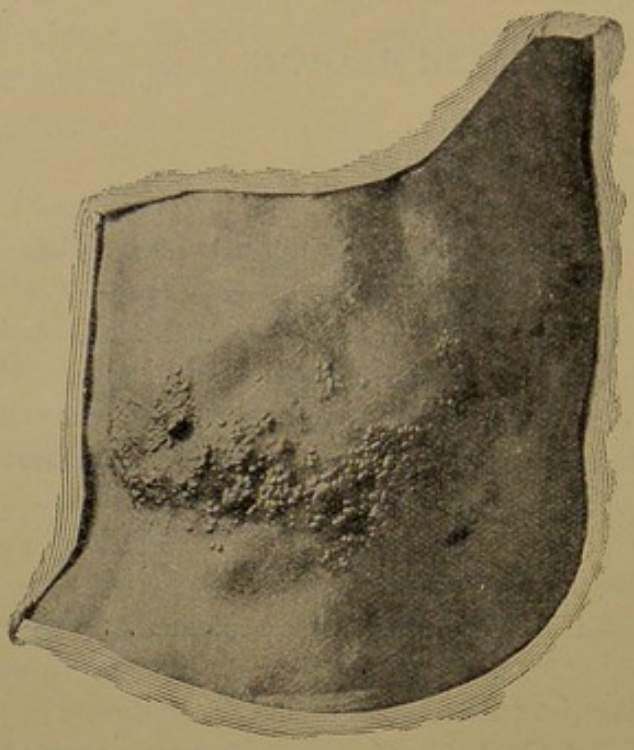


Fig. 198. Zona of the thorax. (Lailler's patient. St. Louis Hosp. Museum, No. 210.)

The vesicles are of the usual size in herpes with the same oval form and the same disposition. They are situated on a common erythematous base; become turbid on the second day and dry up on the 12th or 15th day, when they are not accompanied by local necrosis. If this occurs, when they are open, or rupture spontaneously they show a grey ulceration with a bright red border. This is a spot of local gangrene (gangrenous zona), which takes longer to heal, and leaves a cicatrix. All the vesicles of zona may undergo this process, or the necrosis may be limited to one group or to a few vesicles of each group.

After healing, zona is often followed by intense, persistent neuralgic pain, which may last for six months or more, especially in old people, or in subjects having organic disease, such as diabetes. The prognosis should therefore always be guarded.

The treatment of zona is nil. The affected region may be covered with glycerole of starch, or powder, and covered with a wool dressing. This diminishes the intense pain in certain cases. In persistent neuralgia I have had good results with a spray of chloride of methyl. This must not be applied to the skin directly, but on a layer of oil-silk or protective. This application is generally followed after two hours by intense pain, lasting for 3 or 4 hours, but the neuralgia is afterwards much diminished and may disappear completely.

The cause of zona is unknown and even the cause of the re-

appearance of the horizontal groups of vesicles, for they do not correspond to the direction of the ribs or intercostal nerves. This has led to the hypothetical application of the metameric theory to its genesis.

Certain cases of contagion of zona have been reported, and some authors believe in its microbial origin; but by direct examination and culture even the suppurating vesicles of zona, like those of herpes, are normally aseptic, with our present methods of investigation.

THE BREAST.

The breast presents for examination a great number of dermatoses, some of which are special to it; but a much greater number are common to several regions and assume peculiar characters and symptoms in this situation.

The newly born present at birth a double mammitis which may require supervision and treatment — Mammitis of the newly born . . . p. 487

The pregnant woman may present before delivery a painful mammitis, which may be followed by divers infections . . . . . . — Mammitis of pregnancy . . . . . p. 487

Mammitis in the lymphangitic or erysipelatous form, or in the form of multiple abscesses, is especially common in the course of lactation . . . — Mammitis of lactation . . . . . p. 487

Most of these lesions arise from infection through a pre-existing fissure of the breast . . . . — Fissure . . . . . p. 488

Syphilitic chancre of the breast is common and should be recognised without fail, for its origin may give rise to important problems . . . . . . — Syphilitic chancre p. 489

Secondary syphilis of the breast is much less peculiar and will only be briefly mentioned . . . — Secondary syphilis p. 490

Eruptive hydradenoma may be mistaken for the papular eruption of syphilis, and requires differentiation . . . . . . — Hydradenoma . . p. 490

Acne is not peculiar to the breast but is common on the chest . . . . . . — Acne . . . . . p. 490

Eczema of the breast is a streptococcic epidermatitis, which has peculiar causes and characters — Eczema . . . . . p. 491

. . . also scabies which is the most frequent cause of it . . . . . . — Scabies . . . . . p. 492

There is an intertrigo of the sub-mammary fold, as in all other closed folds . . . . . . — Intertrigo . . . . . p. 493

Intertriginous trichophytosis is sometimes seen in the sub-mammary, as in the inguinal fold . . . . — Trichophytosis . . p. 493

There is a lupus of the breast without special characters; also a sub-cutaneous and glandular form of tuberculosis, which requires a special description . . . . . . — Tuberculosis . . . p. 494

Syphilitic gumma of the breast, although rare, requires mention . . . . . . — Gumma . . . . . p. 494

The breast is the almost unique situation of a chronic, exulcerative affection, known as Paget's disease of the nipple . . . . . } Paget's disease . . p. 494

Tumours of the breast give rise to certain considerations which may interest the dermatologist who practises radiotherapy . . . . . } Tumours of the breast . . . . . p. 495

Lastly, cancers of the skin; chorio-epitheliomatosis, cancerous lymphangitis, cancer en cuirasse, are included among the diseases which may be treated and sometimes cured by dermatological radiotherapy . . . . . } Chorio-epitheliomatosis. Cancerous lymphangitis . . . . . .p. 496

MAMMITIS OF THE NEWLY-BORN.

Infants of both sexes, during the first days after birth, nearly always present some sign of activity of the mammary glands. There may be a simple or double mammitis, with excretion of milk, accompanied by inflammatory phenomena, including raised temperature and enlarged glands in the axillæ.

This process is usually benign and disappears in a few days; but occasionally an abscess forms near the nipple, the size of an almond, which requires incision.

Treatment is confined to strict local cleanliness. An aseptic ointment of oxide of zinc (1 to 4) should be applied, and over this starch poultices, renewed four times a day; these are antiphlogistic and regulate the local temperature.

MAMMITIS OF PREGNANCY.

In some women there occurs a tendency to the secretion of milk after the fourth month of pregnancy. This phenomenon seldom becomes inconvenient till parturition, and infection resulting from "the open door" is rare. Local asepsis must be maintained by daily alcoholic lotion and the application of sterilised glycerole of starch.

MAMMITIS OF LACTATION.

This is common and serious. It is always of microbial origin in a fissure of the nipple, or more rarely in the areola and is in-

fected by the saliva of the suckling. It may assume three forms: lymphangitis, erysipeloid or abscess.

Lymphangitis. The infection occurs at a single point and reaches a lymphatic vessel, which shews red and painful lines under the skin and directed towards the axillary glands, which are sensitive. This episode is repeated several times during the course of lactation, and usually affects the same lymphatic trunk. The evolution is that of a local benign erysipeloid.

Erysipeloid. The infection is diffuse around the nipple; the whole areola is red, hot and painful, and the suction of the infant is very distressing. There is a short febrile attack lasting for 36 hours. Defervescence occurs with disappearance of the inflammatory symptoms. These phenomena are nearly always recurrent in the course of the same lactation, and may occur 5, 6 or 7 times at intervals of 15 days; weaning is required.

Abscess of the breast. This forms a chapter in surgery, and will be dealt with briefly here. Abscess of the breast may develop insidiously and only manifest itself by painful symptoms. More commonly it follows lymphangitis or erysipeloid. Rarely there is a single abscess, when all the lymphatic trunks of the glands are affected. The abscesses occur in series, in the midst of marked inflammatory and painful symptoms, developing one after the other and necessitating repeated intervention. They may only occur in a single breast.

Local hygiene after each suckling diminishes the chances of infection. The part should be washed with saturated boric acid in alcohol, followed by the application of sterile glycerine. The breast should be covered with sterile lint or wool and raised by a bandage, or a simple scarf enclosing the dressing.

After the first local phenomena, moist dressings, aseptic poultices, cleansing of the nipple and areola after each suckling, and rest in bed are required, and prompt surgical intervention if an abscess forms.

The same treatment applies to lymphangitis and to erysipeloid. These are all accidents which should be prevented by careful attention to fissures of the nipple, which cause all of them.

FISSURE OF THE BREAST.

Fissures of the breast result, during lactation, from the continued maceration of the nipple in the excreted milk, and from

the traumatism caused by the efforts of suction of the infant.

It is necessary to bear in mind that the aseptic trait of animals is impossible; that the external infection of the nipple and that of the galactophorous ampullæ in all animals appears to be constant; under these conditions it is easy to understand that the fissure may be semi-traumatic and semi-microbial, and that it may give rise to the different complications mentioned above.

The saliva of certain infants may be acid, or keratolytic, or infected more than others. Also, certain tissues resist badly and are easily infected, having a deficient leucocytic defence.

These causes render certain women more subject than others to fissures and their consequences.

The treatment of fissues is prophylactic and curative. The application of alcoholic and glycerine lotions after each suckling, dressings of glycerole of starch, ointments of oxide of zinc and moist dressings applied over the ointment on the least sign of infection, constitute the best methods.

In spite of all treatment a fissure may increase in depth and menace the integrity of the nipples, which may even be divided. Under these circumstances lactation must be suppressed.

SYPHILITIC CHANCRE.

Chancre of the breast may be seen in women, apart from wet nurses, as the consequence of kissing or suction by a syphilitic mouth. In wet nurses the mouth of the suckling is the cause of the contamination.

The chancre, usually situated on the nipple, is the size of a sixpence, oblong, with an indurated base and flat shining surface, moist but not suppurating. It has the same evolution as ordinary chancre. Several chancres may occur on both breasts or on the same breast; the first in date is generally the largest. The enlarged axillary gland is never absent, and no other affection resembles it.

Local induration of the chancre persists long after its disappearance and may give evidence of a former lesion. At this period the skin over the induration is purple but not cicatricial.

Syphilis, consecutive to chancre of the breast, is not usually of particular severity. It requires the usual treatment and determines the same lesions.

When syphilis is clearly established in a wet nurse, it is useless for her and detrimental to the child to remove it, since the harm is already done. If the nurse is suckling two infants, one a strange child and the other her own, it is evidently necessary to ween the latter. It may have escaped infection, for it often happens, when a nurse has two sucklings, that each child always sucks from the same breast. I cannot enter into all the medico-legal details to which such an accident may give rise. The physician, having regard to professional secrecy in all cases, should try to avoid communication of the disease by the nurse, acquired from the suckling, to her own husband or to others.

SECONDARY SYPHILIS.

Secondary syphilis of the breast includes roseola, which is often very pronounced on the chest, but general on the body; a more or less abundant eruption of flat, deep red, secondary papules, which are not more marked on the breast than elsewhere; in severe secondary syphillis ulcerating papules, "ecthyma or syphilitic rupia," may occur, but not more often than in other parts. Mucous patches may occur in the wet nurse, on or around the nipple, in all the region which is macerated. (For treatment of syphilis, see p. 650.)

HYDRADENOMA.

Eruptive hydradenomata form, on the chest in general and on the breasts, an eruption of lenticular yellowish red spots, slightly grey and raised. A small tumour the size of a grain of barley is felt in the skin, by pressure between the fingers. This eruption develops slowly and is only noticed accidentally, having no local signs (p. 630).

ACNE.

There is no form of acne peculiar to the breast, but acne may occur on the breast when also affecting the chest and medio-thoracic region (p. 477).

ECZEMA OF THE BREAST.

The old doctrines stated that eczema of the breast had three causes: scabies, pregnancy and scrofula. The third cause was invoked when the two others were absent; and as this was not strictly defined, it could not be refuted.

Eczema of the breast is practically always a streptococcic epidermatitis. (For methods of culture see p. 8). It is generally limited to the areola, which is pink, exudative and covered with amber coloured, crystalline, crackled crusts.

Fig. 199. Eczema of the nipple.
(Devergie's patient. St. Louis Hosp. Museum, No. 160.)

The subjacent dermatitis is marked by permanent redness, and the axillary glands may be enlarged.

Scabies must be looked for in its usual localisations, and the characters of the elementary lesions examined. If scabies is eliminated, pregnancy must be looked for, and is easy to prove, for eczema of the breast seldom occurs before the fourth or fifth month.

Local treatment is the same in all cases; but when scabies is the cause of the eczema it also requires treatment. The areola should

be painted with nitrate of silver (10 per cent), and covered with oxide of zinc ointment (1 in 4). Starch poultices render the cauterisation less painful. When the irritation has subsided, weak oil of cade ointments may be applied:—

Oxide of zinc	aa 5 grammes		℥ii ss
Oil of cade			
Vaseline	aa 15 "		℥i
Lanoline			

Eczema of the breast is very chronic, even when its exciting cause is removed, such as scabies. Recurrence is frequent and must be carefully treated.

SCABIES.

Scabies of the breast presents its usual lesions, as in other regions; burrows, vesicles and excoriations.

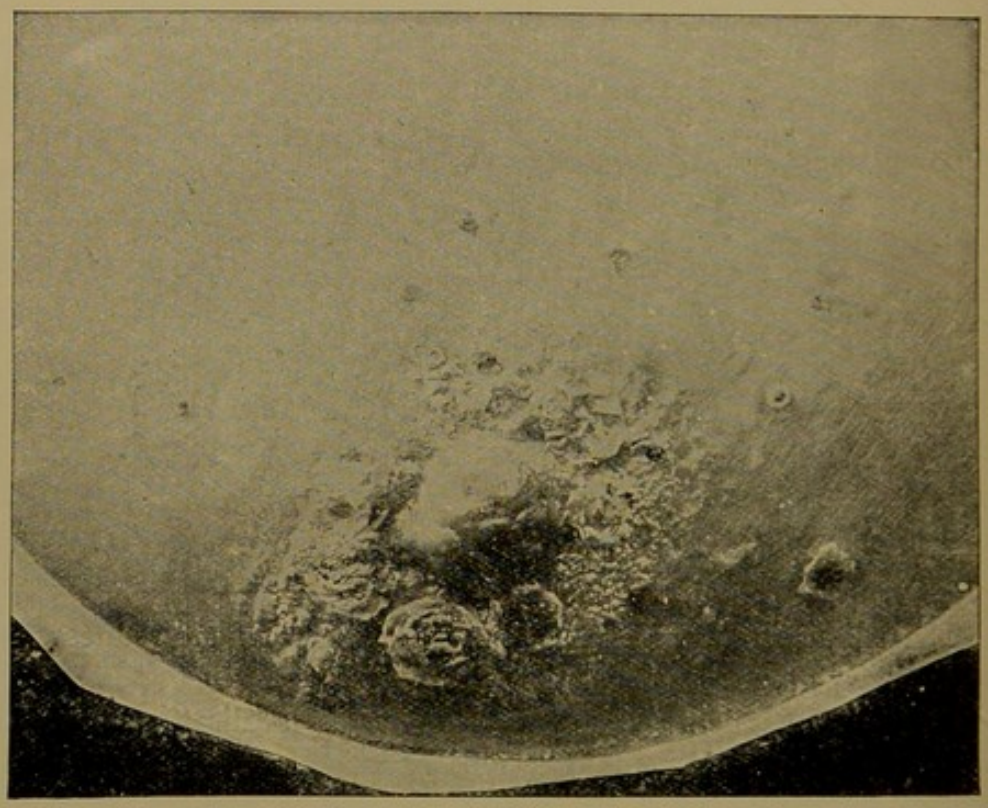


Fig. 200. Pustular and eczematous scabies of the breast. (Fournier's patient. St. Louis Hosp. Museum. No. 1759.)

It may be complicated by divers lesions caused by scratching, and determine a so-called eczema of the breast, which is a strepto-

coccic epidermatitis of the areola. This is common, and the breast assumes a peculiar appearance with its impetiginous areola and exudative, yellow crusted surface, surrounded by the scattered lesions of scabies.

This clinical picture is typical, and is completed by examination of the axillary regions and the hands (pp. 257 and 344). I have described the treatment of eczema of the breast caused by scabies (p. 492). The treatment of the scabies is the same as usual (p. 537).

SUB-MAMMARY INTERTRIGO.

Except in young girls, there is nearly always in the female a sub-mammary fold, more or less marked according to the size of the breast and the age of the subject. This fold, which is comparable to the folds of flexion, presents the parasitic affections of these folds, and also intertrigo, especially in fat women. This intertrigo, like the others, is always streptococcic at first. It may be unilateral, but is more often bilateral. If neglected its physical causes persist and it remains in a chronic state. It often co-exists with intertrigo of other natural folds.

Treatment consists in (1) maintaining the breasts permanently raised by means of a scarf; (2) local friction with solution of nitrate of silver (1 in 15); (3) the application of oxide of zinc and oil of cade ointment, applied after each friction with nitrate of silver and washed off before it. Recurrence is to be expected if the breasts are not kept elevated.

SUB-MAMMARY TRICHOPHYTOSIS.

This is the same trichophytsois which I have described in the fold of the groin (p. 266), and I have never seen it in the sub-mammary region without its first occurring in the groin.

It forms a red, moist patch, exactly intertriginous, but bordered with a red margin, in which fine vesicles are visible. This lesion may be mistaken for intertrigo, but is never streptococcic. Culture from scrapings of the horny epidermis shows the same parasite as in inguinal and axillary trichophytosis, and no streptococci.

Treatment is the same as for inguinal trichophytosis, by alternate applications of fresh tincture of iodine in 60 per cent alcohol (20 per cent), and oxide of zinc ointment (1 in 4). If the lesion is rebellious, chrysarobin, 2 per cent, may be added to the ointment.

LUPUS. TUBERCULOSIS.

Lupus of the breast is not common and presents no particular evolution or symptoms. Both tuberculous lupus and lupus erythematosus may occur, and the reader may refer to what I have said concerning these affections on the face (p. 18).

Tuberculosis of the breast, on the contrary, is a very special affection, although rare, and requires a short description. It arises in the form of a very irregular, lobulated, digitated, mammillated tumour, in the substance of the sub-cutaneous adipose tissue. Seen by transparency it appears blue and not adherent to the skin. It may be accompanied by enlarged axillary glands. It is sensitive to touch and painful on pressure, but not spontaneously painful. After several months the tumour becomes fixed to the skin, which ulcerates; the ulceration soon becomes deep and ragged, with detached borders and a fungus surface, discharging grumous, tuberculous pus. The ulceration is very painful.

The patient is generally cachectic from phthisis, and dies of pulmonary tuberculosis.

The treatment varies in different cases. Excision of the whole tumour, before it has ulcerated, appears to be indicated. At the same time general treatment of the tuberculosis is required.

GUMMA OF THE BREAST.

Syphilitic gumma of the breast is rare. It is generally normal as regards evolution and symptoms. A tumour of medium size arises under the skin, and becomes fixed to it as it develops; the skin becomes red and purple and ulcerates, exposing a granular mass which gradually extends and becomes excavating.

The diagnosis of syphilis is made by corroborative evidence, and by the absence of the general signs of tubercle; objectively, by the rounded form of the gumma, by the edges not being detached, by the redness around the ulcer, which is round and regular; also by the absence of marked functional symptoms. The therapeutic test is decisive and should never be neglected in doubtful cases.

PAGET'S DISEASE OF THE NIPPLE.

This is a rare specific disease; non-contagious, unilateral, chronic and occurring almost exclusively in women between the ages of 35

and 50; constituted in its first stage by the production of small horny elevations covering small progressive ulcerations on the summit of the nipple. The nipple gradually retracts and disappears, and the lesion extends slowly on the areola and neighbouring skin without ever retrogressing or healing. In its mature stage the diseased surface presents a clear polycyclic border, slightly raised and squamous; a red surface, excoriated or ulcerated, crusted and strewn with epidermised points (*Darier*). The duration of the disease is counted by years; it always remains unilateral and develops very slowly. The exulceration presents a slight papyraceous induration.

The lesions are not modified by any ordinary treatment. They are not accompanied by enlargement of the axillary glands. At a third stage, which may arise after 5 to 20 years, the ulcerative cancerous phase of the disease supervenes. The superficial ulceration may become deep and infiltrating; or a tumour may arise in the deeper parts and implicate the skin. The glands then become affected and the disease develops as a cancer.

The characteristic feature of the disease is the presence of cellular elements, pseudo-coccidia, enclosed between the normal epidermic cells. These are round or oval bodies with a double outline, usually much larger than the normal horny cells which enclose them (*Darier*). These bodies may be seen by treating the squame with a solution of potash (40 per cent), and examining without staining.

The treatment of Paget's disease should now be by radiotherapy; formerly it was treated like benign epitheliomas of the face, by curetting or caustics; arsenious acid, etc. In the third stage it must be treated as a cancer. I have treated one case with *H. Noiré* by radiotherapy, which resulted in a cure in 7 months, without recurrence.

TUMOURS OF THE BREAST.

Tumours of the breast do not belong to dermatology when they arise in the deeper parts, which is the rule. A process of evolution, which advances every day, will no doubt lead to the inclusion of many of the former surgical tumours of the breast among dermatological diseases, owing to the results of radiotherapy. For the time being the dermatologist will be prudent to submit to the sur-

geon every tumour of the breast, of which the benignity or malignity is doubtful.

If the surgeon can wait two months before intervening, the tumour should be treated at once with X-rays, according to the rules given by *H. Noiré;* that is, 3 or 4 consecutive sittings every 15 days; one above, one below, one internal and one external to the breast, so that each application is made on a different surface of skin, and directed by the metallic cylinder towards the tumour. Each application should be of the tint B of the radiometer of *Sabouraud* and *Noiré.* It is necessary to treat the glands of the axilla with the rays every time an application is made on the skin. If, after four sittings, performed in this way, the tumour is not sensibly reduced, an operation should be performed.

If the surgeon does not advise waiting for 2 months, the tumour should be removed at once, and radiotherapy of the cicatrix should be performed afterwards, by 5 or 6 sittings, each of the tint B of the radiometer, with intervals of 18 to 20 days between the sittings. It is well to bear in mind that some sarcomas give less certain results than epitheliomas, especially when they are operated upon late. The therapeutic value of the X-rays will be settled eventually, but the results hitherto obtained are encouraging.

CHORIO-EPITHELIOMATOSIS. CANCER IN CUIRASS. CANCEROUS LYMPHANGITIS.

In certain rare cases the skin is uniformly affected with a diffuse epitheliomatosis, which thickens the skin so that it cannot be readily pinched up. The skin is hard and infiltrated; of a reddish yellow colour and marbled; and the affected surface is limited by a clearly defined irregular margin. This condition occurs round a cancerous ulceration of the breast, or over a central tumour, with retraction of the nipple. Diagnosis may be difficult and is made chiefly by exclusion.

Surgical treatment is unsuccessful, and there is often recurrence in the cicatrix before it is complete. Radiotherapy should be tried according to the rules formulated in the preceding paragraph.

Cancerous Lymphangitis. Under the same conditions as chorio-epitheliomatosis, one or more cancerous lymphangites may occur. These are hard to the touch, raised under the skin, nodular

and moniliform and directed towards the axillary glands, which are often affected.

Good results have been obtained in these cases by radiotherapy (*Béclère*).

Schirrus en cuirasse. This is an epitheliomatous transformation of the skin, in which small, nodular raised tumours, on a schirrus cuirass, are covered with an adherent but normal skin, with no tendency to ulceration. Treatment is the same as for the preceding form.

THE UMBILICUS.

In the pathological physiology of the skin the umbilicus should be placed with the folds of flexion, to which it presents morbid affinities. I shall study successively:—

First, erysipelas of the newly-born which arises in the navel and presents severe characters . . . . . — Erysipelas of the newly-born . . . p. 498

Next, the intertrigo which is seen in persons with a deep umbilical cicatrix and who neglect local hygiene . . . . . . — Intertrigo . . . . . p. 499

I shall next consider pityriasis with fatty squames, and the so-called seborrhœic eczema of Unna, which may cause nummular intertriginous lesions — Steatoid pityriasis p. 499

. . . and steatoid psoriasis, which has the same election for surfaces of thin skin and the natural folds . . . . . . — Psoriasis . . . . . p. 500

I shall conclude with the secondary syphilitic lesions, which may be concealed in the umbilicus — Secondary syphilis . . . . . p. 500

. . . and the pruriginous and excoriated lesions with which it is often surrounded in the course of scabies . . . . . . — Scabies . . . . . p. 501

PERI-UMBILICAL ERYSIPELAS OF THE NEWLY-BORN.

Peri-umbilical erysipelas of the newly-born is nearly always consecutive to an umbilical infection, during the first days after birth. It may be peri-umbilical or lateral, and sometimes appears to arise not near the umbilicus, but on the genital organs or pubes. It is generally an ambulatory erysipelas, and its objective characters are those of erysipelas in general; a red irregular placard, in the region of which the skin is shiny, thickened, tense, œdematous and painful. When the erysipelas affects a region with loose cellular tissue the œdema becomes enormous. The temperature is raised to 40-41° C.; the infant, who shows no general symptoms, ceases to suck and death often occurs from rapid collapse. The prognosis of erysipelas at this age is very bad; nevertheless the longer the disease lasts, the greater the chance of recovery. Multiple streptococcic abscesses

then develop, which have been called curative. Death may, however, supervene even in cases where these occur.

Umbilical erysipelas should be avoided by asepsis of the wound of the cord and the region around it. There is no treatment proper, but applications of colloidal silver may be tried, and wet dressings diminish congestion and local temperature.

UMBILICAL INTERTRIGO.

Umbilical intertrigo may occur in coincidence with intertrigo of all the other folds, or may exist alone. It is accompanied by an accumulation of epidermic debris at the bottom of the folds and is generally favoured by a deep and retracted umbilical cicatrix. It may be confounded with eczematised steatoid pityriasis, or eczema of the folds (p. 12).

When the diagnosis is certain the patient should perform regular soaping of the region. Nitrate of silver (1 in 20 to 1 in 10) and oxide of zinc ointment (1 in 4) may be applied. Whenever local eczematisation is set up, an equal quantity of oil of cade should be added to the ointment.

STEATOID PITYRIASIS (SEBORRHOEIC ECZEMA OF UNNA).

On the scalp pityriasis capitis may become eczematised (p. 215). The eczema which results (Seborrhœic of *Unna*), may form moist, yellow, squamo-crusted patches in all the regions where the skin is thin, the natural folds, etc. The question whether this eczematous form is always consecutive to a pre-existing pityriasis is controversial, and need not detain us.

Clinically, this morbid type may occur; (1) as recurrent nummular placards of the same nature as on the scalp; (2) behind the ear, complicating a fissured streptococcic intertrigo; (3) in the normal folds, or in different parts of the body, always in the same form.

Treatment comprises oil of cade ointments of different strengths:

(1) Oil of Cade Oxide of zinc	aa 5 grammes	℥ii ss
Ichthyol Resorcine Oil of Birch	aa 1 gramme	℥ss
Lanoline Vaseline	aa 15 grammes	℥j

(2) Oil of Cade		
Lanoline	aa 10 grammes	℥j
Vaseline		
Oil of Birch	2 grammes	℥i ss
Resorcine		
Turpeth mineral	aa 1 gramme	gr. 48
Pyrogallic acid	75 centigrammes	gr. 36

The ointment should be washed off with soap, 10 to 15 hours after application.

PSORIASIS.

Psoriasis, with a tendency to occur in the folds, often presents patches with yellow and fatty squames which appear seborrhœic. We have already met with this form of psoriasis in several regions (pp. 476 and 481). In the umbilicus, the fold which is most constantly closed, it is most difficult to cure.

It occurs in the form of a tawny red placard, with thickening of the skin, and the production of yellow semi-fatty scabs.

It may be treated by oil of cade ointments, weak or strong, as above; or, if these do not succeed, by the following:—

Chrysarobin		
Resorcine		
Ichthyol	aa 1 gramme	gr. 32
Yellow oxide of Mercury		
Oil of Birch	2 grammes	℥j
Oil of Cade	10 grammes	℥v
Lanoline		
Vaseline	aa 15 grammes	℥j

This should be soaped off before each fresh application.

SYPHILIS.

In the course of a florid eruption of secondary syphilis, exulcerating papules may occur in the umbilicus, having the appearance of the commissural mucous patches of the lips. Such cases are not common and only constitute an epiphenomenon in the course of a general papular eruption.

SCABIES.

The acarus of scabies often has a predilection for the peri-umbilical region. The burrows are always few in number and mixed with erosions caused by scratching, broken vesicles and accessory lesions of secondary prurigo.

THE FLANKS.

The flanks present very few special cutaneous lesions.

I shall describe lineæ albicantes because they are more common and of greater importance on the abdomen than elsewhere, especially in women . . . } Lineæ albicantes p. 502

Also lichen scrofulosorum; not that this eruption of tuberculides is exclusive to this region, for it occurs in all others, but because it seldom fails to present its maximum lesions on the flanks . . . } Lichen scrofulosorum . . . . p. 503

All the general dermatoses might be described on the flanks; scabies, prurigo, eczema, roseolas, etc.; but I prefer to limit the last regional chapters, as far as possible, because to attribute to them a larger place in dermatology would overstep clinical experience; the dermatoses which are generalised on the whole body or trunk will have their peculiar characters mentioned later (p. 515).

LINEAE ALBICANTES.

These may occur at all parts where the skin has been much distended, and where this distention has ceased to exist. Thus, increase in the size of a limb or of a region may produce them; at the root of the thighs, on the breast, for example. They are most common on the abdomen in women during pregnancy. They result from rupture of the elastic layer of the dermis during distention. When the skin is relaxed they feel like furrows in the skin, leading to the subcutaneous adipose tissue.

Lineæ albicantes are thus smooth permanent cicatrices. They occur in all degrees, from long, narrow iridescent bands, level with the skin, and marking the abdomen like a zebra, up to lesions as large as the thumb, divided into meshes by elastic strands, through which the subjacent tissues may pass, as in eventration.

These lesions depend more on the quality and nature of the tissues than on the degree of distention. Brown skins, which usually fold thinly, are much less affected than fleshy blonde skins, which fold thickly. It appears that skins affected with certain morbid conditions, such as keratosis pilaris of the back of the arms,

chilblains, etc., are more predisposed than others to cause large and disfiguring lineæ albicantes. Also, in the absence of any distention

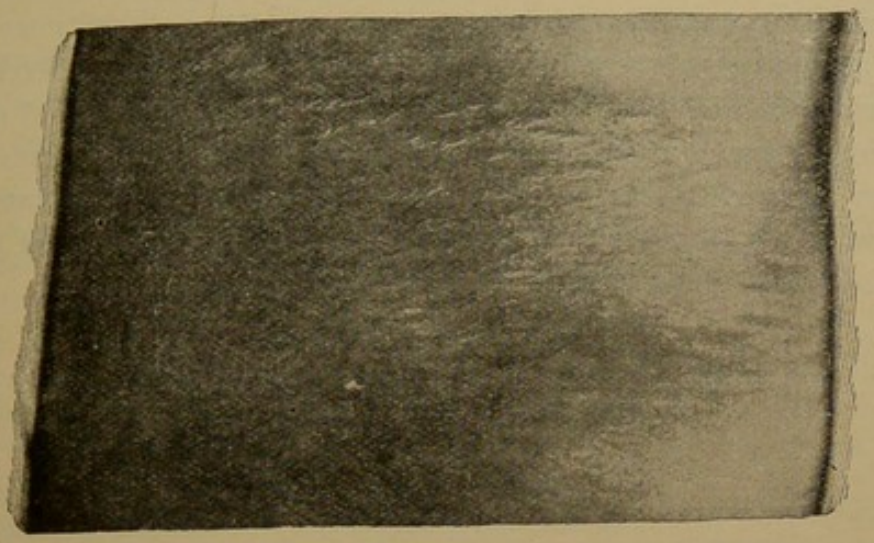


Fig. 201. Lineae albicantes of the flank after typhoid fever. (Besnier's patient. St. Louis Hosp. Museum. No. 1275.)

they may be produced after fevers, such as typhoid, scarlatina, variola, etc.

LICHEN SCROFULOSORUM.

This is a lichenoid eruption, occurring in disseminated groups, on the whole or part of the body, in tuberculous or scrofulous subjects, generally during adolescence.

Objectively, the eruption is composed of small polymorphous elements; some identical with the papules of prurigo, flat, reddish yellow and grouped like islands in an archipelago; others with a follicular centre, resembling an abortive, non-suppurating folliculitis; sometimes with a crust in the follicular orifice. At other times the lichenoid, or peri-follicular acuminations, form figured lesions; circles or semi-circles. In these cases it appears that the empty circle is produced by the disappearance of elements earlier in date, which have left no trace.

The groups of lesions of lichen scrofulosorum are more or less numerous, and there may be only 10 or 12 on the whole body. After the flanks, the regions most often affected are the forearms, shoulders and back.

The distribution of lesions is quite irregular and does not correspond to any schematic topographical plan. The lesions often arise suddenly, in one or two weeks, without any appreciable functional or general symptoms, in tuberculous subjects. Sometimes they occur after a sub-acute crisis of pulmonary or peritoneal tuberculosis, or during the course of a visceral tubercle, or after surgical operations for tuberculous glands in the neck, axillæ, etc.; sometimes without any apparent cause; but the relation of lichen scrofulosorum with tuberculosis is so evident that it was the first clinical type of tuberculides clearly recognised in dermatology.

THE SACRAL REGION.

The sacral region is peculiar, in that many of the dermatological lesions met with have a resemblance to each other, possibly because they are only varieties of a single morbid type.

Local pruritus is common, from whatever cause it arises, whether idiopathic, or secondary, or whether it belongs to the pruriginous state of a definite dermatosis . . . . . } Pruritus . . . . . p. 505

The old lichens or prurigos, the placards of lichenisation and eczematisation, are often allied to pruritus, in the course of which they frequently arise . . . . . } Lichen. Lichenisation . . . . . p. 506

The placards of lichenisation may become eczematised, or placards of eczema may follow an intertrigo of the intergluteal fold . . . . . } Eczema. Eczematisation . . . p. 506

Psoriasis, in the sacral region, may form red, thick, squamous, pruriginous placards, the diagnosis of which is made by the concomitance of lesions in the elective regions of the disease . . . } Psoriasis . . . . . p. 507

Lastly, I shall mention briefly the congenital malformations of the region; spina bifida, dermoid cysts, and hairy nævi, which have no dermatological or therapeutic importance . . . . . } Spina bifida, dermoid cysts, hairy nævi . . . . . p. 508

PRURITUS.

The sacral region is one where pruritus of divers causes is frequently localised. Sometimes there is a pruritus without lesions, generally in old people (p. 551), or there may be pruritus accompanied by cutaneous thickening, with or without hyperchromia (p. 546). Sometimes the pruritus is accompanied by the excoriated papular lesions of prurigo, or by a certain degree of eczematisation (p. 547). Lastly, the pruritus may create patches of lichenisation (p. 548), or so-called neuro-dermatitis.

All this may occur in idiopathic pruritus, the cause of which is obscure (p. 546), and appears to vary in different cases. But it may also be observed in the first stage of mycosis fungoides (p. 637), and it is important to diagnose this condition, which requires active radio-therapeutic intervention. In this case a biopsy is often required.

In all these cases the pruritus is not exclusively localised to this region, but is more or less marked on the back, the flanks and buttocks; but it is often more severe in the sacral region, and constitutes the lesions which we have mentioned above.

The general treatment of pruritus varies according to the cause; the local treatment comprises the series of anti-pruriginous applications; glycerin, resorcin (1 in 30); carbolic acid (1 per cent); menthol (1 per cent); X-ray applications (half tint B), and high frequency, etc.

LICHEN. LICHENISATION. NEURO-DERMATITIS.

A more or less pronounced local pruritus may gradually transform the skin of the region and create placards of chronic irritation, of the type formerly called lichens and chronic eczemas; but which are now designated lichenification, or, hypothetically, neuro-dermatitis.

They consist of round, oblong or indistinctly polygonal placards, composed of thickened, hard, finely quadrillated skin, forming contiguous lozenge shaped areas. Sometimes the surface of these areas, which is grey, smooth, flat and shining, gives the appearance of the lichenification of *Brocq* (Fig. 209, p. 547). Sometimes the placards are excoriated by scratching, red, moist, and presenting here and there a fine powder of yellow crystalline crusts.

This is the old lichen circumscriptus of *Vidal*, which we have met with in divers regions (p. 172), and which is always accompanied by intense pruritus. According to some authors the pruritus preexists, and the lesion is due to scratching; according to others the lesion causes the scratching, which modifies and complicates it.

All local anti-pruriginous treatment of pruritis is unsatisfactory. Zinc paste, or plasters of cod-liver oil sometimes succeed; but oil of cade ointments have always given me the best results, the formula being modified according to the susceptibility of the skin.

ECZEMA CONSECUTIVE TO GLUTEAL INTERTRIGO.

Intertrigo of the gluteal fold (p. 452) is prolonged upwards as far as the sacral region, and may, in certain cases, terminate in a placard of chronic, red, psoriasiform eczema, which is most tena-

cious and difficult to cure. This rounded, semilunar patch, of variable size, resembles a lichenised, eczematised placard (p. 561), but is more level, and more uniformly red. The crust is flat, and adherent, and when removed reveals fissures which bleed easily. This lesion is very similar to the one previously described, and hardly differs in treatment; but it is secondary to an intertrigo of the gluteal fold.

The intertrigo itself participates in the lichenisation and the skin of the gluteal fold is often hypertrophied and fissured.

Oil of cade applications are useful in this case:—

Oil of Cade	aa 5 grammes	℥ii ss
Oxide of zinc		
Ichthyol	aa 1 gramme	gr. 32
Resorcine		
Oil of Birch		
Vaseline	aa 15 grammes	℥j
Lanoline		

Plasters of cod-liver oil, oxide of zinc, or cinnabar, or more active ones, with salicylic acid, pyrogallic acid (10 per cent) may also render good service in rebellious and recurrent cases.

PSORIASIS.

The elements of psoriasis in this region, when they occur otherwise than as an epiphenomenon in the course of a general psoriasis, closely resemble the lesions described in the preceding paragraphs. All these lesions of chronic dermatitis have a resemblance in the sacral region. However, the elements of psoriasis are more regularly rounded and nummular; their surface is more level and their papyraceous squame is thicker, drier and more scaly. But it is after examination of other lesions on the body (the elbows and knees, and isolated patches on the trunk) that the diagnosis is finally established.

The treatment is that of rebellious psoriasis, with strong ointments:—

Pyrogallic acid	aa 1 gramme	gr. 24
Turpeth mineral		
Resorcine		
Chrysophanic acid . . .	30 centigrammes	gr. 8
Lanoline	aa 20 grammes	℥j
Oil of Cade		

Treatment by chrysarobin and traumaticin is also practical, and well borne by patients. A solution of chrysarobin in chloroform (5 per cent) is painted on the lesions, and covered with traumaticin.

CYSTS. HAIRY NAEVI. SPINA BIFIDA.

The possible existence of the following conditions in the region of the coccyx may be mentioned: dermoid cysts; spina bifida; tufts of hairs of the same embryonic origin as the dermoid cysts. All these are congenital malformations which need not detain us; the last because they require no treatment; the others because they belong to the surgeon and not to the dermatologist.

THE BUTTOCKS.

On the buttocks, from early infancy, there occurs a polymorphous dermatitis, usually connected with intestinal disorders (Jacquet's disease) . . . . . Simple polymorphous dermatitis of children . . . . . p. 509

Riders present on the buttocks a local furunculosis with special characters . . . . . Rider's furunculosis . . . . . p. 511

Scabies also causes pruriginous lesions in this situation, which are peculiar enough to require mention . . . . . Scabies . . . . . p. 512

All the pruriginous diseases may cause lichenification in this region, accompanied or not by concomitant eczematisation . . . . . Lichenisation . . . p. 512

Some toxic eruptions may occur in this situation, especially those which are due to alkaline bromides . . . . . Medicamentous Toxidermias . . p. 512

I shall conclude this chapter with a few words on the technique of mercurial injections in the treatment of syphilis . . . . . Technique of mercurial injections p. 513

. . . and on the intra-muscular nodosities which often follow them . . . . . Nodosities of mercurial injections p. 513

SIMPLE INFANTILE DERMATITIS OF JACQUET.

Parrot described as syphilitic an eruption which *Jacquet* and *Sevestre* qualified as post-erosive syphiloid, and to which *Jacquet* later gave the name of simple dermatitis of children.

This appears to be a kind of abortive impetigo of the region of the buttocks; one of the superficial and less recognisable lesions caused in many cases by pyogenic cocci.

These eruptions, whatever their immediate cause, are all closely connected with digestive disorders, such as infantile diarrhœa. The first degree of these eruptions has been described in the anal region (p. 446). When they extend they nearly always assume the appearance described by *Jacquet* in the following table:—

Dermatitis of the 1st degree, or Erythema . . . . . Simple Erythema

Dermatitis of the 2nd degree.

- Erythemato-squamous . . . . . Squamous Erythema
- Erythemato-vesiculous Vesicular Erythema .
  - Pure Vesicular Erythema.
  - Erosive Vesicular Erythema.
  - Proliferating vesicular Erythema.
  - (False lenticular syphilide of Parrot. Post erosive syphiloid of Jacquet. Lenticular Erythema of Sevestre. Polymorphous or mixed vesicular erythema.

Dermatitis of the 3rd degree.

Dermatitis intertrigo . . . . . Simple, erosive, ulcerative.

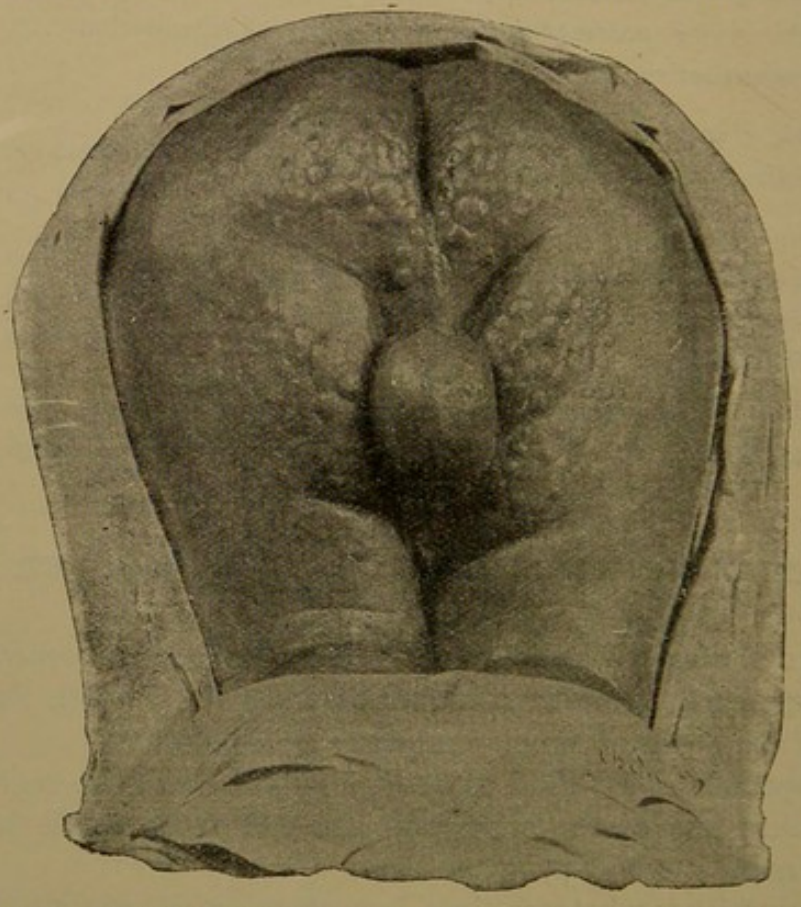


Fig. 202. Papular dermatitis: post-erosive syphiloid (Parrot's disease, incorrectly described by him as syphilitic).

From the above table it will be seen that the lesions vary from erythema to ulceration, and that they occur in all forms and degrees;

erythematous, diffuse, localised, simple, papular, vesicular and ulcerative. It is necessary to know that the earliest degrees, or the most simple, and the earliest forms or the most benign, are the commonest. It must also be remembered in practice, that syphilis should not be diagnosed at first sight in cases of lesions of the buttocks in infants If syphilis really exists, *the lesions will seldom be the first and never the only ones.*

The treatment of simple infantile dermatitis consists first in strict local cleanliness. The linen should be changed every time it is soiled. The lesions should be covered with oxide of zinc paste (1 in 3) containing one per cent of ichthyol and resorcine.

The diet also requires careful regulation, as it is usually defective. Palpation of the flanks often reveals acute pain in the cæcum and in the ascending and descending colon, which sometimes necessitates small doses of calomel.

RIDER'S FURUNCULOSIS.

Rider's furunculosis is caused by the traumatism of the saddle, and is at first localised to the buttocks. This furunculosis is staphylococcic (p. 185), and the traumatism is only an auxiliary cause of its localisation and multiplication. The eruption, which may comprise from 10 to 50 furuncles, may require rest in bed, especially as the friction of the rough and infected clothes, and friction of the lower limbs against the horse, may disseminate the furuncles along the inner surface of the limb; and if riding is continued each furuncle undergoes a peripheral necrosis, which constitutes a veritable ecthyma (p. 298).

In spite of this general symptoms are absent, excepting lymphangitis and the complications of abscess. Pain is always present, but variable.

Treatment consists in suppression of the cause and moist dressings to remove the crusts; a weak carbolic acid spray (1 in 500) is useful for this purpose. Each ulceration is dressed with subcarbonate of iron ointment (1 in 40); and each commencing boil is punctured with the galvano-cautery, a proceeding which often causes abortion of the boils, when done in time.

SCABIES.

The localisation of scabies to the buttocks is one of the most frequent, and usually one of the most marked. It forms part of the group of anterior and posterior lesions situated in the hypogastrium, the genital organs, the root of the thighs, the loins and buttocks, which constitutes what *Hebra* termed the *calecon galeux.*

On the buttocks there are abundant lesions caused by scratching, with or without scratch marks made by the nails. The elementary lesions of scabies are seldom recognisable in this region, and must be looked for on the penis, hands, wrists, breasts and axillæ. (For the treatment of Scabies see page 537)

LICHENISATION.

In chronic eczemas, prurigos and divers pruriginous diseases (p. 543), the region of the buttocks is one of the most common seats of the chronic process of irritation and infiltration known as lichenisation. I have already spoken of these clinical forms in the sacral region, where they are often observd (p. 506).

Sometimes there are placards of true lichenification, the neurodermatitis of *Brocq* or the lichen circumscriptus of *Vidal.* Sometimes a process of eczematisation is mixed with it, and then the surface of the lichenised patch is excoriated, moist or more or less covered with yellow crystalline crusts, as fine as amber dust, adherent to the irritated epidermic surface. The treatment of these lesions seems to depend more on the mode of cutaneous reaction of the individual than on the cause of the pruriginous dermatosis.

TOXIC MEDICAMENTOUS ERUPTIONS.

The buttocks are sometimes the seat of election of medicamentous eruptions, or toxidermias, caused by bromides, iodides, antipyrin, etc. Whenever a strange eruption of abnormal type suddenly appears in this region, medicamentous eruptions should be thought of, and an enquiry instituted. The only treatment required is suppression of the cause, and the application of cicatrising agents when there is ulceration.

TECHNIQUE OF MERCURIAL INJECTIONS.

Mercurial injections employed in the treatment of syphilis are usually made in the buttocks, because experience shows that it is necessary to make them deeply in the muscular tissue, and this region fulfils these conditions best. The technique is as follows: The platinum-iridium needle, mounted on an empty syringe, is passed through a flame and plunged deeply into the buttock internal to the course of the sciatic nerve behind the great trochanter; this is the only point it is necessary to avoid. The patient should contract the buttocks to diminish the slight pain of the puncture.

The needle being inserted, the piston of the syringe is withdrawn to see if any blood comes; if not, the empty syringe is replaced by the prepared one and the injection made. The needle and syringe are removed and the region is rubbed with a pad of wool soaked in alcohol; this friction is intended to displace the layers of muscular tissue and thus close the path of the needle and prevent escape of the injected liquid.

If blood is withdrawn by the empty syringe, the needle is in a vessel and may be thrust in deeper, or withdrawn or displaced. This is important, for injections of insoluble or oily preparations made in an artery may give rise to painful emboli followed by deep sloughing. This is a rare accident which should be avoided by the above technique. Some surgeons apply collodion to the orifice of the puncture; this is right in theory, but may be neglected in practice. A puncture of this kind only leads to suppuration when the needle or the injected liquid is septic. It is, however, always useful to wash the part with alcohol and ether before puncture. The platinum-iridium needles can be sterilised in the flame without softening, and are for this reason employed by preference.

The syringe made after the type of *Barthelemy's* for grey oil is preferable to all others, because the liquid which it retains after injection being antiseptic, there is no need to remove and clean it after each injection. The syringes for soluble injections, or for calomel, with a capacity of one cubic centimetre, are boiled for five minutes before use.

NODOSITIES OF MERCURIAL INJECTIONS.

In certain patients, when mercurial preparations are injected into the buttocks for the treatment of syphilis, hard, visible, painful

nodosities are sometimes formed by chronic inflammatory infiltrations around the point of injection. This condition occurs chiefly with insoluble preparations, such as calomel and grey oil, and when the injection is not made deep enough. It may, however, occur in the case of soluble preparations, even when injected deeply. These nodosities occur from 5 to 15 days after injection, and are not spontaneously painful except during development. They remain sensitive to pressure for several weeks, and gradually disappear in the course of a few months.

The reason why these nodosities occur only in certain subjects is not clearly determined. The role of these nodosities in diminishing the absorption of the salts injected is beyond question; they have been found, in necropsies after many months, in a cystic condition containing mercurial salts in abundance. In cases where the nodosities are constant, large, and painful, it may be better to use the older methods of treatment for syphilis, for the pain and deformity are avoided and possibly the quantity of mercury absorbed is better appreciated.

The remains of these multiple nodosities must not be mistaken for lipomata, fibromata or gummata, even if the patient denies their origin.

GENERALISED DERMATOSES.

There are eruptive diseases which are generalised over the surface of the whole body, or the greater part of it; for instance, the exanthematous fevers.

On the other hand, there are dermatoses which, without being generalised on the whole cutaneous surface, have no absolutely elective localisation, and may occur in any part of the body; epithelioma, for example. On the other hand, there are some which have elective localisations, but may be also generalised over the whole body, and therefore require a general description; scabies for instance.

These diseases are very numerous, and require classification. This classification should be simple enough for a student, without previous dermatological knowledge, to be able in this part of the book, as in the others, to easily find the dermatological type put before him.

Plenk and *Willan* (XVIII-XIX centuries) have given us the method. They observed that cutaneous eruptions were nearly all constituted by the infinite repetition of the same small lesion, which they called the *elementary lesion.* But the elementary lesions are not of very many forms and it is thus easy to retain their definition. They furnish us with a very simple classification which any student may easily follow.

There are cutaneous diseases characterised exclusively by the dry squame; by horny exfoliation without redness or exudation around it. These constitute the first group of simple squamous dermatoses	Squamous dermatoses . . . . p. 517
There are other dermatoses, of which the primary element is a flat pruriginous elevation, identical with that caused by a nettle sting. These form the Urticarial group	Urticarial dermatoses . . . . . p. 531
Before considering the essential dermatoses in which pruritus is a dominant factor, I shall sketch the parasitic verminous diseases which are easily confounded with prurigos	Verminous dermatoses . . . . . p. 537
There exists a category of cutaneous nosographical types which are characterised by pruritus; the pruriginous papule, a small, dry, raised, flat lesion, isolated or grouped in thick quadrillated placards. Along with the prurigos, we shall give a review of all affections with papular or papuloid lesions	Papular and lichenoid dermatoses p. 543

There is also a class of cutaneous affections characterised by the vesicle, an element constituted by a minute collection of clear fluid, slightly raising the superficial epidermis. When a vesicular dermatosis is excoriated it becomes exudative . . — Vesicular and exudative dermatoses . . . . . p. 559

There is another class of dermatoses characterised by the pustule; and this element is caused apparently by a vesicle which, instead of clear fluid, contains pus. The open pustular elements form more or less superficial ulcerations . . . . . . — Pustular and ulcerative dermatoses . . . . . p. 568

Apart from the preceding dermatoses there are others which have the common characteristic of redness of the skin, or erythema. This erythema may be formed of small patches or macules which disappear by pressure. For instance, measles and the rubeoliform eruptions . . . . . . — Measles and rubeoliform eruptions . . . . . p. 578

The erythema may be scarlet and diffuse on large areas. This condition is acute and of the type of scarlatina and scarlatiniform eruptions . . . . . — Scarlatina and scarlatiniform eruptions . . . p. 585

Or it may constitute erythrodermia with extensive scaly desquamation, of the type of an extensive, apyretic and chronic erysipelas . . . . . . — Erysipelas and erythrodermia . p. 589

Lastly, there are eruptions constituted by intracutaneous effusions of blood in macules or in contused patches which do not disappear with pressure — Purpura and purpuric eruptions . p. 593

I shall devote a chapter to the description of variola, varioloid and varicella . . . . . . — Variola. Varicella p. 599

Also to eruptions of which the elementary lesion is a bulla or large vesicle, consecutive to pemphigoid eruptions . . . . . . — Bullous and pemphigoid eruptions . . . . . p. 602

There is also the series of dyschromias, melanodermia and vitiligo; and sclerous changes of the skin called sclerodermia and morphœa . . . . . . — Dyschromia Sclerodermia . . . . p. 611

Also the series of tumours of the skin, from the smallest, such as milium and mulluscum contagiosum, up to the largest tumours of mycosis fungoides and sarcoma . . . . . . — Tumours of the skin . . . . p. 618

Lastly, there are severe general diseases, the duration of which is counted by years, of which the cutaneous manifestations differ less in their situation on the body than by their date in the evolution of the disease; leprosy and syphilis for example . . . . . . — Chronic infectious dermatoses .. . p. 644

THE SQUAME.

STEATOID AND SUPER-SEBORRHOEIC PSORIASIS.

Elementary Lesion: THE SQUAME.

A certain number of general squamous diseases, differing considerably in form and in evolution, have the squame as a common, primordial, objective character.

In Ichthyosis, or generalised congenital hyperkeratosis, the generalisation (except in the folds of flexion), and the congenital nature require to be considered . . . . . . — Ichthyosis . . . . p. 518

There are also pronounced or hardly visible desquamations, which follow a great number of eruptive fevers, and pyrexias . . . . . . — Desquamation of pyrexia . . . . . p. 518

There is also the desquamation of the bed-ridden (pityriasis tabescentium) . . . . . . — Desquamation of the bed-ridden . p. 519

The name of pityriasis was given by Willan to all the morbid types which are essentially characterised by the squame. There are five dermatological types under this name . . . . . . — Pityriasis . . . . . p. 519

The first is pityriasis capitis, which may occur on the front of the thorax, and is in rare cases generalised . . . . . . — Simple and steatoid pityriasis . p. 519

The second is pityriasis versicolor, a mycosis of the horny epidermis; disposed in geographical, brown patches; generally situated on the thoracic region, but sometimes extending to the whole trunk, and even the whole body, except the extremities — Pityriasis versicolor . . . . . p. 520

Pityriasis rosea was, up to the time of Gibert, confounded with syphilitic roseola. It is a generalised eruption of pink spots, which become bistre coloured and edged with a squamous fringe . . . — Pityriasis rosea of Gibert . . . . . p. 521

The fourth pityriasis is the pityriasis rubra of Hebra, an exfoliating erythrodermia (p.) . . . — Pityriasis rubra of Hebra . . . . . p. 522

The fifth is an affection closely related to psoriasis, and will be studied after it . . . . . . — Pityriasis rubra pilaris . . . . . p. 522

Dry eczema may occur without a preceding stage of exudation . . . . . . — Dry eczema . . . . p. 522

I shall next study psoriasis as a whole, the chief characters and principal localisations of which we have already considered . . . . . . — Psoriasis . . . . p. 525

And the pityriasis rubra pilaris of Devergie-Besnier, a rarer disease than psoriasis, but with very similar characters . . . . . } Pityriasis rubra pilaris . . . . p. 528

I shall conclude with a few words on the rare eruptions called parakeratosis variegata and parapsoriasis . . . . . } Parapsoriasis . . . p. 530

ICHTHYOSIS.

Ichthyosis is easily recognised by two characters: the hyperkeratosis which constitutes it is generalised, and it exists from the earliest infancy.

It may occur in all degrees, from that which renders the skin slightly floury, dry and grey, to that which forms thick, coarse, black, crackled, adherent patches, covering the body (*ichthyosis hystrix*). The disease is sometimes consanguineous and hereditary, but not always. It increases a little with age, from 6 to 15 years. It avoids the folds of flexion, and is always more marked on the extensor surfaces of the limbs. It has been studied on the limbs (p. 284) and scalp (p. 179), and is only mentioned here to differentiate it from the different squamous diseases which may become generalised. The treatment of ichthyosis is purely palliative.

Xerodermic skins have necessarily a special hygiene which includes frequent alkaline baths to clean the hard and adherent horny layers; applications of glycerole of starch with resorcine, or oxide of zinc cream with 1 per cent of salicylic acid.

DESQUAMATION OF PYREXIAS.

Every pyrexia, infectious disease or eruptive fever, and every febrile disease with cutaneous phenomena, may terminate by a desquamative stage, which is very marked in scarlatina, less marked in measles, etc., but may occur in all. In the case of a desquamation with large squames, scarlatina (p. 585) and recurrent scarlatiniform erythema (p. 587) should be thought of, for there are some forms of unrecognised scarlatina. All corroborative evidence bearing on the retrospective diagnosis should be carefully investigated. In themselves these desquamations are of little importance and disappear spontaneously; but after scarlatina and variola they may

be the agents of contagion; hence the practice of applying vaseline to the whole surface of the body, during convalescence. The following cream is also useful for this purpose:—

Oxide of zinc	2 parts
Oil of Almonds, Vaseline, Lanoline	aa 3 parts

DESQUAMATION OF THE BED-RIDDEN. PITYRIASIS TABESCENTIUM.

This is especially marked on the flanks and limbs, and resembles a transient ichthyosis. Like ichthyosis, it covers the skin with a thin, grey, crackled, horny cortex, partly adherent, and partly dehiscent. The persistence of the desquamating horny layer is due to immobility and to the absence of cleanliness. Treatment consists in baths and soaping.

PITYRIASIS.

The word pityriasis (πιτμρσν, bran) has been revived in dermatological parlance by one of the principal founders of modern dermatology, *R. Willan*, who considered the squame as the only characteristic of pityriasis. The name pityriasis is given to five essentially different morbid types, the clinical characters of which I shall briefly describe.

PITYRIASIS SIMPLEX VEL CAPITIS.

Pityriasis capitis, forming dry pellicles on the scalp, is a chronic disease characterised by the dehiscent squame, without inflammatory reaction of any kind (p. 207).

In many cases this is transformed into pityriasis with steatoid squames, greasy to the touch, under which the epidermis is rather redder than normal (p. 208). These two forms of simple and steatoid pityriasis are primarily situated on the scalp, but have a second localisation on the anterior and posterior medio-thoracic regions.

from which they may, for a time, extend and multiply on the whole body. This is the parasitic eczema of *Besnier*. It may extend from the scalp to the face.

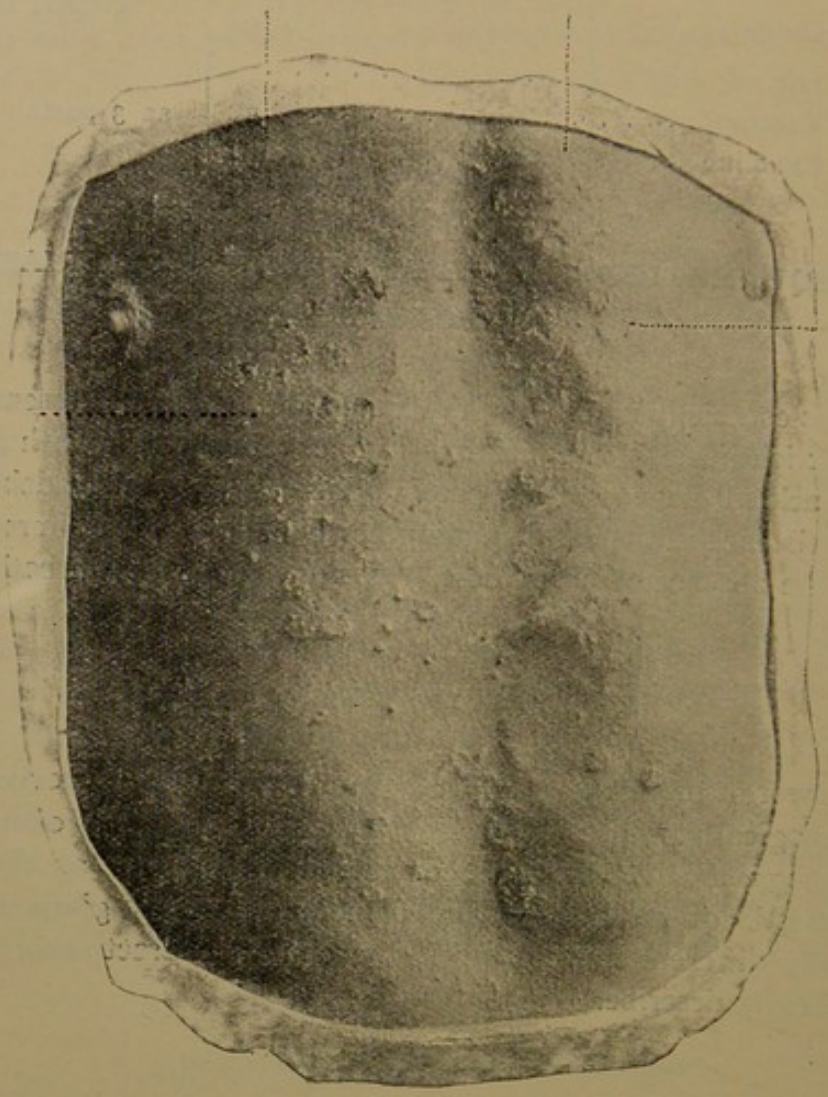


Fig. 203. Parasitic Eczema of Besnier (Pityriasis Simplex). ej, young elements; cc, exfoliative circles. (Besnier's patient. St. Louis Hosp. Museum, No. 873.)

These generalisations are very incomplete and temporary, and hardly require mention in an elementary book. This eruption has the exact characters figured on p. 474 and described on p. 120.

PITYRIASIS VERSICOLOR.

Pityriasis versicolor is constituted by patches of different sizes, with geographical outlines, and of a brown colour, commencing

nearly always on the anterior or posterior thoracic regions and generally limited to them. For this reason this disease has been described on page 474. But in some cases this chronic dermatomycosis may invade nearly the whole of the trunk, as shown in Fig. 194; but it rarely attains this degree of extension. It may be confounded with a dyschromia, a melanodermia, etc. To prevent this error it is sufficient to rub the patches with rough lint, which removes the greyish brown pityriasis layer.

PITYRIASIS ROSEA.

The pityriasis rosea of *Gibert* is a generalised dermatosis which has no regional election and extends to nearly the whole of the body; so that it has not yet been described in this book.

It arises as a single placard; pityroid, irregularly rounded or oval, with a red and very trichophytoid border (*Brocq*). This patch may be situated on the trunk, shoulders, arms, chest or flanks. It remains solitary for 2 or 3 weeks, or more. Then, in a few days, an erythematous and pityroid eruption develops on the whole body, composed of small pink macular elements which enlarge and assume a special appearance. The centre is bistre coloured and the superficial horny epidermis is finely wrinkled, shot and iridescent. The periphery of the patches is a rose-lilac tint, finely desquamative and bordered with a fringe of fine squames. When examined with a strong lens the peripheral border is seen to be vesicular, as is shown by its histology.

This eruption covers the entire body with a kind of roseola which, before the time of *Gilbert*, was too often mistaken for syphilitic roseola; this, however, is never desquamating nor pruriginous. It increases during 8 or 15 days; remains stationary for a month, and gradually fades. Its distinctive characters are: the primary large, trichophytoid patch; the uniform eruption on the body, formed of hundreds of patches, and which avoids the head and the extremities; the pruriginous, pseudo-exanthematous, non-febrile nature of the eruption; and the rose-lilac patches, iridescent and bistre in the centre and desquamating at the periphery.

Pityriasis rosea apparently never recurs. When incorrectly treated the patches may become eczematised and unrecognisable. When properly treated by anodyne ointments it disappears more quickly without complications and leaves no trace.

The great error which pityriasis rosea may cause results from its resemblance to syphilitic roseola, to the unpractised eye. But there is no sign or doubtful induration of chancre; no indicator gland and no polyadenitis. Lastly, it does not leave behind it any mark which could be mistaken for the other lesions of secondary syphilis.

PITYRIASIS RUBRA.

This name is only given to two morbid types, one of which has been studied with psoriasis, with which it has many affinities. This is characterised by follicular acuminated, hyperkeratosis of the back of the fingers and hands, giving the skin the appearance of a file. In France it is called *pityriasis rubra pilaris,* the disease of *Devergie-Besnier.*

The second is *pityriasis rubra of Hebra,* which is much less characterised by lamellar exfoliation of the epidermis than by intense redness of the skin of the whole body. It is now classed among the erythrodermias (p. 590).

DRY ECZEMA.

An eczema may be dry in the course of the final desquamative stage following exudation, or it may be dry from the first. It is the latter form which concerns us here, the other being only a phase in acute eczema described elsewhere (p. 560).

Dry eczema is *eczema rubrum,* also termed eczema of arthritics, or gouty eczema. It may occur in any situation, but has a predilection for the face, around the eyes, the back of the hands, the forearms and legs. It is usually very localised, but may occur in extensive areas.

In the region of this eczema the skin is red, infiltrated, thickened, hot and covered with the debris of the desquamating horny epidermis, which resembles pieces of cigarette paper stuck to the skin. It is very pruriginous, and after attacks of pruritus, may give rise to an infinitesimal exudation, by pores which are only visible with a lens.

This form of eczema, the cause of which is unknown like that of eczema in general, is extremely chronic. It is intolerant to active medicaments, and anodyne applications have no effect on it.

Wet dressings with simple boiled water, or decoction of elder flowers, applied during the night, give rise to an apparent cure when they are removed, but in a few hours all the objective and painful

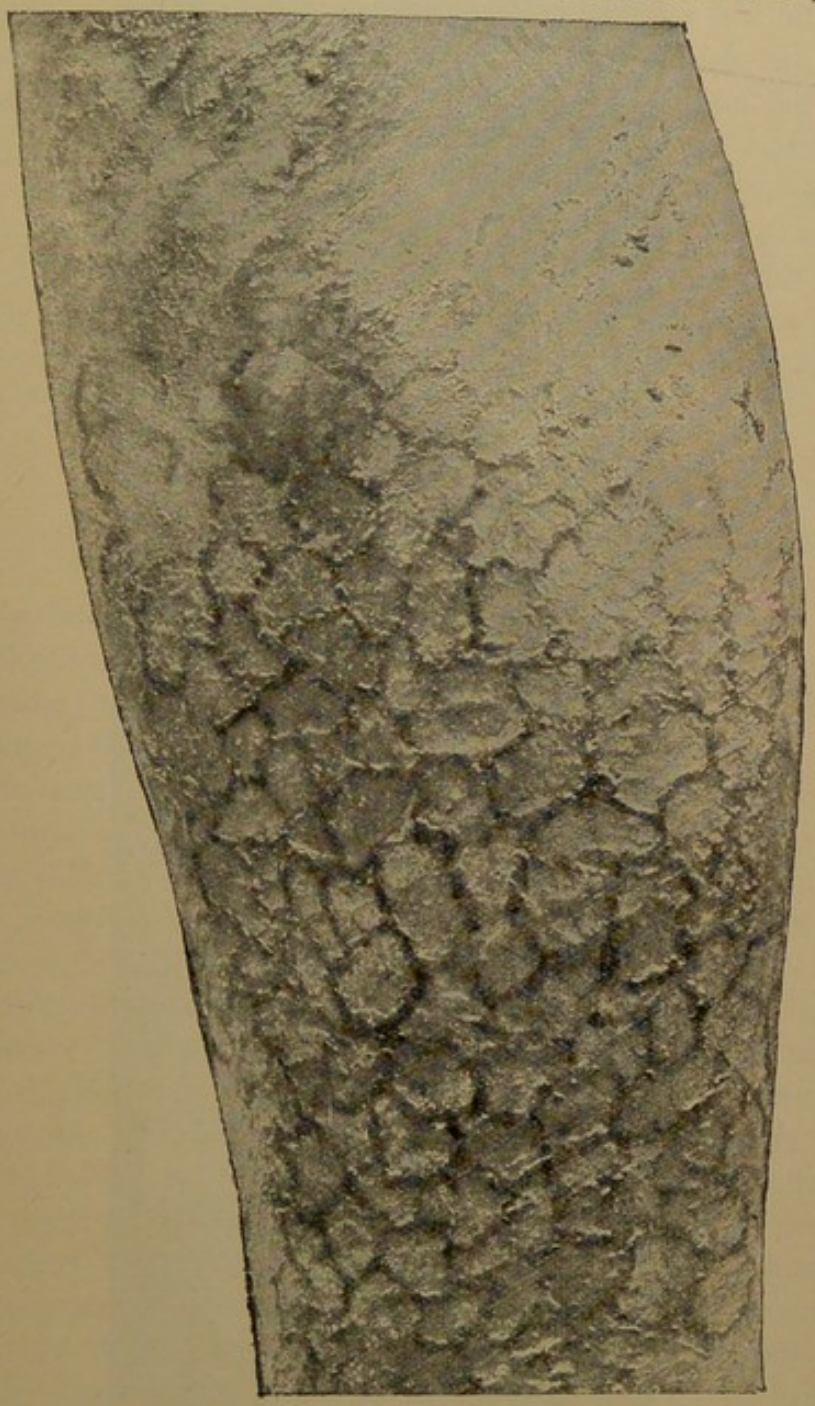


Fig. 204. Crackled Eczema. (Fournier's patient. St. Louis Hosp. Museum, No. 459.)

symptoms return. However, by alternating these with zinc ointment a result may finally be arrived at. The application of super-

heated air appears to have a beneficial effect on these forms of

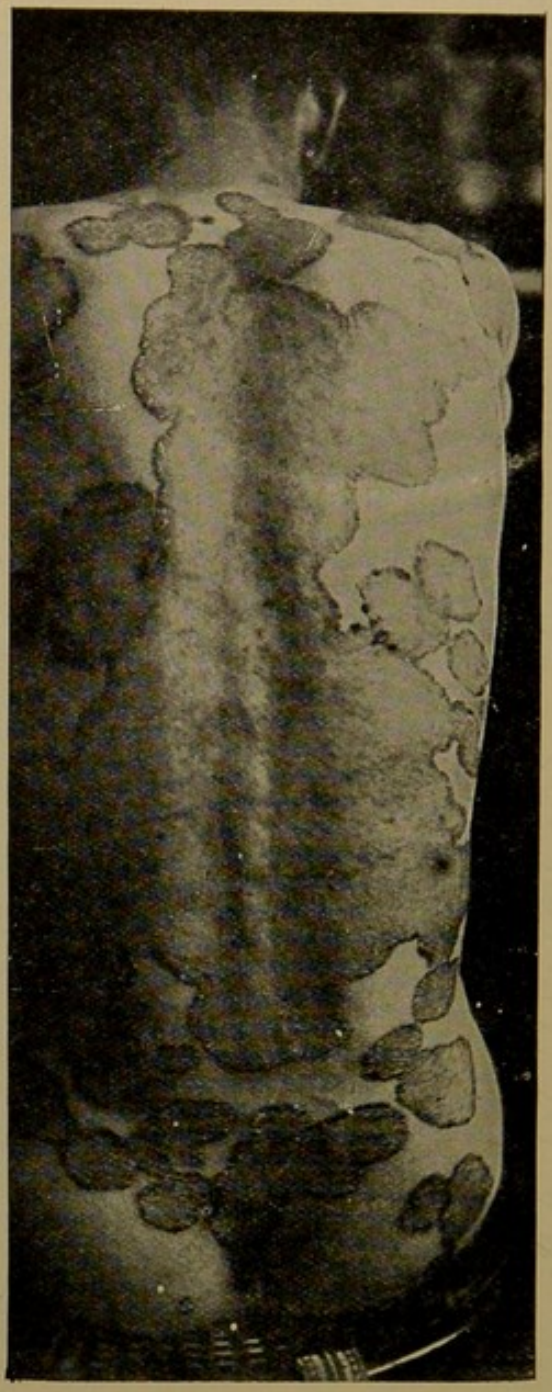


Fig. 205. Psoriasis in nummular and polycyclic placards. (Jeanselme's patient. Photo by Noiré.)

eczema, but further experience is required. Internal treatment is

unknown. Strict regulation of diet with abstention from pork, salt food, spices, wine and spirits, fish, shell-fish, cauliflowers, cabbages, tomatoes, etc., is often recommended, although in many cases it is difficult to decide which of these ailments has a bad effect on the disease. It is better to say that all things which are badly digested are bad for eczematous subjects. In my opinion the physician should study the patient attentively, analyse the urine, and treat the stomach and intestine for any functional derangement which may be present; but without any preconceived idea, without system and without a single formula common to all cases, for it will be certainly false. The little we know of the true nature of eczemas, of their mechanism and etiology, would astonish any physician who was not a dermatologist.

PSORIASIS.

Psoriasis, one of the most important of the dermatoses, is a disease of unknown external or internal cause, characterised by a more or less marked eruption of round, red patches, covered by a dry, thick, friable, adherent squame. It is a chronic, paroxysmal, recurrent disease, and in a few cases is accompanied by chronic progressive arthropathies.

Psoriasis seldom commences before the age of 10 years, but may occur at any age up to 40, or even later. Nothing announces it but the appearance of a primary characteristic element, to which all the others are similar. The mature lesion of psoriasis varies in size from a threepenny to a five shilling piece or more, and is covered with a hard, friable squame, which may be broken into thin, soft, micaceous scales. The squame, when removed in a single piece, exposes a red skin covered with blood points. Under the squamous crust the psoriasic patch is red; the skin is thickened, hard and almost painless, but deeply infiltrated, especially in old lesions.

Psoriasis generally begins by similar patches on the knees and elbows, where they remain indefinitely, coalescing in polycyclic placards, or remaining distinct. After a time patches of different sizes appear on the whole surface of the body and the disease becomes generalised.

There are benign types of psoriasis, characterised by few patches and rare outbreaks; and severe types, characterised by innumerable

patches and sub-involutive outbreaks. In the latter case the patches coalesce and the squames become united. In this way placards are formed which may, in a few years, cover greater surfaces of skin than the areas which are free from the disease.

Normal psoriasis has an evident predilection for the elbows and

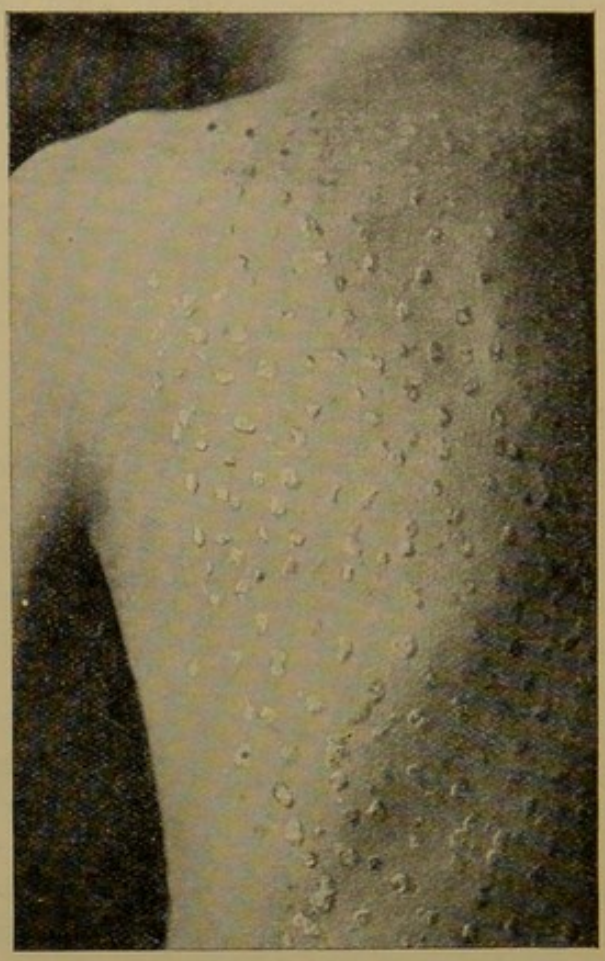


Fig. 206. Psoriasic lesions, occurring on prickly heat. (Jeanselme's patient. Photo by Noiré.)

knees, but this rule is subject to exceptions which form inversions of the normal type. In these cases the psoriasis has pseudo-seborrhœic or steatoid crusts, often arsing on seborrhœic skins. Psoriasis shows very numerous objective varieties—annular polycyclic, guttate, in placards, etc.; and varieties in evolution—localisation to the scalp, elbows and knees, nails, nerve trunks, traumatised regions, after prickly heat (*Jeanselme*) and arthropathic psoriasis. The last form is characterised by progressive

arthropathies commencing in the extremities and ending in the clinical picture of arthritis deformans, with complete or incomplete ankylosis of some or nearly all of the joints. This disease is very easy to improve, but difficult to cure, and its recurrence after apparent cure is common.

The etiology of psoriasis is quite unknown, and opinions on the subject are purely hypothetical. The morbid anatomy of the lesion covered by the squamous crust shows it to be one of the most characteristic and most specific of the cutaneous diseases, without affirming its endogenous or exogenous nature.

The squame of psoriasis was formerly considered to be formed exclusively by a simple process of hyperkeratosis. It is now known that the horny layers enclose minute collections of leucocytes effused successively on the surface of the epidermis by *exocytosis*. These collections of leucocytes, encapsuled by the horny strata, constitute essentially the psoriasic squamous crust.

The treatment of psoriasis by eukeratosic and keratolytic agents is one of the best established and most methodical procedures in dermatology. The most useful drugs are the tars, especially oil of cade (juniper), ichthyol, salicylic acid, pyrogallic acid and chrysarobin. These may be used in the form of ointment, lotion or traumaticin. The rule is to proportion the doses to the limit of resistance of the skin of the patient, by graduated formulas. Compound preparations generally give the best results.

(1) Ichthyol	aa 1 gramme	aa gr. 32
Resorcine		
Oil of Birch	2 grammes	ʒvii
Oil of Cade	13 grammes	ʒj
Vaseline	aa 15 grammes	aa ℥j
Lanoline		

(2) Ichthyol	aa 1 gramme	aa gr. 32
Resorcine		
Turpeth mineral		
Pyrogallic acid		
Oil of birch	2 grammes	ʒj
Oil of cade	13 grammes	ʒvii
Lanoline	aa 15 grammes	aa ℥j
Vaseline		

(3) To the second formula may be added 30 to 50 centigrammes (gr. 10 to 16) of chrysophanic acid or 1 gramme (gr. 32) of chry-

sarobin; but these are very active and irritating preparations which require careful supervision. Pyrogallic acid may cause albuminuria and chrysophanic acid a special erythema.

If the odour of the oil of cade is objectionable the following may be substituted:—

Chrysarobin	1 gramme	gr. 16
Oxide of zinc	6 grammes	ʒi ss
Turpeth mineral	1 gramme	gr. 32
Vaseline	30 grammes	℥j

or solution of chrysarobin in traumaticin, or chloroform (10 per cent), applied to each patch with a brush and covered with simple traumaticin (*Besnier*).

PITYRIASIS RUBRA PILARIS.

Pityriasis rubra pilaris, which is considered by all authors as a disease very analogous to psoriasis, but much rarer, has been described by *Devergie* and *Besnier*. This affection usually commences in adolescence, and is more common in men; it is neither consanguineous nor hereditary. Like psoriasis, it may be localised or generalised, but has a greater tendency to generalisation. The causes are unknown, either of the successive crops or of the spontaneous resolution.

It begins on the back of the hands and fingers by hyperkeratotic follicular lesions of a conical form, described on page 369. These lesions may become generalised in this form, so that the patient's skin is as rough as a file. A marked hyperæmia is nearly always added to these lesions with slight infiltration of the skin, more apparent on the face and the folds of flexion, and which may extend considerably beyond the regions affected with the horny peripilary cones. Also, sheets of hyperkeratosis may occur on the face, scalp and folds of flexion, constituting a white, chalky, lamellar exfoliation on the face; rather softer and less dry on the scalp, and occasionally leading to temporary loss of hair. The nails are also striated transversely. Lastly, in typical cases, pityriasis rubra pilaris appears like an acute psoriasis, in squamous patches, but rather more acute, more violet than red, and less infiltrated than in psoriasis. But the differential symptom between the two diseases is furnished by the skin of the back of the fingers and its horny follicular cones, which are never absent.

The evolution resembles psoriasis in its length of duration, its recurrences, its sudden outbreaks and periods of quiescence and in its resistance to treatment. The treatment is identical with that of psoriasis, and the results are analogous (p. 527). In acute outbreaks of pityriasis rubra pilaris the therapeutic results are incomparably better than in pityriasis. As in psoriasis the general health is not affected. The resemblance of the nomenclature might confound pityriasis rubra pilaris with pityriasis rubra of *Hebra;* but these diseases have nothing in common; the pityriasis rubra of *Hebra* is a malignant, exfoliating erythrodermia (p. 590) of grave prognosis. Pityriasis rubra pilaris is often designated *lichen ruber acuminatus.* (*Kaposi-Neisser*).

PARAKERATOSIS VARIEGATA.

Unna has described under the name of *parakeratosis variegata,* and *Brocq* under the name of *parapsoriasis in sheets,* an affection of which little is known except its external characters.

It is a pityroid eruption with extensive superficial desquamation, generally occupying the upper part of the trunk and the arms; but it may cover nearly the whole body. The desquamation is not very marked and the squames are adherent to the skin, giving it an iridescent appearance. This feature, together with the extreme chronicity of the eruption and its resistance to the usual keratolytic agents, form the best known characters of this affection, the exact nature of which, with its cause and treatment, are unknown.

Chrysarobin (1 in 40), pyrogallic acid (4 per cent), and the most active keratolytic agents may be tried, as in cases of rebellious psoriasis.

PARAPSORIASIS IN PATCHES AND DROPS.

Brocq connects with the preceding type, under the name of parapsoriasis in patches and drops, discrete pityroid and psoriasiform eruptions, formed of a few small elements, differing from psoriasis in the absence of any tendency to generalisation, the resistance to medicaments, the long duration in the same place, and by the fact that scratching the squames easily provokes a tint of ecchymosis under the lesion. This affection is at least as rare as the preceding

one; and the cause, progress and treatment have not yet been determined.

The most active reducing agents may be tried, such as chrysarobin and pyrogallic acid, applied in strong oil of cade ointments, or under traumaticin, as in rebellious psoriasis.

URTICARIA.

Elementary Lesion: THE NETTLE-RASH PAPULE.

Urticarias are special erythemas characterised by elevations, identical with those caused by the nettle sting. We shall first study the nettle sting itself . . . . . } Nettle-sting . . . p. 532

In contrast with this artificial urticaria is the chronic condition known as dermographism, in which the skin is in a condition to present traumatic, but not spontaneous urticaria . . . . . } Dermographism . p. 533

We shall next consider the urticarias of intoxication; some due to alimentary intoxciations . . . } Urticaria ab ingestis . . . . . p. 534

. . . others to medicamentous intoxications . . } Medicamentous urticaria . . . p. 535

. . . Others are due to the penetration of the fluid of hydatid cysts in the economy. These are only mentioned by the way . . . . . .

After studying the urticarias with definite causes, we shall consider the essential urticarias in which no precise or sufficient cause has been demonstrated. First the acute and chronic urticarias of children . . . . . } Essential urticarias of children . p. 535

We shall next deal with the essential urticarias of adults; urticarial purpura; tuberous, giant and gangrenous urticarias; leaving the study of pigmentary urticaria, which is not a true urticaria, to the chapter on papular diseases (*p.* 558) . . . } Urticarias of adults . . . . p. 537

THE NETTLE STING. THE NETTLE-RASH LESION.

Everyone knows the nettle-sting, forming a flat, oval, white or pink elevation, generally centred by a depressed spot, the puncture of the *urtica urens*. This lesion is important in dermatology, because it is the prototype of a series of elements which are analogous, although of different origin.

In this case are to be noted: (1) the external traumatism which causes it; (2) the intense pruritus; (3) the action of pruritus on its formation, for even when it has disappeared the pruritus causes it to reappear; (4) the lesion consisting in an acute localised

œdema, this phenomenon assumes the active participation of the vaso-motors, either by reflex action through sensory nerves, or by direct intoxication of the vaso-motor nerves at the same time as the sensory.

The rapid appearance of the nettle-rash is singular, and its rapidity of onset and disappearance form the chief characteristics of the lesion. Nettle-rash, in spite of numerous investigations, still offers material for numerous studies in experimental dermatology, which may throw some light on the study of urticaria.

DERMOGRAPHISM.

In contrast with the nettle-sting, which causes a rash even on skins which have no tendency to show spontaneous urticaria, must be placed the latent urticarial reaction known as dermographism.

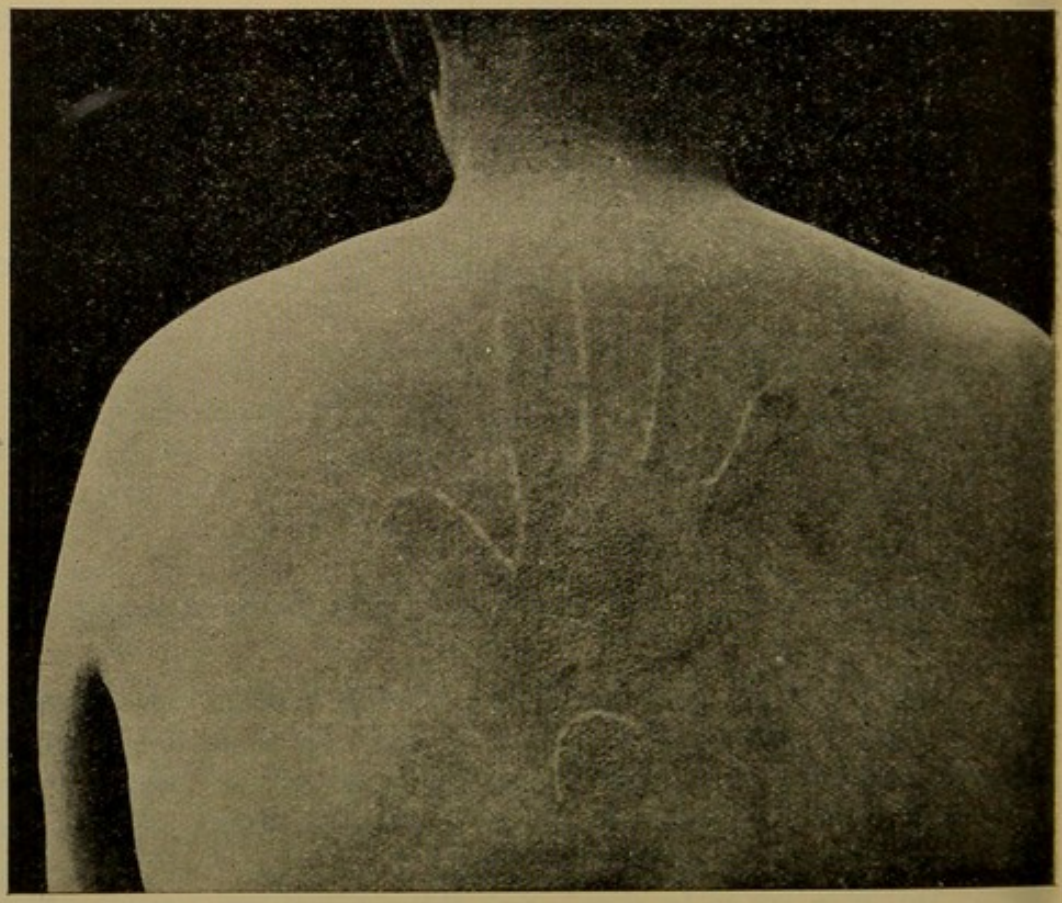


Fig. 207. Traumatic Stigmatisation. The "devil's hand": Sigillum diaboli. (Barthelemy's patient.)

Certain skins present an urticarial reaction to every traumatism corresponding exactly to the surface where the traumatism is pro-

duced. A scratch, the friction of clothes, even a design made with a blunt point, provoke urticarial and pruriginous elevations of all the lines traced on the skin. This propensity is durable, and the same subject shows it in different degrees during several years.

The subject is usually a neurotic or hysterical woman, but cases may occur in women who have no other sign of neurotic tendency. The subjects of dermographism are not usually subject to urticaria, apart from the traumatic urticaria; and this never arises spontaneously.

This tendency is diminished by sedative douches (98° F.) for three minutes without percussion. High frequency currents may also be used, but generally have a mediocre result. In most cases it does not appear that dermographism has any connection with digestive disorders.

URTICARIA AB INGESTIS.

Urticaria *ab ingestis* is well known. A few hours after the ingestion of certain articles of diet, tainted food, shell-fish, etc., an attack or urticaria occurs. This begins as a tingling and burning of the skin, which becomes more and more intolerable and is followed by intense pruritus; the urticarial eruption then appears with red confluent, hot elevations on the trunk and limbs, and even on the mucous membranes of the mouth, nose and throat, and no doubt in the stomach, with vomiting. This condition lasts for several hours, new lesions arising as the first fade away: they occur with symptoms of more or less marked febrile indigestion, and sometimes of real poisoning. After 10 to 36 hours the symptoms abate and gradually disappear.

Treatment consists in evacuation of the stomach by emetics or the stomach tube, and mild purgation when digestion is more advanced. The local symptoms are relieved by a prolonged tepid bath. During the night the body may be powdered with talc, placed in the bed; or glycerine of starch with carbolic, acetic or tartaric acid (1 per cent) and menthol (1 per cent) may be applied.

It may be mentioned in the etiology of urticaria *ab ingestis*, that the same aliments do not cause urticaria in everyone; hence there are individual reactions or predispositions. There are also aliments which always reproduce urticaria in certain subjects.

MEDICAMENTOUS URTICARIA.

Certain medicaments cause in certain persons an attack of urticaria very similar to that of alimentary urticaria. These are chiefly: *antimony*, and the antimonial preparations; *arsenic*, in all forms, may cause (besides cutaneous disorders caused by its long continued absorption) an acute erythema in patches, a roseola or urticaria; *antipyrin* may give rise to an erythema in placards, generally urticarial and pruriginous; *quinine* causes more scarlatiniform eruptions; *bromides* may cause the same, although the most characteristic lesions are papular, indurated and papillomatous; *chloral* causes an urticarial pruriginous erythema of the neck, mouth and face; *digitalis* and its derivatives causes an erythema in patches, a roseola and an erythema "in rosettes"; *copaiba* causes a rubeoliform and urticarial eruption with small elements, an eruption generally in subinvolutive crops, when its cause is not recognised and its administration continued; *antitoxic serums* may cause an urticarial eruption within the 48 hours following the injection, or a roseola about 12 days after the injection (p. 583). These eruptions, in spite of their frequent general symptoms, are never grave. Medicamentous eruptions disappear after the suppression of their cause.

VACCINAL URTICARIA.

Vaccinal urticaria appears from the 4th to the 8th day after vaccination; remains for two or three days, and disappears in a few hours. It was noticed by *Jenner*, and is of no importance.

URTICARIA OF CHILDREN.

The urticarias of children generally occur in connection with digestive disorders, without their immediate cause and mechanism being always easy to define, and without any definite relation between the eruptive attacks of the ingested ailments. Sometimes the urticarial attacks follow the ingestion of eggs in winter, or such articles as haricot beans; at other times recurrent attacks of urticaria appear which are attributed to food, because one does not know what else to attribute them to.

Urticaria in children may assume many forms. Sometimes it occurs as a simple urticaria of varying intensity, or with more or less developed elements (giant urticaria). Sometimes there is a clear vesicle in the centre of each spot; this is the varicella-prurigo of *Hutchinson* (vesicular urticaria). On the hands and feet urticaria may even become bullous.

Recurrent urticaria, which at first appears to be of the normal type in children (*strophulus pruriginosus* of *Hardy*) often becomes the prurigo of *Hebra*. If the prurigo of *Hebra* had the autonomy of measles, or some other specific disease, and it is not impossible that it may acquire it in the future, one might say that the prurigo of *Hebra* often presents a primary phase of urticaria. But urticarias recurring like the different forms of prurigo do not appear to be specific diseases; they are apparently simple syndromes, or reactional conditions of the skin, which may no doubt be transformed one into the other. Thus, urticaria is often found mixed with acute simple lichen or acute prurigo of children, with chronic urticaria or chronic prurigo, but more often in children than in adults.

In the treatment of urticaria the primary digestive cause must be treated, whenever this is found with certainty, or even with probability; but it is necessary to avoid the extreme of forbidding all kinds of nourishment, without having examined whether the aliments suppressed are harmful; for this may lead to unnecessary malnutrition.

Treatment by milk diet must not be considered as a panacea for all urticarias. Some intestines will not tolerate it and form, with the fatty and albuminous substances in the milk, toxic products of decomposition.

It appears very doubtful, clinically, whether the paroxysmal recurring urticarias, which behave like a variety of the prurigo of *Hebra*, of which they are often only the first stage, have any relation to the form of diet which may be modified completely and in ten different ways without influencing the evolution of the urticaria or the pruritus. Urticaria *ab ingestis* haunts the mind of the physician, and makes him believe that all urticarias are caused *ab ingesta*. This is a very hypothetical induction, and probably false.

The local treatment is the same as for acute urticaria of adults during the attacks. When the urticaria is chronic and paroxysmal the external treatment is blended with that for prurigo of *Hebra* (p. 549).

URTICARIA OF ADULTS.

The essential urticaria of adults is characterised only by its recurrences. A first attack is always regarded as *ab ingestis*. Nevertheless, certain persons, especially women, are liable to periodic outbreaks of urticaria, in connection with menstruation, or with migraine or different nervous conditions, anger, emotion, etc.; or at certain seasons, under the influence of heat or cold, corresponding with hay asthma, etc. In fact, the alleged causes of many recurrent urticarias in adults are not experimentally established and may be mere coincidences. In the adult, prurigo on the one hand and urticaria on the other are distinct cutaneous reactions which coexist more rarely than in children.

The considerations concerning the diet of children attacked with urticaria may be applied to the urticaria of adults, in which they are equally true. The local treatment is the same. When the urticaria is believed to be of intestinal origin, the administration of such drugs as salol, benzo-naphthol and other disinfectants should be avoided, as these may themselves give rise to cutaneous eruptions.

Forms of Urticaria. In the text books different forms of urti- are mentioned:

(1) Urticaria mixed with purpura, or *purpura urticans*, the severity of which is sometimes great and sometimes slight according to different authors, appears to vary considerably and to be dependent on the cause of the concomitant purpura.

(2) *Urticaria tuberosa* causes local areas of œdema as large as a hen's egg; the eruption is always recurrent and occurs in hypochondriacs and in the insane.

(3) *Urticaria gigans* may be generalised or localised to a region such as the lips or eyebrows; it resembles rather an accidental œdema than a true urticaria, but has the fugacity, suddenness of appearance, and recurrences of the latter.

(4) *Urticaria gangrenosa* has been described, with points of necrosis in the centre of each papule; it is nearly always a localised urticaria, sometimes recurring *in situ*, sometimes forming an abnormal gangrenous zona.

(5) *Urticaria pigmentosa* is not a true urticaria but a chronic papular disease, arising in successive outbreaks (p. 558).

VERMINOUS PARASITIC DISEASES.

Before studying the pruriginous dermatological diseases of the group of lichen-prurigos, it is useful to describe the parasitic verminous diseases which have a great resemblance to them, and I shall first describe the human itch . . . . . Scabies . . . . p. 537

. . . Afterwards the special autumn itch which is rural, or imported from the country to town, and which is usually localised in the folds and on the lower half of the body . . . . . Vintager's itch . p. 541

. . . The itch of fowl pluckers, or Fowl's itch, which only causes a man a transient eruption on the arms . . . . . Fowl's itch . . . p. 542

I shall next review the characters of phtiriasis of the body, with its melanodermia and traces of interscapular scratching . . . . . Phtiriasis of the body . . . . . p. 542

I shall conclude with the bites of mosquitoes, fleas and bugs . . . . . Mosquitoes, fleas, bugs . . . . . p. 543

SCABIES.

Scabies, or the itch, is a dermatozoosis caused by a sarcoptes, the *Acarus scabiei* of the family of Arachnida. It is a noctambular parasite and contagion seldom occurs except in bed, which justifies the opinion that scabies is a venereal affection. The idea that the disease is contracted by simple contact, by shaking hands, etc., is erroneous.

The male parasite is rare on man and the female only is usually seen. The female acarus digs a burrow in the horny epidermis, which is formed exactly like a mole's gallery, at the end of which it is easily found and extracted with a pin. The eggs of the acarus and its fœcal matter are as characteristic as the parasite itself, and are found along the burrow. The acarus appears to the eye as a white spot. It may be examined under the microscope in a drop of glycerine or Canada balsam, without staining.

The contamination of one human being by another takes place during nocturnal contact. The first burrows in man are usually on the penis, and in women around the genitals. The incubation of the eggs takes 15 days, and the first symptoms of itching occur about three weeks after contamination, and increase every day.

They are specially marked around the genital regions, the groins, axillæ, waist, elbow, wrists (even on the palmar surface), in the interdigital spaces and on the fingers, and on the areola of the breast in women. Except in itch of animal origin, which is very rare, the head and neck are never affected.

The chief characteristics of the eruption are the lesions of scratching, the small vesicles and excoriated papules. On the places most

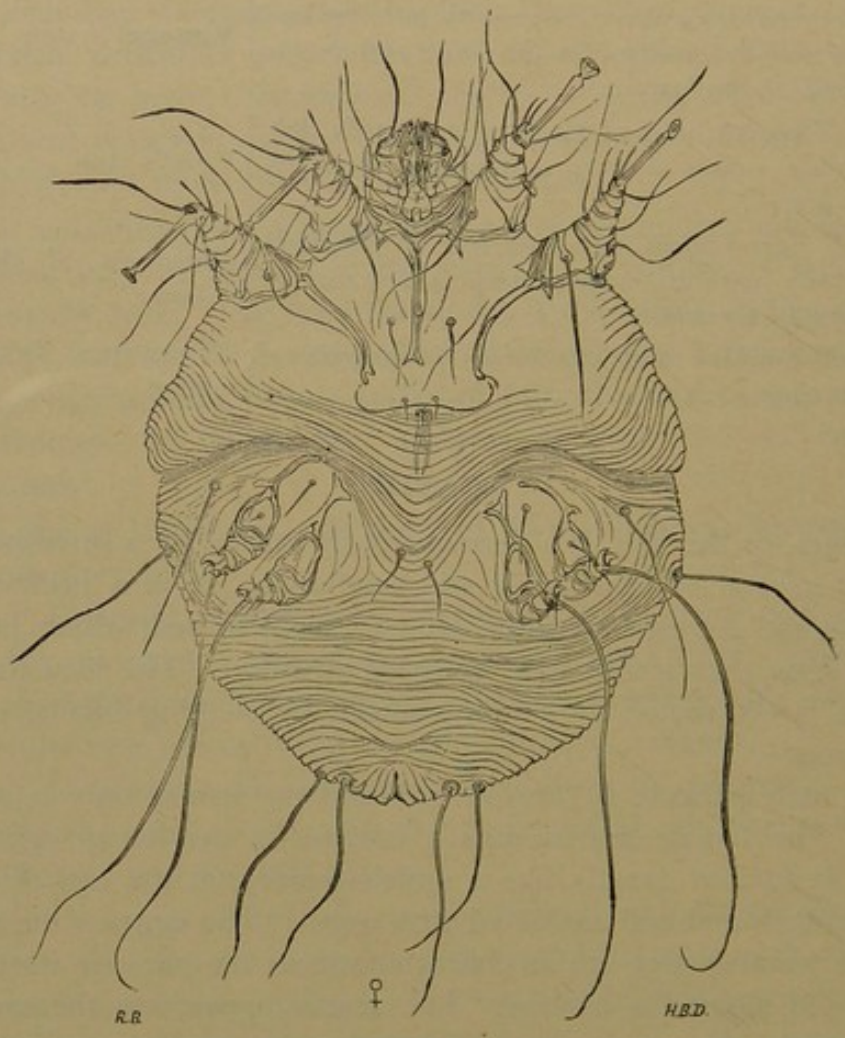


Fig. 208. Female acarus (after Bergh. X 350.)

free from scratch marks the irregular, tortuous burrows are marked out by dirt. In very cleanly persons the burrows are hardly visible, but may be made apparent by ink, which fills the burrows by capillarity. The best marked burrows occur on the palm of the

hands, the interdigital spaces, the thenar eminence and the palmar surface of the wrist.

The topography of the lesions of scabies is significant and diagnostic: the same with the fact of contagion. When husband and wife both scratch themselves, or when several children use a common bed, the diagnosis of scabies may be made almost without examination.

Scabies may be complicated by prurigo, eczema, streptococcic impetigo, pustular impetigo or erthyma. Without exception, pustules or phlyctenules on the palmar surface of the hand, in a subject who is pruriginous on the whole surface of the body, belong to a pustular scabies.

I have described the normal and accidental signs of scabies in each region; on the penis (p. 425); the glans (p. 416); the axillæ (p. 257); the elbow (p. 291); the wrists (p. 329); the hands (p. 344).

The treatment of scabies is purely external[1] and consists in sulphur applications, the traditional ointment of *Helmerich* modified by *Hardy* is too strong and often gives rise to traumatic dermatitis of long duration:—

Lard	120 grammes	℥j
Flower of sulphur	20 "	gr. 80
Carbonate of potash	10 "	gr. 40

It is better to substitute one of the following formulas which are equally active but less irritating:—

(1) Benzoated lard	120 grammes	℥j
Precipitated sulphur	20 "	gr. 80
Balsam of Peru	10 "	gr. 40
(2) Glycerine	200 grammes	℥j
Precipitated sulphur	100 grammes	℥iv
Tragacanth	1 gramme	aa gr. 2
Essence of Verveine	1 "	

With these applications a vigorous friction is made on the whole of the body for 20 minutes. After this the patient has a soap bath. For the next 15 days oxide of zinc ointment and starch baths are

[1] It may be mentioned that scabies up to the middle of the 19th century was considered by most physicians as a general disease; diathetic and depurative. This shews to what errors doctrinal preconceived opinions may lead in the etiology of dermatoses and their treatment, in the absence of experimental facts.

prescribed. Care should be taken that the patient who continues to itch does not make a new application, thinking himself incompletely cured (Acarophobia).

The rubbing always destroys the parasites, but the eggs may escape. In this case a recurrence cannot be diagnosed for three weeks after the first rubbing. A second rubbing may be made 8 days after the first on the moist irritating lesions. In ill advised cases 5 or 6 rubbings have been made, causing an artificial dermatitis for 3 months.

Many different agents have been prescribed for scabies, such as naphthol 10 per cent, which is very irritating and of mediocre therapeutic value; balsam of Peru, styrax, etc., mixed with an equal quantity of oil of almonds. Cases are few in which their employment is any better than the sulphur applications, and they may give rise to dermatitis in the same way. Suppuration complicating scabies is generally cured by its treatment. The most marked cases sometimes require special treatment (p. 10).

AUTUMN ITCH OR VINTAGER'S ITCH.

Under this name is designated the eruption caused by the parasite of *Trombidium holosericum*, better known as August or *Vintager's* itch. Certain districts are infested during the months of July till the first frosts come, which destroy it. The parasite is a small red spider, hardly visible to the naked eye, which is annexed by sitting down or even by walking in the fields.

The pruritis is intolerable and the scratching intense at the points of puncture, which are always follicular. The body is thus covered in a few days with small excoriations, each of which remains pruriginous for several days.

In districts where the eruptions are very common (Poitou, Saintonge, etc.), diagnosis is not difficult. The eruption is more pronounced on the legs, and the punctures decrease in number in the upper parts of the body.

The most simple treatment consists in brushing the body with a large brush moistened with:—

Petroleum ether	aa 90 grammes	aa ℥j
Alcohol 90%		
Spirit of lavender	20 "	ʒ ss
Acetic acid	2 "	gr. x

FOWL'S ITCH.

Fowl's itch in man is an eruption of red miliary maculæ predominating on the limbs and mixed with scratch marks. It is seldom observed except in persons whose occupation exposes them to it specially; those who breed fowls, those who pluck them every day, and those who clean fowl houses. It is caused by the *Dermanyssus gallinæ*, a small acarian parasite which does not multiply on man. Fowl's itch disappears in a few days without treatment when further exposure to the parasites is avoided.

PHTHIRIASIS OF THE BODY.

Typical cases when once seen are never forgotten. The patients are nearly always old and miserable, more or less broken down and cachectic; or young people having the appearance of semi-cretins. Their dirty clothes exhale an evil odour. The body is covered with erosions or cicatricial traces of erosions produced by the nails in lines parallel to the instinctive direction of the movements of scratching.

The skin is melanodermic, especially on the back between the shoulders, on the hips, hypogastric region, and the external surface and roots of the four limbs. It is never eczematised, but often lichenised, and covered also with the pustules and cicatrices of former impetigo and erythema.

The lice and eggs are not seen on the body, but a few eggs may occur exceptionally along the hairs of the body in very hairy individuals. The eggs usually occur in the folds and seams of the clothes. They are white and shining and may be found in immense numbers, all contiguous, forming scintillating bands in the inside folds of the clothes. The louse is white, larger and longer than the brown head louse, and is also found in the clothes.

In cases where the phthiriasis is not well marked, or at its onset, diagnosis must be made by the topography of the lesions, which are grouped in different regions to those affected by prurigo; the latter have a preference for the surfaces of the limbs and are more equally dispersed on the body than phthiriasis. The appearance of the lesions of phthiriasis when scratch marks predominate, without the papular lesions which they provoke, is also characteristic. But the question is settled by examination of the clothes, which should be made with

extreme minuteness in doubtful cases, by separating all the folds, at the bottom of which the parasites are always lodged.

Diagnosis may, however, be difficult and cases occur in old women, even with high social position, which are diagnosed as senile prurigo and treated as such. It is certain that phtiriasis of the body may in certain cases be remarkably tenacious, in spite of the greatest care. In the immense majority of cases, however, it is a dirt disease which cleanliness, daily change of linen, and baking the clothes removes in a few days.

PARASITISM OF MOSQUITOES, FLEAS AND BUGS.

Mosquito bites are not common in our climate except on the Mediterranean Coast. The punctures of *culex pipiens* cause an urticarial papule, centred by the puncture. When the punctures are frequent they cause diffuse œdema of the region. The lesions are very pruriginous and for several days the slightest touch revives the pruritus.

Flea bites (p. 242) cause a minute red purpuric spot, sometimes circled with pink. Thousands of them may occur on the same subject, causing pseudo-purpura. The principal localisations on the neck and forearms assist diagnosis, which the elementary lesions suffice to confirm.

Bug bites are identical with flea bites, with a purpuric macular and violet areola, but each puncture is urticarial like the mosquito bite. Diagnosis is only doubtful when the punctures are confluent, when they may simulate an exanthem; but in this case the patient can hardly be ignorant of the cause.

PAPULAR DERMATOSES.

PRURIGOS LICHENS.

Elementary Lesion: The Papule.

The old lichens, the prurigos of the present day, form a large class of generalised dermatoses. Before studying the different types I shall point out their elementary characteristics, which are three in number . . . . . . — Lichens and Prurigos in general . . . . . p. 544

I shall first study the objective element, the papule. Sometimes this takes the form of the urticarial papule . . . . . . — Urticarial element . . . . . p. 545

. . . Sometimes it takes the form of a small hard element, slightly conical and often exulcerated by scratching; the papule of prurigo . . . . . . — Papule of prurigo p. 545

Lastly, a constituent element of the nosographical group is pruritus; this is most constant but its origin is still very obscure . . . . . . — Pruritus . . . . p. 546

When I have studied each primary element of the lichen-prurigos, I shall consider their secondary elements, for example pigmentation . . . . . . — Pigmentation of Prurigos . . . p. 546

. . . Glandular enlargement, which is never absent . . . . . . — Adenitis . . . . p. 546

. . . And the secondary symptomatic lesions, well characterised objectively, which are called lichenisation and eczematisation . . . . . . — Lichenisation . . p. 547; Eczematisation . p. 548

Having completed the study of the constituent elements of the prurigo-lichens, I shall consider the pure clinical forms; and first the principal one, the prurigo of Hebra . . . . . . — Prurigo of Hebra p. 549

Afterwards the prurigo of adults, which is generally regional (lichen circumscriptus of Vidal) — Prurigos of adults . . . . p. 550

And that rare and singular affection almost special to the minus habens, known as lichen obstusus of Vidal . . . . . . — Lichen obstusus of Vidal . . . p. 551

Finally senile prurigo, so peculiar in its characters and even in its negative characters . . . . — Senile Prurigo . p. 551

I shall mention the clinical synthesis of true lichen-prurigos named by Besnier, Diathetic prurigo — Diathetic Prurigo of Besnier . . p. 552

I shall conclude with a few words on the symptomatic and secondary prurigos, which are very distinct from the preceding . . . . . } Symptomatic Prurigos . . . . . p. 553

In the old classification of lichens were confounded affections essentially different from the prurigos. For instance, lichen planus, of which we shall speak next, and of which the autonomy is certain . . . . . } Lichen planus of Wilson . . . . p. 553

. . . Porokeratosis, which resembles annular lichen planus . . . . . } Porokeratosis . p. 555

. . . and lichen planus corneus atrophicus, which is very different from true lichen planus in many ways . . . . . } Lichen planus corneus atrophicus . . . . p. 555

. . . and lichen scrofulosorum, which is a papular tuberculide occuring in disseminated islands (described previously) . . . . . } Lichen scrofulosorum . . . . p. 503

. . . and eruptions of papulo-necrotic tuberculides with cicatricial evolution; acnitis, folliclis, etc. . . . . . } Papulo-necrotic tuberculides . p. 556

In conclusion I shall review in a few words the papular eruptions of secondary syphilis . . . . . } Papular syphilides . . . . . p. 556

. . . The characters of the papular eruption of the yellow indolent elements of xanthoma . . . . } Generalised xanthoma . . . . p. 557

. . . The characters of the chronic papular eruption known as pigmentary urticaria . . . . . } Pigmentary urticaria . . . . . p. 558

. . . and the not papular but papuloid hyperkeratotic follicular elements of pityriasis rubra pilaris of Devergie-Besnier . . . . . } Pityriasis rubra pilaris . . . . p. 558

The last morbid types can only be described along with the preceding ones by specifying their heterogeneous nature, for the prurigo-lichens are much more allied to the urticarias and eczemas than to the last nine morbid types mentioned.

PRURIGO LICHENS.

Pruritus without definite cause and the cutaneous lesions which accompany it, constitute one of the most difficult chapters in dermatology. We shall endeavour to explain clearly what is known, even at the expense of being somewhat schematic.

Excluding from the group which follows the pruritus which are only secondary to a clearly defined dermatosis, such as scabies,

there remains a whole morbid group in which are found in different degress: (1) *pruritus* without definite cause, and for this reason called protopathic; (2) the hard *acuminated papule* of *prurigo*, which is very special, preceded or not by an *urticarial lesion*. Among these three elements, pruritus, papule of prurigo, papule of urticaria, the urticarial element may predominate, but it is generally little marked or disappears quickly. The pruritus and the papules also remain. Soon a new element, *hyperpigmentation*, is added; and then all the fundamental elements are united which constitute what are called the prurigos; the old lichens of the French school.

THE URTICARIAL ELEMENT.

In the prurigo-lichens the urticarial element may at first predominate, especially in children. It resembles an attack of simple urticaria, but the papules fade while the crises of pruritus persist, and soon each element of urticaria, excoriated or not, gives place in its centre to a papule of prurigo, around which the urticarial reaction persists in a variable degree. The nervous erethism may persist for a long time and only manifest itself by a *cutis anserina*, caused by the erector muscles of the hairs.

Sometimes in the course of very persistent prurigos certain attacks of prurigo are urticarial and others not.

THE PAPULE OF PRURIGO.

The papule of prurigo occurs after scratchings, a fact which is clinically established; "in prurigo the pruritus is pre-eruptive" (*Jacquet*). It must not, however, be concluded that the lesion is caused by scratching, for it may pre-exist before the scratching without being visible to the naked eye. In fact every biopsy which I have performed on a pruriginous spot in prurigo shews definite histological lesions.

In any case the papules of prurigo have the form of a cone with a flat top, from 1 to 3 millimetres in diameter and less than a millimetre high. They are firm and not soft. They may, in different cases, be scanty, abundant, disseminated or agminated, more or less coarse, or deformed. Many are decapitated by scratching and the summit is occupied by a minute blood crust, a millimetre and

a half in diameter. The fate of the papule of prurigo is very variable; sometimes it persists for some time, sometimes it disappears, often leaving behind it a pigmentary spot, which remains for a long time. When the papule persists it changes in character. The old papule of prurigo is flattened, smooth and shiny, and constitutes with many similar papules, juxtaposed or fused together, the placard of lichenification of *Brocq*. In this form it may last for years.

PRURITUS.

Pruritus is the most mysterious element of the morbid complexus which we are describing. Even if we admit it to be the cause of the papule and the elements derived from it, its cause and nature are quite unknown. It may be localised or generalised, and is most often paroxysmal, with evening exacerbations. It commences when the body is stripped naked before going to bed, and may be often repeated during the night. Other paroxysms may occur in the day time. The pruritus may be slight and ignored by the patient; in other cases it is severe and may lead to suicide. In some cases it is incessant, in others remittant. Although the apparent lesions are proportional to the intensity of the pruritus, this is not always the case.

PIGMENTATION.

Hyperpigmentation of the skin in the pruriginous varies in degree, but is rarely absent. There is a diffuse pigmentation which occurs on the whole pruriginous surface, and a hyperpigmentation localised to each pre-existing papule of prurigo, or to each scratch mark, which survives them for a long time. It helps to make the aspect of prurigos polymorphous and is not of great importance in the diagnosis of chronic prurigos. It appears to be independent on scratching. We know that repeated traumatism increases the functional activity of the cells submitted to it. Thus, hyperpigmentation is comparable to the cellular hyperplasia which forms the papule.

ADENITIS.

Adenitis is never absent in prurigo and has not been sufficiently studied. Generalised prurigo gradually give rise to a polymicro-

adenitis which resembles that of secondary syphillis, in the number of glands affected, their increase in size, their hardness and their absence of pain on pressure. I mention this fact because it is indisputable and I do not pronounce on the pathogeny which gives rise to it. To attribute it to the result of microbial infections produced by scratching is acceptable in the prurigo of *Hebra,* which is very often eczematised or infected; but these glands are quite as generalised, indurated and increased in volume in senile prurigo, although eczematisation and pustulation are never produced during its course, and it occurs at an age when inflammatory adenitis is rare and little marked. The question requires further investigation.

LICHENISATION.

The permanent organisation of the old papules of prurigo and the multiplication of these papules in contiguity, constitute the placard

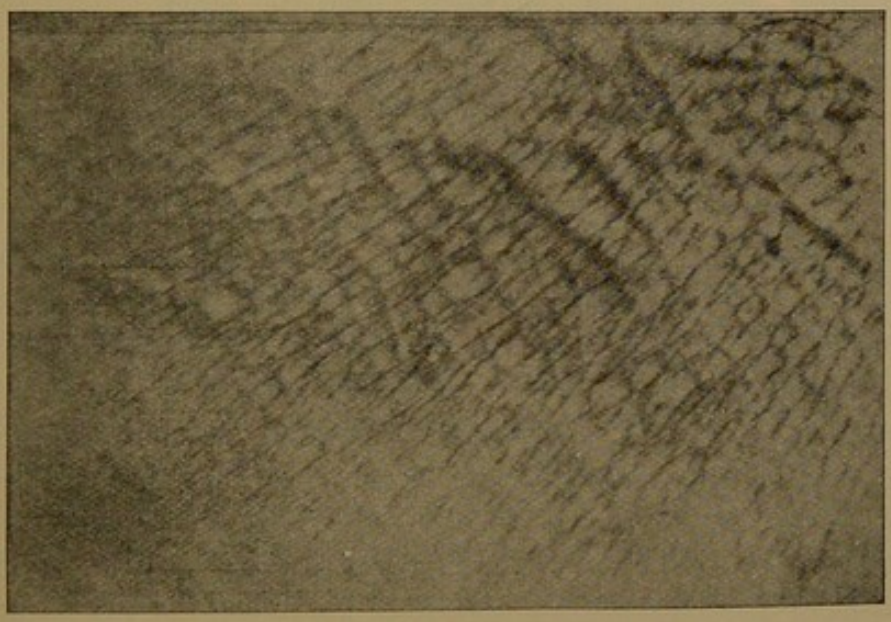


Fig. 209. Specimen of pure lichenification.
(Brocq's patient. Photo by Sottas.)

which *Brocq* has described under the name of lichenification, and of which he has shewn the nosological value.

The lichenified (*Brocq*), or lichenised (*Besnier*) placard is constituted by a thick cutaneous infiltration which doubles at least the folding of the skin. The fold is hard and does not pit on pressure.

The surface is formed of quadrillated patches in the form of shiny, smooth cushions (Fig. 209), separated from each other by fine shallow folds, which are never fissured. As *Brocq* has remarked, this lichenification is a common process of cutaneous reaction, and chronic eczemas may form lichenised patches in different points. "Eczema makes lichens" (*Bazin*), but lichenification may be completely constituted without eczema, under the sole influence of pruritus: this is pure lichenification. However pruritus does not create lichenification on all skins.

Personally, I only regard lichenification and eczematisation of any origin as two common processes in chronic dermatitis. Sometimes this dermatitis is exudative, causing *eczematisation;* sometimes it is dry and hyperplastic, causing *lichenification.* And even when the latter occurs in the pure state, constituting the chief symptom of a morbid type (neuro-dermatitis of *Brocq*) it only represents a symptom. These cutaneous reactions are determined by certain traumatisms; but we are ignorant of the exact causes which produce either, or one rather than the other.

ECZEMATISATION.

Eczematisation (*Besnier*) is the assemblage of lesions and objective symptoms commonly attributed to eczema (p. 561); an epidermatitis at first finely vesicular, then diffusely exudative, accompanied by inflammatory symptoms which are generally of moderate intensity. The influence of external traumatisation in the production of the phenomenon "eczematisation" is more or less evident, and nearly always recognisable. Eczematisation, as well as lichenisation, is a banal phenomenon, which does not belong properly to any dermatosis, but may complicate a great number. It appears to be a common form of cutaneous reaction. It does not appear to me to be justifiable to make a disease of lichen-prurigo, or of eczema. They are syndromes. Eczematisation is the *moist dermatitis,* as lichenisation is the *dry dermatitis.* They are generally associated, and differ only in their relative proportions in prurigo and in eczema. No objective, subjective, or anatomical symptom differentiates the eczematisation of a prurigo from the eczematisation in eczema, or in any disease which may be accompanied by it.

PRURIGO OF HEBRA.

The prurigo of *Hebra* is an affection of childhood and adolescence. It commences at an early age, by more or less generalised urticarial attacks which are often difficult to diagnose at first, and do not constitute the state of prurigo till after three or four years. Cases may be described as severe, slight and medium. The pruritus is intense, and occurs chiefly in nocturnal crises. The face, the natural folds, the fore-arms especially, the whole of the limbs or body are more or less covered with small papules of disseminated prurigo; scratch marks; pigmentary patches in the place of former lesions; and very often, especially on the face and in the natural folds, the prurigo is accompanied by more or less marked and chronic eczematisation, with thickening of the skin. Lichenisation may occur even in children without eczematisation.

The course of the disease is paroxysmal and seasonal, it often shews annual remissions and recrudescences, and may be said to be continuously remittent. In different cases the relative proportions of one of the constituent elements predominates; at the onset it is the pruritus and the urticarial element, with eczematisation; for, speaking generally, eczematisation, the moist dermatitis, is more common in youth, and lichenisation, the dry dermatitis, in middle or advanced age.

In different cases the glands are more or less increased in size and sensitive. The general health usually remains good except in cases of pyodermic and furuncular attacks, which are exceptional and transient. As the child grows older it often suffers from adenoids and chronic rhinitis, and has coarse lips and nose. This is the so-called strumous appearance, and certain authors consider the papule of prurigo of *Hebra* as a benign scrofulide.

The cause of this disease is quite unknown. It improves with age and the crises diminish in number and intensity. A few isolated crises may occur during the following years. Hence the disease is nearly always cured, but the patient may retain a pruritus without lesions. In severe cases the prurigo of *Hebra* remains chronic and becomes attenuated without being cured.

Treatment is palliative and symptomatic. High frequency currents are indicated whenever there is a high arterial tension; but this is not the rule. The X-rays have often an evident antipruriginous action; but this is specially the case in symptomatic pru-

rigos (p. 553) (Mycosis fungoides). The most useful applications are carbolic acid and menthol (1 per cent); glacial acetic acid (1 in 200); and zinc paste, which diminishes the pruritus by excluding the air, which acts as a traumatic agent (*Jacquet*). Oil of cade, or cod-liver oil, applied in plasters, or by enveloping the body in bandages soaked in them, sometimes give considerable relief and remission of symptoms. No internal treatment gives satisfactory or constant results.

PRURIGO OF ADULTS.

In the adult, prurigo of *Hebra* may persist without modifications. It generally preserves its characters or may be complicated by placards of lichenisation, more or less numerous and disseminated on the wrists, fore-arms, necks, folds of flexion, sacral region, etc.

At other times adults, who in childhood never presented prurigo, begin to have localised pruritus; in women on the labia (p. 442); in men on the scrotal raphe (p. 433); or at the anus (p. 450); or in one of the regions mentioned above, chiefly on the nape of the neck and sacral regions.

Under the influence of the pruritus and the incessant scratching which it provokes, placards of lichenification are formed, such as *Brocq* has described, which may become eczematised, but more often remain dry, lasting for years, with relative intermittence and exacerbations of the pruritus.

The general treatment is especially that of the state of nervous overwork from which the conditions generally proceed. At other times the exciting cause is less evident and the patient requires careful study to remedy any defective condition which may be discovered.

Local treatment, besides the palliative medicaments indicated in the prurigo of *Hebra*, includes mild composite oil of cade ointments, applied at night and removed in the morning with oil when the skin is sensitive, with soap and a badger hair brush when it will stand it. The results are slow and recurrences frequent, especially if the hygiene of the patient is not modified.

Oil of Cade		8 grammes	3vi
Oil of Birch		2 "	3i ss
Ichthyol	aa	1 gramme	aa gr. 48
Resorcine			

Lanoline	aa 10 grammes	aa ℥j
Vaseline		

LICHEN OBTUSUS OF VIDAL.

The *lichen obtusus* of *Vidal* is a rare pruriginous affection characterised by a generalised discrete eruption of large, hard, rounded papules, about the size of half a cherry stone. These papules persist for months, and when they retrogress, are replaced by others at other

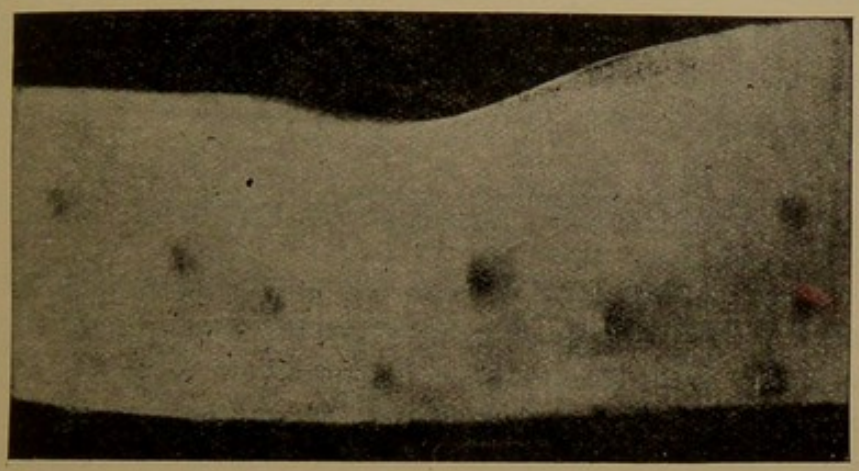


Fig. 210. Lichen obtusus. (Brocq's patient. Photo by Sottas.)

places. The eruption, as a rule, coincides with a characteristic neurosis or with mental decay. Local treatment is the same as for prurigo, and the results are unsatisfactory.

SENILE PRURIGO.

After the age of 50 pruritus of another type is met with; senile prurigo. As a rule it is accompanied by high arterial tension and is generalised. The pruritus is continuous and almost without remission, even temporary. The cutaneous lesions are very marked.

The itching is sometimes intense and the nails may become polished like ivory and reduced to half their length by scratching. The eyebrows may be worn by scratching till they have the appearance of being shaved. In this degree the disease is a torment. The visible cutaneous disorders are few; consisting in a generalised thickening of the whole skin, chiefly an increase in size of the wrin-

kles of the face, when the pruritus is pronounced in this situation; a few excoriations of the skin; hyperpigmentation giving the skin an ashy grey appearance; lastly, an increase in the size of the glands, especially at the root of the limbs, axillæ and groins. These are the principal characters.

This pruritus generally accompanies early arterio-sclerosis; but all cases of arterio-sclerosis are not pruriginous. As a rule, however, in these morbid conditions the lowering of arterial tension has a favourable influence on the pruritus. For this reason unipolar high frequency treatment is the method to be preferred at first. The X-rays, used without a diaphragm so that the irradiation covers the greatest possible extent of surface, should be tried next. Medicamental applications have only a mediocre value in these cases.

DIATHETIC PRURIGO OF BESNIER.

It is obvious that the preceding morbid groups have no criterion to establish their autonomy. They may be described as above under three headings: *prurigo of Hebra, local prurigo of adults* and *senile prurigo;* but a child may present acute non-recurrent *prurigo-lichen simplex,* and also the adult; the prurigo of *Hebra* is seen in the adult; and the adult may present a prurigo which increases with age, but cannot be called senile at the age of 40.

Hence, we may consider the prurigos with prolonged evolution as belonging to a single morbid individuality, and unite them under the name of *diathetic prurigo* (*Besnier*). This term thus connects the chronic, exulcerating, paroxysmal pruriginous dermatites, in which the multiform cutaneous lesions which they present during their whole evolution always remain banal—that is to say, limited simply to lichenisation and eczematisation.

This general point of view shews how the dermatological chapter of prurigos remains obscure, and will continue so as long as their causes are not better defined.

I have already stated that I have a tendency to regard eczemas and lichens as only the dry and moist forms of a cutaneous reaction of the same unknown origin. For it seems that histology may make the papule of lichens an abortive vesicle of eczema, or the vesicle of eczema a lichen papule, the vesicular centre of which has become visible. But this is not the place for controversy concerning doctrines which are hypothetical and conjectural.

SYMPTOMATIC PRURITUS AND PRURIGO.

A certain number of diseases, or syndromes, of very different origin and nature are accompanied by intense pruritus. The pruritus of icterus is one of the best known and most common. But I cannot give here the differential history of all the pruriginous dermatoses. When the diagnosis of prurigo is to be determined and its triad of symptoms recognised, pruritus, papule and lichenisation, it must be remembered that certain diseases have a preliminary pruriginous phase. The chief of these dermatoses is mycosis fungoides (p. 637). A diagnosis of essential prurigo should never be made without considering this possible confusion.

LICHEN PLANUS OF ERASMUS WILSON.

The old name of lichen remains applied to two diseases. The *pityriasis rubra pilaris* of the French school is known in other countries as *lichen ruber acuminatus*. Under the name of *lichen ruber planus* or *lichen planus* is designated an eruptive disease of slow progress and special characters, described by *Erasmus Wilson*.

Lichen planus is thus, not a variety of the lichen-prurigos, but an affection probably as specific as the pityriasis rosea of *Gibert*, psoriasis, or varicella. Its cause is unknown and its nature disputed, but its autonomy is hardly contestable so long as the histology of its lesions renders them distinctive.

Lichen planus generally arises spontaneously and not on pre-existing lesions. I have, however, once seen it occur in the middle of the lesions of psoriasis, and upon them; and another time on the lesions of an intense medio-thoracic pityriasis, and by transformation *in situ* of these lesions. I have also seen its eruptions preceded by a primary placard identified with that of pityriasis rosea (p. 521). But these facts are rare. Generally, lichen planus begins by a crop of lesions which are similar to all those which follow. The first lesions arise on the wrists, hands, forearms and on the body. They may remain localised for a long time, but usually the eruption is complete and generalised in a few weeks.

The lesion is a papule, the size of the macules of measles, yellowish red, sharply raised, with a smooth flat surface and semi-solid consistency. The papules are often grouped around a larger lesion

of the same morphological nature. These groups are all of the same form, which they only lose when the eruption becomes cohesive.

Scratching produces a linear series of papules along its whole length. On the costal regions the papules are disposed in a series in the direction of the ribs, especially on the posterior surface of the body. The eruption, which is very often cohesive on the body, becomes confluent at certain points (the internal surface of the fore-arm, the back of the hands, etc.). These patches have the same relation to lichen planus that lichenisation has to prurigo; the homology is clear, but the placard of lichen planus is as distinctive as its papules. The thin hard placard, of a pale violet red colour, is quadrillated by thin grey arborescences, which divide the surface in all directions. Lichen planus has characters which are as special as its lesions. It is seen on the palm of the hand, the sole of the foot, in the mouth and on the tongue; and on the genital organs it may cover the penis and even the glans.

Fig. 211. Confluent papular elements of lichen planus. (Brocq's pat.ent. Photo by Sottas.)

Lichen planus assumes different forms. Its eruption may be sub-acute and limited to single papular, or even erythematous elements, and all the papules have a rose-violet periphery. The papule often presents a thin, horny cap, the abnormal development of which creates a form of hyperkeratosis. In certain cases the papules are large and hypertrophic; in other cases the distribution of the papules seems to follow a nerve trunk; in others it is circinate. All these forms, except the erythematous, are rare. The eruption is never accompanied by general symptoms. The functional symptoms are most variable; the chief one is pruritus, which may be excessive,

intolerable, or hardly sensible; sometimes there are distressing tingling and burning sensations. As a rule these symptoms are moderate and soon abate. The duration of the disease is from 2 to 4 months; sometimes a year or more. In the course of the disease there may be relapses, but I have not seen recurrence, although several authors have mentioned the possibility of it. When the stage of resolution arrives all the lesions may be replaced by a grey or black pigmentation, which is very slow to disappear.

This disease has no specific treatment. No general treatment is satisfactory, and none has any constant appreciable effect. Treatment is limited to the diminution of functional symptoms, especially of the pruritus when this is severe, by tepid douches (95° to 98° F.) of three minutes' duration, as little percussive as possible, daily or twice daily (*Jacquet*). Local applications have a moral effect.

POROKERATOSIS.

Porokeratosis is a rare disease analogous to annular lichen planus, the history of which is only outlined (*Respighi, Mibelli*). Its seats of election are the extremities, the back of the hands and feet, the forearms, legs, genital organs and buccal mucosa. The elementary lesion is a slightly raised horny papule, surrounded by a hyperkeratotic circle from which it is separated by a groove. When the lesion has become large, it is irregularly cyclic. In the centre the skin is somewhat atrophied, smooth or squamous, with a periphery of horny cohesive elevations resembling the elementary papule.

The evolution of this disease is chronic, the lesions remain stationary, do not increase in number, and remain relatively discrete and few in number. The nails may be affected with onychorrhexis (p. 383). In the mouth the lesions resemble those of lichen planus, but are not constant.

The cutaneous lesions may retrogress and undergo spontaneous cure, leaving a small atrophic cicatrix. No treatment has any effect. The active keratolytics, such as salicylic acid, pyrogallic acid, etc., may, however, be tried.

LICHEN PLANUS CORNEUS ATROPHICUS.

The relationship of lichen planus corneus atrophicus to the lichen plasus of *Wilson* does not appear to me to be clinically demonstrated. I have not studied the lesions histologically.

Lichen planus corneus is a rare affection, never generalised (at least if the hyperkeratotic form of the lichen of *Wilson* is not included, which would appear an error in nosography), always localised to a few regions of the body and formed of discrete, disseminated elements, chronic *in situ*, pruriginous, increasing or retrogressing slowly, and *disappearing by cicatrisation*. These characters differ from those of lichen of *Wilson*.

The usual situations of horny lichen are the leg and scalp; sometimes a few elements are seen on the elbow and thigh. They form conglomerations of hard, brown, irregular hyperkeratotic papules; each of the groups having an oblong or elongated form. When the lesion has existed for some time a cicatrix forms at one of its extremities.

Treatment consists in destruction by the galvano-cautery, or the application of a plaster of cinnabar and red oxide of lead.

PAPULAR ACNEIFORM TUBERCULIDE WITH CICATRICIAL EVOLUTION.

There is a generalised eruption which has the same relation to tuberculosis that the syphilitic papular eruption has to syphilis.

Diagnosis is often confused at first, as the two eruptions resemble one another topographically. There is the same dispersion of the elements all over the body with a predominance on the limbs. The elements consist of reddish brown, or purple, irregular papules, from 2 to 5 millimetres in diameter, and 1 to 2 millimetres in height, often agglomerated in twos and threes, or disseminated in variable numbers, lasting for months, and disappearing by atrophy. This atrophy is marked by a stellate depression in the centre of each papule. As soon as the papule has disappeared the cicatrix rests on the brownish-violet mark of the former papule. Finally the colour itself disappears after several months and the cicatrix remains; pale brown or white. Local treatment is nil, and general treatment consists in the diet and hygiene of external tuberculosis.

SECONDARY PAPULAR SYPHILIDES.

I shall only mention here the profuse eruption of round, flat, copper-coloured papules of secondary syphilis, which is early recog-

nised by its diffusion, which does not spare any part of the body, and by the concomitance of the classical secondary lesions, polyadenitis, remains of hard chancre, etc.

GENERALISED XANTHOMA.

Generalised xanthoma will be described with the tumours of the skin (p. 632). It is constituted by a multitude of small, yellow, soft papular lesions, which may be numerous or discrete, predominating

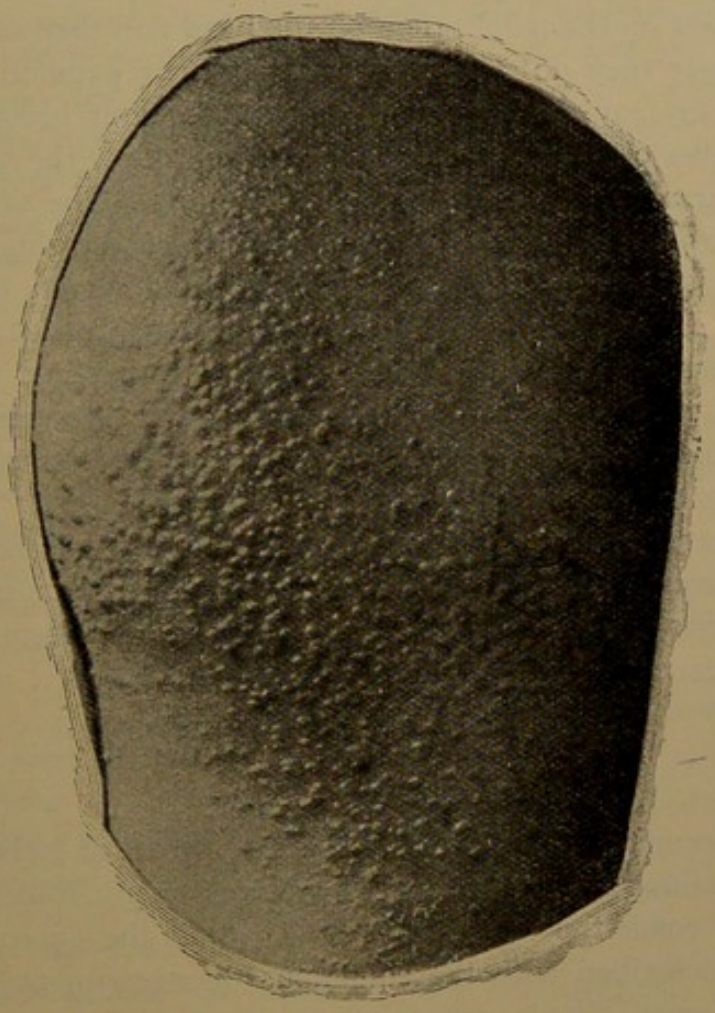


Fig. 212. Generalised Xanthoma of the buttocks.
(Besnier's patient. St. Louis Hosp. Museum. No. 4043.)

in the natural folds and points of friction, the elbows, buttocks, back, hands and fingers.

Nothing resembles the peculiar elements of xanthoma, with their pinkish yellow colour, and their form in pastilles or papules. The

eruption is chronic and painless, and can never be mistaken when once seen. For treatment see page 130.

URTICARIA PIGMENTOSA.

Under this false name is designated a rare, chronic, papular pigmentary disease, of which the following is a precise description.

It commences in the course of the first year by successive crops, which at first resemble urticaria. They form elevations, which are somewhat urticarial in appearance, but of a deep red colour. They appear at first on the trunk, then on the head and then on the limbs. When mature they do not disappear, but their papulation remains stationary, or may even increase, and their colour becomes a deep brown. Other crops of eruption arise which follow the same course, so that after a year the eruption is generalised. The skin is "spotted" and covered with papular spots of different heights, the flatter ones being smooth and the more elevated folded on the surface. There is a macular form less papular than usual, and a nodular or tuberous form in which the lesions are more projecting. It appears that, at the time of appearance of the eruption, the skin is always dermographical (p. 533), but the elevations thus produced are transitory and not pigmented.

The disease when mature remains stationary, but it is said to sometimes retrogress and disappear. I have seen one case remain after 16 years without any retrogression, and this seems to be the rule. The cause is unknown and the treatment nil.

PITYRIASIS RUBRA PILARIS.

The reader might refer here for the description of *pityriasis rubra pilaris*, mistaking for papules its numerous horny follicular cones, which may cover the entire body and give it the appearance of a file. It is described with the squamous diseases on page 528 and figured on page 369.

VESICULAR AND EXUDATIVE DERMATOSES.

Elementary lesion. The Vesicle.

The vesicular and exudative dermatoses have eczema as their prototype. The importance of this affection requires some details . . . . . . — Definition of eczema . . . . . p. 560

I shall study successively the vesicle of eczema and the eczematous pore which succeeds it . . . — Vesicle of eczema p. 560

Next the eczematous placard which results from the confluence of primary vesicular elements. . . . — Eczematous placard . . . . . p. 560

Next, pruritus and the scratching which it provokes, and the objective transformation which it causes in eczematous lesions . . . . . . — Pruritus . . . . p. 561

I shall study next the exudation and crusts of the eczematous placards . . . . . . — Exudation and crusts . . . . p. 561

Lastly, the phase of dessication and desquamation which terminates the evolution of the eczematous placard . . . . . . — Dessication . . . p. 561

The assemblage of these phenomena has been designated by the symptomatic name of eczematisation. This may be slight and abortive, medium or intense; acute or chronic . . . . . . — Eczematisation . p. 561

Chronic eczematisation is very analogous to chronic lichenisation, and I shall describe what is known concerning the relationship of these two morbid types . . . . . . — Eczematisation and lichenisation . . . . . p. 561

The etiology of eczema is still not well known, and I shall point out the obscurities . . . . . . — Etiology of eczema . . . . . p. 562

I shall review the chief forms of eczema, the number of which may be multiplied to infinity . . — Forms of eczema p. 563

And I shall conclude with treatment of eczema in general; that of the different localised forms having been studied already . . . . . . — Treatment of eczema . . . . . p. 564

Other affections have the vesicle as their elementary lesion, such as miliaria . . . . . . — Miliaria . . . . p. 565

. . . And vesicular urticaria . . . . . . — Vesicular urticaria . . . . . p. 566

Varicella is considered elsewhere (p. 600), but I shall mention the chief differential characters . . — Varicella . . . . p. 566

The same with pustular impetigo and phlyctenular impetigo (p. 7), concerning which I shall only say a few words . . . . . . — Generalised impetigo . . . . p. 566

The same with pemphigus foliaceus, the characters of which will be briefly mentioned, as it is described with the bullous dermatoses (*p.* 610) . } Pemphigus foliaceus . . . . . p. 566

ECZEMAS.

"Apyretic and non-contagious, eczema is characterised by the eruption, on different parts of the skin, of small vesicles, generally close together or grouped, with little or no inflammation at their base; it is generally the effect of an irritation of internal or external origin, and, in subjects in whom the skin is constitutionally irritable it finds occasional causes in the most varied agents." (*Bateman.*)

To this definition it may be added that eczema is a pruriginous dermatosis, polymorphous according to the nature and age of the case examined, localised, diffuse or generalised, acute and recurring, or chronic and paroxysmal. Its cause remains unknown.

Whatever the origin, situation or form of an eczema, it is usually possible to recognise the *elementary vesicular lesion;* even in the forms known as red eczema, dry eczema, or crackled eczema.

Eczema thus requires the description of: (1) the eczematous vesicles and the eczematous placard which they constitute; (2) the pruritus which accompanies them and alters the lesions by scratching; (3) the exudation and crust; (4) the phase of dessication, desquamation and return to normal, which terminates the crises of eczema.

1. **The eczematous vesicle.** This should first be examined in eczema of the hands and feet, where it is as large as a hemp-seed, easily visible, clear, acuminated, hard and difficult to rupture. Everywhere else it is as small as the eye of a needle and quickly ruptured by scratching, so that in at least half the cases it is less easy to see the vesicle than its remains.

These remains form a red spot the size of a printer's full stop, which exudes considerably after scratching. Under a lens this point shows the rete mucosum exposed by disappearance of the horny layer. It is thus a minute epidermic exudative exulceration, which may be termed the *eczematous pore;* the remains of the former vesicle.

The *eczematous placard* is formed by the cohesion of a multitude of eczematous vesicles, or of the pores which remain after their rupture. In the centre of these placards the lesions are confluent; at

the periphery they become irregular, so that a true eczematous placard has nearly always diffuse borders. An eczematous surface may be so large as to cover a whole limb or as small as a patch of herpes; but in the latter case there are several patchss irregularly scattered.

2. **Pruritus.** Pruritus accompanies the appearance of the lesions. This appearance is more rapid and more quickly seen than in the prurigos; so that it is more difficult to say, in the case of eczema, that the pruritus is pre-eruptive. The lesions generally appear at first under this horny epidermis; pruritus causes decapitation of the vesicle and transforms it into the eczematous pore. The vesicular placard becomes an exudative placard. Scratching combined with epidermic maceration decorticates the horny epidermis, between the eczematous pores, over the whole surface of the placard, which becomes pink and smooth; but even then the eczematous pores remain visible as red points.

3. **Exudation and Crusts.** The liquid which exudes from the eczematous pores is adhesive to the finger and stiffens the linen; it is colourless and appears to irritate the neighbouring epidermis; it is very concresible and forms amber crusts. These crusts are punctiform at the orifice of each pore if the exudation is scanty, and resembles crystals of amber. In some cases the exudation may be abundant and the yellow opaque crust covers the whole placard like parchment, intersected in all directions by cracks; this crust is adherent and its removal renews the exudation.

4. **Dessication, desquamation, restitution.** If the eczematous outbreak is benign, the epidermis is restored under the crust, which falls and is followed by slight desquamation. The epidermis then becomes normal; for *eczema never forms cicatrices.*

Eczematisation. *Abortive eczematisation.* In this case the clinical picture may be indistinct and hardly recognisable. For instance, certain young girls present on the face slight attacks, of variable intensity, of the eczema described on page 12, some of which shew "between skin and flesh" 10 to 15 vesicles which may be left after scratching. The exudation is infinitesimal and the whole attack is over in a week.

Medium eczematisation is that which we have just taken as the type for the elementary descriptions of eczema; but it may occur in all degrees.

Chronic eczematisation is in reality a recurrent eczematisation without intermission; the acute or subacute attacks are reproduced

before the former ones have disappeared. In this way an infiltration of the whole skin is constituted, permanently raised above the surface. The placard of chronic eczematisation continues to differ from the placard of lichenisation, in that it is redder, more œdematous, less "neoplastic," softer to the touch, less stable *in situ*, less smooth on the surface, because the surface is often excoriated, moist or exudative. But it is impossible to regard these differences, and the corresponding histological differences, as specific, and not to closely connect these two modes of reaction of the skin with each other. In my opinion they are two different aspects of the same process. The chronic, pruriginous, banal dermatites may be dry, forming prurigo-lichen; or moist, forming eczema.

Is eczema a disease? Under these circumstances we may question whether prurigo or eczema are distinct diseases, or if the two words should not be abolished in favour of the words lichenisation and eczematisation. In my opinion the words *prurigo* and *eczema* only represent two symptoms; two objective forms of the cutaneous reaction to chronic irritation, "external or internal in certain irritable skins" (*Bateman*). But this question, being controversial, must not detain us longer.

Artificial dermatites, "eczematous" or "eczematiform." The opinion which I have just enunciated receives considerable support from the study of the chronic artificial dermatites of the extremities (p. 341), which are indistinguishable, in their symptoms, progress, and histological lesions, from chronic eczema of apparently non-traumatic origin.

Evolution of eczema. The evolution of eczema, much more than its symptoms and lesions, tends to give it a special autonomy, and to constitute it as a morbid entity, for eczema is acutely recurrent, or chronically paroxysmal. It is only, *apparently*, a transient affection.

Etiology of eczema. Nearly all authors who have studied eczema, at any rate in France, agree that the subjects of chronic eczema present organic disorders, the alternation or the coincidence of which with the outbreaks of eczema is remarkable; for instance, asthma, chronic bronchitis, migraine, attacks of hæmorrhoids, etc. On the other hand it may be said that the old eczemas occur in old people, and that the latter are rarely free from complaints, even when they are not eczematous. In any case these *alternations* and coincidences are very diverse and not clearly defined; and if the accessory causes

of eczema in certain cases may be remarkable, the true cause and the physio-pathological mechanism of eczema in general remain to be discovered.

Forms of eczema. Acute vesicular eczema, spontaneous or provoked, is the type of the genus; but the forms of eczema are very numerous. I shall not speak of those which are altered by their situation; palmar eczema (p. 360); peri-ungual eczema (p. 377); eczema of the folds of flexion (p. 314); eczema of the breast (p. 491), etc.; but only of the forms of eczema which are objectively distinct in themselves, whatever their situation.

There are plackards of *eczema rubrum*, very slightly vesicular which consist of a red, hot infiltration with a dry desquamating surface. This form is common on the legs and face, and around the eyelids. This form of eczema is generally localised.

There are *dry* and *crackled* eczemas, very often provoked by chemical irritants, which occur on the face and forearms and also very often on the legs, in which the vesicular element is so reduced that it is necessary to examine the skin with a lens under the squames to discover the eczematous pores (Fig. 204, p. 523).

There are *hyperkeratotic eczemas* which may occur on all the four limbs, but especially on the fingers and toes, hands and feet.

It is not surprising that other and autonomous affections besides the common moist or dry secondary dermatitis which covers them and prevents recognition, have been confused with eczemas, especially when chronic, lichenised and deformed.

Infected eczema is less common than might be expected, or at least there are few cases altered so much by infection as to render them unrecognisable. The infections are streptococcic (p. 575) and staphylococcic (p. 569). The symptoms of these pyoderatites may be mixed with those of eczema, but it is usually possible to determine if the pyodermatitis has caused the eczematous reaction, or whether the primary eczema has been secondarily infected.

(a) The *figured eczemas*, or what pass by this name, are not always eczemas; the *eczema marginatum* of *Hebra* was inguinal trichophytosis (p. 266) and erythrasma (p. 265): the *seborrhœic eczema* of *Unna* includes steatoid pityriasis of the scalp (p. 215) or medio-thoracic region (p. 473) with cases of super-seborrhœic psoriasis (p. 476), or true psoriasis, or even cases of streptococcic intertrigo (pp. 259 and 264), etc.

(b) Sometimes a dermatitis is figured because it results from the eczematisation of a pre-existing figured dermatosis; as the spots of pityriasis rosea, after treatment with sulphur, may be seen to become eczematised one by one.

(c) Or, a figured eczematous dermatitis may be provoked by traumatism without any known reason for its configuration; thus desquamative dermatitis may follow the irritation of scabies, on the thighs and the whole body.

(d) Lastly there are true figured eczemas, for their trichophytoid circles on the back of the hands (p. 342) may accompany a typical amorphous eczema of the body.

Nothing is known of the causes of this configuration. To regard these eczemas as primarily or secondarily microbial, and as assuming a geometrical figure because they are microbial, is a hypothesis supported only by comparison with trichophytosis, pityriasis, etc., and not by experimental investigation.

Treatment of eczema. There is not a single method of treatment for eczema, but a thousand, which proves that there is not a single good one. With regard to the internal treatment of eczema it is first necessary to classify them.

The classification of eczemas, in my opinion, has not been attempted in a sufficiently synthetic manner. The eczemas of infancy, mostly of alimentary origin (p. 2), are not the same as those of adolescence, which appear to be connected with a form of chlorosis (p. 12). Also there is a whole category of *eczemas of malnutrition* in old emaciated persons, *which are cured by superalimentation*, contrary to what is everywhere said and written.

Under these circumstances a fixed and unchangeable diet is not indicated in eczema. This would attribute to eczema a uniform physiological mechanism and identical causes, which is not supported by facts.

In every case an eczema, especially when it persists or recurs, imposes a complete examination of the patient and analysis of his urine, etc.; for no harm can be done by correcting as far as possible everything abnormal that is found. But, in the absence of satisfactory etiological theories of eczema, the true treatment is so far external, and this still remains very variable.

The acute intolerant forms require moist dressings (*Besnier*), repeated at least twice a day, and made with simple boiled water, decoctions of elder, etc. Potato starch poultices are preferable for

eczemas of small extent. These are the best antiphlogistic measures known. During the acute period, when the local temperature of a patch of eczema is raised, no local application is tolerated nor has any useful action.

Nevertheless, among the useful local applications in acute eczema, that of super-heated air may in the future become a practical and satisfactory method.

When the local temperature has fallen, many applications may be used; in the first place pastes with carbonate of bismuth, oxide of zinc (1 in 4). When the eczema is semi-squamous, with fatty crusts, or when it originates in a natural fold, weak oil of cade ointments are well supported and often give excellent results:—

Oxide of zinc	aa	5 grammes	aa ʒii
Oil of cade			
Lanoline			
Vaseline		20 grammes	ʒj

Chronic or sub-acute eczemas do well with applications of nitrate of silver (1 in 20 to 1 in 10), alternated with zinc paste. Traumatic eczemas require the suppression of their causes.

Eczemas of the extremities are very tenacious and often require vigorous treatment by strong doses of keratolytic agents; salicylic acid, 1 in 20; chrysarobin, 1 in 30 to 1 in 40. These have been mentioned in treating of the regions in which they occur (p. 342), and for this reason this paragraph is limited to generalities.

SUDORAL MILIARIA.

In the course of pyrexias, especially at the time of defervescence which precedes the cure, sometimes in normal health during the hot season, or after a transient febrile attack, appears *sudoral miliaria*. The element is a vesico-pustule, smaller than a millet-seed, spherical, and resembling a pearl placed on the skin; each being circled by a red areola which soon disappears. The eruption of thousands of these small vesicles covers the skin of the thorax, abdomen, and even the limbs.

This eruption is only of importance in the benign prognosis which it signifies for the disease in the course of which it appears. It lasts about two days and requires no treatment.

VESICULAR URTICARIA.

In vesicular urticaria, which is rare, the urticarial element predominates, and the vesicular elevation is produced in the middle of the papule. This vesicle occurs on each urticarial papule or on most of them. The diagnosis of vesicular urticaria is only made when its existence is observed. The treatment is that of urticaria (p. 536).

VARICELLA.

Varicella is described on page 600. It is an exanthematous fever, so benign that the febrile state may pass unnoticed. The characteristic bullous elements are then opened by scratching, or ulcerated, and resemble an impetigo with elements disseminated all over the body. It usually occurs in infancy. The diagnosis is confirmed by the presence of the characteristic multilobular bulla.

GENERALISED IMPETIGO.

An apparently generalised impetigo is usually varicella. Pustular impetigo (p. 569) is nearly always localised to the scalp (p. 183) and the hairy regions, and is only generalised when it precedes general furunculosis (p. 571). Phlyctenular impetigo (p. 7) is always localised to the face, fingers, back of the hands and wrists, and disseminated elements on the body are scanty; 3 to 10 at the most. When impetigo becomes generalised it is in the ulcerated form of ecthyma, in growing infants or in cachectic subjects (pp. 573 and 574).

PEMPHIGUS FOLIACEUS.

This rare disease is better placed among the erythodermic and bullous diseases than among the vesicular (p. 610). It is a red dermatosis occurring at middle age. The whole surface of the body is affected insidiously and remains of a deep red colour. At first sight it resembles the pityriasis rubra of *Hebra* (p. 590), but when the finger is applied to the skin it removes the horny layer, which is separated by moisture from the rest of the skin. Later on the body

becomes covered with soft, flat, wrinkled bullæ, which give rise to abundant squames. It is a disease which causes slow cachexia and terminates in death after 10 to 15 years. Treatment is only palliative.

VARIA.

I shall not refer here to *dyshidrosis*, because it is an affection which is limited to the extremities; nor to *zona*, which may occur in any region of the body, but which has been described in its most interesting and most frequent localisations; opthalmic zona (p. 131); intercostal zona (p. 483); nor to the groups of recurrent *herpes*, which may also occur everywhere, but, of which the most interesting localisations have been mentioned; the lips (p. 76), and the genital organs in both sexes (pp. 422, 426, 439).

SUPPURATIVE DERMATITIS.

STAPHYLO-PUSTULE AND STREPTO-PHLYCTENULE.

This chapter will be devoted to the suppurative epidermatites, which have two common agents, the staphylococcus and the streptococcus, each presenting a specific and special lesion from which numerous clinical types are derived.

The first of these lesions is the staphylococcic pustule, a primary pustule, usually ostio-follicular and centred by a hair . . . . . . — Staphylococcic pustule . . . . p. 569

We have seen innumerable derivations of this in several regions; one of the principal being furuncle . . . . . . — Furuncle . . . . p. 569

. . . and the agglomeration of furuncles called carbuncle . . . . . . — Carbuncle . . . p. 570

. . . and the sequel of furuncle, known as furuncular abscess . . . . . . — Furuncular abscess . . . . . p. 571

. . . and the generalised eruption which furuncle may create, especially in certain states of malnutrition . . . . . . — Generalised furunculosis . . . p. 571

All these morbid types have for their immediate cause the ostio-follicular staphylo-pustule, which they follow . . . . . . — Disseminated pustulation . . . p. 572

The staphylococcus may cause secondary infection of lesions which were not at first pustular . . — Pustules of acne p. 572

Lastly, in certain states of physiological misery and after certain traumatisms, furuncle may enlarge, and become transformed into an ulcer, which constitutes the primary ecthyma of Willan . . . — Ecthyma of Willan . . . . . p. 572

The second element of pyodermatitis is the streptococcic phlyctunule, which is at first clear, then turbid and then suppurative . . . . . . — Streptococcic phlyctenule . . p. 573

We have studied numerous clinical forms and derivatives of this; I shall only mention the forms which may become generalised, such as the ulcerative streptococcic phlyctenule, the rupia of Bateman or the ecthyma of the authors of to-day . . — Rupia of Bateman . . . . . p. 574

. . . and an acute streptococcic epidermatitis which certain authors interpret as an infected and impetiginous eczema . . . . . . — Acute streptococcic epidermatitis . . . . . p. 575

. . . also a chronic streptococcic epidermatitis which, according to some, is only a chronic eczema kept up by permanent impetiginisation . . . . . } Chronic streptococcic epidermatitis . . . . p. 576

Lastly I shall mention the secondary impetiginisation of pre-existing cutaneous lesions . . . . . } Impetiginisation p. 576

STAPHYLOCOCCIC PUSTULE.

There are two common agents of cutaneous suppuration, the staphylococcus albus and aureus, and the streptococcus.

The *lesion of the staphylococcus* is a round, raised pustule, of a greenish yellow colour, containing thick pus. This pustule generally occupies the orifice of a hair follicle, and may open, or dry without opening. The crust, after falling, often leaves a minute circular cicatrix.

This lesion is the element of pustular eruptions of all situations; the impetigo of *Bockhart* on the scalp of children; the sycosis of hairy regions such as the beard, moustache and nape of the neck; the traumatic pustular dermatitis of the extremities (wrongly called *eczema chronicum* by *Unna*). It is this pustule which provokes the traumatism of thapsia, croton oil and oil of cade. It is this pustule which precedes furuncle, at the orifice of the follicle occupied by the furuncle. It may occur disseminated on the whole body in generalised furunculosis. It is an accessory element of all the chronic eczemas and the chronic dermatites, but it is nearly always a secondary element. From this lesion are derived a great number of the pustules of polymorphous acne, all those of necrotic acne, furuncle and ecthyma of *Willan*. Lastly the staphylococci infect the surface of all open dermatites even when they have the streptococcus for their primary cause.

Sulphur is the usual specific treatment for the staphylococcic pustule, but this is an irritant, and many dermatites, the microbial element of which is not the sole cause, do not tolerate it. In such cases emolients and antiphlogistics must be used.

FURUNCLE.

Furuncle, or boil, is constituted by a focus of epithelial and connective tissue gangrene, usually situated in the centre of a follicle. What is called the core of the boil is the *sphacelus*, in the centre of which is the staphylococcic colony which causes it.

The boil develops with all the classical inflammatory symptoms, localised to a single spot, which is swollen, hot, red and painful. In the furuncle the subjective symptoms are considerable compared with the visible lesion. The pain may prevent sleep, although the general temperature is not raised. On the third day the lesion is acuminated, and at its summit a yellow sphacelic point is seen by transparency. A drop of pus raises the skin, which becomes ulcerated. The core then appears and takes 2 or 3 days to be eliminated.

The painful symptoms diminish after opening; and the core, when eliminated, leaves a cavity which fills up in a few days, while the inflammation around it abates. Furuncles often occur in series, which should indicate a careful examination of the general health of the patient.

As soon as the first symptoms appear the hair which centres the lesion should be epilated, and after an hour's interval two drops of tincture of iodine applied; or a potato starch poultice, sprinkled with a few drops of camphorated alcohol, may be made hot and applied cold. When it is certain that the characteristic sphacelus cannot be avoided, a deep and wide puncture should be made with the galvano-cautery; this is painful, but often aborts the boil, and in any case renders its evolution less painful. When the core is formed and separated it must be removed without injuring the skin, because it contains the nucleus of many others.

Moist dressings are indicated before elimination of the core; dry antiseptic dressings afterwards. The so-called antiseptic plasters should be avoided, as they are irritating.

N. B.—When the successive development of several boils is observed they are seen to be preceded by an interval of 3 or 4 days, by an orificial pustule which is the parent inoculation of the boil. When these are reproduced they should be systematically destroyed by the galvano-cautery.

CARBUNCLE.

Carbuncle is a large boil constituted by the formation of several sphacelic nodes side by side in a series, giving rise to a series of contiguous orifices of elimination on the surface. The subjective symptoms of furuncle are multiplied by the number of furunculous foci, and the general symptoms are proportional to the size of the carbuncle.

Surgical intervention is required in these cases, assisted by a spray of boiled water to cleanse the deeper parts, and aseptic pastes to protect the skin. The strength of the patient should be maintained. Examination should be made for possible glycosuria and for any functional organic disorder. The treatment of carbuncle is more surgical than dermatological.

FURUNCULAR ABSCESS.

Sometimes, after symptoms analogous to those of furuncle, an incision gives issue to a few drops of pus, instead of the core. This is another mode of evolution of the same process, the microbe having given rise to pus instead of a sphacelus.

Sometimes this process occurs around a boil which has just developed, as a complication. In this case it may increase the size and symptoms and cause a post-furuncular phlegmon. The origin, symptoms and treatment are the same as for furuncle and carbuncle.

GENERALISED FURUNCULOSIS.

A generalised furunculosis may be established in connection with diabetes, but also without apparent connection with any general condition. It may occur in all degrees; in young or old subjects, but more often about the 50th year; and may present from 10 to 1000 furuncles in one year. In this case it is continuous and the subject is never free from boils. The possible gravity of this condition is obvious, especially if it arises in connection with a profound constitutional disorder, such as diabetes.

In all these cases the patient should be carefully examined from all points of view, and the urine analysed. The amount of phosphates should be raised if it is deficient; oxalate of lime and uric acid should be got rid of if they are present; and the diet should be regulated to avoid emaciation, which is a frequent symptom.

There are cases of generalised furunculosis which do not appear to arise from any perceptible general disorder. As a rule generalised furunculosis lasts from 6 to 18 months, and disappears with or without relapses.

DISSEMINATED PUSTULATION.

In nearly all cases of furuncles, whether they are few or frequent, each one occurs 3 or 4 days after the evolution of an ostio-follicular pustule in the same spot. These disseminated pustulations are fairly common, especially in young men with red hair. Out of 10 pustules, one forms a boil and the others abort.

In generalised furunculosis the patients notice their boils by the receding pustules at the follicular orifice. Nevertheless, so far as I am aware, this preliminary pustulation of generalised furunculosis is not mentioned in any book.

The same general treatment is indicated as that mentioned above. Each pustule should be destroyed by puncture with the thermo-cautery if it is seen early; otherwise the hair should be epilated and a drop of tincture of iodine applied.

PUSTULES OF ACNE.

I have described pustular acne of the face and scapulo-thoracic region sufficiently not to require repetition (pp. 15, 464). It is only one of the elements of acne indurata, acne punctata, and cystic sebaceous acne.

According to some authors, the suppuration of acne is due, like acne punctata itself, to the special micro-bacillus (*Unna*) (p. 13); according to others, the suppuration is generally due to staphylococcic infection superadded at the orifice of a follicle, previously occupied by a comedo (*Sabouraud*); and when this infection is produced by the common *staphylococcus albus*, it produces common suppurative acne; when the infection is that of the *staphylococcus aureus*, it creates the flat, broad, deeply sphacelic pustule of acne necrotica (*impetigo-rodens* of *Hillairet-Gaucher*).

For the treatment of *acne pustulosa* and *acne necrotica* see pp. 14 and 235.

ECTHYMA OF WILLAN.

The ecthyma of *Willan*, which is almost special to young cavalry soldiers, shews what becomes of traumatic furunculosis in the overworked. The friction of the shoulder belt and braces, and the

traumatism of the saddle determine and increase simple furunculosis. On the internal surface of the thighs, the knees and the legs ulcerative lesions are caused by riding. This is the ecthyma of *Willan*. Each lesion commences *by a furuncle,* and the core after expulsion leaves a cavity which enlarges in all directions. The deep ulcer is covered with a brown crust of dried blood. When two furuncles arise close together their cavities may fuse, and the ecthyma becomes an extensive ulceration. After healing, indelible cicatrices remain, the largest of which may be an inch and a half in diameter.

General treatment consists in rest and baths, and plain, substantial diet; removal of the crusts by moist dressings and applications of sub-carbonate of iron ointment (1 in 40). The latest furuncles which appear should be treated like ordinary ones.

It is not known if this furunculous ecthyma is the result of traumatism only, or whether a secondary infection of the furuncle is necessary to constitute it.

The ecthyma of *Willan* must not be confounded with the ecthyma of modern authors, who apply this name to what *Willan* called rupia.

SERO-PURULENT PHLYCTENULE.

In contra-distinction to the staphylococcic pustule which we have just described, with its pathological derivatives and its different clinical types, must be placed the sero-purulent phlyctenule caused by the streptococcus. This may be called the *strepto-phlyctenule,* in distinction to the *staphylo-pustule.*

The most distinct type is seen on the fingers around the nail, as whitlow (p. 376). On the palmar surface of the fingers it forms the streptococcic bulla (p. 370). On the face it forms the impetigo contagiosa of *Tilbury Fox.* The lesion assumes in this region a more crusted appearance, because the horny epidermis is very thin and quickly broken, and hence more broken than intact lesions are seen. The latter are somewhat scanty and soon altered beyond recognition.

Impetigo occurs on the face (p. 7); in the nostrils (p. 86); on the eye it causes phlyctenular keratitis (p. 133) It may cover the body with disseminated elements, and may cause similar lesions to those on the hands and fingers, on the feet and ankles.

Besides disseminated distinct lesions, the streptococcus may create regional and diffuse lesions, when it infects a skin already deprived of its horny layer, as in eczema; or when permanent friction diffuses it over the surfaces in contact. (*Perléche* p. 75); retro-auricular intertrigo (p. 110); axillary intertrigo (p. 259); sub-mammary intertrigo (p. 493); inguinal intertrigo (p. 264).

These lesions having been described in the course of the book, I shall only give here the general history, and shall describe only three clinical types which constitute dermatoses capable of being generalised on the whole body.

The treatment of streptococcic sub-corneal lesions is always the same. The phlyctenules should be opened and the exulcerated surface cleansed several times a day with solutions of sulphate of zinc or copper (1 per cent), followed by dressings of oxide of zinc (1 in 3). When the streptococcic lesion is diffused over a large surface, the lotions of sulphates may be followed by mild ointments of oil of cade:—

Oxide of zinc Oil of cade Vaseline	aa 5 grammes	aa ℥iv
Oil of birch	1 gramme	℥j
Lanoline	10 grammes	℥j

ECTHYMA (RUPIA OF WILLAN).

The strepto-phlyctenule is a sub-corneal lesion, intra-epidermic and so superficial that it affects very little the corresponding glands (much less than the staphylo-pustule, even when small); moreover it never leaves cicatrices.

But when it is situated on dependent regions, the legs, ankles and wrists, if neglected it may persist, raise the epidermis and extend under it, becoming ulcerative, and even leave a cicatrix after healing. This is the rupia of *Willan* and *Bateman* which, according to these authors, commences as a phlyctenule, a large vesicle or a flat bulla (strepto-phlyctenule). This remains *in situ* and becomes covered with a thin brown crust, easily destroyed, under which is turbid serum. This process, when it has commenced on one of the lesions of impetigo, continues on all of them, and causes the ulcero-crustaceous lesions with sanious pus found in vagabonds and

cachectic subjects, which we have described in the region of the leg (p. 296), where they most frequently occur at their maximum development.

These ulcerations are streptococcic, like the strepto-phlyctenule from which they arise. (See p. 9 for methods of culture of the streptococcus.)

The local treatment is confined to sulphate lotions (1 per cent); but the ecthyma of dependent regions only heals quickly when the limb is kept in the horizontal position. Moist dressings relieve the congestion of the surrounding region of each ecthymatous ulceration. The healing of the ulcers is hastened, after they have been cleaned, by sub-carbonate of iron ointment (1 in 40).

ACUTE STREPTOCOCCIC EPIDERMATITIS.

It is very probable that among the eczemas, or rather among the epidermatites with a tendency to extension which are so named, are often confounded *eczematoid microbial epidermatites*. The following case illustrates this point.

A man aged 45, overworked and rather stout, presents in the inguinal folds an intertrigo which develops in the form of a red epidermatitis in placards which extend and fuse together. The scrotum and hypogastric region are then affected. Small red geographical patches are formed, which increase in size. The axillæ, neck, face, extremities and even the conjunctiva are affected in turn. The whole skin of the patient, excepting the palmar and plantar surfaces, becomes red and exudative: and all this takes place without any fever. The eruption lasts for 2½ months, slowly fades and disappears, leaving behind it a fine floury desquamation, which remains for 7 or 8 months, and gradually disappears.

At all periods of the eruption, on all the commencing red and slightly exudative patches, culture and microscopic examination show the presence of streptococcus in considerable quantity and almost pure. The same during the whole period of maturity and healing. After 6 months, cultures of the dry squames show swarms of streptococci in 12 hours. This superficial infection ceases after a year.

The interpretations of these facts vary according to different authors. Some regard it as an acute streptococcic epidermatitis;

others as an infected eczema. The fact of infection is certain, but it may be primary or secondary. This is the problem which remains to be solved.

Treatment consists in lotions of sulphates (1 in 1000) and mild oil of cade ointments:—

Oil of cade	aa 5 grammes	aa 5j
Oxide of zinc		
Lanoline	10 grammes	5ii
Vaseline	50 grammes	5j

CHRONIC STREPTOCOCCIC EPIDERMATITIS.

Certain dermatites of the folds remain chronically exudative, impetiginous and streptococcic. In these cases the skin of the chronically affected regions is thickened and constitutes a local inflammatory condition, which is a mixture of impetiginisation and lichenisation. It is very difficult to cure, and may last for months or even years with partial remissions.

The same controversial discussion which we have mentioned a few lines above applies to this morbid type. The treatment is the same as in acute epidermatitis of the same nature.

IMPETIGINISATION.

Impetiginisation is the assemblage of symptoms of impetigo when they are superposed on a pre-existing dermatitis. When the horny epidermis is decorticated by scratching (pediculosis, scabies, prurigo of *Hebra*), by a burn or by a traumatic eczema, etc., and accidental inoculation becomes easy.

The characteristics of impetiginisation are (1) an abundant serous exudation which coagulates in amber crusts: (2) the existence under the crust of a thin fibrinous coagulation, of a pale lilac colour, which appears as if spread on with a brush.

The proof of superficial streptococcic infection is established by culture of the exudation on bouillon-serum (p. 9).

The treatment is that if impetigo, by lotions and dressings with the following:—

Sulphate of Zinc	3 grammes	gr. 3
Sulphate of Copper	2 grammes	gr. 2
Distilled water	500 grammes	℥j

Impetiginisation is, as a rule, easy to reduce, but the affection on which it is superposed (eczema of adolescents, prurigo of *Hebra*) often persists with its special characters, after the impetiginisation has disappeared.

MEASLES—RUBELLA—ROSEOLAS.

RUBEOLIFORM ERYTHEMATA.

Measles, being the type of eruptions of this kind will be considered before them . . . . . — Measles . . . . p. 578

Rubella, an exanthematous fever, much more rare, wil be considered next . . . . . . — Rubella . . . . . p. 580

Under the name of roseolas are included every macular red eruption having a tendency to generalisation. These may be produced by a great number of causes . . . . . . — Roseolas . . . . p. 580

There are first the roseolas of infectious fevers: the rose spots of typhoid fever; the rubeoliform rash of variola; the rubeoliform erythema of diphtheria and puerpural fever, etc . . . . . . — Roseolas of fevers . . . . . p. 581

The great chronic infections, syphilis, leprosy and tuberculosis, have roseolar eruptions, differing considerably from each other, which we shall consider separately . . . . . . — Roseolas of chronic infections . p. 581

I shall next deal with the medicamentous roseolas . . . . . . — Medicamentous roseolas . . . p. 583

. . . the sero-therapeutic and vaccinal roseolas — Sero-therapeutic roseolas . . . p. 583

And I shall conclude with a few words to differentiate the true roseolas from surfy, vesicular and papular eruptions which may resemble them; such as pityriasis versicolor, pityriasis rosea and lichen planus . . . . . . — Pityriasis rosea. Lichen planus . p. 584

MEASLES.

Measles being the type of rubeoliform erythemas should be considered briefly before them.

It is a specific, contagious, epidemic disease, characterised by a catarrh of the mucous membranes, and a generalised maculo-papular eruption. The incubation is 10 days before the appearance of the symptomatic catarrh of invasion, and 14 days before the eruption.

The invasion is announced by oculo-nasal catarrh. The eye is watery, and there is pus in the internal angle: there is pharyngitis and laryngitis and the child snuffles and sneezes. Lastly a bronchial catarrh is developed with râles and *rhonchi*. These symptons last for 3 or 4 days, after which the fever is established with rigors,

thirst, anorexia and more or less complete insomnia. The face is red and swollen but so far without evident eruption. The mucous membrane of the palate is yellowish red, stippled with a deeper red. The gums are swollen and affected with catarrh like all the mucous membranes. The temperature at this time is 104° F. or more, and the eruption now appears.

This begins on the face, neck and chest. Its elementary lesion is a red lenticular macule, slightly papular, and disappearing on pressure. The eruption may be scanty, profuse and florid, or discrete,

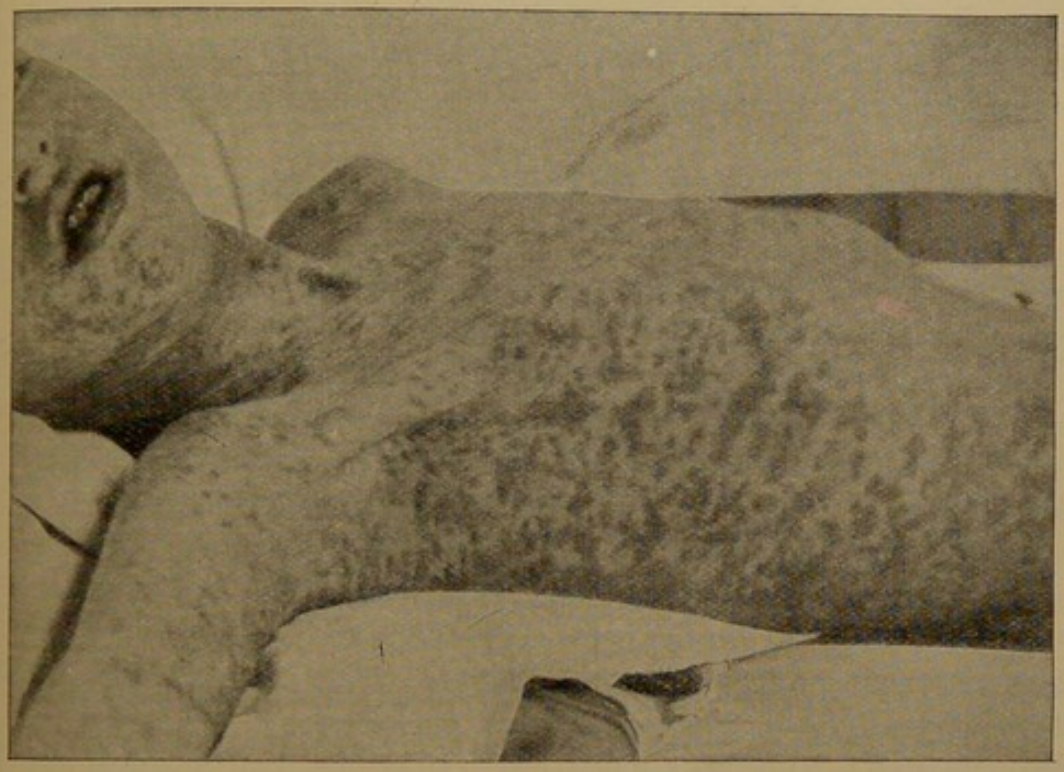


Fig. 213. Measles. (Jeanselme's patient. Photo by Noiré.)

coherent and confluent. It occurs on the upper part of the body on the first day; the trunk and arms on the second; the lower limbs on the third; and on the 4th day it becomes paler. After the 5th day it does not appear red, but grey and iridescent. Desquamation then occurs and lasts for two weeks: it is finely pityroid, furfuraceous, rarely lamellar, and always discrete. The bronchial catarrh lasts as long as the eruption, and only disappears after it.

Measles may be normal, atypical, malignant, hyperpyretic, or of a neurotic form. It may be followed by naso-pharyngeal catarrh

and stridulous laryngitis. The bronchitis may also persist, and later on tracheo-bronchial tuberculous adenopathy, or even pulmonary tuberculosis may occur. Divers complications may arise in the course of measles; the most dangerous being broncho-pneumonia. Measles is often associated with other infantile diseases, such as whooping-cough. Complications may also arise during convalescence, among which may be mentioned cutaneous nodules or gangrene, which are more liable to occur after measles than any other eruptive fever.

The treatment of measles is entirely symptomatic, and the disease is usually benign, but the sequelæ are often less so. Isolation should be practised early, for the disease is most contagious in the catarrhal period preceding the eruption.

RUBELLA.

Rubella (German measles) is an uncommon disease, seasonal, epidemic and contagious, and characterised by general adenopathy, pruritus and an exanthem.

The incubation is from 12 to 14 days, and the invasion occurs in a few hours, without previous oculo-nasal catarrh. The fever is very moderate, from 100° to 101° F. The erythema has been described very differently, but in the cases which I have seen it resembled that of measles, but with punctiform macules. There is nearly always an intense pruritus which precedes the eruption. Multiple adenopathy on the nape of the neck and axillæ is very evident and attracts the patient's attention. The eruption lasts for three days and disappears without complications, and without desquamation. Rubella is much less contagious than measles, and requires no treatment.

TYPHOID ROSEOLA.

On the 7th day of typhoid fever lenticular rose spots appear consisting of slightly papular macules, which disappear under pressure and reappear quickly. They are generally few in number, and are scattered over the abdomen, flanks and chest. Occasionally they are sufficiently abundant to simulate an exanthematous fever. The eruption rarely lasts more than 7 or 8 days, and is complete in 3 days. It has been stated that florid typhoid roseola signifies benign typhoid.

DIPHTHERITIC ROSEOLA.

Besides the eruptions due to sero-therapy, diphtheria, in 12 per cent of cases, gives rise to an early or late eruption, having the lenticular maculo-papular characters of measles, but the topographical distribution of erythema multiforme, usually on the wrists and ankles.

This appears to be one of the innumerable secondary polymorphous erythemas which may arise in the course of all infections. The eruption causes a rise of temperature of one degree for several hours. It lasts several days, like polymorphous erythema, and is often developed in crops. It disappears slowly, and requires no treatment.

RUBEOLIFORM ERYTHEMA IN PUERPURAL FEVER.

I have seen a generalised rubeoliform eruption at the terminal period of a fatal case of puerpural fever. The macules were quite flat, not papular, and as large as the end of the finger. After the 3rd day the eruption produced a desquamation with large squames, all over the body. The eruption appeared about the 30th day of the disease, and five days before death.

SYPHILITIC ROSEOLA.

Syphilitic roseola marks the commencement of the secondary phenomena and is one of the most definite lesions in the cyclic evolution of the disease. It is seen about 80 days after inoculation. It may be very marked, or only slightly visible; very discrete or confluent; the macules may be very pale or very red. Each one is smaller than the end of the little finger; they are very equally distributed, and more apparent on the flanks, abdomen, shoulders and flexor surfaces of the limbs. The skin has a mottled appearance. This eruption may be accompanied in the first few days by slight general symptoms of febricula; but these are more often absent. The syphilitic roseola may last for 3 weeks or more, or may disappear in a few days.

The diagnosis is always assisted by the coexistence of the induration of the chancre and the satellite ganglion or pleiades, and gen-

eral polyadenitis. At the end of roseola mucous patches may develop. The local treatment of the roseola is nil. Syphilitic treatment, if not already begun, should be instituted without delay.

Under the name of *recurrent roseola* an eruption has been described, consisting of rose macules much more rubeoliform than those of secondary roseola. These are scanty, discrete, scattered on the flanks, and often limited to the trunk. These spots persist for a long time and their true nature, origin, and signification are doubtful.

LEPROUS ROSEOLA.

The name of leprous roseola is given to the first eruption which characterises leprosy, although this eruption may be preceded by numerous premonitory symptoms (p. 655).

Leprous roseola is composed of erythematous pigmentary macules, the size of the end of the finger, or larger. It is more or less discrete or abundant, and the macules may be pale or florid: they are slightly raised on the skin. The eruption occurs in multiple subinvolutive crops, so that elements of different ages and tints coexist side by side. It may be accompanied by marked febrile symptoms. In certain cases the macules, from the first, are the seat of disorders of sensation, which become more and more pronounced.

Leprous roseola is not a transitory lesion like syphilitic roseola, and the macules may remain for several months. They may enlarge and become achromic and change *in situ* into tubercular or atrophic lesions. I shall deal with the evolution of leprosy in general later on (p. 655) and shall not dwell on it any more here.

TUBERCULOUS ROSEOLA.

It would be incorrect to apply this term to the generalised eruptions of the tuberculides (p.). These are not rubeoliform, but papulo-tuberculous, with necrotic and cicatricial evolution (*acne cachecticorum*). It is an eruption which seems to have the same nosological signification as the roseolas of syphilis and leprosy, but which has neither the same objective form, nor the same evolution.

These eruptions will not be considered further in this place, as they have been studied elsewhere (pp. 331, 338, 556).

MEDICAMENTOUS ROSEOLAS.

These are very common, seldom pure as an objective type, but more often mixtures of erythematous, urticarial and scarlatiniform lesions, etc. Nevertheless there are some which, objectively, are only macular, or slightly papular roseolas; incomplete, discrete or localised.

Antipyrine. Antipyrine, several hours after its ingestion, may determine a papular roseola. The conjunctiva and buccal mucous membrane are also usually affected. Besides the roseola there are often seen other more scanty lesions in the form of a rosette, slightly papular and of longer duration than the roseola.

Balsams administered in the course of gonorrhœa often give rise to a well known roseola, which begins on the extensor surfaces of the large joints and may extend to a variable extent. It quickly fades and disappears, often when the medicament is continued.

Bromoform, the vapour of *bromine,* the internal administration of *bromides, hemlock* and *cicutine* have also given rise to medicamentous roseolas of a type similar to the preceding. They disappear after suppression of the cause.

The *antitoxin serums* of diphtheria, tetanus, plague and antivenomous serum, etc., cause a rubeoliform erythema, which appears on the 12th or 13th day after injection. It preponderates on the face, neck and limbs, and is frequently urticarial and pruriginous (p. 534). All these erythemas are similar and are accompanied by variable general phenomena, which may in themselves be distressing:—polyarthralgia, vomiting and diarrhœa, anuria, albuminuria. They disappear in 48 hours without treatment and are never severe. The slowness of convalescence has been incorrectly attributed to them.

VACCINAL ROSEOLA.

This is essentially benign and appears from the 4th to the 11th day after vaccination, without fever. It lasts 3 to 5 days and disappears in 2 days. It has to be looked for to be noticed, as it causes no functional symptoms.

PITYRIASIS ROSEA OF GIBERT.

Two generalised dermatoses may be mistaken by novices for roseola; pityriasis rosea and lichen planus. Pityriasis rosea com-

mences by a large, solitary, trichophytoid lesion, situated on the trunk or the root of the limbs. After 3 to 5 weeks a rapid eruption of rose-violet, oval spots appears, at first the size of a pea, afterwards as large as a sixpence. When they have attained this size, their surface is iridescent, and their periphery marked by a pityroid collarette. This sudden eruption covers the trunk, the limbs and the neck, but avoids the face and usually the extremities. It lasts two months and then fades (p. 521).

LICHEN PLANUS OF ERASMUS WILSON.

The eruption of lichen planus should still less be mistaken for a roseola. It is composed of distinctly raised papules which may occur anywhere, but the eruption is slow, and even when florid, does not appear rapidly. The characteristic elements are in the form of an archipelago, with a large central element surrounded by small ones.

The papules have a lilac colour and are distinct and irregular; the larger ones being marked with a fine white reticulum. The eruption is pruriginous and develops slowly without general symptoms during several months with a period of increase, a stationary period, and a period of decrease.

There is nothing in this which resembles an exanthem or a roseola. One could hardly say this of a violet eruption developed on a clear lilac base covering the entire body; but the first question shews the slowness of evolution of the disease, and the first objective examination discovers the papules (p. 553).

SCARLATINA.

SCARLATINIFORM ERUPTIONS.

Scarlatina is the type of a series of dematological affections which are more or less scarlatiniform } Scarlatina . . . p. 585

Variola at its period of invasion may present divers eruptions, among which scarlatiniform rashes are most frequent . . . . . . } Scarlatiniform rash of variola p. 586

More properly dermatological is the recurrent desquamative erythema, the name of which indicates its chief characters . . . . . . } Scarlatiniform erythema . . . p. 587

And the more or less scarlatiniform erythemas caused by different intoxications . . . . . . } Toxic erythemas p. 588

The most important is that of mercurial intoxication, which presents the characters of scarlatiniform erythema very exactly . . . . . . } Hydrargyrism . p. 588

SCARLATINA.

Scarlatina is the prototype of a series of dermatological scarlatiniform erythemas. It is therefore illogical to describe the latter without the former.

Scarlatina is an acute, epidemic, contagious disease characterised by a special exanthem and angina. The incubation may be from 7 hours to 5 days. The invasion is rapid. The onset of scarlatina is always sudden and accompanied by malaise, pain and rigors, with a temperature of 102° to 104° F. Sometimes there is vomiting and always dysphagia on account of the angina, which is seldom absent. The angina consists in total pharyngitis; the throat is scarlet; the tonsils are very red and often affected with follicular tonsillitis; the soft palate is stippled with red. The sub-maxillary glands are enlarged.

The eruption begins in the folds, the head being little affected, or not at all. It consists in a scarlet red erythema, finely punctated with violet red points. The eruption may be more or less prurigi-nous; it may be total or discrete. From the 3rd to the 5th day the tongue desquamates from the tip towards the root, and becomes shiny, bright red, and covered with red projecting papules. The

temperature may remain high for several days, with a rapid and full pulse, and continued general symptoms. After 5 to 7 days' gradual defervescence occurs, and the eruption fades little by little.

Ten days after the eruption, desquamation begins in the folds of flexion. The horny epidermis becomes dry, hard and wrinkled and is detached as floury powder in the hairy regions; as scales in regions where the skin is thin; as flakes on the hands and feet. The nails are never shed. Desquamation terminates on the 30th or 40th day.

I shall only mention by the way the atypical scarlatinas; without exanthem, hypertoxic and malignant, apyretic, hyperpyrexial, ataxo-adynamic, hæmorrhagic and recurrent.

The angina at first is rarely diphtheritic, but may be so, and in doubtful cases sero-therapy should be tried. The chief complications of scarlatina affect the serous membranes; pericarditis, endocarditis, pleurisy and rheumatism. It is often complicated by late diphtheritic angina and nephritis (streptococcic) with benign or severe albuminuria.

Treatment is not specific but symptomatic. The mouth and throat should be disinfected with oxygenated water. The skin should be covered with an inert fatty ointment to prevent dispersion of the squames, which are the cause of contagion. The disease is less contagious than measles, but the patient remains contagious during the whole disease and possibly during convalescence. Scarlatina confers absolute immunity for life.

SCARLATINIFORM RASH.

During the period of incubation of variola, which may be 2 to 4 days, there often appears an outbreak of variable objective symptoms, sometimes roseolar, sometimes scarlatiniform, or even purpuric (hæmorrhagic or black smallpox). This premonitory eruption occurs especially in the flexures of the joints, but may invade the whole surface of the body. Sometimes the variolous eruption occurs at intervals during the presence of this rash. The rash is generally incomplete and disappears quickly.

The diagnosis is made by the subjective and general symptoms being out of proportion to the eruption. The temperature may be

above 104° F. and the patient suffers from intolerable pains in the back and headache; thirst, anorexia, rigors, etc.

The diagnosis is confirmed by the appearance of umbilicated vesicles on the forehead and face.

RECURRENT DESQUAMATIVE SCARLATINIFORM ERYTHEMA.

Recurrent scarlatiniform erythema, in its normal type, is a scarlatina without angina. It begins with rigors and elevation of the temperature (100° to 104° F., rapid pulse, shallow respiration, pain in the back, headache and insomnia. The eruption is rapid, and may be developed in a few hours, or not for three days. It begins, either by numerous macules which enlarge, or in large patches which become confluent. These appear on the chest, shoulders, arms and inner surface of the thighs. Some regions, sometimes the head, are exempt. The red colour disappears under pressure by a glass slide and the skin appears yellow.

Desquamation commences 3 or 4 days after the eruption or before its disappearance (*Besnier*). It is dry and very abundant, and is complete in 3 weeks. The bed contains handfuls of lamellar squames; branny or furfuraceous from the hairy regions, and in large patches from the palms and soles. Like all the red and exfoliating dermatites the desquamation is accompanied from the first by a perpetual sensation of cold.

A number of visceral infectious manifestations have been reported in the course of scarlatiniform erythema, from its commencement to its decline; endocarditis, pericarditis, sub-acute polyarthritis, transient or permanent albuminuria, suppurative otitis, herpes, etc.

The nails are marked with a deep transverse furrow. The hair falls immediately when the erythema occurs on the scalp, 80 days later in the contrary case.

This disease is very rare, and is recurrent. The recurrences are usually less severe than the first attack and diminish gradually in severity. They may occur after months or years, irregularly, and eventually die out.

Recurrent scarlatiniform erythema has been confounded with acute erythematous hydrargyrism. They are similar eruptions, but of essentially different causes. The cause of scarlatiniform erythema

appears to be infectious, but remains hypothetical. All treatment is symptomatic. However, the action of collargol (soluble silver) should be tried, as in all acute septicæmias, but without anticipating too successful results.

TOXIC SCARLATINIFORM ERYTHEMA.

Many medicaments may determine extensive scarlatiniform erythemas. For instance, *digitalis* and its derivatives may provoke an erythema followed by desquamation in large horny epidermic patches, and even loss of the hair and nails. Also *ipecacuanha, emetine, quinine, morphine* and *daturine*. The *antitoxic serums* may also cause transient scarlatiniform erythema with general symptoms (p.). But the best type is furnished by hydrargyrism, in mercurial poisoning.

Certain subjects cannot absorb any preparation of mercury in any form, either under the skin, or by the intestine, or even by cutaneous application, without more or less cutaneous reaction, which is always out of proportion to the dose of the medicament which provokes it. Other subjects only suffer from these phenomena with certain mercurial preparations. These scarlatiniform mercurial erythemas may not be accompanied by any mercurial stomatitis. They result, not from total intoxication of the subject, but from cutaneous intoxication.

Mercurial scarlatiniform erythema may be benign, moderate or severe. It may end fatally if its cause is not recognised. Every acute scarlatiniform erythema, even recurrent, and every exfoliating erythrodermia, even chronic, should suggest cutaneous hydrargyrism. The symptomatology of acute cutaneous hydrargyrism is so similar to that of recurrent scarlatiniform erythema that certain authors doubt the existence of the latter.

Treatment consists in immediate suppression of the cause, which is often only discovered after careful enquiry.

ERYSIPELAS AND ERYTHRODERMIA.

Erysipelas is still a morbid type with which many dermatological lesions, erythrodermias, are daily compared. We shall commence with a résumé of its symptoms . . . . . . } Erysipelas . . . p. 589

After this we shall consider the chronic, generalised, exfoliating erythrodermias, distinguishing among the clinical types so named, the only ones which present a true clinical autonomy . . . . . } Generalised exfoliating erythrodermias . . p. 590

ERYSIPELAS.

Erysipelas may occur in all regions. We have already described three different types: erysipelas of the face, umbilical erysipelas of the newly born and vaccinal erysipelas.

It is always accompanied by general phenomena; rigors, nausea, and sudden elevation of the temperature. In a few hours the objective symptoms appear around the point of inoculation; a red patch, hot, tense, swollen and painful, and limited by a characteristic raised margin.

Erysipelas may be limited from the first, or progressive, or ambulatory. In the latter case it recedes at one point, while extending at another. The fever is continuous, with evening rises. There may be pain in the back, headache, and in the adult even delirium. Between the 5th and 11th day the temperature falls almost suddenly and the affection is cured.

Contrary to the old clinical dogma, erysipelas may suppurate, and be complicated with gangrene (spontaneous gangrene p. 428). All the complications of infectious diseases may be observed during its course and decline, but they are rare. Recurrent erysipelas is not uncommon, especially on the face, and at other places around chronically open lesions (Elephantiasis nostras, p. 306). The prognosis is generally benign in the adult, but grave in the newly born.

Antistreptococcal serum has only given doubtful results and is practically little used. Treatment is symptomatic, with moist dressings locally.

Erysipelas has often been compared to the chief red dermatites, which many authors regard as chronic infectious dermatites of analogous pathology. But this comparison is hypothetical, and it is for experimental research to determine the nature of erythrodermias, as it has determined that of erysipelas.

CHRONIC GENERALISED EXFOLIATING ERYTHRODERMIAS (PITYRIASIS RUBRA OF HEBRA).

(1) Certain diseases, such as *pityriasis rubra pilaris, mycosis fungoides* and *pernicious lymphodermia* of *Kaposi,* may begin by a phase of erythrodermia; but this is simply a variety of onset of these different diseases, and has nothing in common with the generalised exfoliating erythrodermia of which I am speaking.

(2) Similar erythrodermic crises may arise in the course of lichen planus, eczema, psoriasis with fatty squames, pityriasis rubra pilaris, etc. These crises sometimes appear under the influence of external applications (traumatic eruptions), or of external medication (mercury and arsenic); but it is possible that a true generalised exfoliating erythrodermia may complicate these divers processes as an episode (*Besnier*).

(3) This view is more tenable, especially as certain dermatoses, such as those which we have just named, may terminate by a secondary, but authentic, generalised exfoliating erythrodermia.

(4) Lastly, there exists a generalised primary exfoliative erythrodermia, of slow evolution and always grave, often fatal; characterised objectively by intense redness of the skin over the whole body, accompanied by continual lamellar exfoliation of the epidermis, profound changes, and falling of the hair and nails. This generalised dermatitis is accompanied by general symptoms; fever of the hectic type, perpetual sensation of cold and thirst, and progressive weakness, ending in cachexia and marasmus, or terminating by some intercurrent affection.

At other times, after 8 to 12 months, under the influence of well applied treatment, the general condition may gradually improve, and the patient may recover almost perfect health, or return to the condition of eczema or simple psoriasis which preceded the disease.

Fig. 214. Pityriasis rubra of Hebra.
(Radcliffe Crocker's patient. Atlas of Diseases of the Skin.)

The cause and mechanism of this affection are unknown. It has been classed hypothetically as an infectious disease of the skin and compared to chronic erysipelas.[1]

In spite of certain differences in symptomatology and evolution, I think that this dermatological type is the same as that known in Germany under the name of *pityriasis rubra of Hebra,* which may itself be primary or secondary to eczema and psoriasis (especially with fatty squames) and evolve after several months either towards cure or death.

Local treatment should be as careful as possible. Applications of fresh oil of almonds, linimentum calcis, zinc creams, etc., are the best tolerated. In my opinion the treatment rests entirely in *super-alimentation.* Every patient who can be made to gain weight will be cured in a few months; but this super-alimentation must be progressive and continuous. It should be carried out in the same way as in curable tuberculosis. The articles of choice are eggs, milk, starchy foods, fats and sugars; but any diet is good so long as the patient desires it or tolerates it. I cannot say more than this, for no one has treated enough of these cases to conclude definitely concerning their therapeutics, and this remains the whole treatment which is useful in generalised exfoliating erythrodermias. It may not be always possible, but it is surprising to see in how many cases it succeeds.

[1] Certain symptoms of generalised exfoliating erythrodermias are most interesting from the point of view of physiology. I wish to point out especially that a patient being in bed and covered with bed-clothes, the latter (especially if the temperature of the room is low) become covered with a fine spray, the droplets of which are suspended on each hair of the fabric; and this spray corresponds exactly to the body of the patient. This phenomenon explains two constant symptons of the disease; the *thirst,* by the great loss of water exhaled through the diseased horny epidermis, the functions of which are suspended; and the *cold* by loss of heat caused by perpetual evaporation.

PURPURAS.

PURPURIC ERUPTIONS.

Purpura has two objective symptoms, the purpuric macule or petechia which does not disappear under glass-pressure, because it corresponds to an effusion of blood by vascular rupture; and the contusiform spot or ecchymosis.

Hæmophilia is consanguineous and hereditary and may shew these two symptoms in a chronic state, the purpuric macule and ecchymosis . . . — Hæmophilia . . p. 593

Toxic purpuras, ab ingestis, are very rare and only present the petechia and not the ecchymosis — Toxic purpuras . p. 594

The rashes of eruptive fevers are purpuriform rather than purpuric, but may present true purpuric macules . . . . . . — Purpuric rash . . p. 594

I shall mention in this chapter the characters which constitute the fatal hæmorrhagic form of the different eruptive fevers . . . . . . — Purpuric exanthematous fevers . . . . . p. 594

. . . and the purpuric appearance assumed by the skin when malignant pustule gives rise to fatal septicæmia . . . . . . — Charbon . . . . p. 595

The true purpuras may be described under three forms. The first is benign rheumatic purpura . . — Rheumatic purpura . . . . . p. 596

The second is Werlhoff's disease with profuse hæmorrhages and numerous ecchymoses . . . . . — Werlhoff's disease . . . . . p. 596

The third is acute febriie purpura, which may have different degrees of acuteness and even terminate in death . . . . . . — Acute febrile purpura . . . p. 597

Besides the acute purpuras there are chronic purpuras, the evolution and recurrences of which are connected with divers organic disorders, and present the prognosis of the affection of the heart, liver, kidney, etc., on which they depend. . . . . — Chronic purpuras of decay and cachexia . . . p. 598

HAEMOPHILIA.

By the name hæmophilia is designated a rare hereditary and consanguineous tendency to fragility of the blood vessels, and spontaneous hæmorrhages which are arrested with difficulty. In these conditions every wound is serious, even the extraction of a tooth

may cause hæmorrhage which is difficult to stop. Every injury to the skin causes a sub-cutaneous hæmorrhage and the body seems always to have been beaten with blows. This condition is beyond the resources of therapeutics.

TOXIC PURPURAS.

In certain subjects the balsams, antipyrine, quinine and the iodides, which may cause rubeoliform and scarlatiniform eruptions, may also determine true purpuric spots, not effaced by glass-pressure. This fact is rare, but should be known. Erythema occurring on the 12th day after sero-therapy may be accompanied by characteristic purpuric patches. All these purpuras are benign and disappear in a few days after the suppression of the cause.

PURPURIC RASHES.

The rashes of eruptive fevers are generally scarlatiniform erythemas, and it is exceptional to see them purpuric. However, purpuric spots may be disseminated on the surface of a generalised erythema. This appearance becomes serious when the eruption is accompanied by high temperature (vide the next article).

PURPURIC EXANTHEMATOUS FEVERS.

There is a hæmorrhagic form in all the eruptive fevers; measles, scarlatina, variola. Sporadic cases are rare. Cases are usually fairly numerous in the course of a severe epidemic. Whatever the fever concerned (generally scarlatina or variola), the patient is purple from head to foot; the general condition is most grave, ataxo-adynamic or comatose, and the temperature nearly 106° F. The eruption has been sudden, but no information can be obtained from the patient. By searching on the forehead, temples and lips, a simple, typical, umbilicated pustule of variola may be found. The diagnosis of hæmorrhagic variola is then established. This diagnosis being a sentence of death, no means of confirming it should be neglected; by the temperature and corroborative evidence, especially when no eruptive element is still present to absolutely certify the nature of the disease.

MALIGNANT PUSTULE OR CHARBON.

When malignant pustule (p. 347) pursues a fatal course, the disease presents an assemblage of symptoms similar to the preceding. If the pustule is situated on the face, cheek or eyelid, these regions are covered with yellow fluent sloughs; the head is enormously swollen and blackish purple. The skin presents here and there soft, reddish phlyctenules, and fresh ulcerations arise under each of them. The half of the body corresponding to the situation of the initial puncture (in the case which I am describing, the upper half of the body) is of the same blackish purple as the head. This purple œdema stops at the level of an œdematous swelling, which seems tightened with string. The skin underneath is healthy and appears normal. The swelling advances hourly, diminishing the remaining healthy surface. The temperature is over 106° F. The patient becomes comatose and death follows about 3 days after the appearance of the first grave general symptoms.

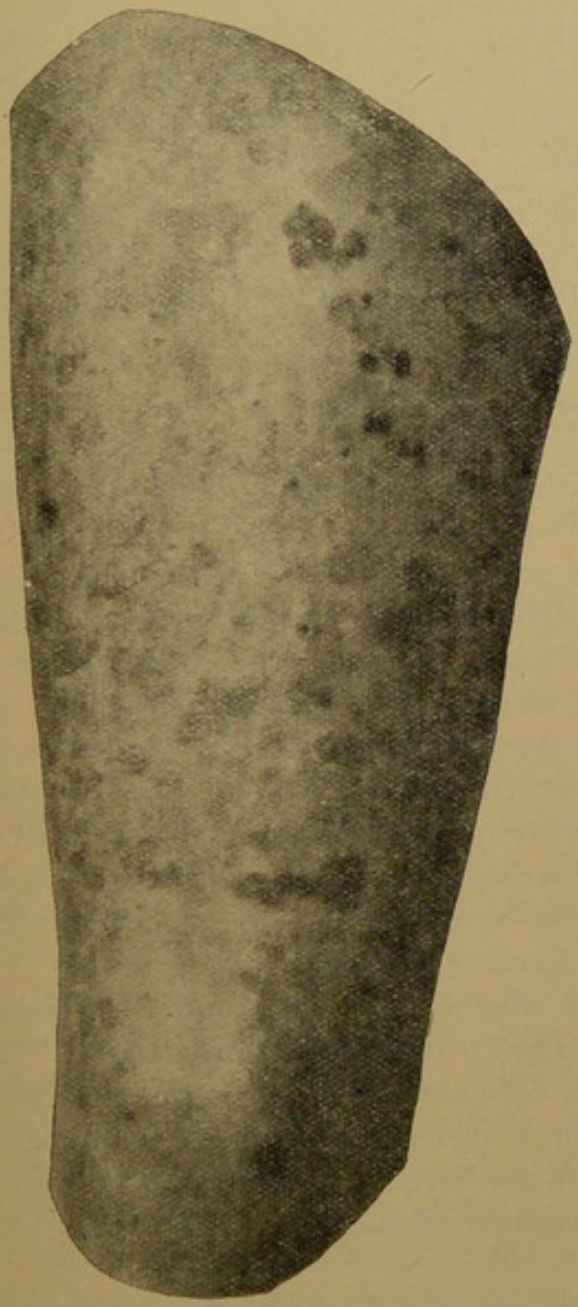


Fig. 215. Purpura of the thigh. Laillier's patient. St. Louis Hosp. Museum. No. 1068.)

RHEUMATIC PURPURA.

Several days after an apparently slight infection accompanied by angina and pains in the back and joints, there appears on the body, but especially on the limbs, a series of purpuric macules which are not effaced by glass-pressure. These spots last for 5 to 15 days and generally disappear without leaving any trace. Sometimes there are relapses and new spots appear. This condition may be prolonged for several weeks. The heart, liver and kidneys should be examined, and the urine, to eliminate the hypothesis of purpuras characterising an organic disease.

Hot drinks and milk with Vichy water may be given. The throat should be examined, and the urine for albumen and sugar, as long as the eruption remains. Purpura always requires a guarded prognosis; but in this case it is benign.

WERLHOFF'S DISEASE.

This is an acute purpura with severe characters, which is seldom seen except between the ages of 5 and 15 years. It begins with uncontrollable bleeding of the nose, generally at night. The body is covered with ecchymoses. The conjunctivæ, the mucous membrane of the mouth, the bed of the nails, and all the visible surfaces are riddled with hæmorrhagic points. The temperature is 101° to 102° F., and the pulse rapid; there is intense thirst, breathlessness and distress. The hæmorrhages may cause one to fear syncope and even be fatal. In the majority of cases, however, this syndrome terminates by cure; the hæmorrhage ceases and is not renewed. From day to day the ecchymoses disappear and the general health of the child improves. Convalescence is rapid and complete.

The cause of this disease, or whether it is a toxæmia, toxinæmia or septicæmia, is unknown. The treatment is symptomatic. The nasal fossæ should be plugged, with care not to cause an accidental erosion. The effect of ergotine is doubtful. Solution of adrenalin (1 in 1000) may be applied to the bleeding points, and serves to gain time. The following mixture should be taken during 24 hours:—

Chloride of Calcium	4 to 6 grammes	60 to 90 grains
Rum	30 grammes	ʒj
Distilled water	40 grammes	ʒi ¼
Syrup of bitter oranges . . .	50 grammes	ʒi ½

During convalescence a substantial and strengthening diet is indicated, combined with sea air, etc.

ACUTE FEBRILE PURPURA.

In the course of pleurisy, pneumonia or acute articular rheumatism a purpuric eruption may arise, apparently allied to septicæmia, and may have all degrees of severity. Like all purpuras, this eruption is more marked on the limbs and lower half of the body. The purpuric spots may be confluent. The general condition indicates the gravity of the prognosis, which may be relatively good, mediocre or bad. The septicæmia is the thing to be feared, the purpura only giving evidence of it. The older treatment was symptomatic but at the present time the injection of colloidal silver into the veins should be tried, as it appears to have no danger.

Colloidal silver	5 to 10 centigrammes
Distilled water	5 to 10 grammes

CHRONIC PURPURA OF ORGANIC DECAY.

Many overworked subjects, after the age of 45 or 50, suffer from recurrent purpura of the legs and thighs. These attacks may be accompanied by a certain degree of general malaise, sometimes simply heaviness of the lower limbs. Subinvolutive crops of fresh purpuric macules, some yellowish purple, others yellow in course of disappearance, are often seen. Sometimes there is local varix and some œdema.

The eruptions are of doubtful prognosis, for they are nearly always seen when the general health is already affected. Sometimes there is cardio-renal disease with dyspnœa, palpitation, "bruit de galop," albuminuria and malleolar œdema. Such cases may have uræmic attacks one or two years later.

At other times there is diabetes which, apart from the purpura, causes a yellow dermatitis of the legs, with a tendency to ascend (p. 300). Or there may be diabetes insipidus with polyuria, the urine being non-toxic for animals, which indicates retention of excreta by the liver or kidney. Lastly, purpura is sometimes seen in cachexia due to cancer, tuberculosis or any other cause.

In these cases purpura is only the demonstration of a state of intoxication of internal origin. The treatment does not come within the domain of dermatology and varies much according to the different conditions of which it is symptomatic.

VARIOLA. VARIOLOID. VARICELLA.

VARIOLA.

Variola is an eruptive, specific, contagious fever; inoculable and epidemic. Its incubative period is from 10 to 12 days. Its invasion is marked by grave general symptoms; intense fever, severe rigors, great pain in the back, anxiety, nausea, vomiting, agitation or prostration. There are, however, benign forms of which the onset is less severe. After 2 or 3 days of increasing symptoms, the temperature remaining at 104° F., or higher, rubeoliform and scarlatiniform rashes appear in the natural folds, on the abdomen and chest; and, in hæmorrhagic variola, purpura. The shorter the period of invasion the more severe the variola and inversely.

The eruption may be discrete, coherent or confluent. Each element commences as a papule which becomes a vesicle, and then a pustule. But this succession of changes, except the last, is seldom observed. What are seen are umbilicated vesico-pustules, circled with red areola, varying in size and number, and sometimes fused together.

The eruption predominates on the face, which is red, swollen and pustular and may become repulsive. The eruption exists on all the mucous membranes; hence, dysphagia, dyspnœa and suppurative conjunctivitis. The temperature falls the day before the eruption, then returns and increases with it. It may reach 104° or 106° F. Towards the 12th day the desiccation of the pustules commences. Those which are not open become crusted, and the crusts are detached and form again with diminished size. This period lasts for 3 or 4 weeks.

I shall only mention, by the way, the complications of variola; furuncle, abscess, gangrene, blindness from panopthalmitis, or corneal cicatrices, otitis and deafness, necrosis of the cartilages of the larynx, broncho-pneumonia, purulent pleurisy, pulmonary gangrene, endocarditis, pericarditis, myocarditis, phlegmasia, orchitis and suppurative parotitis, etc. All these may occur.

The contagion is conveyed by the scabs and may occur at any period of the disease, especially at the time of desiccation. In countries where vaccination is unknown or badly practised (Cochin-China) an epidemic may kill four-fifths of the population of a con-

taminated village. (*Jeanselme*). Variola in pregnant women kills the fœtus, even at term, in three or four-fifths of the cases. The treatment of variola is symptomatic. Isolation of the patient is necessary and permanent antisepsis of the skin and mucous membranes. All the persons in the patient's house should be revaccinated, although it may be too late and evolve with the variola. (See Vaccination (p. 281.)

Varioloid is only attenuated variola in the form of a benign eruptive fever. In people who have been vaccinated it is reduced to a few pustules, and lasts for 8 or 10 days. The objective symptoms of the elementary lesion, however, remain typical.

VARICELLA.

Varicella is a contagious and specific eruptive fever, distinct from any other. It has been wrongly compared to variola. Its anatomical lesions are quite peculiar; consisting in multinuclear epidermic cells occurring free in the vesicle or under it. This character confirms its specific nature.

The incubation is 14 days, and the period of invasion lasts a day or two, with a temperature of 101° F., and very few functional or general symptoms. The eruption is generally discrete, and composed of 40 or 50 elementary lesions irregularly scattered over the body. These elements consist in soft bullæ of various sizes, filled with yellow fluid, the size of a small cherry stone, rounded but irregular, and apparently constricted by internal bands, and often conglomerated in twos and threes. Each bulla has a thin circumferential zone of erythema. The eruption is pruriginous and the bullæ are converted by scratching into erosions resembling impetiginous lesions. The eruption proceeds by subinvolutive crops, some elements undergoing resolution while new ones appear. Vesiculation may occur on the mucous membrane of the mouth, pharynx, conjunctiva and nostrils; but this is not constant.

The phase of desiccation is rather slow and the crusts are often destroyed by scratching. On the scalp, where they are frequent, they look like the remains of an eruption of impetigo of *Bockhart* (p. 183). A cicatrix may be produced in the situation of some elements, by the depth of the vesicle, secondary suppuration and

The benignity of varicella is practically constant; and grave complications mentioned in the text books are very little to be feared. There is no treatment required except low diet and rest in bed during the fever, and local antipruriginous applications.

SYNDROMES WITH BULLOUS LESIONS.

In this chapter I have united the clinical picture of the different diseases or syndromes which are accompanied normally or incidentally with bullous lesions. For the most part these affections have nothing in common but their objective resemblance.

Bullous urticaria is a rarity which has been studied elsewhere . . . . . } Bullous urticaria p. 535

Certain authors have described acute benign pemphigus, which is only streptococcic impetigo . . . } Acute benign epidemic pemphigus . . . . . p. 603

After these I shall review the most common traumatic or medicamentous bullous eruptions . . . . } Medicamentous bullous eruptions . . . . . p. 603

There are polymorphous erythemas, accompanied or not by erythema nodosa, the lesions of which are vesicular or bullous . . . . . } Polymorphous bullous erythema . . . . . p. 604

In contrast with benign bullous polymorphous erythema, may be placed acute infectious pemphigus, which is nearly always fatal . . . . . } Acute infectious pemphigus . . p. 604

. . . and severe infectious erythema nodosum } Erythema nodosum . . . . . p. 605

After this I shall consider the painful polymorphous dermatitis (Duhring-Brocq) . . . . . } Polymorphous dermatitis . . p. 605

Lastly I shall say a few words on the pemphigus vegetans of Neumann, with buccal and ano-genital localisation and usually fatal termination . . . . } Pemphigus vegetans . . . . . p. 609

. . . On the pemphigus foliaceus of Cazenave, with flat bullæ developing on chronic erythrodermia } Pemphigus foliaceus . . . . . p. 610

Lastly I shall mention benign traumatic pemphigus, which is generally consanguineous and hereditary . . . . . } Traumatic pemphigus . . . . p. 610

. . . and the benign pemphigus of hysteria . . } Hysterical pemphigus . . . . p. 610

GROUP OF DERMATOSES WITH BULLOUS LESIONS.

This group is very artificial and constituted by diseases of different nature and evolution. This reunion must only be regarded as a symptomatic grouping, from which the clinician must form his diagnosis and treatment.

ACUTE BENIGN PEMPHIGUS OF THE NEWLY BORN. ACUTE EPIDEMIC PEMPHIGUS OF ADULTS.

These names have been incorrectly given to true impetigo (see p. 573): phlyctenular or bullous streptococcic epidermatitis in its florid forms. Impetigo has been described in its usual situation with the lesions of the face. In this article (p. 7) will be found indications of the different paragraphs concerning the same affection in its different localisations, and its treatment. The name of pemphigus given to these cases is an important error in nosography, as we shall see later on (p. 604).

BULLOUS MEDICAMENTOUS ERUPTIONS.

Eruptions of toxic origin are nearly all polymorphous. Thus medicaments, the toxic eruptions of which are generally erythematous, acneiform or vegetating, sometimes cause a characteristic bullous eruption. With this reserve the two drugs which most often cause bullous eruptions are antipyrine and iodide of potassium.

Antipyrine gives rise to rashes resembling those of polymorphous erythema. These lesions, instead of especially affecting the ankles, wrists and neck, as in polymorphous erythema, may occur scattered over the body, without regional localisation, and these rashes may become phlyctenular and bullous, as in erythema multiforme.

Iodide of potassium causes erythema, vesicles, phlyctenules, bullæ, patches of cutaneous sphacelation, vegetating lesions, etc., which may assume a remarkable and most severe aspect. Nothing enables us to foretell the cases in which these drugs, which are usually well tolerated, will produce such accidents. The treatment consists in cessation of the cause, rupture of the bullæ, moist dressings and sub-carbonate of iron ointment (1 in 40).

BULLOUS ERUPTIONS FROM ALIMENTARY INTOXICATION.

These are rare, but may occur after ingestion of all tainted foods: game, pork, preserves, mussels and shellfish. Most commonly these eruptions are erythematous and urticarial, and we have studied them

previously. The treatment is the same as for the more common types (p. 534).

SIMULATED BULLOUS LESIONS.

For Hysterical Pemphigus see page 610.

BENIGN BULLOUS ERYTHEMA MULTIFORME.

Erythema multiforme, the different regional localisations of which we have studied in their proper places, consists usually of erythematous, circular lesions in the form of a rosette. But the more marked the lesion the greater the tendency of the lesions to become phlyctenular or bullous. In certain cases each patch is replaced by a soft bulla. Even in these cases the polymorphous erythema preserves its essential characters, its localisations on the neck and extremities, and among the bullous lesions a few circinate erythematous patches may be found which confirm the diagnosis.

The causes of bullous erythema multiforme are no better known than those of the usual form. The treatment is palliative and the lesions have a tendency to rapid spontaneous cure.

Benign Erythema Nodosum. Erythema nodosum is a form of erythema multiforme. These red, benign nodosities, sensitive to touch and pressure, disseminated on the lower limbs, generally accompany an evident erythema multiforme. Treatment by rest and sedatives is sufficient to dispel these lesions. The pathogeny of the lesions is only hypothetical (p. 299).

ACUTE INFECTIOUS PEMPHIGUS.

This is a rare and not well understood disease, occurring in persons who are exposed by their occupation to handle tainted meat and bones: butchers, knackers, tripers and cooks. The patient is nearly always pricked in some point, but no local signs are produced at this point except a diffuse painful redness. After one, two or three days an infectious state develops, which increases every hour and is accompanied by rigors, hyperpyrexia, delirium, insomnia and pains in the back and head. An eruption of yellow bullæ then appears, which are more or less discrete or abundant, of different sizes, and

circled with red; these may rupture or pass on to suppuration: other bullæ arise in repeated sub-involutive crops. The temperature may reach 106° F.; coma supervenes, and death generally occurs in 5 to 15 days. A cure is exceptional, but may be produced by gradual amendment of the objective and general phenomena.

The bacteriology of this affection remains to be studied. The treatment is entirely symptomatic, but intra-venous injections of collargol should be tried without delay.

Severe infectious erythema nodosum. In 1892 I observed with *Orillard* a case which, up to the present time, remains unique. A cook was supposed to be stung on the thumb by a fly. Lymphangitic œdema followed with progressive general phenomena. Then on different parts of the body, but chiefly on the affected arm, appeared a number of red, painful nodosities, about the size of a nut. There were no bullous lesions.

The general symptoms became grave; hyperpyrexia, prostration, coma and death 2 days after admission to hospital. The autopsy shewed that each swelling was centred by an enormously dilated and thrombosed vein. The thrombosis was constituted by a compact colony of streptococci.

PAINFUL POLYMORPHOUS DERMATITIS. DERMATITIS HERPETIFORMIS OF DUHRING.

Under these two names is designated a dermatosis of unknown cause, generally chronic, lasting for months or years, paroxysmal and characterised by erythematous, papular, urticarial, vesicular, bullous or pustular eruptions. The lesions may be agminated in groups and circles or may be disseminated. It occurs in acute or sub-acute forms, in chronic forms with successive crops and in connection with pregnancy (herpes gestationis).

(1) The acute forms seem to be the first attack of a painful polymorphous dermatitis which becomes arrested and disappears. They consist, like the chronic form, in a polymorphous eruption, accompanied by functional phenomena of marked pruritus and smarting, without general symptoms. But in this form the lesions develop abruptly and end in cure.

These eruptions, preceded or accompanied by painful symptoms, commence on the wrists and dorsal surface of the hands and on the limbs, generally in the form of urticarial patches which soon become

transformed, the eruption being always polymorphous; at the same time urticarial and vesiculo-bullous, etc. The disease, even when limited to a single attack, always occurs in successive crops, of which the first are usually the most severe, and of which the elements may differ in the different crops as much or more than they differ between themselves in the same crop.

(2) The chronic forms, in successive crops, also begin with painful phenomena accompanying or preceding the lesions. The latter are erythematous at first, vesiculo-bullous or even pustular and generally commence on the limbs, especially the fore-arms. The

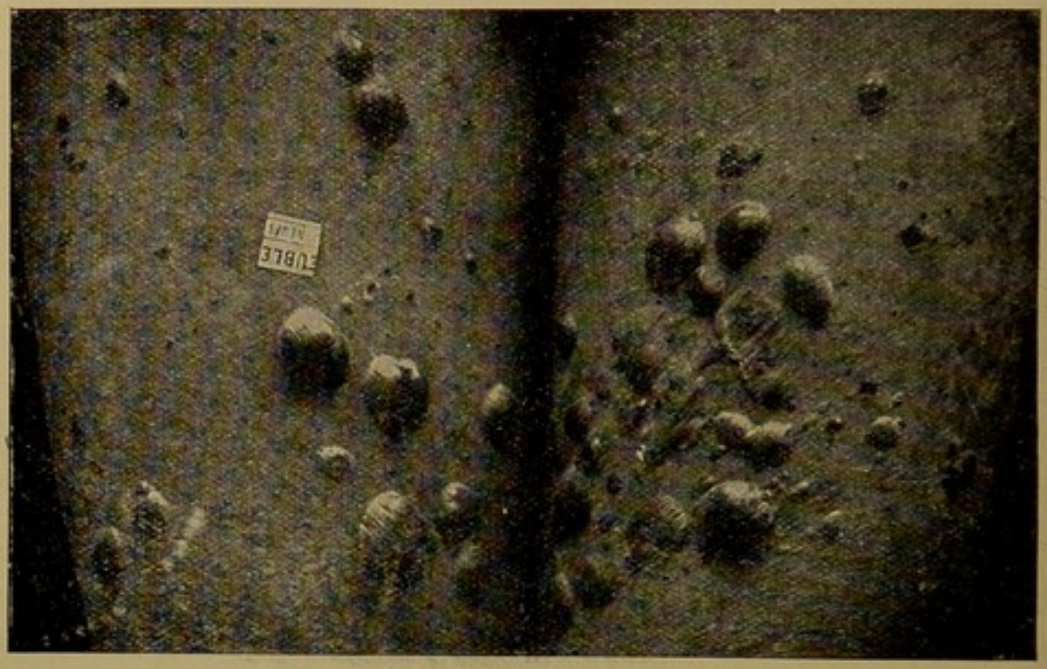


Fig. 216. Bullous form of painful polymorphous dermatitis. Chronic pemphigus of most authors. Brocq's patient. Photo by Sottas.

successive crops increase in number and may cover the whole body; the limbs generally present the most numerous lesions; the palms of the hands, soles of the feet and the face are relatively free. Circumscribed varieties of the disease occur which are limited to one or more regions; but this is exceptional. In both forms of the disease the polymorphism and the preservation of the general health are almost constant characteristics.

Lesions of the mucous membranes suggest that the old bullous hydroa, when it is recurrent and accompanied by lesions of the body, is only a form of painful polymorphous dermatitis. In

spite of the habitual polymorphism of the disease cases occur of which the objective type is almost systematised. For instance, the pure herpetiform variety (*Brocq*), the elementary topography of which is that of the elements of true herpes; and the circinate, pseudo-trichophytic variety, etc. The most remarkable character of the evolution of the disease is its paroxysmal course. It proceeds always by more or less severe and separate attacks, and each attack consists of distinct subinvolutive crops.

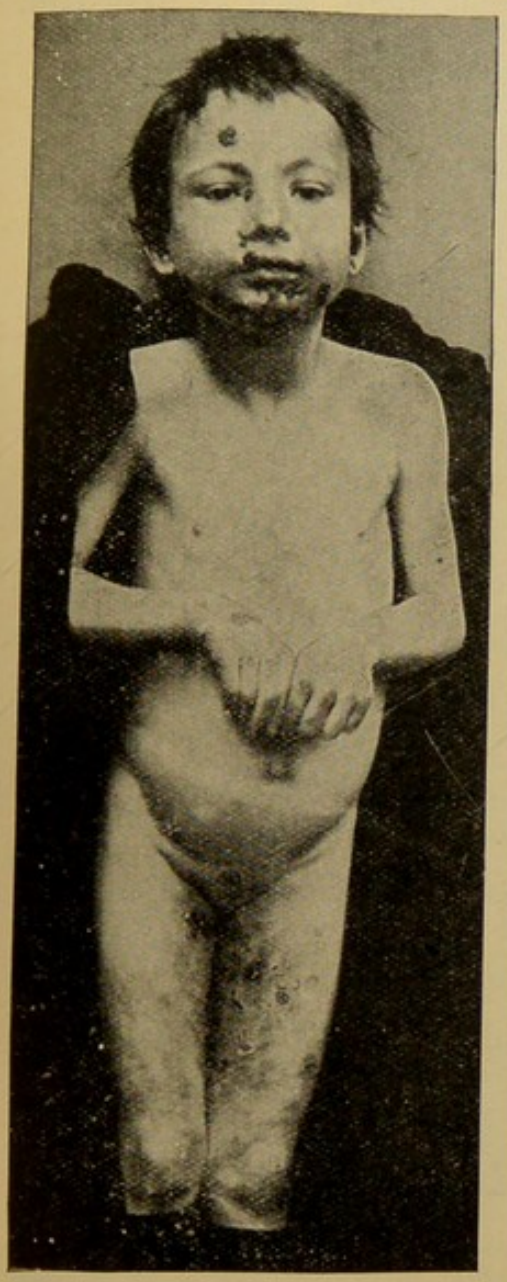


Fig. 217. Circumscribed form of painful polymorphous dermatitis. Brocq's patient. Photo by Sottas.

This disease may occur in childhood (*hydro pucrorum* of *Unna*).

It presents a maximum between 16 and 20 years, and a more marked maximum period from 47 to 62 years (*Brocq*). It occurs in both sexes.

The role of pregnancy as an accessory cause led to the separate description of *herpes gestationis* (*Milton*) as a special affection of pregnancy, before the history of polymorphous dermatitis in general was known. In the gravoid forms the eruption may begin at any period of pregnancy. It may increase or diminish with the course of pregnancy, persist till parturition, or continue afterwards.

All kinds of internal treatment have been prescribed for painful polymorphous dermatitis, but none give any appreciable results. Sedatives may be useful in alleviating the subjective phenomena when these are very pronounced.

External treatment is no more satisfactory than internal. Anti-pruriginous lotions, baths, moist dressings and ointments have all been recommended. The mildest applications, such as fresh lard,

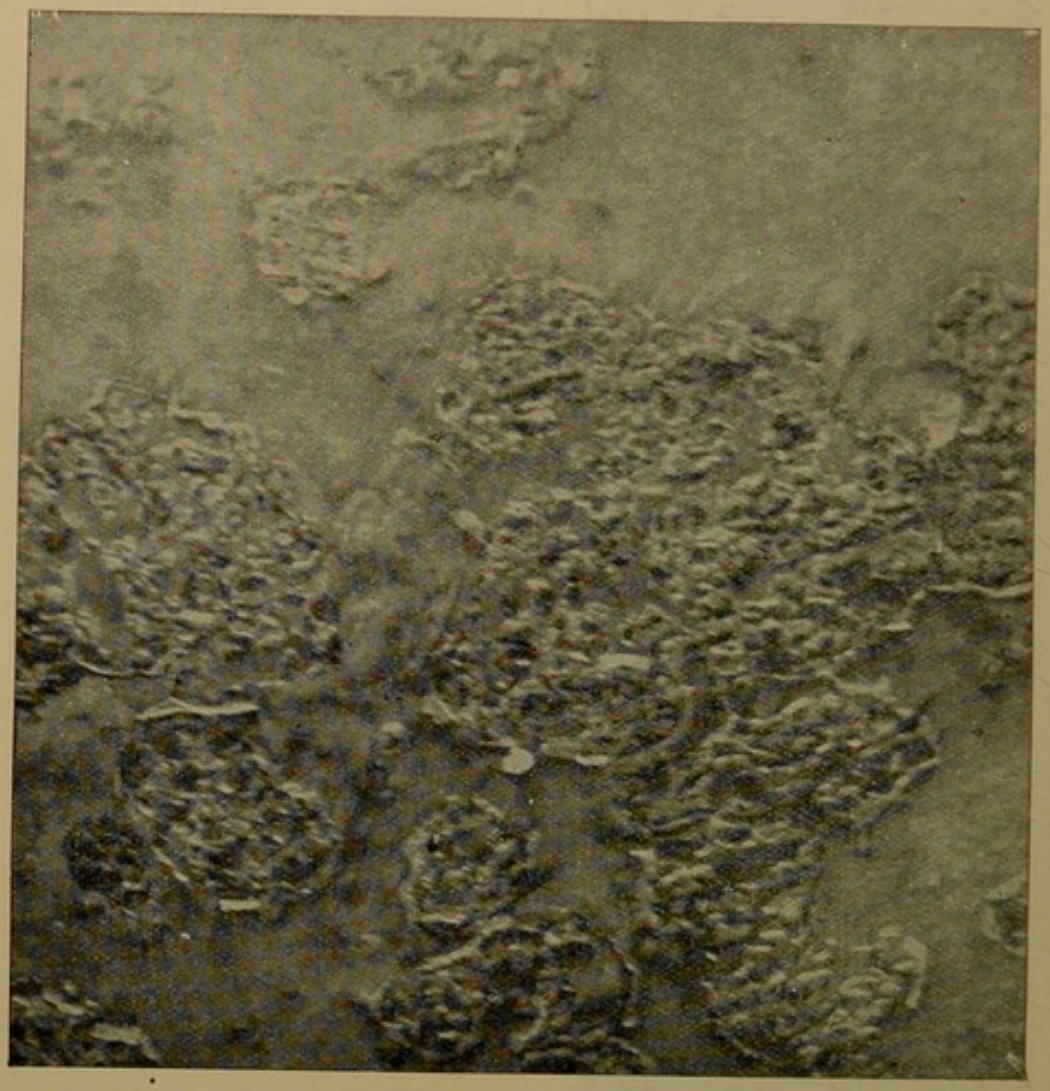


Fig. 218. Herpetiform variety of painful polymorphous dermatitis. (Brocq's patient. Photo by Sottas.)

linimentum calcis and cold cream are those which give most relief to the patient.

In severe cases the patient should be well dusted with powdered starch, or talc and oxide of zinc, without dressings. Fatal cases of polymorphous dermatitis have been reported, but nearly all cases are cured. However, their duration, which is reckoned by years, and their painful symptoms, render them a formidable disease.

PEMPHIGUS VEGETANS OF NEUMANN.

Fig. 219. Pemphigus foliaceus (Audry's patient).

This is a rare disease, of unknown origin, occurring at all ages and in both sexes. It commences by phlyctenules in the mouth and on the palate; bullæ also occur in the anal and inguino-genital regions, the axillæ, the folds of flexion, the interdigital spaces (especially on the foot) and around the nails. Each bullæ leaves a deep ulceration which soon becomes filled with exuberant granulations; the ulcers enlarge and coalesce, and others form around the first. They exhale a fœtid gangrenous odour and produce an ichorous discharge. Without exception none of the bullæ undergo resolution nor heal. The disease proceeds by successive outbreaks and the general health soon suffers, but there is no fever. Dysphagia increases the malnutrition, the patient soon becomes cachectic, and death occurs in 3 to 7 months.

This termination is the rule and no known treatment is of any value.

PEMPHIGUS FOLIACEUS.

This disease is rare and more common in women of middle or advanced age. Its cause is unknown. It begins by an eruption of bullæ, situated on the trunk more than on the limbs. A progressive exfoliating erythrodermia is quickly established, on which fresh crops of bullæ appear. The bullæ are seldom tense and round, but more often flabby and wrinkled. When the disease is mature, bullæ and squames are present all over the body and limbs; and on parts of the skin apparently healthy, the horny epidermis can be raised by the finger, being separated from the rest of the epidermis by diffuse infiltration.

General phenomena are slight, but a mild intermittent fever (100°-101°) lasting several months has been noted. The subjective phenomena consist in variable degrees of pruritus and pain. The evolution of the disease is slow, lasting for years and terminating almost invariably in death, from diarrhœa, broncho-pneumonia, or some intercurrent affection.

There is no known efficacious treatment, but the symptoms may be a little relieved by the local treatment recommended for painful polymorphous dermatitis (p. 607).

PEMPHIGUS CONSECUTIVE TO TRAUMATISM.

I shall only mention by the way this strange affection, which is usually consanguineous and hereditary. The affected subjects present bullæ at all points where continuous pressure or friction is exercised; even when moderate, after walking, etc. The phenomenon is produced by various causes during life, and is not accompanied by any general disorder.

HYSTERICAL PEMPHIGUS.

The name indicates the conditions under which this occurs. It resembles exactly the blisters produced by blistering fluids, and may even in some cases be produced by this cause. It occurs in recurrent attacks, generally in very neurotic subjects. It is compatible with perfect health in hysterical persons.

DYSCHROMIAS (MELANODERMIA-VITILIGO).

SCLERODERMIA.

This chapter describes the rare morbid conditions which we have not had occasion to study in the course of this volume, or rather it traces in a few lines the evolution of diseases with multiple localisations, of which each localisation has been studied in its proper place. It is thus a synopsis of the different dyscromias and sclerodermias, and in reading it the special subject on which further information is required may be referred to in the book.[1]

Albinism, pigmentary nævi, lentigo, ephelides, xeroderma pigmentosum, neurofibromatosis of Recklinghausen . . . . . Developmental dyschromias . p. 612

Addison's disease, tuberculous melanodermia, acanthosis nigricans, chloasma, pigmentary syphilide, leprous dyschromias, dyschromias of nervous diseases, vitiligo . . . . . Nervous dyschromias . . . p. 612

Dyschromias of lymphadenitis, of leucæmia, of mycosis fungoides, malarial cachexia, bronze diabetes . . . . . Hæmatic dyschromias . . . . . p. 613

Arsenical melanodermia, antipyrine, argyrism, saturnism . . . . . Toxic dyschromias . . . . . p. 614

Dyschromias caused by heat and revulsives, and parasitic traumatism (phtiriasic melanodermia); local melanodermia consecutive to eruptions . . . Local dyschromias . . . . . p. 614

We shall next study the sclerodermias of which four types may be described . . . . . Sclerodermias in general . . . . p. 615

There is a general, chronic, cutaneous progressive disease, which the name of sclerodermia describes perfectly . . . . . Sclerodermia . . p. 615

A morbid form, identical in course, duration and termination, commences on the hands: hence the name of sclerodactylia . . . . . Sclerodactylia . . p. 615

There is also a form of sclerodermia in patches called white morphœa of much less grave prognosis, with divers localisations . . . . . Morphœa . . . . p. 616

Lastly, an atrophic sclerosing process in long patches, which is very distinct from the preceding, in spite of its common name of morphœa in bands . . . . . Morphœa in bands . . . . . p. 617

[1] This chapter was inspired by the remarkable summary which J. Darier has given this subject in the Pratique dermatologique.

DEVELOPMENTAL DYSCHROMIAS.

Albinism consists in the absence of pigment from the malpighian layer; a form of degeneration which is usually accompanied by several others, such as semi-cretinism, deafness, etc.

Pigmentary Nævi and Lentigo are due to patches of localised hyperchromia. They are congenital lesions even when they grow after birth (p. 6). Pure pigmentary nævi are rare, they are generally more or less hairy or warty (p. 5). Lentigo may be the point of origin of melanotic nævo-carcinoma.

Ephilides or brown spots (p. 5), which are not congenital, are more marked in summer. In spite of these differences, they have a close relationship to nævi.

Xeroderma pigmentosum of *Kaposi* (p. 6) is composed of lenticular patches like ephelides, but unequal in colour and size. Between them there are atrophic cutaneous patches and telangiectases. I have already described the evolution of this rare hereditary affection, which is localised on the face and extremities (p. 341).

Neurofibromatosis of Recklinghausen. This rare affection presents, apart from the fibrous tumours by which it is accompanied, a symptomatic triad: (1) irregularly disseminated lenticular spots; (2) nummular or elongated spots with clear margins of café-au-lait colour and zonular distribution; (3) diffuse melanodermia. This disease is consanguineous and hereditary and often accompanied by deficient intellect.

NERVOUS DYSCHROMIAS.

Addison's disease is characterised by progressive asthenia, lumbar pains, digestive troubles and a dyschromic localisation on exposed regions.

Tuberculous Melanodermia appears to be an accidental copy of Addisonian melanodermia when tuberculosis has affected, with the peritoneum, the abdominal sympathetic, the suprarenal plexus or the suprarenal capsule.

Acanthosis nigricans has been studied on pages 42 and 247, with its pigmentation of the mouth and cutaneous folds, and cutaneous papillary hypertrophy. It is connected with malignant abdomi-

nal tumours and may have the same sympathetic origin as the two preceding diseases.

Chloasma, or uterine mask (p. 26), may be also hypothetically connected with an abdominal sympathetic origin.

Pigmentary Syphilide of the neck (p. 246) seems to be a protopathic pigmentary disorder, occurring without any previous macular or papular lesion. There is a syphilitic leuodermia, which is not exclusively localised to the neck and is constituted by white, slightly atrophic spots, consecutive to a pre-existing macular or papular eruption.

Leprous Dyschromias. In leprosy (p. 655) there occur:—(1) The erythematous spots of leprous roseola, which remain pigmented and visible long after the erythema has disappeared. (2) primary pigmentations, in placards or spots, which are common in the first stage of anæsthetic leprosy. (3) Dyschromic spots of all forms, which appear insidiously or by crops and invariably present superficial sensory disorders. (4) Old lepers have often a grey colour of the infiltrated skin; bronze œdema; (5) and white or black sclerous cicatrices of former tubercles or ulcers.

Darier also mentions dyschromias in many nervous diseases: hemiplegia, exopthalmic goitre, infantile paralysis, facial hemiatrophy, sclerodermia, etc.

Along with the nervous dyschromias should be placed the vitiligos.

Vitiligo (p. 27) is constituted by two elements, white achromic spots and a hyperchromic border. Its cause is unknown, although it has been observed after severe shocks and after infectious diseases. We have studied it on the face (p. 27); on the hands (p. 340; and on the inguino-scrotal region (p. 461), which are the seats of election. The symptoms are chiefly negative. It has no special functional symptom and is not accompanied by any perceptible general disorder. Its spontaneous cure, when this occurs, the extension of its patches and their displacement, are no more understood than their appearance. The connection of vitiligo with former syphilis or with hereditary syphilis, with alopecia areata (*Cazenave*), or with sclerodermia are not yet established.

Bronze colouration of the skin occurs in *leucæmia, lymphadenitis* and *mycosis fungoides.*

In *malarial cachexia* the skin is of an earthy colour, grey or yellowish brown. This is due to a melanodermia which deposits pigment under the epidermis in the corium.

In *bronze diabetes* there is a pigment of hæmatic origin which is deposited in the dermis.

Fig. 220. Vitiligo in a syphilitic. (Darier's patient.)

TOXIC DYSCHROMIAS.

Arsenical melanodermia. This may follow the absorption of small doses given only once, but is more commonly associated with chronic arsenical poisoning. This melanodermia avoids the extremities and is pronounced in the folds of flexion, at points of friction, and around and underneath the cutaneous lesions for which arsenic has been prescribed. The colour is grey and the epidermic surface is furfuraceous. The palmar and plantar regions are hyperkeratotic.

Antipyrine often causes an erythemato-pigmentary eruption, especially marked on the limbs; the pigmentation survives the erythema, and the eruption recurs at the same points with fresh doses of the drug.

Argyria consists in a deposit of silver under the epidermis and in the corium of the mucous membranes in patients submitted to prolonged treatment by nitrate of silver. It is allied to the blue line on the gums and nails produced by sulphide of lead in saturnism.

DYSCHROMIAS OF LOCAL ORIGIN.

In the first place may be mentioned sunburn, a hyperchromia of solar origin, caused by the actinic rays of the spectrum. Hyperpigmentation may be produced by heat in parts of the body which are habitually exposed to it, as in bakers, blacksmiths, etc. The revulsives and many chemical agents act in the same way; and in a general way all traumatism. Mechanical traumatism by corsets, bandages, shoulder straps, and repeated scratching in the same places may have the same effect. Phtiriasic melanodermia is an example of parasitic traumatism, the mechanism of which is unknown, since it may occur in the mouth.

A great number of dermatoses are followed by pigmentation, erythema, hæmorrhagic urticaria, purpura, varicose eczema, ulcers of

the leg, bullous eruptions of polymorphous dermatitis, zona, impetigo, folliculitis, papulo-necrotic tuberculides, neuro-dermatitis, and lichen planus. The last has even a characteristic terminal phase of pigmentation.

SCLERODERMIAS.

Under this common name are united four syndromes which are perhaps different, and should, in any case, be carefully distinguished from each other: *generalised scleroderma, sclerodactylia, morphœa in patches*, and *morphœa in bands*. We shall say a few words on each of these four morbid types.

They are all, except perhaps the last, more common in women than in men, and in young subjects. Their etiology is unknown, and their pathogeny hyopthetical.

SCLERODERMIA.

After a hyperæsthetic phase, with pruritus, pain, smarting and sometimes a transient sub-acute phase resembling certain infectious states, cutaneous rigidity occurs, affecting the nape of the neck and chest, and causing functional symptoms such as dyspnœa, etc. After a variable period a kind of hard œdema of the whole skin is constituted, which appears infiltrated and does not pit on pressure. The transition from healthy to diseased skin is insensible, and the whole body is soon affected. On the face and hands the skin is first increased in size (phase of infiltration), then, after some weeks or months, it becomes contracted (atrophic phase). It has the characteristic colour of old wax. Gradually all the functions are abolished, movements are diminished and finally suppressed and the immobility of the limbs, in semi-flexion, leads to muscular atrophy. The body assumes the aspect of a mummy; the face is immobile, and without wrinkles; the eyelids half closed; and the thin lipped mouth is half open. This condition lasts from 1 to 4 years, sometimes for 6 to 10 years, leading to progressive cachexia, and the scene generally closes with some secondary infection; streptococcic infection, pneumonia or tuberculosis.

SCLERODACTYLIA.

The evolution of sclerodactylia is very similar to that of scleroderma, but the onset is quite different. It commences in the

fingers, the skin of which becomes thickened and indurated, and assumes the colour and semi-transparency of old wax. The movements of the fingers are gradually abolished.

The process of sclerodactylia is a double one. It commences with sclerosis and thickening, and continues with atrophy of the skin and subjacent parts; and as this process slowly extends towards the wrist, the skin of the hands is still infiltrated when the ends of the fingers are fusiform and pointed (p. 380). The ends of the fingers are white, waxy and cold, the circulation seems to be interrupted and the atrophy of the ends of the fingers, like that of the skin, is progressive. Indolent ulcers are produced which slowly destroy one or two phalanges, and a fragment of necrosed bone is often extruded from the stump.

Sclerodactylia is by no means limited to the fingers, but may secondarily attack the wrists, forearms, feet, ankles, and the face. This reproduces the process already described in generalised sclerodermia. The head seems to be diminished in size; the skin shews neither folds nor wrinkles, and has the appearance of being sculptured out of some hard substance; the eyelids do not close. In one case I have seen the thickened sclerotic resemble the normal skin, and the patient could not distinguish day from night. The mouth resembles a slit in the flesh, and the tongue may be affected and become immobile. After 6 to 15 years death occurs by accident or in the course of progressive cachexia.

The two morbid types, sclerodermia and sclerodactylia, seem to be analogous morbid processes, and may perhaps be the same with different modes of onset. This is not the case with morphœa.

MORPHOEA.

This occurs in the form of thickened patches of skin, of insidious growth, which feel like pieces of cardboard. It may affect any part of the body, but more commonly the face, neck, chest, groins and thighs. The skin cannot be folded and seems to be united to the subjacent tissues. The patches are of various sizes, irregular, and with a sinuous border. The surface is generally milky white and each patch is surrounded with a lilac ring as wide as the finger. The patches, often only 2 or 3 in number, are sometimes numerous (15-25), and may be grouped or isolated. Their ar-

rangement is irregular, and never zonular. They may increase and even become displaced; occasionally they retrogress, leaving a white atrophic cicatricial spot; but they generally remain *in situ*.

Morphœa is not accompanied by any general condition and is never fatal: thus differing essentially from sclerodermia. Without suggesting any etiological connection between the two diseases, one may say that morphœa in patches copies the evolution of fixed lupus erythematosus. The cause of morphœa is unknown, but it has been seen to occur after severe nervous shock, and sometimes in connection with vitiligo or general alopecia.

The treatment is purely external, by bipolar electrolysis, practised in the same manner as for large nævi (p. 5). This does not always succeed, but does no harm. High frequency has given appreciable results in some cases.

Generalised sclerodermia and sclerodactylia have no satisfactory treatment.

MORPHOEA IN BANDS.

I shall say a few words concerning morphœa in bands, a rare disease, which, in my opinion, has been incorrectly connected with morphœa in patches. It consists of cutaneous bands which are *atrophic from the first*, and which gradually form on the body or the scalp. They are deep from their commencement.

On the scalp, where they are permanently bald, or on the forehead, a third of the thickness of the finger can be placed in their channels. The lesions progress slowly, then become arrested in growth and remain without retrogressing. The cause is unknown and the treatment nil. They appear to me to differ entirely in their symptoms, if not in their evolution, from the patches of true morphœa.

TUMOURS OF THE SKIN.

The number of tumours of the skin being considerable a certain order is required in their description; but this order is artificial and can hardly be otherwise.

I shall first consider the retention cysts and similar benign tumours; *milium* (p. 619), *sebaceous cysts* (p. 620), *wens* (p. 620), *cysts by traumatic epidermic inclusion* (p. 620); sudoriparous cysts; *hydrocystomas* (p. 620), *synovial cysts* (p. 621), *hygromas* (p. 621).

In the next group I shall study the small benign, common, contagious neoplasms; the small umbilicated tumours of *molluscum contagiosum* (p. 621), and the four types of warts; *simple wart, flat juvenile wart, senile wart, papilloma* (p. 622).

A third group includes the syndromes of rare parasitic tumours, due to different causes; the multiple cysts of *cysticerus* (p. 623), the multiple cysts of *hyphomycosis of Ramond* (p. 623), *subcutaneous calcareous granuloma of Milian* (p. 624), *blastomycosis* (p. 624), *botriomycosis* (p. 624), and especially *cheloid* (p. 625).

The next class comprises circumscribed congenital deformities or nævi (p. 625). This class is considerable, not only in the number of objective and anatomical types which it includes, but especially in the number of morbid conditions which are more or less directly connected with it.

Besides the *pigmentary nævi*, studied with the melanodermias (p. 611), and the *vascular nævi* mentioned in connection with the face, the *vascular tuberous nævi* (p. 626) are true angiomatous tumours and should find a place here.

The same with lymphatic angiomatous tumours arising on *nævi; lymphangiomas* (p. 626).

The soft, flat or pedunculated cutaneous fibromas, or *molluscum*, are peculiar nævi, and belong to this group (p. 627); also the *neurofibromatosis of Recklinghausen* (p. 627).

The soft and hard *warty nævi* will be considered next (p. 628); then *symmetrical adenoma of the face* (p. 628), and *pseudo-eruptive hydradenoma* (p. 630).

Most authors regard *urticaria pigmentosa* as a congenital disease with nævoid tumours (p. 630).

Dermatomyomata (p. 630) and *dermoid cysts* (p. 631) are of the same origin. I have added *calcareous tumours* (p. 631), which may be caused by the calcification of many kinds of pre-existing tumours.

Departing more and more from nævi of the ordinary type, we shall consider the *hard fibromas*, consisting of more or less multiple tumours (p. 631), and the different forms of *lipoma* (p. 631). With these I shall consider *Xanthoma* (p. 632), a name which covers several morbid entities, some of which at least appear connected with nævi; for in certain nævi xanthelasmic cells are found.

We then come to the different malignant tumours: *sarcomas* (p. 633), *multiple pigmentary sarcomatosis of Kaposi* (p. 634), *generalised sarcomatosis of Perrin* (p. 634), and *sarcomatous degeneration of nævi* (p. 635).

Cutaneous sarcomatosis may be secondary to a deep sarcoma (p. 635). Besides these cases of multiple cutaneous tumours, a single primary cutaneous sarcoma may occur (p. 635). Lastly, there exists a lymphadenoid sarcomatosis; *cutaneous lymphadenoma* (p. 635), primary or secondary, with special characters.

Along with the sarcomas we shall place *mycosis fungoides* (p. 637), and *cutaneous lymphadenia* (p. 639).

We shall conclude this epitome with the study of *epitheliomas* (p. 639); the *papillary* form, *common cancroid, pearly epithelioma, flat superficial epithelioma, rodent ulcer, epithelio-adenoides, secondary cutaneous carcinosis*, etc.; concluding with the special and benign form of epithelioma of the scalp and face, called *cylindroma* (p. 642).[1]

MILIUM.

I have already mentioned the small grains of milium occurring on the face (p. 130). They are small white cysts resembling grains of barley, enclosed in the thin skin of the eyelids, temples, cheeks and neck. "Small epidermic cysts developed sometimes at the expense of the hairy follicles and possibly of the sebaceous glands; sometimes more or less aberrant and badly formed mal-

[1] In this concise review of an enormous number of clinical facts, we have derived much assistance from many previous works, especially those of Darier on tumours, Bodin on the xanthomas, Perrin on sarcomas, Rist on nævi and angiomas, etc.

pighian cells; sometimes, especially in the milium of cicatrices, at the expense of the excretory duct of the suboriparous glands." (*Darier.*) For treatment see page 130.

SEBACEOUS CYSTS.

These are developed in the obstructed duct of a sebaceous gland. The cyst, during its development, sometimes attains large dimensions. A depressed spot is often seen on the surface, obstructed by a brown operculum of varying size. In this case the contents of the cyst may be evacuated by pressure, in the form of a shiny yellow worm, which when dry becomes as hard as stone. After evacuation the cavity of the cyst contracts gradually without treatment.

WENS.

Wens have a predilection for the scalp, and the same individual may present several of them. They enlarge and seem to multiply with age. They appear to constitute a hereditary deformity.

According to some authors, they are retention cysts, *i.e.*, large sebaceous cysts. This view is supported by the coexistence on the same scalp of sebaceous cysts, with visible orifices, and wens with no orifice which can be seen. According to others they are dermoid cysts. *Darier* regards them as a variety of nævi with cystic follicular adenomata. Possibly all three theories are true in different cases.

TRAUMATIC EPIDERMIC CYSTS.

These consist of small, hard, round, indolent tumours, more or less movable and of the size of a pea or a small nut. They result from a traumatism having caused a graft of epidermis in the deeper tissues. They are more common in men than in women (p. 373).

HYDROCYSTOMAS.

These are multiple, miliary cysts with serous contents, occurring chiefly on the face in women of middle age, whose occupation exposes them to the heat of a fire; cooks, washerwomen, etc. They

may disappear in winter, to reappear and multiply in summer. They never open nor suppurate. The superficial skin is yellow or bluish grey. They appear to be nævoid in nature; cystic sudoriparous adenomata.

After puncture with the galvano-cautery they exude a drop of clear fluid and disappear, generally without recurring.

SYNOVIAL CYSTS.

I mention only, by the way, the cysts of tendon sheaths, and peri-articular cysts, or ganglions, which are more common on the back of the wrist than elsewhere, develop slowly and remain stationary, are sensitive to pressure, and may slightly obstruct the movements of the subjacent articulation.

This affection belongs to surgery.

HYGROMAS.

Hygromas are formed by serous effusion into the pre-articular synovial bursæ of the knee and elbow and may occasionally suppurate. The treatment is surgical.

MOLLUSCUM CONTAGIOSUM.

This is a benign dermatosis occurring at all ages and characterised by small, soft, superficial, umbilicated tumours, apparently hollow, and incompletely filled with a substance which can with difficulty be expressed between the nails. These small tumours are of dimensions varying from that of a millet seed to that of a small cherry-stone. They are common on regions where the skin is thin; the eyelids, breast and penis; and on the seborrhœic regions, the face, bald vertex, medio-thoracic regions, etc. In some cases the elements occur in great numbers. They may exist in all sizes in different regions; at other times the eruption is discrete and composed of a few scattered elements.

It appears certain that the epithelial tumour which constitutes each element of molluscum contagiosum is developed from the epidermis and not from a sebaceous gland. It consists in a special and characteristic form of epidermic degeneration.

The treatment of molluscum contagiosum by the curette is extremely simple and gives perfect results. If the elements are very numerous the treatment may be carried out at intervals.

In very young children I have had good results by expression of each element, followed by the application of tincture of iodine.

WARTS.

Warts are benign, contagious, inoculable, cutaneous neoplasms, the parasitic cause of which is unknown. Three clinical types are distinguished; the common wart, the flat juvenile wart, and the senile or seborrhœic wart.

Common Warts. These occur in both sexes at all ages and are especially situated on the exposed parts; the hands and fingers, around the nails and even on the palm of the hand. They are too well known to require description.

Flat Juvenile Warts. These always occur as a crop of small flat papules, with a smooth pink surface, disseminated in islands or

Fig. 221. Common Warts. (Jacquet's patient. Photo by Dubray.)

streaks on the face or backs of the hands. By their small size, agglomeration and smooth surface, they resemble miliary papular lichenoid eruptions. This form has been already studied (p. 119).

Senile Warts. In contrast with the preceding, senile warts occupy not only the face and the backs of the hands, but chiefly on the trunk. They may attain a remarkable degree of confluence, and their number increases with age.

Each wart forms a mammillated, villous projection, appreciable to touch even when minute.

The colour is brownish grey or green; the surface is friable and scraping gives rise to a powder of epithelial debris. (Vide p. 30.)

PAPILLOMATA.

Papillomata occur on the genital organs (vegetations); in the mouth in the same form (*Dubreuilh*); and or on the face and scalp. When situated on the mucous membranes they appear as cauliflower growths; when on the skin as an agglomeration of horny digitations.

They consist of small benign tumours, of long duration and frequent recurrence, apparently inoculable, or at any rate reinoculable in the patient; they may be scanty and disseminated, on the hands, on the face, and on the scalp. They may occur conglomerated on the vulva or in the balano-preputial furrows and form large masses.

I have described papillomata elsewhere (pp. 417 and 441), and need only mention here that they always consist of lesions situated in precise localisations, always the same, and without any tendency to become generalised. Their description will be found in the regions in which they are met with.

CYSTICERCUS.

Cutaneous cysticercus is a rare disease and is due to the introduction of the eggs of *tænia solium* into the stomach, to the migration of the cysticercus in the organism and to the formation by each of them of a small cyst. It is characterised by the existence of small, painless and often unnoticed cysts the size of a pea or small nut, mobile under the skin and of slow development. The diagnosis is seldom made before extirpation and examination of one of the cysts.

It is a disease to be remembered, because of the errors in diagnosis which may be made by not thinking of it. Cutaneous cysticercus presents no gravity, but the migration of the cysticercus is general and special cysts may develop in the nerve centres or the eye and cause reactional phenomena corresponding to this situation, some of which may be fatal.

HYPHOMYCOSIS OF RAMOND.

I have studied with *Beurmann* and *Ramond* a hyphomycosis very similar to cysticercus and characterised by a series of small round

cysts, underneath the skin, the size of a nut and disseminated all over the body. The cysts contained sero-purulent fluid and recurred *in situ* after surgical removal. Culture gave pure and constant colonies of a fine fungus of still undetermined species.

The tumours disappeared under the internal administration of iodide of potassium. After three months a fresh tumour appeared on the forehead, which also disappeared permanently after two more months' treatment.

CALCAREOUS SUB-CUTANEOUS GRANULOMATA.

This is a rare, rural disease, probably parasitic and contagious, characterised at first by a cold sub-cutaneous tumour, resembling a tuberculous abscess, with an indurated base of stony hardness, and the opening of which evacuates creamy pus full of calcareous matter. Eventually fresh tumours occur at a distance, and after some months or years the disease becomes generalised, with hectic fever, marasmus and death. Treatment consists in surgical ablation of the tumours when possible.

BLASTOMYCOSIS.

The blastomycoses form a new chapter in European dermatology. They appear to be more common in America than in Europe, where they are less known and regarded as exceptional cases.

There is a form consisting of fungous, lupoid, vegetating placards, and frequently mistaken for lupus.

The case I observed resembled a gumma of the tibia and was thought to be tuberculous by some, syphilitic by others. Direct examination and culture (*Rubens-Duval*) shewed it to be caused by a yeast with a dirty yellow culture.

The example of actinomycosis should always suggest internal treatment by iodide of potassium without neglecting the local treatment.

BOTRIOMYCOSIS.

We have already studied botriomycosis of the hand, its most frequent situation (p. 362). It always occurs in the form of a fleshy framboesiform bud which seems united to the subjacent tissues, but

is only connected to them by a thin pedicle. This tumour, which was first considered specific, appears to originate like the fleshy granulations of wounds.

Treatment consists simply in removal and cauterisation with nitrate of silver.

MULTIPLE CHELOIDS.

Cheloids are fibrous tumours, generally elongated but of various forms, covered with normal skin and united to it, hard to the touch and formed of dense and resistant tissue. Generally a cheloid follows a traumatism, and in certain subjects all traumatisms give rise to a cheloid (the so-called cheloid diathesis). From 2 to 10 cheloids of various dimensions may be seen on the back, chest, face, hands or even in all these regions at the same time. Their development is slow and progressive, after which they remain stationary and do not retrogress.

The tuberculous nature of many cheloids is beyond question. Inoculation in the guinea-pig has been performed repeatedly and has given positive results in a great number of cases.

In spite of a few successful extirpations of cheloid, it is necessary to know that in the majority of cases excision, be it ever so complete, gives rise to a new cheloid larger than the one removed.

The only satisfactory treatment consists in deep linear, quadrillar scarification of the whole tumour. A linear injection of a centigramme (1-7 grain) of cocaine or stovaine is made under the cheloid three minutes before the scarification. This is performed with a bistoury, bearing in mind that the depth of the cheloid below the skin is equal to that of its projection above, and the incisions must be made through the whole thickness.

The future treatment of cheloids should be radiotherapy, applied in the same doses as for cancer (p. 33). It appears that strong applications causing erythema give more rapid results with cheloid, as with lupus erythematosus.

NAEVI.

Under the name of *Nævi* should be understood all *circumscribed cutaneous deformities (Brocq)*. Nævi are divided into classes which are very distinct objectively and histologically. Moreover, they are

the origin of a number of different morbid conditions, so that a third of this chapter on tumours belongs to nævi and their various derivatives.

Pigmentary nævi have been studied with the melanodermias (p. 611). Flat vascular nævi, commonly called "port-wine marks," have been described with the face (p. 4).

Tuberous vascular nævi may assume the form of veritable tumours and attain an extraordinary size (Fig. 222). Their colour and appearance, their momentary diminution by compression, their slow

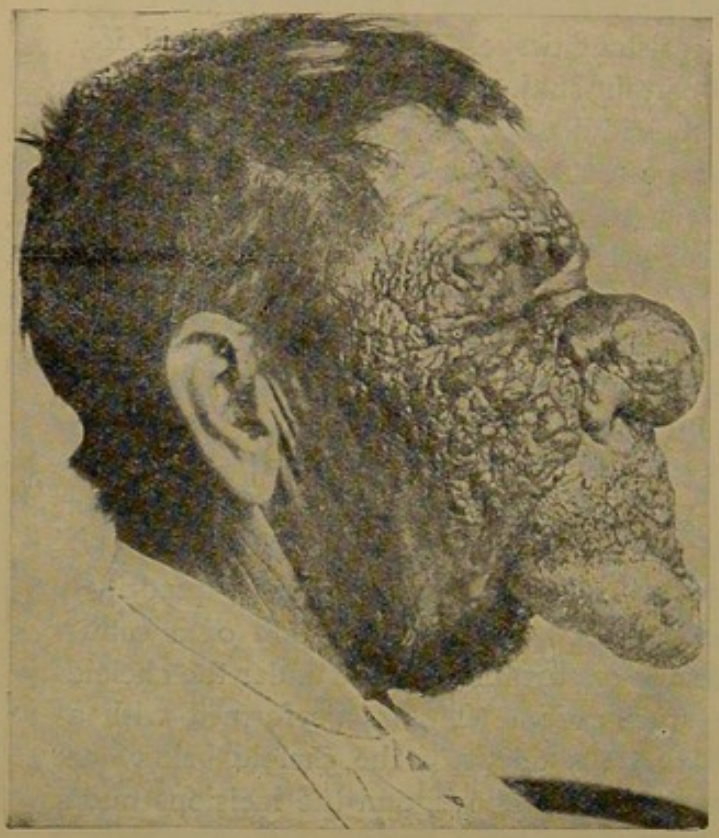


Fig. 222. Naevus with tumours. (Photo by Norre.)

Fig. 223. Lymphangioma. (Besnier's patient. St. Louis Hosp. Museum, No. 1466.)

evolution, their congenital origin or appearance at an early age, constitute the diagnosis.

Vascular lymphatic nævi or *lymphangiomata* may occur, like the angiomas, in placards or in the form of tumours.

They practically always occur on a pre-existing nævus, which has existed for years. On this is slowly developed a mammillated tumour which is formed of large conglomerated papules. The latter arise

in a kind of large, soft vesicle which opens and disappears. In its place a new induration is formed which becomes projecting. The mass is of soft consistency and a characteristic sign is the presence

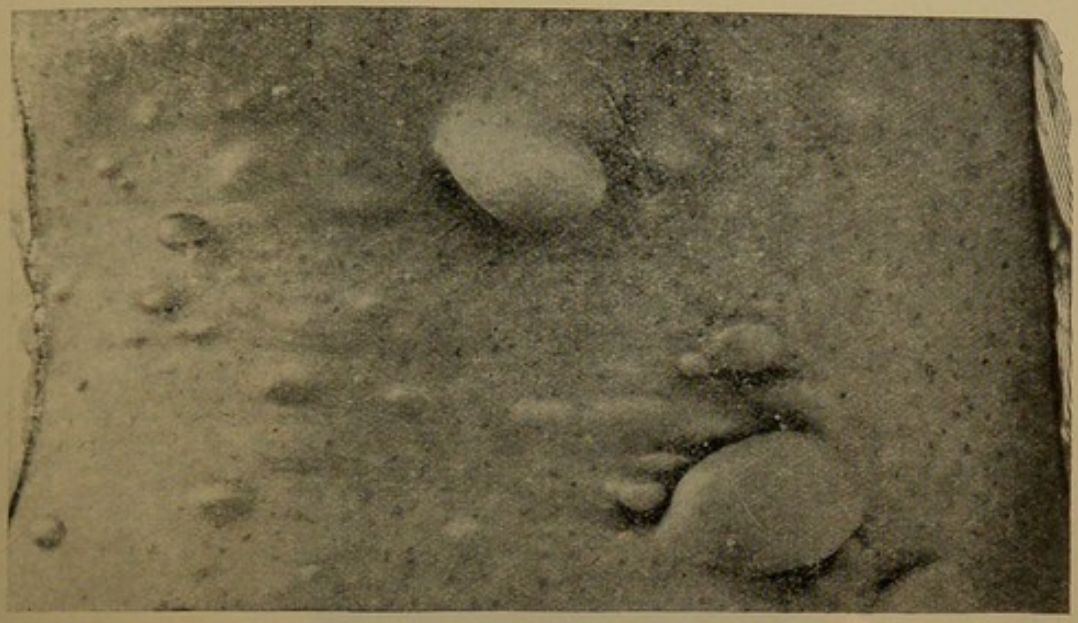


Fig. 224. Generalised molluscum with pigmentary spots. (Pean's patient. St. Louis Hosp. Museum, No. 361.)

of yellow lymph which can be made to exude from many points by pressure.

There are no functional symptoms; the duration is indefinite, with slow increase in size. The treatment is the same for nævi.

Tuberous nævi, hairy or non-hairy, occur in all localisations and in all sizes and shapes, and need not detain us here.

SOFT CUTANEOUS FIBROMATA. MOLLUSCUM.

Soft cutaneous fibromata are special forms of nævi arising in the thickness of the skin with the form of a small soft mass which seems to project through the cuticle in the dermis. The mass gradually becomes pendulous and pedunculated: *molluscum pendulum*. Like nævi, these small benign tumours are often multiple on the same subject. The deformity is consanguineous and hereditary. Treatment consists in removal with scissors or the galvano-cautery.

NEURO-FIBROMATOSIS OF RECKLINGHAUSEN.

This rare general dystrophy is characterised: (1) by mucous tumours of the preceding type, disseminated over the whole body;

(2) by fibrous tumours arising from the connective tissue of nerves; (3) by hyperpigmentary melanodermic spots. It is a congenital, consanguineous disease, associated with deficient mental development.

Fig. 225. Symmetrical hyperkeratotic naevi.
(Besnier's patient. St. Louis Hosp. Museum, No. 1680.)

WARTY NAEVI.

Warty nævi may be soft or hard; the latter being more frequent and more characteristic. They form flattened projections with clear borders, in absolute contrast to the neighbouring skin, by their grey, yellow or brown colour, by the grey hyperkeratosis of their surface and by their linear or geographical distribution. The diagnosis presents no difficulty.

Treatment is generally nil, for they remain stationary without increasing. When treatment is required it should be bipolar electrolysis (p. 5).

SYMMETRICAL NAEVO-ADENOMATA OF THE FACE.

I have described these with the affections of the face (p. 107). They are small, soft tumours, miliary, or as large as a pea, conglomerated

in the naso-genial furrow, the glabella or the chin. They are nævi, and their congenital origin has often been proved. However, they

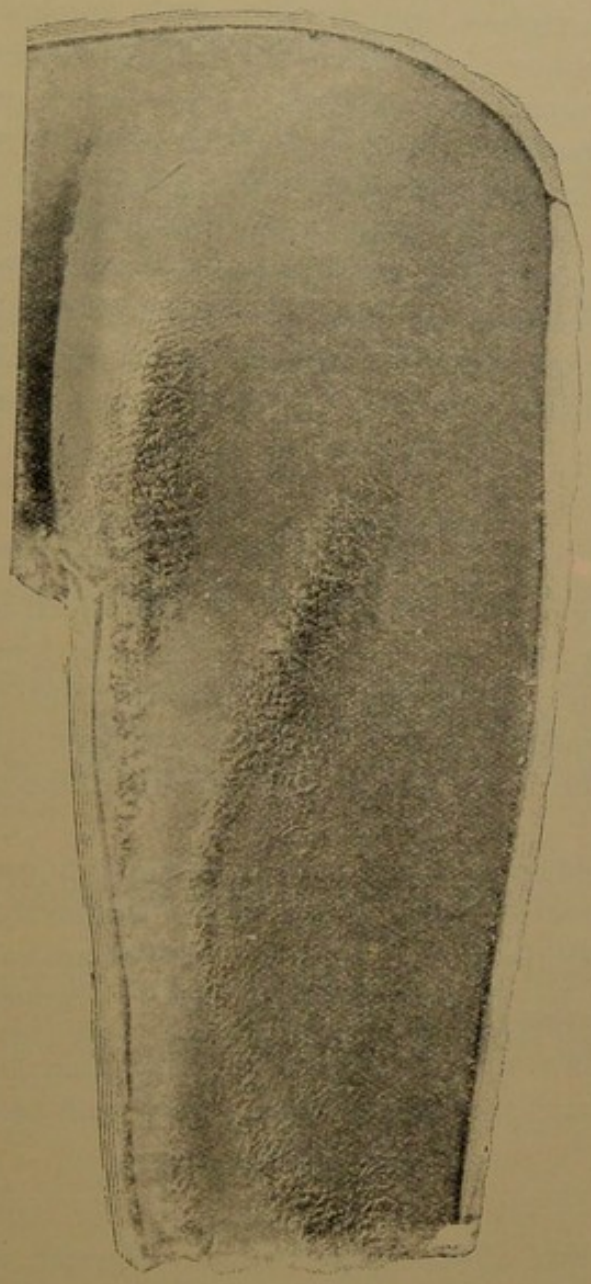


Fig. 226. Warty naevus.
(Besnier's patient. St. Louis Hosp. Museum, No. 1478.)

seldom develop till the age of 14 or 15 years, and when once developed remain stationary. They are more common in females. When destroyed by the galvano-cautery they never recur.

HYDRADENOMATA.

Hydradenomata are small papular miliary tumours of the neck, the anterior thoracic region and the root of the arms; they are more rare in other regions, such as the eyelids, forehead, nose and ears.

The distribution of the elements, regularly disseminated, resembles that of several papular exanthems. Each element is from 2 to 3 millimetres in diameter, oval in form, of a yellowish red colour, of firm consistency, and covered by the normal skin.

Their growth and multiplication are slow, and when they have reached 3 millimetres in size they remain stationary without modification, degeneration, or glandular affection. They seem to consist of cysts developed on the embryonic germs of sudoriparous glands. According to this view they are another form of *nævus*.

PIGMENTARY URTICARIA.

Pigmentary urticaria is a chronic disease which commences during the first year by eruptive crops of urticarial elements. These elements remain papular, become pigmented and remain stationary without alteration. It is a generalised disease affecting the whole surface of the body and is undoubtedly connected with multiple nævi.

This morbid type, which may be consanguineous, is constituted, in the mature state, by flat nodosities, sometimes intensely congested, generally greyish brown, chronic, permanent, and characterised anatomically by an infiltration of special connective tissue cells known as *mast cells*. The clinical description will also be found on page 558.

DERMATOMYOMA.

This is a rare affection described by *Besnier*, and is peculiar to women. It commences in the form of small, lenticular, rose-coloured spots, which gradually become papular. These papules occupy a whole region in groups or streaks. They may be dull red, or of the same colour as the skin. They are composed of intersecting muscular fasciculi in the dermis. The compression which these fasciculi exerts on the nerve endings gives rise, under the influence of exter-

nal stimulus, to crises of unendurable pain, requiring surgical intervention, but otherwise without gravity. These tumours are probably of nævoid origin and never recur.

DERMOID CYSTS.

Dermoid cysts originate from the inclusion of an epidermic fold in an embryonic cleft. They are only found in regions where these clefts have existed; the line of the eyebrow, the lateral parts of the neck, the sacro-coccygeal and uro-genital grooves. They exist at birth, but do not develop till puberty or adult age. Their only treatment, when this is required, is surgical extirpation.

CALCAREOUS TUMOURS.

Calcareous tumours of the skin may be calcified adipose lobules, true osteomas, calcification of fibromas, wens, dermoid cysts and epitheliomas.

There is an ossifying sarcoma which gives rise to sub-ungual exostosis of the toes. Usually these calcareous tumours of the skin are *phleboliths*, or the calcareous transformation of the walls of a vein after local phlebitis.

HARD CUTANEOUS FIBROMAS.

Hard cutaneous fibromas, the prototypes of benign connective tissue tumours, are usually multiple, of different sizes, the size of a pea or nut, hard, and mobile under the skin, or with it. Usually, when once formed they persist without change.

LIPOMAS.

Lipomas are tumours formed of adipose tissue. They may remain solitary, varying in size from a nut to the fœtal head. Sometimes, after a few years enormous sub-cutaneous lipomas of variable sizes develop in crops, and may become innumerable.

They are benign but troublesome, and their surgical removal may be necessary in certain cases. The symmetrical adeno-lipomatosis of

Launois and *Bensaude* is a rare affection, characterised by the production of enormous masses occupying the neck, nape, axillæ, or inguinal folds; in fact all the regions which present lymphatic glands.

XANTHOMA.

Xanthoma is a benign neoplastic disease of unknown cause, with constant specific lesions which may affect the viscera, but of which the dermatological history is the chief one.

The anatomical characteristic of this disease is the formation of agglomerations of xanthelasmic cells in the organs or in the dermis; these are enormous adipose connective tissue cells filled with protoplasmic granulations. The evolution of these agglomerations is generally slow, and when once formed they persist without retrogression.

Objectively, the lesions of xanthoma may be flat, tuberous or in tumours.

(1) The flat lesions are level with the skin, without projecting from its surface. They consist of miliary spots, or spots the size of a lentil (p. 557), more rarely placards from half an inch to an inch or more square.

(2) The tuberous lesions project from the skin for ½ to 1 millimetre. They have the same divers dimensions as the preceding, but are generally very small.

(3) The tumour lesions may attain the size of a nut. They generally co-exist with the tuberous forms, of which they are only the development, and are usually scanty among the more abundant but less prominent lesions. All the xanthelasmic infiltrations, whatever form they assume, are invariably of soft consistency.

Xanthoma, whether flat, tuberous or in tumours, may be localised or generalised. When localised, which is more common, it infiltrates the eyelids (p. 130). It may, without generalisation, affect several different localisations, for instance the elbows and knees (p. 289); when generalised it occupies the whole body, with a predominance at the points of friction and on the buttocks. It forms a multitude of miliary lesions of all forms, generally small. Those on the back of the fingers and the folds of the fingers are very characteristic.

Generalised xanthoma is accompanied by visceral xanthelasmic infiltrations, especially of the liver, causing chronic icterus (from 2

to 7 years), and a form of icterus without icteric urine and without coloration of the sclerotics, called xanthochromia.

There may be generalised xanthoma, with icterus, without icterus, with xanthochromia, or with icterus followed by xanthochromia. In the last case the biliary pigments appear to exist in the serum and not to filter through the kidney.

Xanthoma, even when generalised, is not accompanied by general phenomena. The lesions arise in crops, which do not retrogress when once produced. This permanence is characteristic of true xanthoma.

No general treatment appears to favourably modify xanthoma. External treatment is useful for the removal of disfiguring lesions and consists in galvano-puncture at intervals of 2 to 3 millimetres. These punctures leave no mark, and the lesions disappear after one or two applications. I have practised this treatment of xanthoma for 7 or 8 years, without it having been generally adopted in dermatological practice. The results, however, have always been excellent.

Diabetic Xanthoma. This may be a true xanthoma, of which glycosuria is an accessory cause, or a xanthelasmiform diabetide. The question is still doubtful; but it is certain that it is a transient affection (*Besnier*), in which it differs considerably from the characters of true xanthoma. The symptoms are also different.

The localisation on the extremities, the elbows and knees and not on the eyelids, the rapid appearance, the inflammatory symptoms which accompany its florid forms, the hyperæmia of the placards and tumours, which may even sometimes become exulcerated, the usual retrogression after a few months, all form a special entity; although, anatomically, ordinary xanthoma and diabetic xanthoma resemble each other.

Diabetic xanthoma has been attributed to xanthoma of the pancreas (*Hallopeau*), but the glycosuria always precedes the eruption, and the eruption may disappear while the glycosuria continues.

SARCOMAS IN GENERAL.

Sarcomas are all malignant neoplasms, the elements of which are of connective tissue origin. There are three dermatological types: (1) the multiple pigmentary sarcoma of *Kaposi;* (2) the generalised hypodermic sarcoma of *Perrin;* (3) the melanotic supernævoid sarcoma.

There are also the simple sarcomatous tumours, of malignant but variable evolution, with indifferent primary and secondary cutaneous localisation.

A primary cutaneous sarcoma may occur with fusiform cells, or a lympho-sarcoma formed of adenoid tissue, which may be primary or secondary.

MULTIPLE PIGMENTARY SARCOMATOSIS OF KAPOSI.

This commences on the feet and hands in the form of congestive, œdematous hard patches (macular stage); or by the immediate formation of tumours, the size of a millet seed or a pea, always purple or black (neoplastic stage). They multiply quickly, and slowly increase in size, covering the extremities and becoming more scanty at the roots of the limbs and on the trunk. When they are very numerous the skin between them is hard, thickened and infiltrated. These tumours always increase in number and usually in size, but some become absorbed, leaving a cicatrix, while others appear. The disease becomes generalised in 2 to 20 years, and the general health remains good for a long time.

There is no subjective symptom, such as pain or pruritus, and no functional symptom except weakness of the fingers. But the tumours develop on the mucous membranes and viscera, giving rise to cachexia and general phenomena of fever and diarrhœa, and the patient dies of marasmus. The treatment is only symptomatic.

GENERALISED HYPODERMIC SARCOMATOSIS OF PERRIN.

This affection consists in the formation, without systematic localisation, on the trunk, face and roots of the limbs, of multiple tumours, causing a visible projection, or perceived ony by palpation, the size of a cherry stone or a nut, at first free under the skin, and colourless, afterwards adherent to the skin, which becomes red or purple. Towards the end of the disease some of the tumours may ulcerate.

The disease progresses rapidly, and new tumours are seen at each examination Asthenia and cachexia develop rapidly with symptoms depending on visceral generalisation, and death supervenes from 10 to 15 months after the onset of the disease. There is no satisfactory treatment.

MELANOTIC SUPER-NAEVOID SARCOMA. (NAEVO-CARCINOMA OF UNNA.)

This develops on a congenital nævus, usually pigmentary, in the form of a black, indolent tumour, which is slowly extensive and may remain stationary for years. After this indefinite period, which is shortened by local intervention, follows a period of very rapid generalisation in the skin and viscera. Cachexia increases from day to day, and death follows. The secondary tumours may assume considerable dimensions, or remain small, or some may retrogress and disappear, or become ulcerated. The cause of this process is unknown and the treatment is nil.

SECONDARY CUTANEOUS SARCOMATOSIS.

A sarcoma may develop in any part of the body apart from the skin; in the soft part of any region, and becomes fixed to the skin and ulcerate, or develop underneath it. A generalised cutaneous sarcomatosis may follow, with all the characters of the primary hypodermic sarcomatosis of *Perrin*.

PRIMARY SARCOMA OF THE SKIN.

A sarcomatous tumour of the spindle-celled type may arise on any part of the skin; on the finger, wrist, forehead, arms or foot. The grave neoplastic nature of these tumours is usually recognised without histological examination, but not always, and its exact nature should be confirmed by histological examination.

LYMPHADENOMA.

Lyphadenoma, of glandular structure, is generally developed at the expense of a lymphoid organ (tonsils, thymus, lymphatic glands); the cutaneous localisations are secondary, but not constant.

There is a primary lymphadenoma of the skin. Its initial lesion has all the characters of an epidermised indurated chancre under-

going retrogression, but having preserved its cartilaginous induration. Around the primary lesion are often situated 3 or 5 other similar smaller lesions, all of the hardness of india-rubber. The surface of the lesion may become exulcerated.

These lesions may be mistaken for indurated chancres, tuberculous lymphangitis, or glanders, and are rarely diagnosed without a biopsy.

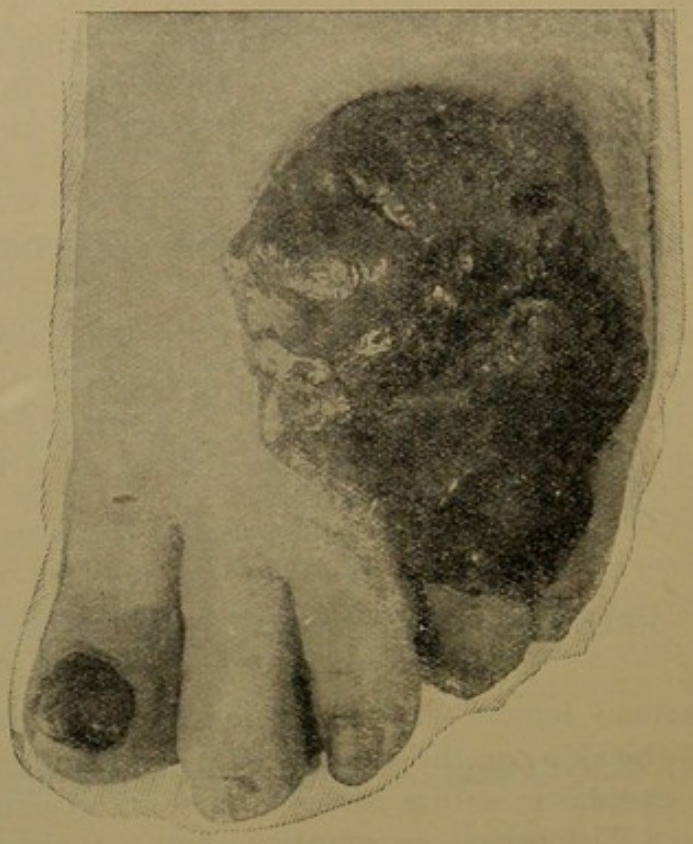


Fig. 227. Fibrosarcoma of the foot.
(Morestin's patient. St. Louis Hosp. Museum, No. 2099.)

This lymphadenoma invades the corresponding glands, and the neoplastic development in these may progress more rapidly than in the primary tumour.

Radiotherapy in high doses (30 to 50 units H, in sittings of 5 units each, at intervals of 18 days) has arrested the development of the initial lesions in a case of this kind, but has not prevented the propagation to the glands.

MYCOSIS FUNGOIDES.

Mycosis fungoides should be placed by the side of the sarcomas, but separate from them, in spite of the connection with sarcoma held by the German School; for clinical experience shews that this special nosographical type, although it allows a comparison of mycosis fungoides with sarcoma, does not permit them to be confounded.

Mycosis fungoides, so named by *Alibert*, is a neoplastic disease of unknown cause, almost exclusively localised to the skin, of chronic and benign course, as compared with that of cancer, with paroxysms and retrogressions, but often ending in death. Its evolution may be divided into four periods:—the period of simple pruritus; the period of eczematisation; the period of infiltration; and the period of tumours; but this division is schematic, and the succession of periods is not constant. There are even cases of tumours arising from the first (*Vidal, Brocq*). I shall describe an average case.

(1) It commences at about the 40th year with progressive pruritus, at first without visible lesions. This pruritus is paroxysmal, but the intervals of remission are rare, and the pruritus, at these times, diminishes only, without disappearing. It gradually increases and may become intense. It is usually generalised, but more marked in the sacral regions, in the flanks and in the folds of flexion.

(2) After some months or years of this pruritus without lesions, the scratching produces irregular patches of eczematisation, but sometimes with sharply defined borders, often very red (premycotic erythrodermia), and bearing between them islands, with well defined borders and an absolutely healthy surface. These eczematous patches have different fates; sometimes they are transient and alter their situation, sometimes they remain, and a diffuse progressive infiltration is slowly produced underneath them.

(3) The transition from the second to the third period is gradual. Under the influence of pruritus and eczematisation, the skin, especially in regions where it is thin, becomes thickened, infiltrated and permanently red. At the same time all the groups of glands increase in size, becoming visible under the skin and painful to palpation. This infiltration may be diffuse, or

form patches of different sizes enclosing islands of normal skin.

(4) At this period there frequently occur at distant points, on the pre-existing diffuse infiltration, bosses or projections in the form of semi-circles, or serpiginous. The regions where these mycotic tumours most often develop are the face, the roots of the limbs, the flanks and breasts. The disease at this fourth period often passes through two stages; one, during which the tumours are localised; the other, in the course of which they become disseminated.

The tumours, of the size of a small nut or chestnut, afterwards take the form and dimensions of a tomato. The surface presents an umbilication from which radiate furrows, dividing the bossy projections. The umbilication soon becomes ulcerated, fungous and sloughing, and the edge of the ulcer remains sloping. These multiple tumours, agglomerated in heaps, or scattered over large surfaces, may remain almost equal; some of them, on the contrary, may attain enormous dimensions and weigh several pounds.

A peculiarity of mycosis is that these neoplastic formations cause very little alteration in the general health of the patient, who may live for months without suffering.

Another peculiarity of mycosis, which is rare in the history of neoplastic diseases, is that in many cases tumours the size of an orange may rapidly retrogress and disappear, without leaving any trace, except the cicatrix of the ulcer which they bore on the summit. These remissions may take place in individual tumours or on all of them equally, and in a few months the disease retrocedes by several years. But this is unfortunately not the rule; more often new outbreaks of pruritus, infiltration and tumours form again, and the ground gained is lost. The disease thus left to itself leads to death in 3 to 10 years. In all the cases I have examined death was caused by streptococcus infection, and this fact requires to be verified; the infection having been produced sometimes by multiple abscesses, sometimes by purulent pleurisy.

Anatomically, this disease is characterised by an infiltration of round cells, having the characters of lymphocytes in a young state. They occur in the dermis in a reticulated lymphatic tissue of new formation. They are found as intra-epidermic agglomerations in the first periods of the disease. This fact is absolutely

characteristic and often confirms a doubtful diagnosis by a biopsy, the importance of which for the patient is obvious.

This disease, probably of parasitic origin, does not appear to be hereditary or contagious. Cases appear now to be a little more numerous, but are far from common.

After a period during which the therapeutics of mycosis appeared to be absolutely nil, radiotherapy in some hands, especially on a case of *Brocq* and *Bisserié*, appears to have given admirable results. It caused disappearance of the pruritus, the infiltration and the tumours, and appeared to lead to cure of the disease. The future will reveal if these cures are permanent. The rules of radiotherapy for mycosis seem to be the same as for other tumours (25-30 units H, in 5 or 6 successive sittings, with intervals of 15-20 days). The first result obtained will guide the operator. The applications should be made without a diaphragm and always on the largest extent of surface possible.

CUTANEOUS LYMPHADENIA.

This affection is a form of glandular lymphadenia with cutaneous lesions. The cervical, axillary and inguinal glands are enormously enlarged and form prejecting masses under the skin.

At the same time cutaneous lesions occur, more frequent and more pronounced on the face than elsewhere. There is a thickening of the region, due to a more or less hard or flabby œdema, of a purple colour, on which appear tumours of various sizes and rounded contours, the size of a cherry, almond or nut; sometimes so numerous as to touch each other. Analogous lesions occur on the extremities.

The diagnosis of these glandular masses is confirmed by examination of the blood, which shows a leukæmia of the lymphatic type. The prognosis is fatal and there is no treatment. However, we must remember that radiotherapy of the spleen and glandular masses may restore the hæmatological standard in a few hours. But the matter requires further study.

EPITHELIOMAS.

On the skin, as in all parts of the body, epitheliomas are malignant neoplasms. It is first necessary to mention the long benig-

nity of certain epitheliomas localised to the superficial layers of the skin.

Epithelioma commences between the ages of 40 and 50, and is more common in men, and on the face. Skin which becomes prematurely senile, either spontaneously, or in men exposed by their occupation to inclement weather, is predisposed to epitheliomatous vegetations. Cicatrices, especially those of chronic ulcers, are still more so. Epitheliomas may be secondary to precancerous diseases, Xeroderma pigmentosum (p. 6), senile concrete seborrhœa (p. 31), buccal leucoplasia (p. 39); also secondary to the chronic ulcerations of lupus and syphilis, and to the congenital malformations, nævo-carcinomas (p. 635).

Clinically, we can distinguish cases in which epithelioma forms a single lesion and cases where there is disseminated epitheliomatosis. Further, it is necessary to distinguish the superficial epithelioma, which is benign for a time; from deep epithelioma, which is always grave. *Darier* describes four anatomical and clinical forms of epithelioma.

(1) A *papillary* form, in which the lesion is constituted by warty, agminated papilliform projections, with a raised border and sloping margin. This is generally situated on the lips, cheeks, eyelids, chin, tongue, hands and glans penis. It is a neoplasm which remains superficial for a long time, is slow in evolution at first, but more active in advanced stages.

(2) A second form is common *cancroid,* which occurs on the lips, tongue, and buccal mucous membrane, and includes supercicatricial epitheliomas. Objectively it is a grey tubercle covered with a crust. Later on it forms a tumour the size of half a nut enclosed in the skin. The borders are purple and overhang a punched out, sinous ulceration. The lymphatic glands are affected early and the cancerous ulceration becomes deep, sphacelated, and suppurative. Cachexia is rapid and death supervenes, hastened by hæmorrhages.

The *pearly* epithelioma is a benign and immobile form of this variety.

(3) The third form, *flat superficial epithelioma* of the nose and eyelids, is more chronic, without extension to the glands and without generalisation. It remains stationary for 15 to 20 years and is characterised by a flat, superficial, pink, vascularised cicatrix, bordered by a thin serpiginous crust, which covers small

ulcerations. The active element of the disease is the grey granulation, the peripheral multiplication of which causes and enlarges the lesion, which becomes cicatricial later.

(4) *Rodent ulcer* appears to be an ulcerative variety of the preceding. It occurs on the forehead, nose and eyelids. In this form the neoplasm is almost invisble and the lesion is formed chiefly by the chronic ulcer. The base of the ulcer is dry, pink or yellow. The ulcer is sharply cut on one side and has a slightly inclined cicatrix on the other. Its local malignancy is great; its general malignancy nil.

Fig. 228. Super-seborrhoeic Epitheliomatosis. Besnier's patient. St. Louis Hosp. Museum, No. 1194.)

Diffuse epitheliomatosis of the face, which may follow concrete sebaceous acne, "senile scum," etc., is only a clinical form and does not belong to a single and constant anatomical type.

Very distinct from the nævo-adenomas of the face are the true adenomas of the skin; that is to say the epithelial neoplasms with glandular structure and benign evolution.

The latter resemble sebaceous cysts or indifferent tumours and vary in size from a nut to a small orange. The skin on their surface is normal, they are of more or less firm consistence, their surface is regular, they are not painful and never infect the glands. The treatment consists in total surgical ablation.

These *epitheliomas of adenoid structure* have not a clinical evolution exactly corresponding to their structure, and are only an anatomical species. There are epitheliomas of this form which sometimes become calcified, and afterwards arrested in their evolution.

The skin may present *secondary carcinomas,* consecutive to a

Fig. 229. Cylindromas. (Poucet's patient. Drawing by Loison.)

primary lesion of the breast for example. These may occur in the form of tumours or in plateaus.

CYLINDROMAS.

Under the name of cylindromas are designated neoplasms which are usually benign, exceptionally malignant; hereditary, consanguineous, chiefly localised on the face and scalp, more rarely on the back and limbs, and more common in women of middle age. The tumour is at first hard, indolent, and of slow growth; it remains single for a long time and does not usually

recur after removal. After a time, secondary tumours are formed around the first, and end by covering the whole scalp. Tufts of hair emerge between them, and give the patient a peculiar appearance (Fig. 229). These tumours are as large as nuts or chestnuts, sessile or pedunculated. Histologically they consist of an alveolar epithelioma, with myxomatous invasion.

The prognosis is benign, and surgical excision, if possible before the multiplication of the tumours, is the best treatment. It is a rare disease, for which, to my knowledge, radiotherapy has not been attempted.

CHRONIC INFECTIOUS DERMATOSES.

In this chapter will be considered the symptoms, course and evolution of the four great chronic infections dermatoses, including what is known of their treatment.

Syphilis, many manifestations of which we have studied in the course of this volume, will be presented as briefly as possible . . . . . Syphilis . . . . . p. 644

A general sketch will be given of cutaneous tuberculosis and of the divers tuberculides, recognised as such up to the present . . . . . Tuberculosis . . p. 652

Leprosy, not being a disease of our country, has not taken a part in this book proportional to its value in general nosography; hence the résumé which we shall give will be a little less concise than the preceding . . . . . Leprosy . . . . p. 655

Human glanders, being a rarity, will only be accorded a few lines . . . . . Glanders . . . . p. 659

SYPHILIS.

Syphilis is a specific, contagious, inoculable, and therefore microbial disease, but of which the microbial cause remains so far unknown.[1] Its spontaneous propagation is only seen in the

[1] Translator's Note. Since the above was written, Schaudinn and Hoffmann described a special form of Spirochæte found in secondary syphilitic lesions and in the juice from the syphilitic glands. This has been named the *Spirochæte pallida,* to distinguish it from the *Spirochæte refringens* a larger and more common form of spirillum which is found in lesions which are not syphilitic. The *Spirochæte pallida* is an extremely delicate organism, almost transparent and actively mobile. It is long and spiral with pointed extremities. Its length varies from 4 to 14 μ and its breadth is almost immeasurable. The number of spirals varies from 6 to 14, and these are sharper and narrower and more numerous than in the case of *Spirochæte refringens.* The spirochæte pallida is much more difficult to stain than the *S. refringens,* but may be stained with a solution of azure blue in alcohol, mixed with eosin. The organism has also been found by Metchinkoff in syphilitic lesions in monkeys. Also Metchinkoff has examined Scha dinn's preparations and concludes that they are identical with the spirochæte found in the monkeys. S. pallida has also been found in the lesions of congenital syphilis by Levaditi. It therefore appears that this organism is more likely to be the true microbe of syphilis than any others which have formerly been described and the results of further researches will be awaited with interest. (Vide *Deut. Med. Woch.,* May 4; *Gazette des Hopiteaux,* May 18; *Semaine Medicale,* May 17; *La Syphilis,* June, 1905.)

human species, but it has been experimentally inoculated in certain species of monkeys. Its symptoms, lesions, and evolution in man are characteristic and of great importance. I shall first study the objective signs and lesions in the order of their appearance.

(1) The first lesion is the hard chancre (infecting chancre, initial sclerosis, initial lesion), which arises at the point of inoculation, generally from 15 to 20 days after it, occasionally later. It forms a superficial exulceration, slightly depressed, non-exudative and of fleshy colour, around which is formed in one or two weeks a characteristic, cartilaginous, cardboard like, induration. The exulceration varies from 5 to 10 millimetres in depth. The chancre, after a period of increase of 2 or 3 weeks, remains stationary and always heals spontaneously, the exulcerated surface becoming epidermised in 4 or 5 weeks. The induration disappears in a few months, but remains perceptible for a long time.

The indurated chancre is generally single, but this rule presents many exceptions.

(2) The second lesion of syphilis is the satellite gland of the chancre. This is an almost painless adenitis causing enlargement of the gland above the size of an almond, and india-rubber hardness. The gland affected is that corresponding to the region of the chancre. This adenitis is perceptible from the first week of the chancre and attains its maximum when the retrogression of the chancre commences. The indicator gland is often recognisable six months or more after the infection.

(3) The glands in its neighbourhood are affected in their turn and their assemblage constitutes the *pleiades*. All of them shew the characters of the adenitis just described, but the glands of the pleiades are only half the size of the satellite gland of the chancre. Syphilitic glands never suppurate; but mixed chancres occur, a symbiosis of the microbe of chancroid and the syphilitic virus, the indicator gland of which may suppurate. Such cases are exceptional. The mixed chancre presents usually the ulceration and suppuration of soft chancre and the induration of the specific chancre.

(4) The pleiades is not long isolated, and all the glands of the subject become affected one by one, and constitute in 10 to 15 months the generalised poly-adenitis of secondary syphilis.

(5) The syphilitic roseola appears on the flanks, the chest, the trunk and limbs about 70 to 80 days after infection. The eruption

varies in distinctness, is painless and consists of rose-coloured macules, the size of the end of the little finger. The skin is speckled and the roseola may be discrete or confluent. It may easily escape notice, but may be accompanied in a few days by slight transient fever. The roseola may disappear in 15 days or remain stationary for 3 months or more. It is often accompanied by headache, especially nocturnal (secondary headache) and osteocopic pains in the tibiæ, which may occur with phenomena of slight painful periostitis.

After the roseola the secondary period commences, and is characterised by lesions of which generalisation on the whole surface of the body is the chief characteristic.

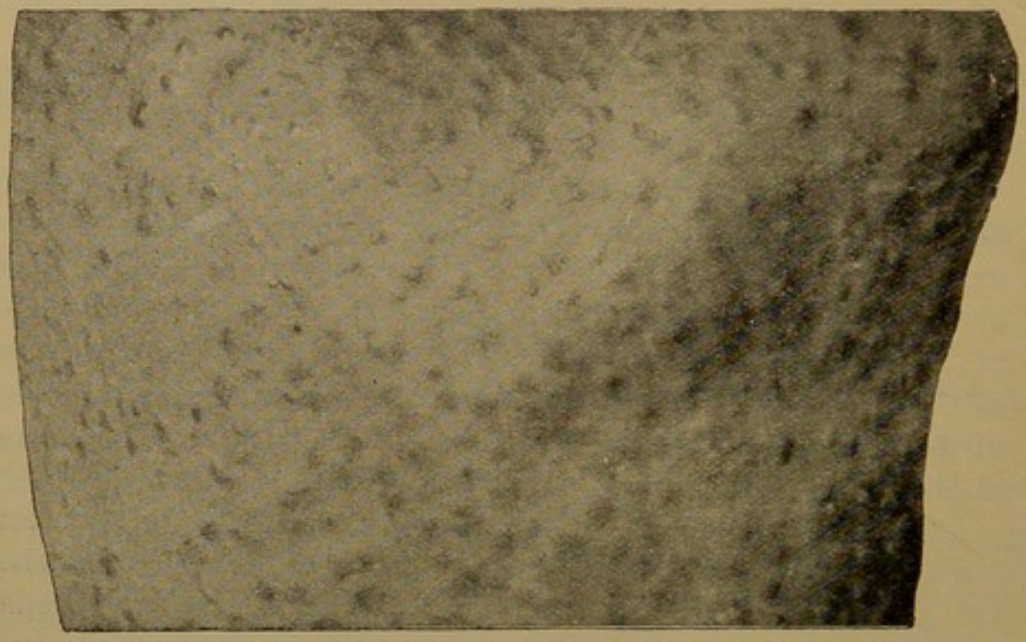


Fig. 230. Florid papular eruption of secondary syphilis. (Halopeau's patient. St. Louis Hosp. Museum, No. 2022.)

(6) There is generally a papular eruption formed of round, raised papules of a reddish brown or copper colour, with a scurfy ring round them (*collarette of Biet*). They may be very scanty (10 to 15) or occur in thousands. Their dissemination is remarkable, and they may be found on the eyelids and on the palm of the hand. As a rule they do not ulcerate and disappear after a time varying from 1 to 6 weeks. They may become eroded in intertriginous regions, causing the so-called *cutaneous mucous patches*. In malignant syphilis they enlarge, become ulcerated and covered with crusts con-

stituting *syphilitic ecthyma,* or the old *syphilitic rupia.* Such cases are rare.

(7) At the same time that papules develop on the skin mucous patches occur on the mucous membranes. These also may be scanty or mutltiple. They are seen on the genital organs, the anus and especially in the buccal cavity, where they occupy the pillars of the fauces, the soft palate, tongue, floor of the mouth, and the internal surface of the lips and cheeks. They consist of red, oval exulcerations, several millimetres in diameter, with a grey border. The eruption of these patches is not uniform, but occurs in sub-involutive crops, the first of which are the most acute, and which may last for months with remissions. The mucous patch is the lesion from which most fresh cases of syphilis proceed, for it is more contagious than the chancre.

In rare cases the patches are so large and so numerous that symptoms of angina may occur, with dysphagia, etc.; and if the larynx is affected at the same time, with aphonia. Mucous patches never ulcerate and never leave cicatrices, and disappear after a time like the secondary papules of the skin.

(8) The preceding lesions constitute the secondary period, and to them must be added alopecia in patches, which occurs from the 5th to the 8th month and affects the scalp, eyebrows and even the hairs of the body.

Iritis is more rare; it may occur at an early period, but is generally later than the papules or mucous patches.

Onyxis occurs also at the same date. This always affects several fingers, generally laterally. At first it resembles a painless whitlow, but the lesion is always dry and exfoliates without suppurating.

After the secondary period, which is nearly always vigorously treated, there is generally a period of quiescence between the secondary lesions, which are almost inevitable, and the tertiary lesions which may be most often avoided by correct treatment.

Tertiarism is very distinct from secondary syphilis. It is practically never characterised by generalised eruptions or lesions, but by limited regional eruptions and strictly localised lesions. On the other hand the multiformity of its lesions is almost indefinite.

(9) The lesions of the skin include *papular* or *papulo-tubercular* syphilides, in circles or in corymbs or in large figured designs, and *gummatous placards,* forming chronic crusted lesions, commonly called *teritiary serpiginous syphilides,* which may be ulcerated or

not. These superficial gummata constitute the tertiary syphilitic ulcer of the leg.

(10) Along with these superficial lesions there are others which constitute deep syphilomas or gummata, neoplastic at first, which undergo a necrotic evolution or progressive sclerosis. They may develop under the skin, in the muscles or in any organ.

The sclero-gummatous lesions of the tongue, and choroido-retinitis of the eye are of the same date; also the bony perforations of the nose and sequestra. All the tertiary lesions may occur from 18 months to 20 years or more after the chancre. The further they are removed from the initial period the more scarce are the lesions, but without any certainty that they will not return.

(11) *Syphilis of the nerve centres.* A large number of nervous diseases, formerly classed as autonomous, appear now as the sequelæ of syphilis, and nearly all originate in perivascular sclerotic lesions. They may be explained as follows: In the secondary period a number of transient lesions are produced, slightly congestive, but without very marked functional symptoms. Each of these later on gives rise to a nucleus of sclerosis constricting the nerve cells or fibres. These lesions may be dispersed, forming *sclerosis in patches;* or they may be diffused in the vessels of the pia-mater, forming *general paralysis;* or they may be systematised in nerve tracts, forming *locomotor ataxia* and *progressive muscular atrophy.*

These lesions manifest themselves long after they are formed, which explains the mediocrity of the results obtained by treatment.

(12) *Hereditary Syphilis.* Syphilis is one of the rare infectious diseases, the transmission of which by both parents to the child is the rule, when the parents are in a state of active syphilis. It seems that this transmission, which may be from either the father or mother, may take place at two periods and furnish different clinical pictures. If the contamination occurs during the first months of pregnancy the fœtus is generally killed. No disease causes so many still-births and miscarriages. It is at this point that 4 or 5 miscarriages almost certify syphilis in the genitors. Some infected infants escape death and are born. These are cachectic during the first months of existence and seem to float in their super-abundant skin. They have the appearance of little old men. They may present specific secondary eruptions; their development is deficient, and most often they die at an early age. The survivors form dwarfs, curiosities, hydrocephalic children with enormous foreheads, chil-

dren with a projecting lower jaw, the prognathism of which causes a crescent-shaped profile. As they have few symptoms of their origin which are recognisable, the affections have been attributed to many diseases of which the primary origin was not recognised. (See *heredo-syphilitic alopecia,* p. 222.)

On the other hand the child may have been healthy at conception and infected in the latter months of pregnancy by an intercurrent syphilis of the mother. In this case it may have been born apparently healthy and present, after a few weeks of normal existence all the symptoms of florid secondary syphilis with affection of the general health. These sucklings may die of syphilis, more often than the preceding, generally from some intercurrent accessory affection, such as broncho-pneumonia or erysipelas.

Lastly, the child may be born non-syphilitic, *i.e.,* presenting an active lesion of syphilis, but showing dystrophic changes in the skeleton; platycnemic tibia; maxillary and dental lesions, etc., bearing witness to the morbid condition of its genitors. These dystrophic stigmata lead to interesting retrospective diagnosis.

Among heredo-syphilitics there are thus the infected who have true syphilis, and the dystrophic who have only the mark of the paternal or maternal syphilis; but the latent infection may manifest itself at the age of 10 or 20, or later, by ulcerative or necrosing lesions, which are often mistaken for dystrophies, and the nature of which is often not recognised.

Hygiene of syphilitics. All the primary or secondary ulcerations of syphilis are contagious, and it is often difficult to determine the secondary contagious or the tertiary non-contagious (?) nature of certain lesions (see *tertiary sclerosing glossitis* p. 48). The disinfection of external ulcerations is hence the rule, and the prohibition of all mediate (razors, brushes, etc.), and immediate contacts. The latter, especially kissing and coitus, are the most dangerous, and for a long period. Even after several months, any trace of erosion on the genital organs should forbid coitus. Marriage, with the unanimous consent of all syphilographers, should be delayed for 4 or 5 years. If syphilis has been contracted in the course of marriage, by extra-conjugal intercourse, sexual connection between the married should be immediately stopped. If both conjoints are syphilitic they should abstain from all reproductive coitus. If fecundation occurs the mother must receive intensive antisyphilitic treatment, even if the father only is syphilitic, and if the mother does not appear

to be contaminated; for a syphilitic infant may be begotten by a syphilitic father and an *apparently healthy* mother. This infant may be suckled by its mother without contaminating her, proving that the mother is syphilised (?) or vaccinated (?). (*Colles law.*)

The child of a person with active syphilis should thus be regarded as syphilitic. It may be suckled by the mother even when she is supposed to be healthy, but cannot be given to a non-syphilitic nurse (*Colles law*).

Treatment of syphilis in the adult. Syphilis may be treated by internal medicaments such as: pills of proto-iodide (¾ grain, 1 to 3 daily); *Dupuytren's* pills (1 to 2 daily)[1]; liquor of *Van Swieten*[2]; 1 or 2 tablespoons daily. Or by cutaneous inunction of double mercurial ointment,[3] 60 to 75 grains a day, applied alternately in the different folds of the flexion. The inunction is applied at night, after a previous soaping and the application washed off in the morning. Salivation and infection of the gums, causing stomatitis, must be watched for. These forms of treatment may be necessary owing to the distance of the physician, the nervousness of the patient, etc. Necessity of concealment may require the inunction to be made during the day on the soles of the feet, and washed off at night.

The most rational and scientific treatment is that by injections (*Scarenzio*). This is made at fixed periods and allows the introduction into the economy of a known quantity of the drug, without causing unnecessary intestinal trouble. A great number of different salts and compositions have been recommended. Some recommend soluble and others insoluble preparations. Most of the soluble salts should be injected frequently and in small doses; the insoluble salts in larger doses and at longer intervals, which makes them more practicable; but they may give rise to more prolonged phenomena of intoxication.

The following are three types of solutions for injection:—

(1) Biniodide of mercury . . . . } 10 centigrammes.
Iodide of sodium . . . . . }
Sterilised distilled water . . . aa 10 cubic centimetres.

[1] Translator's Note. Dupuytren's pill contains: Perchloride of mercury, gr. 1/5 to 1/4; extract of opium, gr. 1/4 to 1/2; guiacum resin, gr. 4. Ricord's Proto-iodide pill contained: Proto-iodide of mercury, gr. 5/6; extract of opium, gr. 1/4; extract of guiacum, gr. 1 2/3. (Ricord. Traité des Mal. Ven.)

[2] Solution of perchloride of mercury, 1 to 1000.

[3] The unguentum Cinereum used in England consists of 1 part of mercury, 1 part of lanoline, and ½ part of olive oil.

N. B.—The distilled water may be replaced by normal saline solution. A cubic centimetre of the injection contains 1 centigramme of biniodide (gr. 1-7), corresponding to 4 milligrammes of mercury (gr. 1-17).

The average efficacious dose is from 2 to 2½ centigrammes of biniodide (about gr. 1-3). From 2 to 5 centigrammes (gr. 2-7 to 5-7) or more of biniodide may be dissolved to the cubic centimetre (m. 17), with an equal quantity of iodide of sodium. (*Lafay.*)

(2) Grey oil contains 40 per cent. of mercury.

Purified mercury	40 grammes
Sterilised lanoline	12 "
Sterilised vaseline	13 "
Sterilised oil of vaseline	35 "

Injections are made weekly with *Barthelemy's* syringe half full, or 3 to 4 divisions of *Pravaz* syringe: equivalent to 8 to 10 centigrammes of mercury (gr. 1 1-7 to 1 3-7).

(3) Injections of calomel: For this purpose sublimed calomel is suspended in sterilised olive oil.

Weekly injections of 5 centigrammes of calomel (gr. 5-7) are made, except under special circumstances.

The injections are made in alternate buttocks. (For technique see page 513.) A *pregnant syphilitic woman* should be treated as if she was not pregnant. In the treatment of a woman *apparently healthy but pregnant by a syphilitic husband,* injections of 8 centigrammes (gr. 1 1-7) of grey oil may be practised once a month.

The *treatment of the syphilitic child* may be carried out by the same methods; altering the dose according to age. A suckling may take from 20 to 50 drops a day of liquor *Van Swieten,* in three or four doses After two years a teaspoon daily. It may also be treated by inunctions of 15 to 30 grains of mercurial ointment, according to age.

The treatment of syphilis of the nervous system, which is always unavoidably too late, should be practised by injections in large doses (*Leredde*), but generally gives mediocre results.

The treatment of late hereditary syphilis, like that of a severe syphilis, in the opinion of all authors, requires almost exclusively the employment of injections of large doses. (*Barthelemy, Leredde.*)

Duration of Treatment. The first treatment should last 18 months, whatever the method employed. This period includes intervals of

rest. The patient is treated 20 days in the month, and rests for one month out of three.

During the whole duration of treatment, including the periods of rest, the patient should take 15 grains a day of chlorate of potash, which is considered to be an antidote to the mercury and a precaution against accidents. This drug, no more than any other, should not be prescribed blindly or indefinitely; nor should its action be regarded as decisive. During 4 years specific treatment should be resumed at intervals; as a precautionary measure, it is recommended for one month every year.

There should be no hesitation in treating malignant forms of syphilis more actively and for longer periods; for the lesions are apt to recur and difficult to disperse. Syphilographers of all countries have now a tendency to advise more active treatment, with larger doses and for longer periods, than they did ten years ago.

TUBERCULOSIS.

Tuberculosis is a specific contagious disease, inoculable in man and most animals, sometimes but very rarely hereditary, and caused by the bacillus of *Koch*.

The history of visceral tuberculosis has been long in becoming known, and is probably still incomplete. The dermatological history of tuberculosis is made slowly, and still presents numerous obscurities.

A tuberculous product containing bacilli, when it is inoculated on the skin, usually determines an anatomical tubercle, a raised hypertrophic lesion with a wrinkled and condylomatous surface, of chronic, progressive evolution and rarely presenting a tendency to ulceration (p. 336). The tuberculous lesion of inoculation generally causes an adenitis. It develops chronically, but may end in glandular softening and chronic ulceration.

The adenitis generally becomes multiple and one or two glands only become suppurative (cold abscess), causing chronic ulceration. Sometimes a polyadenitis, formerly called scrofulous, becomes more or less generalised without any tendency to softening, and remains chronic without modification.

The lesions and their adenitis have variable situations according to the point of entry. A pharyngeal origin causes tuberculous adenitis of the neck, formerly called "King's Evil," as infection by

the respiratory tract causes pulmonary tuberculosis, and by the digestive tract, intestinal ulcerations, etc.

Tuberculosis may develop locally, whatever its type, place of origin or localisation. But it may also give rise to bacillary dispersions, which may in their turn become malignant or benign. We must here set aside all visceral and articular tuberculosis and limit ourselves exclusively to the dermatological tuberculous lesions.

These are divided into two groups. In the first are included lesions of which the tuberculous origin is undoubted, because their inoculation in the guinea-pig produces tuberculosis. In the second are included lesions, clinically shewn to be connected with lesions known to be tuberculous, but of which inoculation in the guinea-pig does not cause tuberculosis.

The first group have been named tuberculides and the second toxi-tuberculides (*Hallopeau*), but the latter name formulates a hypothesis which has not been demonstrated experimentally. It is better to call the lesions experimentally shewn to be tuberculous, *tuberculoses*, and the others *tuberculides*, leaving the latter with the original signification given to it by *Darier*. Moreover, there are points of transition between the two classes which have not yet been sufficiently studied by experiment.

There are cutaneous or mucous *tuberculous ulcerations* of the skin and of the pharyngeal, lingual, buccal, and anal mucous membranes described previously, the bacillary nature of which is generally easy to demonstrate.

There are *sub-cutaneous nodules* opening on the skin and constituting a deeper tuberculous ulceration than the preceding.

There are *cutaneous superficial nodules* in placards, eroding the skin and very suppurative (*Gaucher*), ending also in chronic ulceration of the surface. These two lesions generally arise from the suppuration of a subjacent adenitis, followed by development of the tuberculous infection round the fistulous orifice of the surface of the skin. Generally, direct inoculation of the skin causes the anatomical tubercle in its primary form, or the development which constitutes vegetating or *warty tuberculosis* (*Riehl* and *Paltauf*, p. 336).

Tuberculous lupus results from the nodular intradermic evolution of tuberculosis, but the bacilli becomes scarce, although it is generally inoculable in the guinea-pig. The evolution is slow, progressive and may be ulcerative, or vegetating, but lupus often does not

ulcerate at all and extends without changing its type of evolution in the form of a chronic cutaneous infiltration.

There is a lesion homologous with tuberculous lupus, which gives a negative inoculation in the guinea-pig. This is the sarcoid of *Boeck*.

After lupus should be placed the true *cheloids*, of which the tuberculous nature, without being absolutely constant, seems to be confirmed, at least in a number of cases (p. 394). These are hard, fibrous tumours, rounded or linear, generally post-traumatic, sometimes spontaneous, of slow development and indefinite persistence *in situ*.

There is a whole series of tuberculides which present characters of diffusion, analogous to those of secondary syphilitic eruptions. They do not seem in general to be inoculable in the guinea-pig. However, they have given positive results according to some authors.

The first type of these is *lichen scrofulosorum* (p. 503), an eruption formed by groups of round, yellow, miliary papules scattered over the whole body. The structure of these lesions suggest tuberculosis, and even the name indicates the clinical connection of this eruption with tuberculosis. A florid form may be connected with this, the *agminated papulo-pustular eruption*, of chronic evolution described by *Hallopeau* and *Thibierge*.

The second type of tuberculides with generalised eruption is constituted by the *papulo-tuberculous tuberculides with cicatricial evolution*, described by *Brocq* and *Barthelemy* (acnitis, folliclis), at first as folliculitis under different names, and by others as *acne cachecticorum* or *scrofulosorum* (p. 338).

With the punctiform eruptive tuberculides must be placed the eruptive tuberculides in placards. The type of these is found in *fixed lupus erythematosus* (p. 18), the tuberculous nature of which was first maintained by *Besnier*, and especially the mobile erythematous lupus or *exanthematoid* (*Brocq*).

Close to the latter may be placed *lupus* and *erythema pernio* (p. 335). Some add to this list the *erythema induratum* of *Bazin*, that is to say, erythema nodosum; others the *angiokeratoma* of *Mibelli*. But the latter connections are uncertain and based on clinical relationships which are less evident and less definite than those which have placed the preceding forms among the tuberculides.

Lastly a pseudo-xanthelasmic lesion has been reported in the course of tuberculous cachexia, *elastorrhexis*, which causes the

disappearance in places of the elastic tissue of special lineæ albicantes (*Bodin*).

There is no specific treatment for tuberculosis, in its divers dermatological and other forms. Treatment varies with the localisations and has been studied with them.

LEPROSY.[1]

Leprosy is a chronic contagious disease, inoculable from man to man, but peculiar to the human species. caused by a specific bacillus discovered by *Hansen*. Its inoculation in the monkey has just been confirmed (*Nicolle*).

This disease, one the most ancient known, still occurs endemically over an immense surface of the earth; nearly the whole of Asia, the borders of Africa, the coast of the Mediterranean, tropical America, and in Europe, the Scandinavian peninsular. In France only rare and sporadic cases are seen, of which many authors have even disputed the authority, and authentic cases coming from foreign countries; from our Colonies in Asia, The Antilles or Guiana. Owing to the rarity of cases seen in France, I shall condense in short paragraphs the history of a disease which is, however, of capital importance in many countries.

We are ignorant of the usual mode of entry of the virus; it may possibly be by the nasal fossæ. The incubation of the disease may be from a few months up to 5 years or more; in the last case it must be admitted that some focus exists at some part of the body, which remains latent without multiplying or dispersing. Among the premonitory symptoms, chronic coryza has been said to be frequent.

Nothing certain is known till the appearance of the leprous roseola, an exanthematous eruption of irregular rose coloured maculæ, varying in number and in rate of evolution. This eruption is characteristic. After this the disease may evolve according to two different types; *tubercular leprosy*, or *anæsthetic leprosy*. These may coexist in the form of mixed types, but are usually well defined.

Tubercular Leprosy. The eruption may be schematically divided into three periods (*Leloir*); the period of eruption, the neoplastic period, and the ulcerative period.

[1] This chapter has been much inspired by the remarkable works of Jeanselme on this subject.

Period of eruption. The hyperæmic macules of the eruption appear successively, become more and more infiltrated and papular, thickened, organised and projecting. These tubercles appear more or less quickly, successively or by crops, in a few months or years; they also vary in number and are more or less limited or diffuse.

Neoplastic period. The tubercles evolve towards gummy transformation and ulceration in florid leprosy, at least in countries where the disease is endemic. In France, the tubercles often evolve towards retrogression and cicatrisation without ulcerating. But this retrogression is very slow. Certain tubercles disappear while others arise. On the face they constitute the leonine facies (Fig. 24); the eyebrows are filled with tuberosities and their hairs fall. This extremely long period is interrupted by acute outbreaks, during which the temperature rises to 104° F., and there is headache, nausea, delirium and sordes. During the following days arthralgia occurs, and a veritable erythema nodosum, of which the nodes form fresh tubercles, or large specific surfaces of pseudo-erysipelas. In this way is constituted tuberous leprosy, which gives the patient a truly repulsive aspect.

Later on, regional localisation becomes pronounced. The eye is one of the organs most frequently attacked, with leprous keratitis, infiltration, phlyctenules, and ulceration of the sclerotic and cornea, and later on pannus.

There is also a leprous iritis. In the larynx, infiltration of the vocal cords produces aphonia, and in the later stages laryngeal stenosis. In the pharynx there is produced a diffuse leproma, which always remains chronic and sometimes ulcerates. The tongue presents sclerosing glossitis, very syphiloid in appearance.

There is a leprous orchitis, and infiltration and tubercles of the penis constituting a leprous pseudo-phimosis. All the viscera are more or less affected. The spleen and all the glands are enlarged and there are bacillary localisations on the peritoneum. Pulmonary tuberculosis often follows, due to the bacillus of *Koch*.

Ulcerative period. In the course of tubercular leprosy, the softening of the tubercles may convert them into ulcerative lesions. This occurs in all lepromas in certain severe cases. The patient is then covered with terrible phagedenic sores. Bony necrosis may occur with loss of the phalanges (p. 339); and saddle nose deformity and perforation of the septum resembling syphilis.

After 10 or 15 years cachexia sets in with interminable suppuration and visceral infiltration.

The leper having become blind, paralysed, and indifferent to everything, slowly succumbs. A secondary infection closes the scene; septicæmia, malaria or tetanus. The form which we have described is an average one. In certain countries there are rare cases of leprosy which are much more rapidly fatal. Inversely, in our country patients are seen whose acute crises become gradually less frequent and less severe, and in whom the disease without being cured, becomes progressively attenuated.

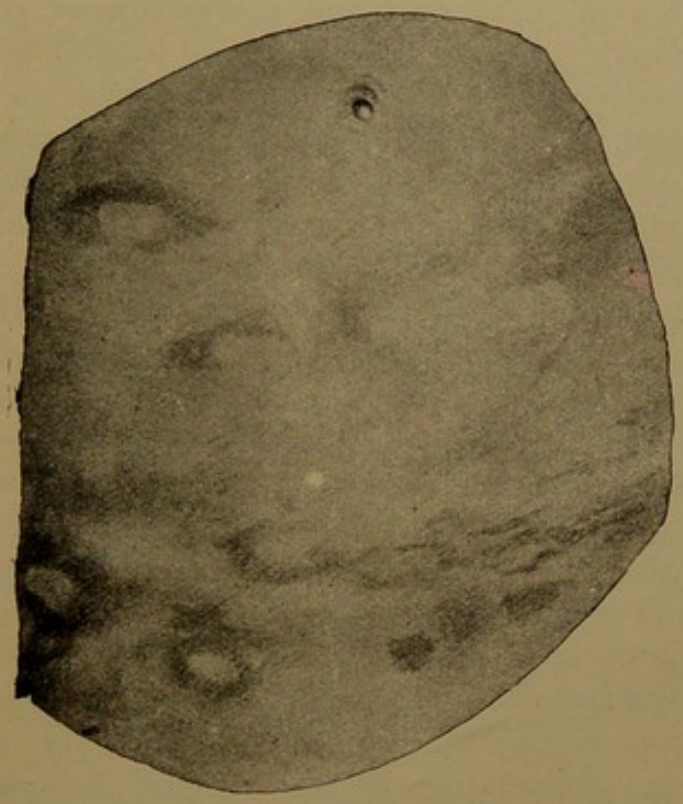


Fig. 231. Macular leprosy. (Besnier's patient. St. Louis Hosp. Museum, No. 626.)

Anæsthetic Leprosy. Anæsthetic leprosy is quite different, but may also be considered schematically as composed of three phases; a *hyperæsthetic* phase, an *anæsthetic* phase, and an *amyotrophic* phase.

Hyperæsthetic phase. This commences with the macular eruption which occurs at the onset of all forms of leprosy. The spots do not become papular, but pigmented, and extend, while their centre becomes white. (vitiligo gravior.) Sometimes pemphi-

goid bullæ occur apart from the spots, sometimes on them. The spots become the centre of progressive sensory disorders. These at first consist of neuralgic pains and tingling and burning sensations. This phase may not be very marked.

Anæsthetic phase. This is never absent. The anæsthesia results from neuritis, and the nerves which are palpable (the ulnar) present a series of perceptible nodules. The anæsthesia is generally symmetrical and localised to the limbs; more pronounced in the lower limbs and on the surface than deeply; at first in bands, afterwards segmentary. Anæsthesia to heat occurs first and is followed by anæsthesia to pain; tactile sensation remains. The sweat function is suppressed and the sebaceous secretion increased. Trophic disorders are manifested by bullous outbreaks, or leprous pemphigus, which is especially common on the elbows, knees and backs of the hands and feet; often sloughy, and succeeded by perforating and mutilating ulcers. At the same time the lower limbs become pachydermatous and elephantiasic.

Amyotrophic phase. Amyotrophia is the rule. In the more common type the atrophy affects the thenar and hypothenar eminences, then the forearms; the fingers are claw shaped or deviated laterally, as in nodular rheumatism. In the lower limbs a condition of leprous pseudo-tabes occurs, with tendinous contractions, claw shaped toes, etc.

Bony and articular lesions are produced in trophoneurotic leprosy and create mutilations. Panaris occurs with inflammatory phenomena and progressive ulceration; onychia and ulcerative perionychia and perforating ulcer. The phalanges of the fingers and toes become detached (Fig. 166) and th extremities become stumps.

The duration of leprosy is unlimited. However, a secondary infection may easily arise in the emaciated, paralysed and mummified patient, and prove fatal.

Leprosy requires rules of prophylaxis and treatment; prophylaxis, because the disease is not hereditary but only contagious. A newly born child when removed from its leprous mother never becomes leprous, except by another contagion. The sequestration of lepers is a problem, the study of which is reserved for countries in which leprosy is endemic. At the St. Louis Hospital, within the memory of man, not a single contamination has been produced, in spite of the fact that there have always been from 12 to 15 lepers there, during more than a century.

There is no specific treatment for leprosy. Chaulmoogra oil in doses of 50 to 200 drops is the most active treatment in our country. Naphthol has given some good results. The best treatmen for colonial cases is to return to Europe. They are not cured, but they live.

GLANDERS.

Glanders is a specific contagious disease, most often inoculated in man from the horse, inoculable in laboratory animals, and caused by the bacillus discovered by *Loeffler*.

Glanders is rare in man, but sometimes occurs in knackers and veterinary attendants, etc. It has been known several times to have followed accidental inoculation in the laboratory.

It assumes two forms: an acute form in which the infection invades the pharyngeal mucous membrane and the viscera, which does not occur in man; and chronic *farcy*, which is the only form seen in man. At the point of inoculation is produced an ulcerative chancre with a tendency to extend and become phagedenic. Lymphangitis with lymphatic induration follows, forming the *farcy buds*. These indurations become ulcerated and also give rise to fresh ulcers. Adenitis is next produced, which also ulcerates, causing *farcy buboes*. After some months visceral miliary foci are generally produced, causing acute miliary pulmonary glanders or pneumonia, which prove fatal in a patient already cachectic. Human glanders is seldom cured, and a fatal termination is the rule.

The treatment attempted has copied that of syphilis. Mercurial inunction may be tried on the affected parts, but usually everything fails.

The diagnosis is always doubtful at first, on account of the rarity of cases of human glanders, and is always experimental. Inoculation of pus in the peritoneum of the male guinea-pig determines in 5 to 8 hours an acute inflammatory orchitis. Pus taken from the tunica vaginalis of the guinea-pig after the orchitis is impure, because the tunica vaginalis communicates freely with the peritoneum. But with this pus it is easy to make microbial separations, even on glycerinated gelose-peptone, by successive dilutions in distilled water from several successive culture tubes (*Veillon's* method). The culture of the bacillus of glanders on

potato is characteristic, and its brown colour renders it easily recognisable.

WELLCOME LIBRARY INSTITUTE