A pictorial atlas of skin diseases and syphilitic affections : in photo-lithochromes from models in the Museum of the Saint Louis Hospital, Paris, with explanatory woodcuts and text / by Ernest Besnier [and others] ; edited and annotated by J.J. Pringle.

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A PICTORIAL ATLAS OF SKIN DISEASES

BY J. FRINGER

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AND SYPHILITIC AFFECTIONS

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SYPHILITIC AFFECTIONS

In Photo-Lithochromes from Models in the Museum of the

SAINT LOUIS HOSPITAL, PARIS

WITH EXPLANATORY WOODCUTS AND TEXT

BY

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PREFACE.

The Museum of the Saint Louis Hospital dates from the year 1865, when the celebrated Devergie, then giving up his duties as physician, presented all his water-colour drawings to the Hospital. Numerous photographs and drawings were subsequently donated by Hardy and Bazin, but a new era was inaugurated in 1867, when M. Baretta at the instance of Lailler first began the incomparable series of skin models which now number about 1,900, and which constitute an almost complete collection of every recognised form of skin disease.

The admirable descriptive catalogue was mainly compiled by the late Dr. Feulard.

PUBLISHERS' PREFACE TO THE SECOND EDITION.

THIS Atlas is intended as a pictorial representation of several of the famous models of dermatological and syphilitic cases at the Saint Louis Hospital of Paris, most of which have been executed by M. Baretta.

It differs from other publications of a similar character in this, that the illustrations chiefly represent *typical* cases while most atlases exemplify *rare* cases only.

A novel and most important feature is the introduction of EXPLANATORY WOODCUTS in the text, which greatly add to the easier understanding of the excellent plates. These plates are produced by the best-known process of photo-lithography, for which reason they have been styled "Photo-Lithochromes". They are executed by the foremost Parisian artists, and will be found of exceptional correctness, beauty and merit.

The object of the publishers is to place at the disposal of every medical man and student, and at a popular price within the reach of all, the fruits of experience stored in this unrivalled collection.

Actual cases can readily be compared with the plates, thus facilitating a quick and correct diagnosis, while the accompanying text suggests all the elements of rational treatment.

It was thought advisable to print the text, with formulas, as a separate volume, and issue the plates loose in a portfolio, thus facilitating the proper inspection of each illustration during the perusal of its printed description. The Publishers trust that by this method they have anticipated the wishes of the profession.

EDITOR'S PREFACE.

My task, in editing this Atlas, is an easy one, my main duty being to ensure the accuracy of the English translation as representing the meaning of the original French text. To obtain such accuracy, considerable freedom of idiom will be exercised wherever necessary; but it will be occasionally inevitable to translate words — especially adjectives — by English equivalents, no more "classical" than the French originals.

My annotations will be of the briefest description and entirely confined to questions of nomenclature—which may present difficulties or cause confusion to the general medical reader—and to references to the better-known English text-books and monographs.

It is, perhaps, unnecessary to disclaim any personal responsibility for opinions enunciated throughout the work; but, as all of the Authors may be numbered among my dermatological masters or friends at the Saint Louis Hospital, I may be allowed to express my general sympathy and agreement with the tenor of their remarks.

J. J. PRINGLE.

PLATE I.

LUPUS VULGARIS OF THE CENTRE OF THE FACE.

WILLAN'S LUPUS.—SIMPLE TUBERCULOUS LUPUS.—LUPUS VULGARIS.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 963, made in the year 1884, from a patient under the care of M. ERNEST BESNIER.

I.

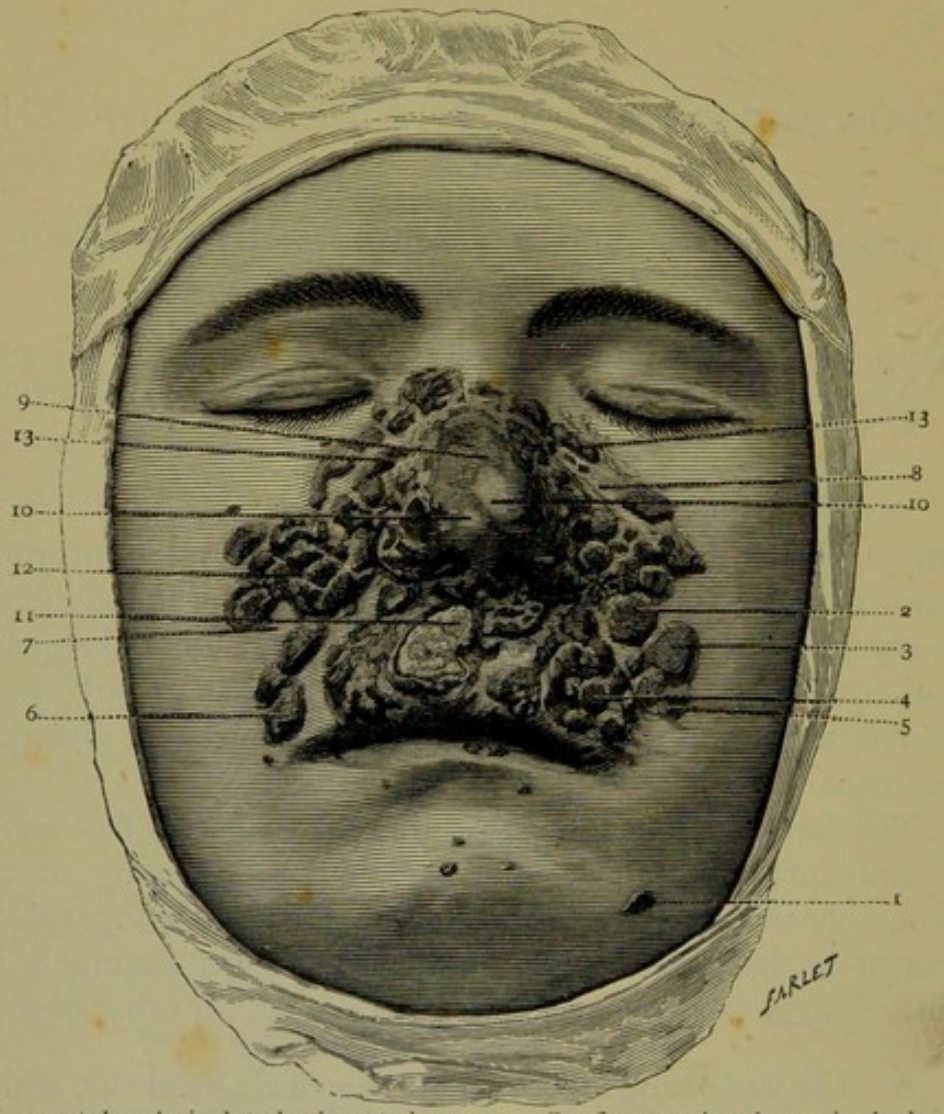
THE model which is reproduced in this photo-lithochrome shows us a complete type of WILLAN'S LUPUS, of the agminate variety, such as we see at an advanced stage of its long and slow evolution, and in a condition of active growth, at a variable period after having undergone mechanical or chemical treatment.

The seat of the lesions—the centre of the face—is a favourite place of attack; the symmetrical grouping of the lesions shows the part taken by the anatomo-topographical element is their constitution. To analyse them accurately we must compare two parts, one being peripheral, the other central.

A. *The peripheral part.*—The neoplastic elements, which are placed side by side, contiguous, confluent, or isolated, and which make up the peripheral zone of the lesion, are lupus tubercles (1, 2, 3, 4, 5, 6, *etc.*), and belong in great part to the large and prominent variety, being from one to three millimetres in size; but they are more developed in surface than in depth, that is to say, they are superficial, or *papulo-tubercles.* This first characteristic of proliferation above the surface is noteworthy. It guarantees the assurance that by means of judicious mechanical treatment we can get a flat

cicatrix, without either disfiguring ridges or depressions, and without any real mutilation of the parts.

The predominant *colour* of the lupus tubercles in the case we have reproduced is nearly typical—at least, as far as



1. Lupus tubercle isolated, ulcerated. 2, 3, 4. Confluent tubercles, raised above the surface, rounded or oval, flattened or elliptical. 5. Tubercle, conical in shape, almost acuminate. 6. Tubercle raised from the surface, several millimetres in size. 7. Violet-coloured zone surrounding groups of tubercles. 8. Tract of cicatricial tissue separating groups of tubercles. 9. Zone of lupus infiltration without nodules. 10, 10. Lighter-coloured zones in which retrograde cicatricial tissue is in greater amount than lupus infiltration. 11. Ulcerations. 12. Tubercles modified by mutual contact. 13, 13. Tubercles altered in shape by pressure from surrounding diffuse infiltration.

the possibilities of art will allow. It is a dark coppery red, almost livid, with a surface that shines and looks as if it had been polished, and with a kind of gelatinous transparency, not

unlike red barley-sugar; this last characteristic, which is of great importance in examining a patient, cannot be seen well in a photo-lithochrome.

Those isolated tubercles which have developed in a hitherto unimpaired skin, and whose intradermic portion is not enclosed in a patch of diffuse lupus infiltration, are distinctly rounded in form (1, 4, 5), but this is in great part modified by a variety of conditions, especially by contact (12), or by fusion (2, 3), or by invasion of the base by diffuse infiltration (13, 13), *etc.* We rarely see the summits of tubercles remaining either acuminate or spherical (5); the majority of them have a flat surface, plano-convex, plano-concave, either regularly or irregularly umbilicated, with a general tendency to excavation from the centre to the periphery—features which can be studied in the model by the help of a lens—according to the position of those parts which are most fully matured.

The *surface* of the tubercles in this case, as in most cases, is soft, and free from exfoliation or exudation, with the exception of a conglomerate mass situate on the left upper lip (11), which presents a flat ulcer with a yellow diphtheritic-looking surface.

The *size* of the isolated, primary tubercles is inconsiderable, that of a millet seed. There is a thick crop of granulations, which can be seen in the drawing, in the midst of the nodules and conglomerate masses, which represent the more advanced stage of the morbid process. The tubercles do not exceed the size of a pin's head, a very small pea, or a grain of oats (1, 4, 5). If they are of this size or larger, they are, as a rule, not primary tubercles, but conglomerate masses (2, 3, *etc.*), some of which show traces of their mode of formation, either on their surface or at their periphery. In all cases where the lesions have attained these dimensions, gentle pressure with the finger-tip enables one to detect on the living subject a feeling of sponginess and softness which becomes thoroughly characteristic when the tissues are torn, scarified, scraped, or cauterised with a platinum needle.

The *confluence* of primary and secondary tubercles, of conglomerate masses and of composite foci of disease is so

great that only here and there some very small areas on the face can be seen which are free from disease. In some parts, chiefly between the little islets of tissue at the periphery, the skin is slightly swollen and somewhat erythematous, with a violet tinge (7-7). The swelling is, as a rule, always more distinct in the upper lip, giving a thickness of outline to its profile, which can only be well seen during life. In all parts where there is marked confluence of tuberculous masses, and chiefly in the upper part and sides of the nose, it is not sound or simply erythematous skin which forms the ground-work, but a true cicatricial network, the remains of past phases of evolution of the disease, either spontaneous in origin, or the result of treatment, between the meshes of which tubercles and lupus foci are visible.

In the case which is shown in our photo-lithochrome, as in nearly all examples of Willan's lupus, the anatomical situation of the lesions, their symmetrical arrangement, their geographical grouping in the shape of an irregular archipelago, their multiformity, their consistence, their colour, and the state of the subjacent dermic tissue, enable one, at a glance, and *on purely objective grounds*, to differentiate lupus tubercles from all other tubercles, especially those of leprosy or of syphilis.

But not one of these characters taken alone is pathognomonic, so that at times we meet with tubercles of leprosy and of syphilis so similar, when taken individually, that there are cases which would puzzle even the most accomplished dermatologist, if his diagnosis were based on inspection of the part alone.

B. *Central portion.*—The central portion of the disease, which is distributed over the margin of the nostrils, the under surface of the septum narium, the lobule and a small portion of the bridge of the nose, shows no sign of anything strictly speaking tubercular. It is of a livid, red hue, marbled with islets of a lighter tint, in which retrogressive tissue is more abundant than lupus infiltration (10, 10). Its surface is smooth and shining, as though it had been varnished. It is an infiltrated, diffuse, secondary layer of derma, the sequel to the primary retrograde, cicatricial phase—a *secondary lupus layer*—

with atrophic retraction, destruction of a large portion of the nasal border, chiefly on the right side, and double atresia of the nostrils, also most marked on the right side.

This detailed clinical analysis, this "inventory" of the actual state of the lesions, is not merely of scientific interest; it is in the highest degree of practical interest to the dermatologist who undertakes the treatment of such a case. It is the duty of the teacher to inform his pupils, and of the physician to inform the patient or his friends, in every case, of the exact measure of irremedial deformity and destruction that has already taken place. In the present case we took care to point out to the patient's friends that a portion of the alæ nasi had been already destroyed, that the septum was reduced to a mere stump, and that the nostrils were greatly shrunken. For lack of this precaution, the medical man in charge of such a case may afterwards be blamed for having caused by his treatment some of the disfigurement due to the disease itself.

II.

History of the Case Represented.

The model of which a photo-lithochrome is here given was made in 1884, by Baretta, from a young woman, twenty-five years of age, whose clinical history was not of sufficient interest to warrant its relation here.

It will suffice to state that the lupus made its first appearance some ten or eleven years previously, in the naso-labial region, where retrograde lesions are now most advanced.

The late Ollivier first applied mechanical treatment to it in 1881, seven or eight years after its appearance. This consisted of repeated *linear scarifications*—the crossed scarifications of Balmanno Squire, Vidal, and others—the result of this treatment, after some months, being an incomplete cure, with which, however, the patient was very well satisfied.

As usual, the lupus process, though retarded in its course, was not long in resuming its slow but unceasing activity, and within three years after treatment the disease had assumed the

grave appearance shown in the photo-lithochrome. This is neither an exceptional case nor is it a mishap; it is the rule, to which there are but few exceptions.

Scarification or scraping, although a valuable and brilliant therapeutic measure, is not a real *method* of treating lupus, but a surgical procedure, generally quite powerless to put an end to the disease, even though the treatment may be carried on for months and years.

In a case like the one which is figured here, the following line of treatment is that which we would pursue: all the tuberculous masses should on the first occasion undergo a thorough curetting under anæsthesia. We say all the *tuberculous masses* only, because it would not be of much use, and there would be obvious objections to submitting the nasal septum, the atrophied border of the nostrils, and the lobule to a vigorous scraping. Indeed, even if it were carried out with undue force, the scraping would not cause great destruction of the normal dermic tissue, where it is riddled with tubercles and lupus foci; but it would be a very different matter for the tissue of the lobule and edges of the nostril, and especially of the septum, which are affected by diffuse retrograde changes, a state of affairs which calls for further timely interference by the surgeon. It is needless to add that both operations and dressings should be carried out with antiseptic precautions.

At a later date, when cicatrisation had taken place, it would be advisable to tear up the parts freely with the needle, or give them a thorough deep scraping with the fine curette, or apply caustics. The parts which are most suitable for treatment by scarification, in the true sense of the word, are the central part of the disease, the lobule of the nose, the nostrils, and the septum.

Lastly a few applications of the galvano-cautery, by the method known as "interstitial puncture," would bring about a cure which might be considered as complete as results in cases of this kind ever are, with a white and smooth cicatrix.

ERNEST BESNIER.

TREATMENT OF LUPUS VULGARIS.

The treatment of lupus vulgaris is essentially local, for, with the possible exception of thyroid feeding, no drugs given internally have any specific action on the disease, although much benefit may indirectly be obtained by the due observance of hygienic principles, such as an out-door life and good nourishing food, with the addition of cod-liver oil and other general tonics. Locally, the objects of treatment are to get rid of the diseased tissue and at the same time to leave as little scarring as possible; and, since the disease manifests itself in such various degrees of intensity and distribution, there are many methods in vogue for attaining these objects, each of which must be selected with due regard to the characteristics of the individual case.

In cases of superficial lupus, chemical substances may be applied in the form of ointments to produce exfoliation of the tissues, and the most valuable agent for this purpose is salicylic acid, which is best used in the form of Unna's "salicylic acid and creosote plaster mull". The plasters made by Beiersdorff & Co. of Hamburg can be obtained of different strengths, and the creosote is needful to neutralise the pain which salicylic acid by itself causes.

In cases of non-ulcerating lupus Brooke's paste well rubbed in will often be found a useful measure, at any rate as a preliminary one. This paste recommended by Brooke (*Brit. Jour. of Dermatology*, 1891, p. 383) is constituted as follows:—

℞. Zinci Oxidi		
Amyli Pulv.	āā	¼ oz.
Vaselini		
Lanolini	āā	½ oz.
Hydrarg. Oleati 5 %		1 oz.
Acidi Salicylici		gr. xx
Ichthyol		m. xx.

Mercurial plasters and arsenical paste may also be used with the same object of producing exfoliation; but the latter, although possessing considerable properties of destroying lupus tissue, requires very careful supervision to avoid local

over-irritation and risks of poisoning. Hebra's formula consists of:—

℞.	Arsenious Acid	gr. x
	Artificial Cinnabar	ʒss.
	Rose Ointment	ʒss.

This paste must be spread on strips of linen, applied quite evenly and be changed in twenty-four hours.

Among other chemical caustics silver nitrate, acid nitrate of mercury and lactic acid may be mentioned.

The application of silver nitrate is simple and occasionally efficacious, but it possesses the great drawback of being a very painful procedure, and as equally good results can be obtained by other means it cannot be recommended.

Acid nitrate of mercury or a saturated solution of phenol may be sometimes used with advantage and should be applied on a piece of cotton wool attached to the end of a probe.

Lactic acid has a marked destructive action on the diseased tissue, but great care must be exercised to protect the healthy parts around.

Another very important application is pyrogallic acid, which may be applied in the form of an ointment in the proportion of 1 to 10.

Good results are reported from France from the injection of "grey oil" as in the treatment of syphilis.

Erasion or *scraping* is often very successful; the patient is anæsthetised and the diseased tissue thoroughly scraped and afterwards allowed to granulate under the influence of a simple antiseptic dressing. The application of a solution of zinc chloride (gr. 40 ad ʒi) after scraping is a valuable measure, destroying lupus nodules which have escaped removal.

Destruction may be accomplished satisfactorily with a Paquelin's thermo-cautery or some form of galvano-cautery, but by this method sound tissue is liable to be destroyed with the unsound.

After either of these measures Thiersch grafts may be applied after a healthy granulating surface is obtained.

Where the nodules are discrete and small they may be dealt with separately and various instruments have been de-

vised for the purpose of eradicating them. Among the most useful of these is the so-called "micro-brenner," which is practically a very small thermo-cautery. Unna has lately devised the "wood spicule" method for such cases, which has the advantages of being simple and comparatively painless, and moreover it leaves but little scarring. Briefly described the process consists in transfixing the individual nodules with sharp spicules of wood which have been soaked for a few days in a strong mercury and carbolic lotion; the pointed ends of the spicules are thrust into the nodules with a quick rotatory movement and then snipped off quite close with scissors. Several spicules can be inserted at a sitting and no local anæsthetic is necessary.

The patch with the spicules in it is then covered with a mercury and carbolic plaster mull, and when this is removed, in two days' time, the nodules are found to be destroyed and the spicules are found lying in small pustular depressions.

After all the nodules in the patch have been treated the whole area is covered with a zinc oxide plaster mull and allowed to heal.

Another method of destroying the lupus tissue which has lately been receiving some attention on the Continent is that of the use of "hot air" as introduced by Holländer. The apparatus consists of a metal tube through which air is continually pumped, and by means of a Bunsen burner beneath the metal tube the air can be heated up to about 300° C. The heated tube is applied directly to the diseased part, which immediately becomes blanched, and the lupus tissue is destroyed.

Although some encouraging results have been recorded it is not a method which is likely to come into general use, for it is extremely painful and requires a general anæsthesia, and moreover unless very carefully handled the healthy tissues may be charred and extensive scarring result.

Where possible complete excision of the patch followed by skin grafting is frequently a successful mode of treatment, but the cases on which such radical treatment can be practised with advantage are not very common.

If the incision is a small one it may be closed with sutures in the ordinary way, but if there has been an extensive removal of tissues some method of skin grafting such as that of Thiersch must be performed. The method of *complete excision* with transplantation has been especially practised and perfected by Lang of Vienna, who has obtained some very successful results by grafting the whole thickness of the skin.

The principal rules as given by Lang are :—

(1) That the excision be made at least a quarter of an inch beyond the diseased margin.

(2) That the skin and the superficial half of the subcutaneous fat of the diseased area be removed.

(3) That the graft be chosen from a suitable part of the body ; for example, after excising a cheek lupus, a graft from the skin in front of the thigh forms an admirable scar.

(4) That the graft consist not only of epidermis but also of derma, and that it be carefully measured so that on shrinkage it will exactly fill the area from which the lupus has been excised.

(5) That the graft be excised as deep as the fat layer, which should be then scraped off and the graft placed in position.

The wound is allowed to heal under a simple gauze dressing, and it is claimed that a minimum amount of scarring results.

Radiotherapeutics have lately received a large amount of attention and lupus has been successfully treated both by sunlight and by the X Rays.

The first of these methods, which is associated with the name of Finsen of Copenhagen, has already yielded brilliant results.

The principle of this method of treatment consists in abstracting those rays of sunlight which have an irritating action, and allowing only the non-irritating germicidal ones to pass.

This exclusion is effected by causing the rays to pass through a short cylinder of large circumference with glass ends which contains a solution of copper sulphate. From this chamber only the non-irritating chemical rays emerge, and

these are focussed on the diseased part. As the red blood corpuscles act as a barrier to the rays the parts which are to be acted upon must be rendered anæmic, and this can be accomplished by the pressure of a convex glass which can either be held in the required position or attached by suitable elastic bands. The great drawback to this method is the necessity for direct sunlight; but this can be to some extent obviated by the use of electric light, but in this case the apparatus is both complicated and costly. The latter objection has been greatly diminished by the recent introduction of the apparatus of Lortet and Genoud of Lyons.

The application of the rays is not attended by any pain; after the treatment has been applied for some hours some inflammatory reaction of the diseased tissues occurs and the nodules of lupus commence to gradually disappear, but it takes a considerable time before all the diseased parts have been sufficiently treated for scar tissue to form.

This method may be aided by other local measures, and in serious cases benefit is often obtained by treating the parts alternately with the rays and with an ointment of pyrogallic acid.

Another drawback is that the process of cure is very slow, and requires about one hour every day from four to six months in a case of lupus of the face of even moderate severity, as only small portions of diseased skin can be exposed at a time. If the cure is permanent this drawback will not appear to be so great, but until the question of relapses is definitely settled it is impossible to compare the method accurately with those of a more simple nature with which excellent results are in many cases obtained.

The value of the X Rays in many cases is also indubitable and especially where mucous membrane is involved. That they may have a marked effect in certain cases is not to be wondered at since we know that they sometimes give rise to great local disturbances on the healthy skin, but whether the benefit in lupus is the result of a specific action of the rays on the bacilli or merely due to an inflammatory hyperæmia cannot at present be stated, although it is most probably the latter, in

which case one would expect relapses to take place when the treatment is discontinued.

The results like those obtained by the sunlight method are slow, and a quarter of an hour or more must be given up to the treatment every day for about six months in order to obtain any real benefit.

The local application of oxygen to the lupus patches has lately received some support and in certain cases a distinct improvement appears to have taken place from the treatment. The method consists in applying a mask closely to the affected part, the mask being connected with a tube to a reservoir of oxygen, the idea being to keep the diseased part constantly bathed in pure oxygen. It is a tedious form of treatment and at present of more than doubtful value.

The use of *tuberculin* in all its modifications has proved sadly disappointing; the improvement which often follows the injections is only temporary, although possibly the disease may be in some way so modified that it afterwards becomes more amenable to local treatment. This method however is fraught with many dangers and has now been generally discarded in this country.

Hebra has found that subcutaneous injections of *Thiosinamin* exert a favourable influence on lupus vulgaris, and he showed cases at the International Congress at Vienna which had improved after twenty to thirty injections.

According to Crocker $\frac{2}{10}$ to $\frac{3}{10}$ of a cubic centimetre of a 15 per cent. alcoholic solution should be injected into the skin of the back two or three times a week. Although its action on lupus tissue is dubious, this method of treatment appears to exert a beneficial influence on the scar tissue resulting from destructive measures, which it renders more supple and elastic; it is therefore a useful adjuvant to other methods.

The drug which seems to have recently given most promise is the *thyroid gland* or its extracts. It may most conveniently be given in the form of tabloids, beginning with small doses and gradually increasing them, keeping however a careful look-out for any of the familiar disagreeable symptoms which the administration of the drug may provoke.

The cases most suitable for thyroid treatment are those in which the disease is of "florid," scrofulodermatous or strumous type, and it may be very advantageously used in many cases where no operative procedures are admissible, as in universal lupus of the face. This treatment has in my hands yielded many remarkably good results in various forms of tuberculous disease of the skin, and is worthy of further trial.

J. J. P.

PLATE II.

DERMATITIS HERPETIFORMIS (DUHRING).

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1333, made in the year 1888, from a patient under the care of M. TENNESON.

THE photo-lithochrome shows the right hand and wrist of a man suffering from a rare form of Dermatitis herpetiformis.

In this patient the general appearance was that of a large burn of the second degree, presenting bright redness, marked and wide-spread inflammation of the derma and hypodermic tissues, and large, flaccid, irregular, scattered bullæ covering the greater part of the reddened surface.

The liquid contained in these bullæ very soon became purulent; when they broke they laid bare a weeping desquamated epidermis, but there was no exfoliation or ulceration, and no granulation.

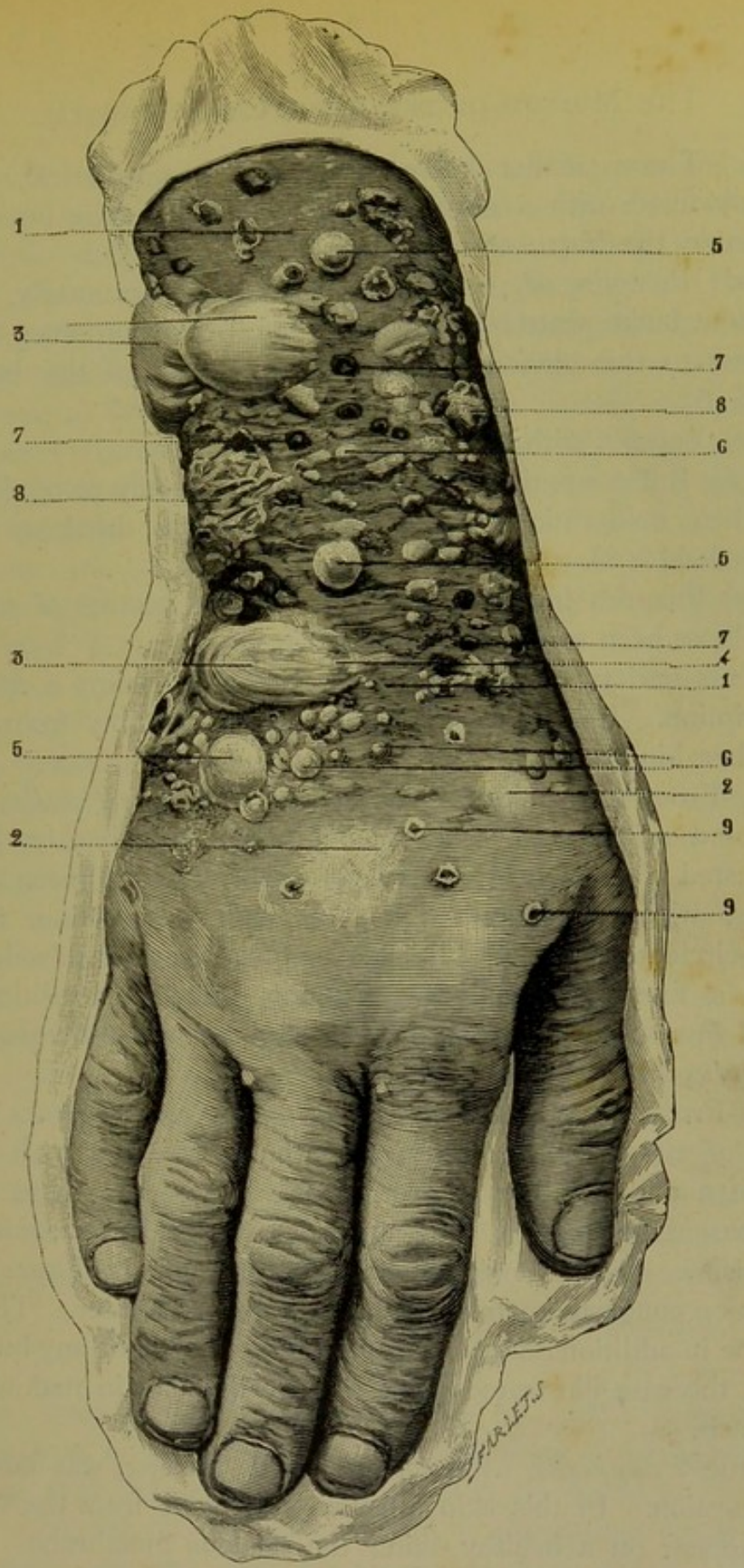
All movements of and all contact with the affected parts were painful. There was deficient excretion of urea, as is usual in this affection, but in the present case it was only slight; and there was no albumen in the urine.

The patient left the hospital after several months' treatment, free for the time being from his skin affection.

Now, if we analyse the lesions represented in the plate we find:—

(*a*) At 1, 1 diffuse redness with dermic and hypodermic infiltration, which gradually fades away on the back of the hand where some paler isolated zones are visible (2, 2).

(*b*) At 3, 3 irregular bullæ, the size of an almond or of a small nut, scattered here and there, not fully distended with a purulent liquid; one of these bullæ, more flaccid and shrivelled than the rest, is noticeable for the folds of its epidermic covering, which, by transparency, allows the subjacent rete mucosum to be seen (4).



1, 1. Diffuse hyperæmia with infiltration of the derma. 2, 2. Paler isolated zones. 3, 3. Large bullæ moderately distended with purulent fluid. 4, 4. Rete mucosum visible beneath the epidermic cover of a flaccid bulla. 5, 5, 5. Hemispherical bullæ greatly distended. 6, 6, 6. Pustules. 7, 7, 7. Papules with sanguineous crusts. 8, 8. Bullæ which have discharged their contents and are shrunken. 9, 9. Pustules that have not quite dried up.

(*c*) Three smaller bullæ, accurately hemispherical, completely filled with a purulent fluid, which by their brilliancy resemble the lustre of some pearls.

(*d*) Pustules, or perhaps, to speak more accurately, little purulent bullæ scattered here and there, whose presence bears witness to the obviously multiform character of the lesions (6, 6, 6).

(*e*) Papules with blood crusts (7, 7, 7).

(*f*) Bullæ emptied of their contents, and only recognisable by their epidermic covering, which remains dried up and shrivelled (8, 8).

(*g*) Pustules incompletely dried up, the centres of which only have been transformed into crusts (9, 9).

This variety of Dermatitis herpetiformis claims a special description. Its general appearance differs notably from that of other kinds:—

1. From *Dermatitis herpetiformis with small bullæ*, the size of a millet seed, which are grouped together on little congested areas of a bright red colour, arranged in incomplete circles, which here and there, by their intersection, form multi-circinate figures. The smaller bullæ on their subsidence leave a finely stratified desquamation. Such a condition is called *Pemphigus pruriginosus* with small bullæ, the *Pemphigus circinatus miliaris* of Willan.

2. From the *Dermatitis herpetiformis with papules and bullæ of various sizes*, where large bullæ are met with, the size of a pin's head, a pea, or a nut. These are tense and transparent so long as they are not invaded by pyogenetic organisms. Some make their appearance on healthy skin, others on congested patches with a well-defined border. There may be in addition raised congested surfaces without any bullæ.

In the case illustrated there was no difficulty in making a diagnosis.

True *Pemphigus*, as described by E. Besnier, was out of the question. In this skin affection the bullæ from the very first appear on a healthy skin; the mucous membranes are affected at an early date (mouth, lips, pharynx, vulva); at the same time the anterior part of the thorax is attacked, and the

eruption then spreads to other parts; when they break the bullæ lay bare a red, weeping, abraded epidermis, which afterwards ulcerates. Some of these ulcers quickly cicatrise, whilst others, to which the very same dressing has been applied, extend in surface and in depth; others granulate and develop vegetations. In a case of true Pemphigus the general health may at first be excellent, but soon the patient's temperature rises, his strength fails, his appetite is lost and death takes place within six months to a year, at the most, from the outset of the affection.

There are some grave cases of *Erythema multiforme bullosum* which resemble the form of Dermatitis herpetiformis represented in the plate so closely, that the sole clue to diagnosis is given us by the duration of the disease. However, when scratch marks are present between the bullæ, as shown by pigmentation, blood crusts, etc., and when these scratch marks are not due to the presence of parasites, one can, without hesitation, dismiss the idea of Erythema multiforme, and make a diagnosis of Duhring's disease.

The treatment adopted, which was successful in this case (even if it be merely temporary), was as follows: bullæ were opened; moist, soothing, antiseptic dressings (boiled water for preference) were applied and warm baths, which are generally well borne by the patient, and which give great relief, were administered. The patient was put on milk diet for the first few weeks of treatment. The state of the kidneys requires careful supervision. We should also be cautious in using internal remedies, on account of the great susceptibility of the skin to drugs common in patients suffering from this affection.

TENNESON.

The case, in detail, was published by MM. Tenneson and G. Lyon in the *Annales de Dermatologie et de Syphiligraphie*, 1888, page 331. The patient continued to have eruptive attacks till the end of 1888. When seen again in 1889, some months after his discharge from hospital, his skin was healthy.

TREATMENT OF DERMATITIS HERPETIFORMIS.

General rather than local treatment must be relied upon in cases of Dermatitis herpetiformis.

The mode of life must be carefully regulated, and hence benefit often follows a visit to some quiet country spot or spa either British or Continental. The most suitable of these are probably Harrogate or Strathpeffer, Gastein, Kissingen or Schintznach.

The diet must be simple and nutritious; alcohol should be avoided, as in most cases it tends to increase the itching, probably by causing hyperæmia of the skin; but the moderate use of tobacco seems to be often beneficial. Milk is a very valuable food despite a curious prejudice against it in some influential quarters, and may generally be taken in considerable quantities.

Constipation may be corrected by aperient bitter or sulphur waters taken the first thing in the morning.

Any gouty symptoms must be treated by dieting, alkalies and diuretics; and it is in these cases that baths are of special service.

A prolonged warm bath at bedtime containing sulphate of potassium ℥ii to ℥iv, borax ℥iii, bicarbonate of soda ℥v, bran, linseed or size (2 or 3 lb.) in 30 gallons of water often alleviates itching and enables a good night's rest to be obtained.

If necessary chloral and bromides may be used to procure sleep, but morphia is generally contra-indicated, as it tends to increase the irritation.

Constant rest in bed is often beneficial, probably by ensuring equability of temperature.

The value of drugs administered internally is doubtful.

Arsenic may if cautiously administered produce a good effect in the latter stages of the affection, and given between the attacks it may diminish the tendency to relapse; if given in the acute stage it only aggravates the disease.

Crocker recommends large doses of belladonna, beginning with 15 minims of the tincture and increasing it up to 30 minims three times a day.

Small doses of iodide of potassium and quinine in full doses are perhaps sometimes beneficial.

I have found much diminution of itching result from the regular administration of antipyrin or phenacetin, and from pilocarpin either in subcutaneous injection or by the mouth.

Locally sulphur ointment and ichthyol have both been strongly recommended—the former especially by Duhring. The sulphur ointment must be vigorously rubbed into the skin, the vesicles and blebs being ruptured. Ichthyol is seldom tolerated owing to its disagreeable smell, but if used it may be painted on in aqueous solution from 5 to 25 per cent. or applied as a dusting powder or ointment.

The following formulæ are convenient :—

℞. Ichthyol gr. xx
Resorcin gr. x
Pulv. Amyli
Magnesii Carbonatis āā ℥ss.
Misce, fiat pulvis.

℞. Ichthyol
Camphoris āā gr. x
Olei Amygdalæ Dulcis ℥i
Adipis Lanæ ℥i
Misce, fiat unguentum.

Ichthyol may also be given internally either in the form of a capsule or pill, beginning with 5 grain doses and increasing it up to 20 grains or more three times daily ; given in this way it is often of great service.

In the erythematous form of the disease when few or no vesicles are present dressings soaked in the following lotion are useful :—

℞. Resorcin gr. vii
Glycerini m. xx
Spiritûs Coloniensis ℥ii
Spiritum Vini Rectificatum ad ℥i
Fiat lotio.

I have found nothing more generally useful than weak lead, tar, carbolic or naphthol lotions, but sometimes oily applications containing these drugs are more grateful to the patient.

Whatever mode of treatment be resorted to the disease is always of extreme obstinacy.

J. J. P.

PLATE III.

SYPHILITIC CHANCRES OF THE GENITALS IN WOMEN.

The various specimens from our Museum reproduced in this fasciculus represent syphilitic chancres of the genitals in women in some of their commonest but most interesting forms.

I.—Model No. 1214 (by M. Baretta) represents a syphilitic chancre on both sides of the vulva, of classical type.

Whatever its seat, the characteristics of a syphilitic chancre are expressed in the six following attributes :—

1. The lesion is of small or medium extent—more often erosive than ulcerative, and always well defined.

2. The lesion has no border—*i.e.*, is without any boundary wall at its periphery, and most particularly without any abruptly perpendicular boundary wall ; consequently it is a lesion continuous with, and without projection from, the surrounding skin ; in other words, it is either on a level with, or rises with a gradual incline from, the healthy integument round about it.

3. The lesion has a smooth, level surface ; so much so, that it sometimes looks as if it were polished or varnished.

4. The lesion, without having any special and pathognomonic colour, is nevertheless frequently distinguished by two well-recognised tints ; the greyish, diphtheroid colour, called *rancid fat*, and the commoner reddish colour, like that of dissected muscle, called *muscular flesh tint.*

5. The lesion has always, as its basis and foundation, an infiltration of the skin, more or less marked, neoplastic, of various degrees of resistance and hardness, which constitutes what is called *chancrous induration.*

6. Finally, the lesion is always accompanied by secondary adenopathy, aphlegmasic in character, with enlargement of

lymphatic glands, usually multiple, and offering a peculiar hardness to touch.

The first four of the above characteristics are *objective*, and stamp the lesion with what is called its special physiognomy. They are well marked in the subjoined photo-lithocrome, which is a reproduction of model 1214 in the Museum. Note particularly in this figure:—

1. The circumscribed character, and the well-defined boundary of the two lesions which are situated upon the lower extremity of both labia majora.

2. The entire absence, at the periphery of the lesions, of any sharp, projecting ridge, and especially of any perpendicularly cut rim. Far from there being any deep groove, the borders of both these chancres are, on the contrary, united to the peripheral tissues by a kind of small hem, which projects very slightly, and is well shown on our figure by the whitish line, about one millimetre wide, which encircles the chancrous lesion, and which indicates the point where the subjacent induration becomes flush with the chancre.

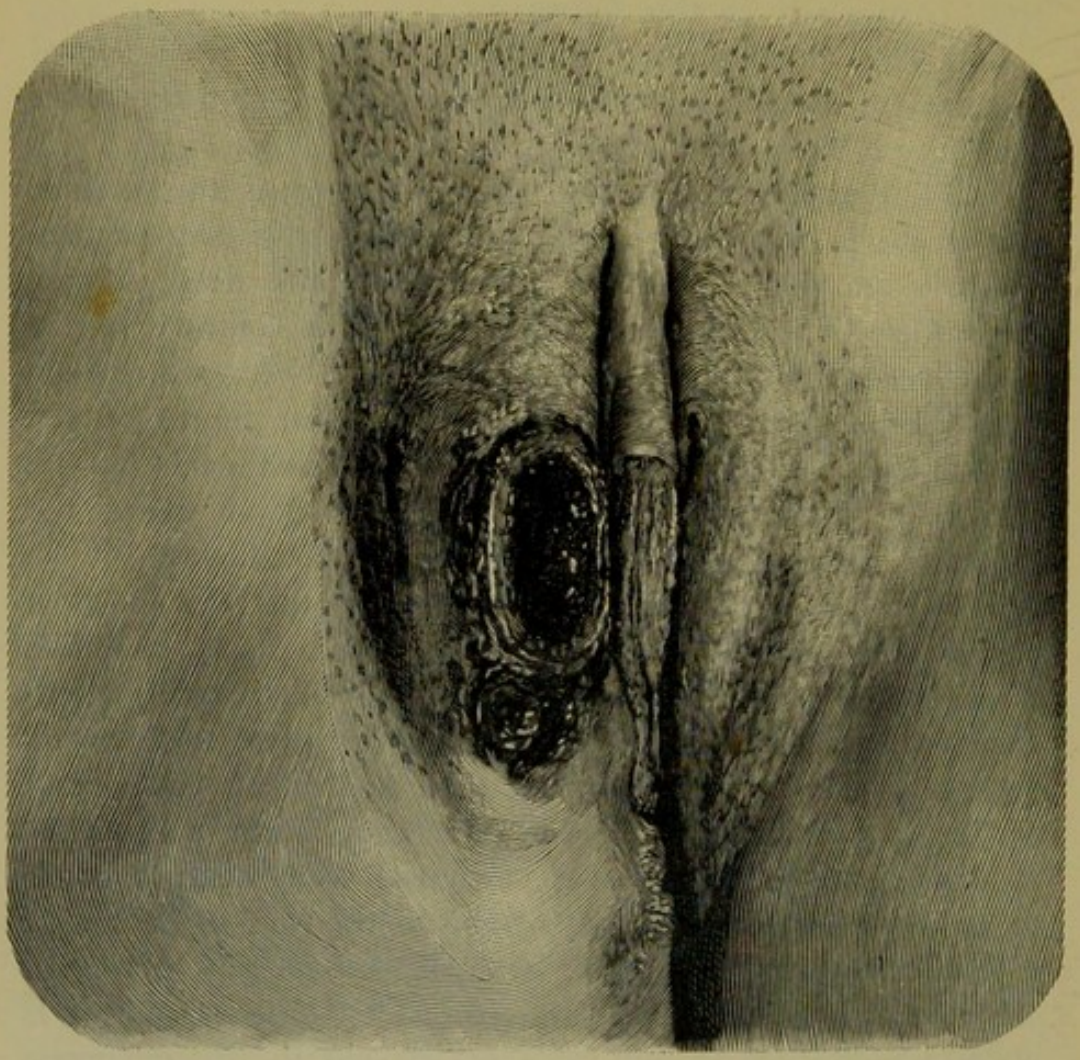
I wish to draw particular attention to the absence of a perpendicular border in this type. As a fact, syphilitic chancres are never characterised by the celebrated perpendicular edges which have been unduly ascribed to them by observers considerably before our time, and which have clung and been continually ascribed to them as a matter of tradition. A syphilitic chancre is never separated from healthy tissue by an abrupt groove at right angles to the skin, as if "made with the bistoury". I wish to lay stress on this fact, as a common error ought to be removed. This form of margin is not to be observed in, and does not belong to, true chancres. It exists, on the contrary, and is distinctive of ulcerations of other types—*viz.*, the simple chancre and gummatous ulcerations—and is so marked in the latter as to be almost pathognomonic.

3. Note also in the illustration the smooth and level surface of both chancrous lesions. It is the special attribute, as we know, of the syphilitic chancre to present an even, level, smooth surface—so smooth, in some cases, that it becomes

glistening, as if polished; it might even be said, sometimes, to appear as if coated with a brilliant varnish, and this is almost the case in the figure.

4. But observe especially the colour of the lesions. It is a decided reddish-brown.

The colour is that referred to by me long ago as "muscular



No. 308.

flesh tint," because it corresponds very nearly to the shade of a dissected or incised muscle.

The syphilitic chancre frequently assumes this colour. It is true it is not absolutely pathognomonic, and may be assumed by various lesions, even by some which are non-syphilitic. But it is none the less true (1) that it is more often an appanage of the syphilitic chancre than of any other lesion, and (2) that it is

sometimes so marked in the syphilitic chancre as to become almost diagnostic of the nature of the disorder.

The "muscular flesh" tint may, therefore, occasionally constitute an important objective element in the diagnosis of the syphilitic chancre. At all events we have in it one of the best objective indications, which strikes the eye at a first glance, awakening a suspicion of specific chancre, and leading to further investigations in that direction.

II.—Model No. 308 (prepared by M. Baretta) represents a lesion of the same nature, and is very similar in appearance.

Here we have two chancres in juxtaposition, situated upon the right labium majus. But in this case the chancres are very unequal. The lower one is of medium size, or indeed almost small. The upper, on the contrary, is well developed, measuring exactly three centimetres in its vertical, and seventeen millimetres in its transverse, diameter.

Two peculiarities should be noted:—

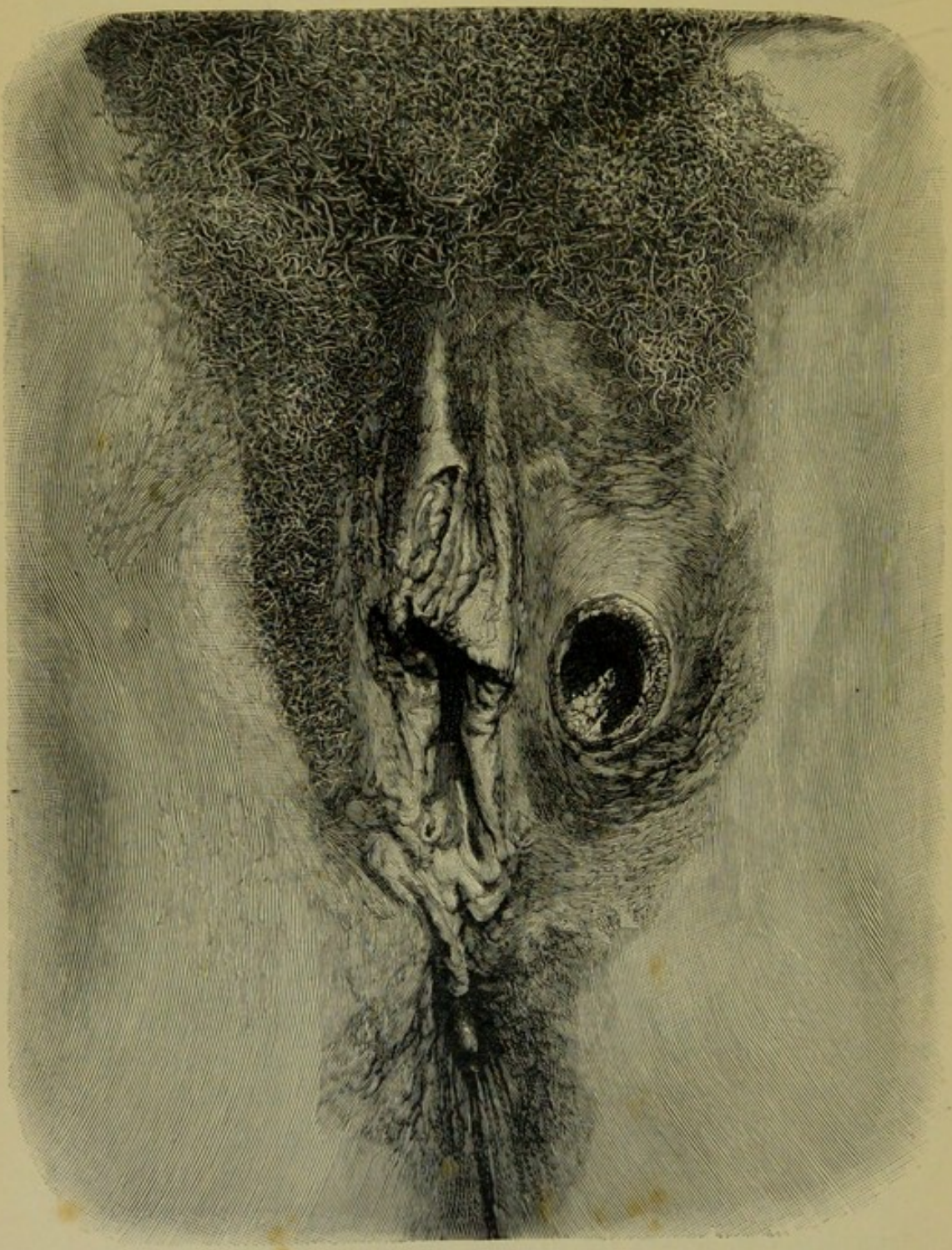
1. The large chancre is remarkable because it forms a mathematically level and smooth raised plane or plateau. Its surface is as perfectly level and smooth as is that of an anatomical section performed on healthy or morbid tissue with a well-sharpened knife. Here again the level, smooth, even surface is met with in an extreme and even exaggerated degree, a feature indicated just now as one of the ordinary characteristics of the syphilitic chancre.

2. Further, it is a specimen of a *bi-coloured* chancre. Its surface is roughly divided into two parts: an outer zone, three millimetres in width, and a much more extensive central zone. The former serves, in some respects, as a frame for the latter. These two zones differ widely in colour; the exterior is of a dirty yellowish-white hue, rather resembling that of "rancid fat". The central portion, on the other hand, of a dark brown tint, stippled here and there with a few spots of a more decided red, shows up against the outer zone.

This twofold colouring is slightly indicated in the lower chancre.

The induration of these two chancres, more particularly of

the upper one, is suggested and even seen in the specimen,



No. 73.

just as it was perceptible to the finger in the living subject;

and that by reason of the abrupt angular relief which the contour of the lesion exhibits.

III.—Model No. 73 (prepared by M. Jumelin, and forming part of my own private collection) is a marvellous type of what is called the *cupuliform*, or *cup-shaped* chancre.

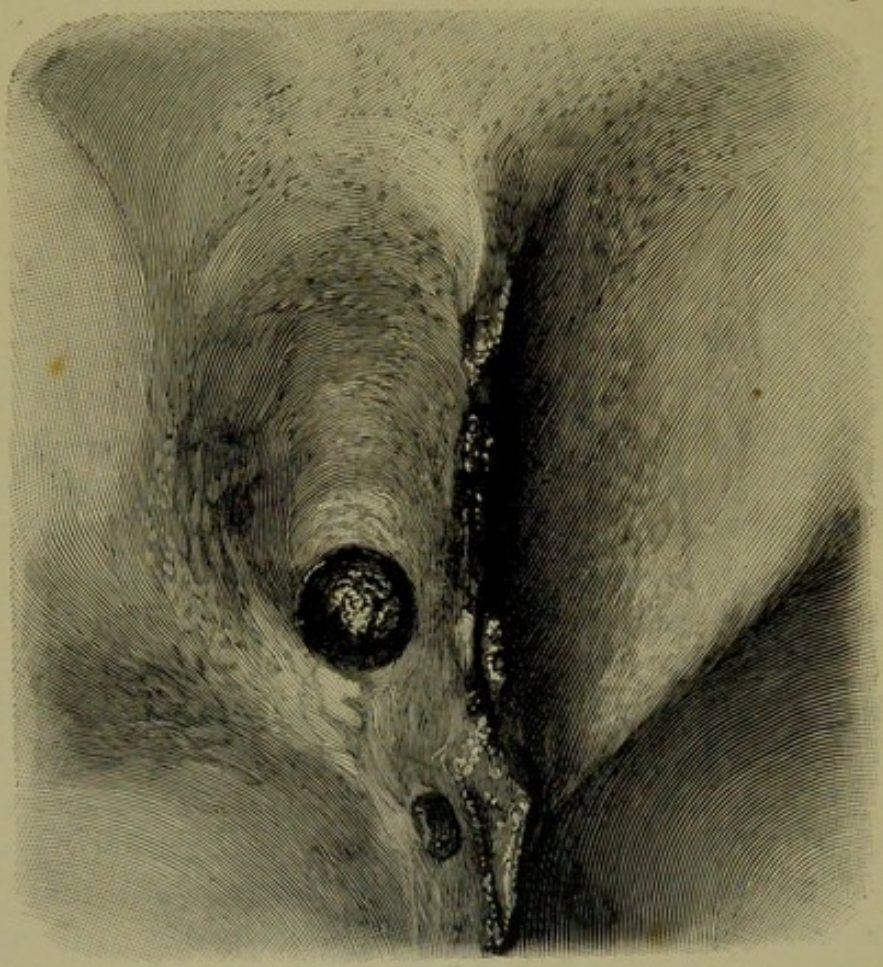
This is the most common ulcerative form of syphilitic chancre. Its characteristics are: a hollowed, excavated ulceration, scooped out in the form of a drinking cup, or cupula. The margin generally stands out in sharp relief, like a prominent ridge, from two to three millimetres in height. The ulceration begins on the summit of this ridge, and directly descends over the more or less oblique sloping surface towards the centre of the lesion. The result is, that the base of this concave ulceration lies at least several millimetres below the level of the healthy tissues.

Judging only from the great depth of their base, chancres of this nature ought necessarily to leave behind them losses of substance and cicatrices great in proportion. But it is not so; at least it is not so in the great majority of cases. On the contrary, these chancres are almost always followed by very slight, shallow scars, sometimes even scarcely apparent. Unquestionably a paradox, but accurately true, and capable of explanation by the following excellent reasons: the chancres in question, which appear to deeply invade and to "gnaw" into the tissues, in reality only invade and "gnaw" into their own substance. They are *autophagous*, and their ulceration takes place at the expense of their own pathological neoplasm, not of that of the surrounding healthy parts. So that, when recovery takes place, cicatrisation occurs without loss of substance and without perceptible destruction of the true skin.

As a matter of fact, in the case here represented the scar was quite superficial.

IV.—Model No. 502 (General Collection), by M. Baretta, is a specimen of the "*flat papular syphilitic chancre*," or what used to be called a chancre "transformed into a mucous patch".

The specimen shows, at the lower end of the right labium majus, a small lesion, accurately circular in outline, the size of a twenty-centime piece, slightly projecting and convex, in shape and proportion very like the common lozenge of confectioners, slightly eroded on the surface, and of a delicate yellowish-pink hue.



No. 502.

Most medical men seeing this lesion at the stage at which it is shown would consider the diagnosis at least easy, if not obvious, *viz.*, "condyloma latum papulosum," "mucous tubercle," "papulo-erosive syphilide," etc.

And, in truth, this lesion resembles in every respect, even to absolute objective identity, the so-called "*papulo-erosive secondary syphilide*".

Yet it was only the final phase of a chancre of the vulva,

the typical chancre which we have seen develop with its usual properties, and which, at a given moment of its development, progressively became prominent, hypertrophied, altered in colour, etc., so as to assume in a few days all the appearances of a secondary tubercle.

Knowing its previous history, and in view of the still appreciable induration and the persistent secondary gland implication, we could not regard this as other than a chancre, in spite of its apparent metamorphosis. But it was a chancre, modified in appearance, and meriting, by reason of its new physiognomy, the epithet of "*papulose chancre*".

In the present state of science only a very subordinate interest is attached to the supervention of a modification of this kind in the appearance of a chancre; it is an interesting coincidence in the objective development of a chancre, nothing more. It was widely different formerly, and there was a time when this transformation—this "*metamorphosis in situ*" of a chancre into a "*condyloma latum*" (as it was called)—was regarded as a most remarkable pathological phenomenon, of major interest and importance.

At that time the chancre was considered as the only contagious and inoculable symptom of syphilis. With such ideas in vogue, a chancre, changing into a *condyloma latum*, divested itself of its fundamental characters of contagiousness and inoculability, became a "constitutional" symptom, and fell to the grade of a non-transmissible and inoffensive manifestation.

Our predecessors regarded the process as a natural transformation, or "metamorphosis," in the essential attributes of the lesion, and this word really conveyed no exaggeration in meaning, as they believed that the objective alteration in appearance accurately corresponded to an absolute modification in the primary and essential characters of the lesion.

This ancient doctrine is now merely of historic interest, and I shall not stay to refute it. From advances in science we know now and know well that the papular chancre, whilst assuming the appearance of a mucous papule, is none the less, in spite of its apparent modification, a true chancre, like any

other chancre, and as contagious as any other. The change in aspect that it undergoes as it hypertrophies and becomes papular is, on the whole, but a mere detail of objective symptomatology; it is of no important significance, and, especially, has no influence on the essential nature of the lesion itself.

From quite a different point of view it may be interesting to recall the fact that this same papular chancre formed the basis of a scientific doctrine, which had its day, *viz.*, the doctrine of *primary condyloma latum*, that is to say, of the condyloma latum forming the *exordium*, or initial manifestation of syphilis.

Certain writers, in fact, noticing with perfect accuracy the *apparently* initial symptom of syphilis in the form of a papulo-erosive lesion, have reasoned as follows :—

"The first symptom of syphilitic contagion sometimes assumes the form of a well-defined lesion, with an eroded surface, raised above the general surface, *papulose*, of a roseate hue and absolutely identical in appearance with erosive papules of the secondary stage. It is impossible to distinguish by objective appearances such a lesion from secondary erosive papules; therefore (1) this symptom is a secondary papule; (2) syphilis may originate in manifestations of secondary nature."

The radical, albeit latent, defect of this argument is, however, apparent, and consists in arbitrarily accepting the objective characters of a lesion as a positive criterion of its essential nature. "In short," they say "such a lesion assumes the ordinary papular appearance of the *condyloma latum*; therefore, it is a *condyloma latum*." But experience has taught how needful it is to discount the asserted value of objective signs in dealing with the elements of differential diagnosis of one disease with another, and more especially with regard to the elements of diagnosis between the different symptoms of the same malady. They are, after all, but subordinate elements, unreliable, and full of error.

In the case before us, if, instead of sticking to a simple objective appearance as the basis of their argument, the partisans of the "*primary condyloma latum*" doctrine had

thoroughly analysed the facts they fancied they could produce in its favour, and had taken into consideration the numerous data to be deduced therefrom, they would have been led to quite different conclusions, *viz.* :—

1. They would, in the first place, have recognised, in their supposed primary *condyloma latum*, two features which, *par excellence*, proclaim the chancre, and have nothing to do with *condyloma latum*, *i.e.* :—

On the one hand, the induration of the base, which is no more absent in the "*papulose chancre*" than in any other variety of the syphilitic chancre ; and, on the other hand, the secondary adenopathy, which is still less likely to be wanting.

2. In addition they would have recognised, in taking into consideration the principles of development, that—

(*a*) Their so-called primary *condyloma latum* only appeared from three to four weeks after contagion—a characteristic feature of the true chancre.

(*b*) That it persisted for a period of from six to seven weeks as the sole and unique manifestation of the infection—again, a characteristic feature of the true chancre, and not of *condyloma latum*.

(*c*) That it was followed, at an interval of from six to seven weeks after its appearance, by what are called "secondary manifestations"—a characteristic feature of the true chancre, and not of *condyloma latum*, etc., etc.

In short, in view of all these considerations and evidence, much more positive and convincing that any mere objective sign, they would have been led to deny and to repudiate as a mucous patch their so-called "*primary condyloma latum*," and to make of it what it really is and only can be, *viz.*, a *papular chancre*, *i.e.*, in a word, a chancre with a mere apparent alteration in appearance, which causes it to simulate a secondary papule.

This is now generally recognised, and it would be superfluous to insist further upon it. I will, therefore, only say in conclusion, that a chancre may resemble a condyloma latum without being one, and that a papular chancre in particular sometimes approaches a secondary papule as nearly as possible as far as

objective appearances and general physiognomy are concerned, without, for all that, ceasing to be a chancre.

In fact, the essential characteristic of the syphilitic chancre is not this or that objective attribute, this or that detail of external symptomatology, this or that point in its appearance. Its characteristics which distinguish it better and with much greater certainty are (1) it is the derivative of a contagion, and the product of that contagion at the spot where it came into action; (2) it is the initial expression, the *preliminary phenomenon* of a specific infection; it constitutes, for a period of at least six to seven weeks, the sole symptom by which the infection is recognised (I do not include bubo, which is, in reality, a mere satellite of a chancre); (3) finally, it is followed almost invariably after a lapse of six to seven weeks by a characteristic invasion of widely different but associated quasi-generalised symptoms, which, combined, make up what are called *secondary symptoms*.

V.—Finally, model No. 190 (prepared by M. Jumelin) is another fine example of the papular chancre to which the foregoing remarks have been relative.

On the upper third of the right labium majus is seen a moderately large, perfectly oval chancre, which measures two centimetres in its vertical, and one and a half centimetre in its horizontal, diameter.

This chancre projects markedly from the vulva about three millimetres and forms a smooth plateau, only slightly depressed in the centre.

Its surface is of a beautiful red colour, and recalls the *muscular flesh tint* so frequent in syphilitic chancres.

Notice in addition a rather curious objective peculiarity. The lesion is a typical example of what is known as the *petechial chancre;* its surface is thickly studded with small purpuric spots of a very marked blood red, exactly like petechiæ on the skin. These spots (as we have been able to prove on some of our patients) are formed by little hæmorrhages, by true miliary apoplexies. In the case now before us, half a dozen can be counted on the surface of the lesion.

I should not venture to affirm that this petechial appearance is peculiar to the true syphilitic chancre. Nevertheless, I can say that I have never met with it except in this form of chancre,

No. 190.

and that I have looked for it in vain both in simple chancre and in syphilitic ulcerations of secondary or tertiary nature.

ALFRED FOURNIER.

TREATMENT OF SYPHILIS.

The primary sore requires only local antiseptic treatment. It is still recommended by some that the chancre should be excised whenever possible, and so an attempt made to "abort" the disease; but this method has not proved to be successful, since by the time the chancre has formed, a general infection has already taken place.

The time at which antisyphilitic treatment by drugs should be commenced is still a debatable point; there are some authorities, including most English writers, who hold that treatment should commence at the first appearance of a primary lesion; while others consider it wiser to wait until the appearance of secondary symptoms makes the diagnosis certain, so that the possibility of subjecting the patient to a lengthy and needless treatment is avoided.

In doubtful cases it is perhaps wiser to wait for secondary manifestations, but in the obvious ones the treatment should be commenced at once, as not only is much time thereby gained, but the later manifestations of the disease are favourably modified.

The only drug which can be relied on to combat the poison of syphilis in its earlier stages is mercury. It probably acts by neutralising the virus and at the same time, by increasing metabolism, it promotes its elimination.

A course of mercury judiciously administered also improves the general health, and remarkable improvements in the quality of the blood can often and easily be demonstrated in patients taking the drug.

Mercury may be administered in various ways, but those chiefly employed are by the mouth, by inunction and by intramuscular injections. All these methods are efficacious and have their own advantages in certain cases, but the first is the one which is as a rule the most convenient and is that which usually recommends itself to English physicians and patients.

The preparations which are most used are the blue pill and grey powder in pill form in doses of 1 to 3 grains three times a day.

Hutchinson's familiar formula is as follows :—

℞. Hydrarg. ĉ Cret.
Pulv. Ipecac. Co. āā gr. i
Confect. Rosæ q.s.
Fiat pil.
Sig.—Three or four to be taken daily.

The Pilula Hydrargyri Subchloridi Co. or "Plummer's pill" in doses of 2½ grains night and morning is often useful when the treatment is a protracted one, as it has less tendency to produce salivation than the other preparations.

The stronger preparations such as calomel, the perchloride, and the iodides (green and red) are all useful, especially when it is desirable to produce a rapid result. It is often advised to combine a little opium with the calomel to neutralise its purgative effects, but many authors deprecate the practice as tending to cause dyspepsia and constipation.

In France and America the green proto-iodide of mercury is greatly in favour, although it has been omitted from the last edition of the *British Pharmacopœia*. The following formula is certainly of great value when there is marked anæmia :—

℞. Hydrarg. Iodid. virid. gr. i
Pil. Mas. Ferri gr. iv
Sig.—Three or four pills to be taken daily.

The combination with the iron salt tends to counteract a tendency to diarrhœa provoked by the mercurial.

The perchloride of mercury is specially valuable after the first few months, when the earlier manifestations have subsided, and it is only necessary to keep the patient under the gentle influence of the drug. It may conveniently be combined with tonics as in the accompanying favourite prescription of my own :—

℞. Liquor Hydrarg. Perchlorid. ℥ss. ad ℥ i
Tinct. Cinchon. Co. ℥ss.
Acid. Hydrochlor. dil. m.v
Infus. Quassiæ ad ℥ i
Sig.—To be taken three times daily, quarter of an hour before food.

The other salts of mercury are in less general use.

As the treatment is of necessity lengthy, mercury should not as a rule be pushed too much at first and salivation should be carefully avoided, although, as has been suggested, the more active preparations may be employed with the disappearance of secondary symptoms. As a general rule I recommend that small doses of mercury should be given continuously for *at least* a year after the appearance of the secondary symptoms. After that time it is often advisable to continue mercurial treatment much longer, for two or even three years, but in cases of lengthy treatment the mercury ought, as a rule, after the first year to be intermitted for a few weeks at a time, during which treatment either with iodides or with general tonics should be employed. Even if vigorous early treatment has prevented the appearance of secondary lesions in indubitable cases of primary syphilis it is my practice to recommend that a mild mercurial treatment be followed out for about twelve months in order to ensure a successful result.

Inunction is carried out by rubbing a preparation of the drug—usually the unguentum hydrargyri—into the skin. In order to produce a definite effect, a piece of the ointment (from half a drachm to a drachm according to the weight of the patient) should be rubbed into a different part of the body, such as the groins, axillæ, popliteal spaces, pit of the stomach and back in succession every night for a week, and as a rule from sixty to eighty inunctions may be administered with occasional intervals. The parts thus treated should be covered with flannel during the night and may then be washed in the morning. This is the chief point in the treatment carried out at Aix-la-Chapelle, where the daily inunction is generally preceded by a warm alkaline bath which is supposed to favour absorption of the drug. It is often a useful method of dealing with congenital syphilis, but it does not find much favour in this country owing to its uncleanliness, and to the frequency with which troublesome mercurial dermatitis is caused by it. It is usually reserved for grave cases where a very rapid effect is desirable, its efficacy being undoubted, and also for those with whom mercury, given internally, disagrees; though in this last class it is now generally superseded by intra-

muscular injections. Mercury soap is a more cleanly form of obtaining the desired result, and Norman Walker recommends it as a useful means of treating persons who are travelling about and unable to obtain the proper routine treatment.

Fumigation consists in conveying the mercury into the system by means of vapour; it is carried out by vapourising 20 to 30 grains of calomel mixed with water by means of a lamp, and placing the patient enveloped in a blanket, so that the head and face are not exposed to the vapour, which must not be inhaled, on a chair in such a position that the vapour readily comes into contact with the body. It is a troublesome and disagreeable method and occasionally produces extremely rapid salivation, faintness and other debilitating effects upon the patient; it is therefore not often used, but is nevertheless an efficient method of producing rapid results and is certainly sometimes useful in cases where ulceration is very extensive.

Intramuscular injections have recently been much used and have the advantages of accurate dosage, cleanliness and efficiency, while the objections urged against them are, in my opinion, chimerical.

The preparation most commonly used is the perchloride, and $\frac{1}{16}$ to $\frac{1}{8}$ grain may be injected into the muscles of the buttock once a week. A convenient formula is:—

℞.	Hydrarg. Perchlorid.		gr. i
	Glycerini		m. xx
	Aq. Distill.	ad	℥i

of which ten or fifteen minims may be injected at a time. Other forms such as grey oil, which is a mixture of metallic mercury and oil, calomel suspended in mucilage, and albuminate of mercury have all been used and recommended, but they do not seem to possess any definite advantages over the more simple preparation.

The injections must, of course, be made with all antiseptic precautions both as to the instrument employed and the part where the injections are made, and when these precautions are carefully carried out I have never seen any of the untoward

symptoms (*e.g.*, abscess, sloughing, thrombosis) which have occasionally been recorded after their use.

Intravenous injections, usually practised into the median basilic and cephalic veins at the bend of the elbow, which have also been introduced, are in many ways unsatisfactory; they are somewhat painful, their results are not specially rapid, and, in spite of all precautions, venous thrombosis is apt to occur.

General Hygienic Treatment as well as certain special general precautions must be carefully attended to in every case where a patient is undergoing a course of mercurial treatment.

The diet should be very simple and nutritious, particular attention should be paid to the regularity of the bowels, while fruit, green vegetables, coffee and all highly spiced dishes should be avoided. Chills must be very carefully guarded against, flannel underclothing being constantly worn. Tobacco should be rigidly prohibited, and alcohol indulged in very sparingly. To prevent risks of stomatitis special care must be taken to keep the teeth scrupulously clean, and they should be carefully brushed, using a highly saponaceous dentifrice several times a day. The mouth may advantageously be washed out several times daily with the following, or the gums painted with diluted glycerine of tannin.

℞.	Potass. Chlorat.		gr. x
	Tinct. Myrrh.		
	Mel. Boracis	āā	ʒss.
	Aq. Distill.	ad	ʒ i

In some cases mercury does not exert its usual tonic effects and in these cod-liver oil, iron, or mineral acids are often useful adjuvants, as it is very important in all cases to keep the general health in as good a condition as possible; for which purpose fresh air, sunlight and moderate exercise must be enjoined.

Local treatment often becomes necessary when the secondary lesions are severe. The familiar "black wash" or "yellow wash" are both very useful, while ammoniated

mercury or "white precipitate" ointment, diluted according to circumstances, is the most generally useful of the mercurial ointments and may be applied to the ulcers with impunity from risks of absorption.

In treating local eruptions of the face it is a safe rule to use weak preparations, *e.g.*, a 1 or 2 per cent. solution of the unguentum hydrarg. oleatis, and if there is much hyperæmia some preliminary astringent application, such as calamine lotion, is often beneficial.

Iodoform is an efficacious local application, but is objectionable on account of its smell and the risks of dermatitis from its use; but iodol, airol, dermatol, aristol and similar substances which are somewhat similar in their action are free from these drawbacks.

In parts where the epidermis is much thickened, as in some cases of palmar and plantar syphilis, the thickening must be removed by the application of salicylic acid plasters or by rubbing the parts with pumice-stone; unless this is done no local treatment will produce any effect.

Lesions of the buccal cavity should be well washed with diluted Condy's Fluid (a teaspoonful in half a tumblerful of water); fissures and ulcers of the tongue may be painted with a 1 to 2 per cent. solution of chromic acid or in severe cases (as recommended by Hutchinson) with a strong solution of acid nitrate of mercury. This last method is very painful at the time but more lasting in its effects, and parts so treated do not generally require painting more than once in three months.

For the pharynx a gargle of perchloride of mercury ($\frac{1}{2}$ gr. to 3 gr. in ℥viii of water) may be used.

The Tertiary Stage of syphilis is usually treated with iodides, which have the characteristic property of causing absorption of inflammatory products, but their use is by no means confined to that stage. Some advocate their employment in the secondary stage to the exclusion of mercury, and Crocker strongly recommends occasional courses of the iodides alternating with mercurials during the secondary stage.

The potassium and sodium salts are both extensively used, but the latter is somewhat less depressing; in either case it is

better to neutralise their depressing effects by some other drug, as, for instance, the aromatic spirit of ammonia.

Not infrequently large doses of the iodides are tolerated where small doses produce symptoms of iodism. In many acutely ulcerative lesions doses of 15 to 20 grains three times daily may be given with impunity and with great benefit. On the other hand some patients can only be brought to tolerate iodides by beginning with minute doses and very gradually increasing them.

J. J. P.

PLATE IV.

PATCHY PURPURIC ERYTHEMA, APPEARING IN SUCCESSIVE CROPS.

POLYMORPHOUS ERYTHEMA (HÆMORRHAGIC VARIETY). PURPURA HÆMORRHAGICA.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1068, made in the year 1888, from a patient under the care of M. LAILLER.

I.

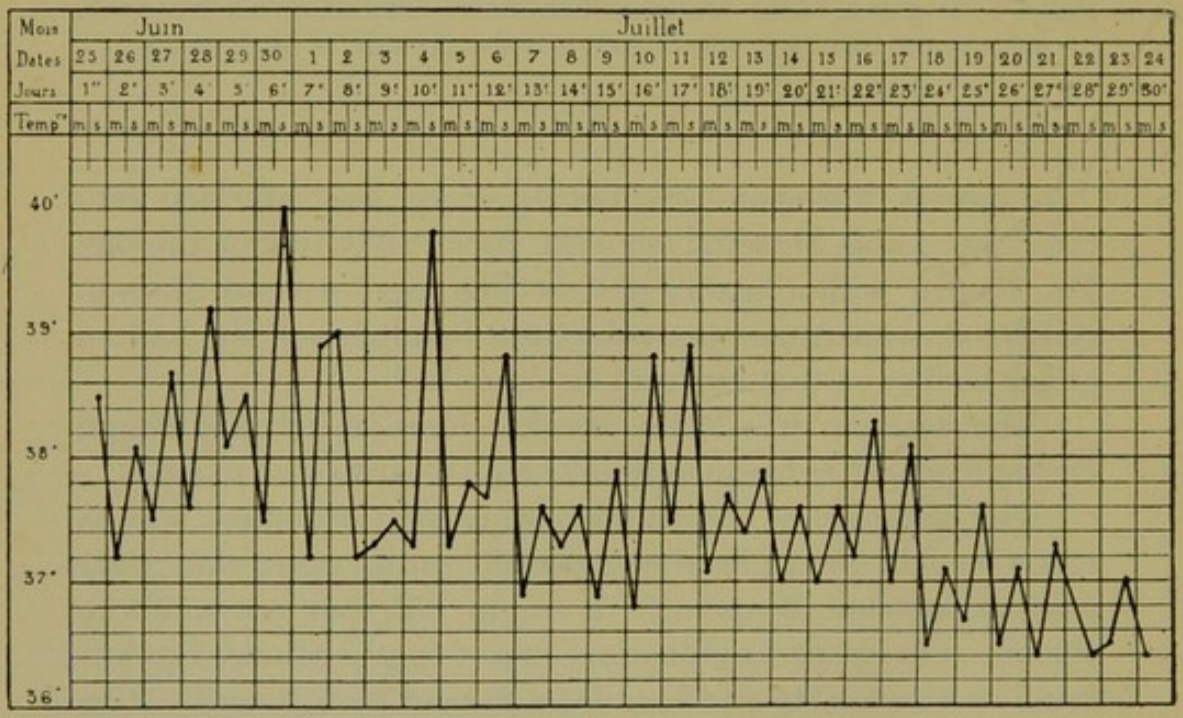
THE patient, a woman aged twenty-seven, was admitted into the Saint Louis Hospital on 27th June, 1885, under the late Dr. Lailler, with a history of "swollen legs" several times in childhood, while three years previous to admission she had an attack similar to that about to be described.

The eruption was of one week's duration. It had begun on the legs and subsequently invaded the arms and trunk.

The condition of the eruption when first examined was as follows:—On the right arm, especially on its outer side, were a great number of spots of a bright red, but not uniform, colour. On closer examination, more deeply coloured points could be observed to stand out from the red background. The spots were irregular in outline, but many were crescentic, some semi-circular, and some completely circular. Digital pressure did not alter their colour, and some of them evidently stood out clearly in sharp relief; these projections at certain points absolutely resembled patches of *Urticaria*. On the forearm only a few disseminated spots were present; on the back of the hand were two lesions presenting all the features of BATEMAN'S *Herpes iris* (*Hydroa simplex* of BAZIN, *erythematous Hydroa*). The hypothenar eminence was red and congested; the whole limb was œdematous, the skin tense, and the local temperature appreciably elevated.

On the left arm the lesions were similar, but more characteristic. They consisted of large plaques, like those of urticaria but of purpuric colour. They were uniformly crescentic or semi-circular in outline, and were scattered in large numbers from the shoulder to the elbow. Œdema was less marked than on the other arm. The left hand, like the right, was congested.

On the trunk the lesions were best marked in the mammary region ; the patches were not so clearly delimitated as on the arms, and their edges were ill-defined.



On the lower limbs the appearance was still more remarkable. Here the eruption had orginated, and it had developed in successive crops. In consequence of the more or less advanced stages of the various patches of eruption, and of the resulting changes in tint, there was a motley mixture of colours, which is reproduced in the photo-lithochrome from a model representing the appearance of the right thigh.

On the skin three successive crops of eruption could clearly be identified. The oldest was indicated by pigmented yellowish spots, with a darker narrow border round them ; the second

consisted of purplish spots, mostly circular; but neither of these projected above the general surface of the skin. The third and most recent crop, which was really the least distinct, consisted of projecting plaques of a bright red colour, but lacking in definition of outline. The lower limbs were both œdematous.

Moderately high fever, prostration and rheumatoid pains accompanied these skin manifestations.

The course pursued by the disease may be deduced from the accompanying temperature chart; the temperature, which fluctuated at about 38° C. during the course of the disease, twice rose to 40° C. These febrile attacks coincided with the new crops of eruption, which were almost exclusively confined to the lower limbs. From 26th June to 25th July, the date of her discharge, the patient had fresh eruptions almost every day, which, however, gradually diminished in intensity.

II.

There are several points particularly deserving of attention in this remarkable case. And first, might it not with as much justice be classified among the *Purpuras* as among the *Erythemata?*

The raised character of many of the eruptive elements, resembling patches of urticaria, might perhaps suggest what has sometimes been called *Purpura urticans* since Willan's time; but Purpura urticans is in reality only a variety of urticaria complicated by cutaneous hæmorrhage, and not a purpura. Besides, there is no record of itching in this case, which is always a leading symptom of urticaria. The case is certainly not any form of urticaria.

It is more difficult and delicate to draw a distinction between this disease and that form of purpura commonly known as *Purpura exanthematica rheumatoides.* The pains felt in the various articulations, the fever and depression, the development of the eruption in successive crops, its polymorphism (erythema, urticarial patches, hæmorrhagic spots), its frequent circinate arrangement, its symmetrical distribution on the

limbs, and preferably on the legs, are all symptoms generally present in exanthematous Purpura.

But we must bear in mind that these same symptoms may also be met with in *polymorphous Erythema;* moreover, the form of purpura just referred to "is so closely connected, on the one hand, with erythema, and on the other with purpura, that it may be indiscriminately described as an Erythema, or as a Purpura, and be as correctly named purpuric erythema as erythematous purpura" (E. Besnier and A. Doyon, *Notes de la traduction du traité de Kaposi*, 2nd edition, vol. i., p. 394). Moreover, the notes of the case describe in several places the existence of erythematous lesions, especially on the back of the right hand two cockade-like eruptions (Bateman's *Herpes iris*); but the main point is the eruption, the articular pains being insignificant and such as may be met with in many cases of polymorphous erythema. M. Lailler therefore correctly named the disease *purpuric Erythema.* After all, it is only a variety of polymorphous erythema remarkable for the amount of the accompanying hæmorrhage.

The etiology of these erythemata is often interesting. In this case the cause is, perhaps, dubious; there was neither overexertion nor chill. Perhaps there was some slight over-indulgence in drink. It is well to remember that three years previously the patient had had a similar attack, but the tendency to relapse is often, if not usually, one of the usual characteristics of the erythemata.

The treatment adopted in this case was salicylate of soda internally in doses of two to three grammes per diem. It appeared to act beneficially on the progress of the disease. This medicament, recommended by many authors, more or less influenced by theoretical ideas on the rheumatoid nature of erythema, seems to be especially indicated when the eruption is accompanied by symptoms of arthropathy, and in any case is preferable to iodide of potassium, the benefit of which in the treatment of polymorphous erythema seems to have been exaggerated. Sulphate of quinine alone or in combination, as M. Brocq suggests, with ergotin and a little belladonna, as vaso-motor agents, may also be indicated in cases of extremely

abundant eruption. But the majority of these eruptions run a prescribed course; medication has only a secondary effect on their development and duration. It is rather by appropriate hygienic surroundings and diet, by suppression of the probably inciting causes of disease, and by attention to therapeutic indications of the previous history and the constitution of the patient that the physician may hope to exert a beneficial influence on the course of a polymorphous erythema.

HENRI FEULARD.

TREATMENT OF PURPURA HÆMORRHAGICA.

As Purpura hæmorrhagica is not a substantive disease but a symptom of various pathological conditions, the cause of any purpuric eruption must always be carefully looked for, and, if found, suitable treatment must be directed towards its removal. Chief among the causative factors may be cited scurvy, rheumatism, cardiac or renal disease, leucocythæmia, septicæmia, acute fevers or allied infective processes. In many cases however no definite cause can be discovered, and the attention must then be given towards the hæmorrhages themselves.

In all cases of hæmorrhagic purpura rest is an important factor in the treatment, and in severe cases the patient should remain quiet in a horizontal position or be actually kept in bed; the limbs, especially if there is œdema, may be firmly bandaged. The diet must be light and nourishing but abundant, and any digestive disturbances should be treated; in severe cases the food should be taken cold and iced drinks may be given.

There is a considerable difference of opinion concerning the value of drugs administered internally; but the general opinion is that purpuric hæmorrhages are beyond the sphere of influence of any known hæmostatic.

Oil of turpentine is probably the most successful, given in m. x to m. xx doses, either in capsule or emulsion, three

or four times daily; it is claimed that it acts in some cases as a specific, though in others much larger doses are necessary.

Other hæmostatics such as ergot or ergotine, hamamelis, tannic, gallic, sulphuric and other dilute mineral acids have all their supporters, and the perchloride of iron is often very useful, especially during the convalescent stage, when it may be advantageously combined with small doses of quinine.

Unna recommends tincture of arnica (m. v three times a day) for promoting absorption of existing hæmorrhages, but does not claim that it checks the formation of fresh ones.

Arsenic appears to be occasionally useful. Wright of Netley has recommended calcium chloride as being indicated in such cases where there is reason for thinking there is deficient coagulability of the blood; it is given every four hours in doses of 20 grains at first, which may afterwards be reduced to 15 grains; I have given the remedy a fair trial and found no benefit from it.

J. J. P.

PLATE V.

LUPUS ERYTHEMATOSUS OF THE FACE,

OF THE ERYTHEMATO-FOLLICULAR VARIETY.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1561, made in the year 1890, from a patient under the care of M. HALLOPEAU.

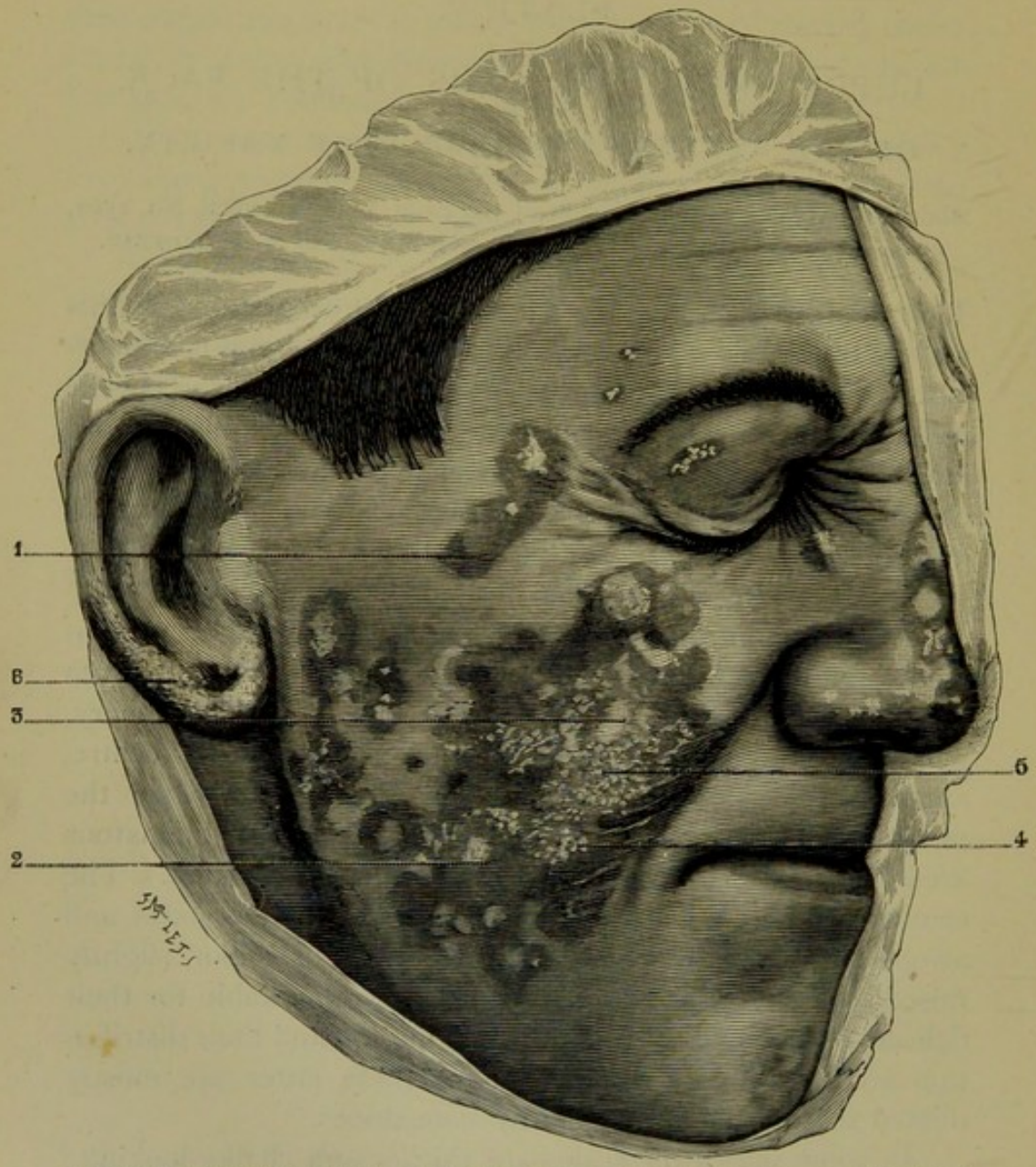
THE photo-lithochrome is a typical representation of this variety of lupus. The distribution of the eruption is characteristic, for it occupies chiefly the bridge of the nose, the cheeks and the ears, thus bearing out the classical resemblance to a butterfly or a bat. There are also some patches on the eyelids, on the forehead and on the temples. Contrary to what is frequently observed, the scalp is not attacked, and so it is with the hands, which may also be affected by the disease.

The eruption is composed of discs, either isolated or confluent, for the most part circular; their diameter varies from a few millimetres to several centimetres. Their periphery, generally a little raised, is of a deeper tint than their centre, and this point is more marked now than it was when the model was made by M. Baretta; a slightly erythematous areola surrounds the raised margin almost everywhere. The central portion of each disc presents red, active parts and atrophied parts. The red parts are bright in colour, slightly raised, and covered in places with scales remarkable for their delicacy, their small size, their firm adhesion and their distribution around the sebaceous orifices; these latter are mostly dilated and distended by horny comedones.

In some places the scales are thicker and chalky-looking; their whitish colour contrasts with that of the surrounding red parts.

The atrophied parts are pale, smooth and cicatricial in appearance. The patient complains of intense and constant itching; he experiences pain on the slightest contact with the

patches. The disease began in 1883, when the patient was forty-five years of age, and has continued to spread ever since, persistently although very slowly.



1. Raised margin of a patch. 2. Erythematous portions of surface. 3. Atrophied portions of surface. 4. Scales at the sebaceous orifices. 5. Dilatations of sebaceous orifices. 6. Chalky-looking scales.

M. Besnier, in agreement with Mr. Hutchinson, has long striven to establish that this dermatosis is of a tuberculous nature, and we ourselves have on many occasions (especially

in a paper presented by us, along with M. Jeanselme, to the Second Congress for the Study of Tuberculosis) brought forward facts which are in favour of this view.

The history of this patient also supports it. He has lost one sister and one brother from tuberculous disease. He had in childhood suppuration of a cervical gland, from which he still bears a scar on his neck, about three centimetres in length; part of it is depressed, part of it prominent and cheloid.

In 1889 the patient, under the supervision of the Physicians of Saint Louis Hospital, received five inoculations of Koch's lymph, in doses varying from three to five milligrammes. Violent local and general reaction ensued, on two occasions the temperature rising above 40° (Centigrade). On every occasion the patient experienced for several days the pains in the limbs and sensation of profound lassitude which are characteristic of that reaction; on each occasion also the patches of lupus became red, swollen and painful; there can be no denying that these facts are an argument of the highest importance in favour of the theory maintained by M. Besnier, Mr. Hutchinson and ourselves.

In addition, examination of the chest reveals a notable difference in the resonance of the percussion-note in the subclavicular regions; on the right side its intensity is diminished, and its pitch is higher than on the left side; the patient has had a severe cough for a long time.

These facts permit of no doubt as to the existence of tuberculosis in this subject. As has been often observed in similar cases, this tuberculosis is remarkable for its excessively slow spread and its benign character; it seems like an attenuated form of that infection.

Differential Diagnosis.—The diagnosis in this case presents no difficulty; the absence of nodules of soft consistence and of the colour of barley-sugar allows us to eliminate the hypothesis of a *Lupus Vulgaris*. The presence of cicatricial atrophy shows that we are not dealing with a *Seborrhœic Eczema*. The atrophy of skin over extensive areas, as well as the scales, exclude the idea of an *Acne Rosacea*. The distribution of the eruption, the discoid shape of the patches, their extension by a prominent

raised margin, and the simultaneous existence of proliferating erythematous lesions and of cicatricial atrophy, make up so characteristic an *ensemble* of symptoms that the nature of the disease can be recognised at the first glance.

The *Prognosis* is grave on account of the obstinate resistance of the disease to treatment, of the disfigurement which it causes, and of its tuberculous nature. It must be admitted, however, as an extenuating circumstance in this case, that the disease is advancing extremely slowly, and that, although it has somewhat spread in extent since the patient first came under observation eight years ago, the visceral manifestations of tuberculosis remain very slight; we repeat, we are dealing with an attenuated form of infection.

Treatment.—The disease has been treated almost continuously for eight years, locally by linear scarifications or by cauterisation with the galvano-cautery, but neither method has prevented the disease from spreading. Lately, applications of a 50 per cent. solution of resorcin, renewed twice daily, have appeared to act beneficially. But the best thing that could happen to the patient, as far as his eruption is concerned, would be an attack of erysipelas of the face of moderate intensity. Some facts recently published tend to prove that the disease may be removed by the injection of these toxins, and if this is so, one is justified in inoculating a patient suffering from erythematous lupus with erysipelas, remaining in readiness to meet the complication thus voluntarily provoked if it assume a dangerous character. We accentuate this proposition, which we formulated in 1893 at the Third Congress for the Study of Tuberculosis, as the most beautiful instances of the cure of erythematous lupus which we have ever seen have occurred in consequence of attacks of erysipelas.

We are, therefore, of the opinion that a special, isolated ward should be created at the Saint Louis Hospital where this method of treatment—which is also applicable to lupus vulgaris—should be systematically carried out.

Failing this, we propose to employ the treatment by the serum of tuberculous dogs according to the method recently

carried out with success in cases of lupus vulgaris by MM. A. Broca and Charrin.

The tuberculosis must also be combated by appropriate general measures without counting upon results as far as the cutaneous manifestations are concerned.

H. HALLOPEAU.

[The theory of the tuberculous origin of lupus erythematosus, although advocated with their usual ability by Mr. Hutchinson and M. Besnier—and by many of the latter's pupils—has not received general acceptance. It appears to me to be based upon purely hypothetical arguments, no positive fact having ever been adduced in its favour beyond the co-existence of tuberculous disease in other organs in a certain small proportion of cases. This, as well as the alleged frequency of tuberculous family history, is capable of ample explanation on other grounds. No bacilli have ever been demonstrated in lupus erythematosus, and inoculation experiments have invariably been followed by negative results.

The occurrence of a typical tuberculin reaction in a case of lupus erythematosus is certainly at variance with my own and general experience, and may perhaps, in this case, be accounted for by the presence of tuberculous disease in the lung. The fact must also be borne in mind that morbid tissues, other than tuberculous, sometimes react markedly to tuberculin.

A good summary of the subject may be found in the reports of MALCOLM MORRIS and TH. VEIEL, presented to the Second International Congress of Dermatology (*Verhandlungen*, Wien, 1893, page 336 *et seq.*; and *British Journal of Dermatology*, 1892, page 339); while further reference on the same side may be made to RADCLIFFE-CROCKER (*Diseases of the Skin*, second edition, page 488 *et seq.*), and BOWEN (*A System of Genito-urinary Diseases, etc.*, edited by Prince Morrow, 1895, part iii., vol. ii., page 553 *et seq.*). See also UNNA, *Die Histopathologie der Hautkrankheiten* (Berlin, 1894, page 1100 *et seq.*), for a very pregnant study of the morbid anatomy of the disease which shows nothing akin to true lupus. He advocates the discontinuance of the name Lupus and the adoption of that of ULERYTHEMA, as indicating its erythematous nature on the one hand, and, on the other, its tendency to spontaneous scarring. This nomenclature I am inclined to adopt.

BESNIER gives an interesting *exposé* of his views in his valuable annotations on the article "Lupus Erythémateux" in the second French edition of *Kaposi's Textbook* (Paris, 1891, page 250 *et seq.*).

Finally, although the method of treatment of lupus erythematosus by the injection of the toxin of erysipelas has not yet passed the experimental stage, it appears at least justifiable. I have, however, observed two cases apparently cured by accidentally contracted attacks of erysipelas, in which the disease soon recurred.—J. J. P.]

TREATMENT OF LUPUS ERYTHEMATOSUS.

Few more difficult problems suggest themselves in dermatology than the "management" of a case of lupus erythematosus. I am inclined to attribute the pessimistic views held on the subject by many authorities to an imperfect knowledge of the remedies used and of the very various reactive equivalents of the skin of various patients. The fact that the disease tends to spontaneous recovery should never be lost sight of.

The *local* treatment of lupus erythematosus must be varied according to the condition of the disease, whether active or passive, to the susceptibility of the skin to various remedies, and also, to some extent, to the site of the lesion.

In cases where hyperæmia is a pronounced feature, exposure to extremes of either cold or heat must be carefully guarded against. Soothing lotions or simple dry powders may be used in the first instance; thus the familiar calamine lotion, weak lead lotions or powders of zinc oxide, boric acid or salicylated starch are all useful; and a zinc ichthyol plaster mull may be applied at night after fomenting with warm water. Weak tarry lotions continued over a considerable length of time are sometimes beneficial, such as lotio carbonis detergens, ʒ i to ʒ ii in ʒ viii of water. Liveing recommends oleate of mercury in strengths of 3 to 5 per cent.

Ichthyol in the form of a lotion or ointment is useful, and given internally also has a beneficial action.

When the hyperæmia is less marked a more stimulating treatment can be adopted; the parts may be well rubbed with a flannel dipped in spiritus saponis kalinus of Hebra, which removes scales and fat, the process being repeated every three or four days. But an equally useful and less dangerous measure is moderate friction at night with benzolin followed by weak antiseptic ointments, *e.g.*, of boric acid or iodoform.

Resorcin (10 per cent.), salicylic acid (3 to 6 per cent.), pyrogallic acid (2 to 5 per cent.) in collodion are all useful; the contraction of the collodion compresses the tissues and so

reduces the hyperæmia. The pyrogallic acid may be applied as an ointment in a strength of 10 per cent., but weaker preparations often answer equally well. Unna considers pyraloxin (oxidised pyrogallic acid) prepared by exposing the ordinary pyrogallic acid to the vapour of ammonia as almost a specific, and Walker recommends it in a solution of acetone of collodion in strengths of 1 to 2 per cent. He finds this even more efficacious than the stronger solutions and it is chiefly beneficial in the erythematous type of the disease. Its chief disadvantage is its black colour.

In superficial forms Duhring recommends a sulphide of zinc lotion as follows :—

℞.	Zinc. Sulphat.		
	Potass. Sulphid.	āā	gr. xxx
	Spir. Vin. Rect.		ʒ iii
	Aq. Rosæ		℥ iiiss.

The strength may be increased if the application is well borne.

The liquor arsenicalis diluted with eight times its bulk of water has been introduced as a local reagent by Schutz. It is painted on the part twice a day till a reaction sets in, and when this has subsided the treatment is resumed, but its application is decidedly dangerous. I have obtained excellent results in some cases of the fixed type by painting once a week with a saturated solution of carbolic acid, and trichloracetic acid may be similarly employed.

If local chemical methods fail *scarification* may be practised; this consists in making very numerous shallow incisions in all directions over the patch, preferably with Brooke's multiple scarifier, allowing bleeding to take place freely and then rubbing in some simple powder such as boracic acid or applying a mercurial or salicylic acid plaster mull to the part.

In other cases the *thermo-cautery* or *galvano-cautery* may be lightly employed.

Internal treatment with drugs has not usually any marked effect, but among those which have been credited with a beneficial action may be mentioned quinine, which has a special

astringent action on the capillaries, ichthyol, phosphorus and arsenic. The two former are of real value, if given in full doses, in cases where erythema is marked.

It is of great importance also to correct any dyspepsia or other cause of flushing of the face.

J. J. P.

PLATE VI.

HYPERTROPHIC ROSACEA OF THE FOREHEAD.

ACNEIFORM FRONTAL PACHYDERMATOSIS. HYPERTROPHIC OR ELEPHANTIASIC ROSACEA. ROSACEOUS LEONTIASIS.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1287, made in the year 1887, from a patient under the care of M. BESNIER.

EVERY one knows the hypertrophic changes which the different forms of acne, especially chronic vascular forms (*Acne rosacea, couperose*), bring about in the skin of the face, especially in that over the nose and the nostrils (*hypertrophic* or *elephantiasic nasal Acne, Rhinophyma*), but a rarer localisation which has as its seat of election the middle and lower portion of the forehead, especially in the glabella or intersuperciliary regions, is much less familiar, in which the hypertrophied skin forms veritable convoluted masses separated from one another, either by the normal folds of the skin somewhat exaggerated, or by grooves having between them raised prominences which press upon one another like the cerebral convolutions or like the mosaics of certain diseases of the tongue.

This rare form of pachydermatosis of the face is not only interesting in itself to dermatologists, but deserves to be pointed out from the practical point of view, for it very closely simulates another disease of the same region, which is common and more typical, *viz.*, the *Leontiasis* of Archigen, the *Leontia* of Aretæus, the frontal leontiasis of lepers, the leprous forehead. This is our reason for including it in this Atlas.

I.

The photo-lithochrome exactly represents one of Baretta's models of the face of a patient under my care in Salle Cazenave in 1887.

He was a shoemaker, aged sixty-three years, long addicted to wine and alcohol, who had a right hemiplegia without loss of consciousness three months before his admission to hospital, of which but little trace remained. His sedentary life and saturation with alcohol had together produced the complex combination of symptoms found in arthritic subjects suffering from toxic conditions, *viz.*, obesity, sclerosis of the smaller arteries, diffuse and hypertrophic acne rosacea.

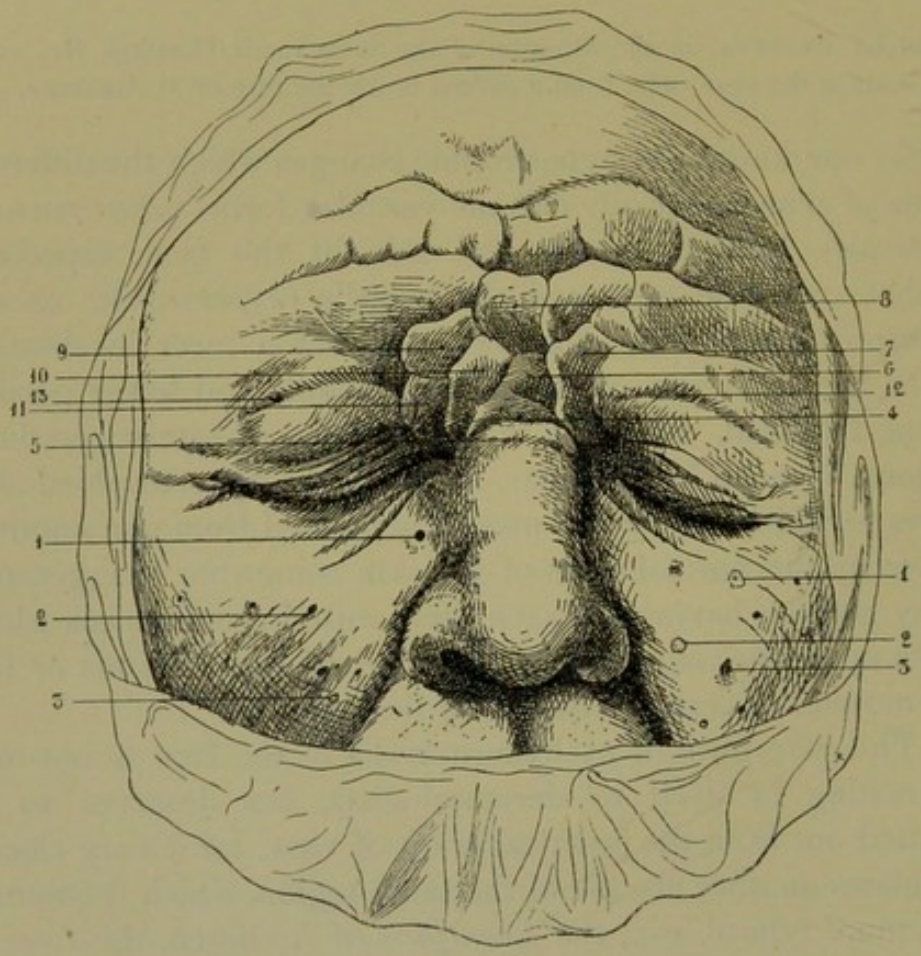


FIG. 1.

1, 1,—2, 2,—3, 3. Acneiform follicular and perifollicular lesions. 4. Transverse naso-frontal groove. 5. Upper part of dorsum of the nose. 6, 7, 8, 9, 10, 11. Hypertrophic masses of skin filling up the glabella. 12, 13. Regions of the eyebrows intact.

Predisposition is always a necessary factor, for excessive cases are rare, or even very rare, considering the large number of persons who drink beer, cider, wine or spirits, or of mixed drinkers who consume every day more or less considerable

quantities of all those liquids, all more or less alcoholic. It is very extraordinary that these pachydermatous forms are not observed in women, although the number of alcoholic women has become very considerable. It must, however, be added that hypertrophic acne also occurs in persons who are simply chronic dyspeptics, and from no point of view alcoholic.

The most striking point in the aspect of the patient was a very extraordinary *redness* and *thickening* of the skin over the entire face, the centre portion of which presented very numerous *follicular* and *perifollicular acneiform lesions* (1, 2, 3), which made their appearance about the age of forty, the usual time for the beginning of true rosacea, and had never ceased to develop ever since in successive crops.

The redness was of brick-red tint and almost uniformly dark; varicose enlargements of the dermic bloodvessels were either absent or had disappeared in the general pasty swelling. The surface of the skin was smooth or finely granular; it was nowhere perforated by dilated glandular orifices as in the sebaceous forms of the disease; none of the follicular lesions present had developed in the depth of the skin, where the blind extremities of the deeper glands were shut in by the proliferating sclerosing dermic changes.

From the model, as from the photo-lithochrome, one might presume, what touch enabled us to perceive in the living subject, that these perifollicular lesions were very superficial (1, 2, 3).

Without being woodeny, the consistence of the skin over the prominences was firm, and clearly indicated the degree of pachydermia produced by this rosaceous sclerosing hyperplasia. The hypertrophy of skin begins at the transverse naso-frontal groove (4), immediately above the upper part of the dorsum of the nose (5), and it fills up the glabella with gigantic, irregularly polygonal masses, altered in form by mutual contact and pressure (6, 7, 8, 9, 10, 11), and separated by deep fissures which represent the normal lines of the part exaggerated to an enormous degree. To right and left, above and below, these dermic masses impinge upon the ciliary and superciliary regions (7, 11), but they strictly respect anatomical territorial

divisions and, indeed, leave the eyelids and eyebrows themselves absolutely intact. Above and outside the glabella in the frontal region, the convolutions and grooves are less excessive, and constitute only great exaggerations of the normal prominences and folds of the part.

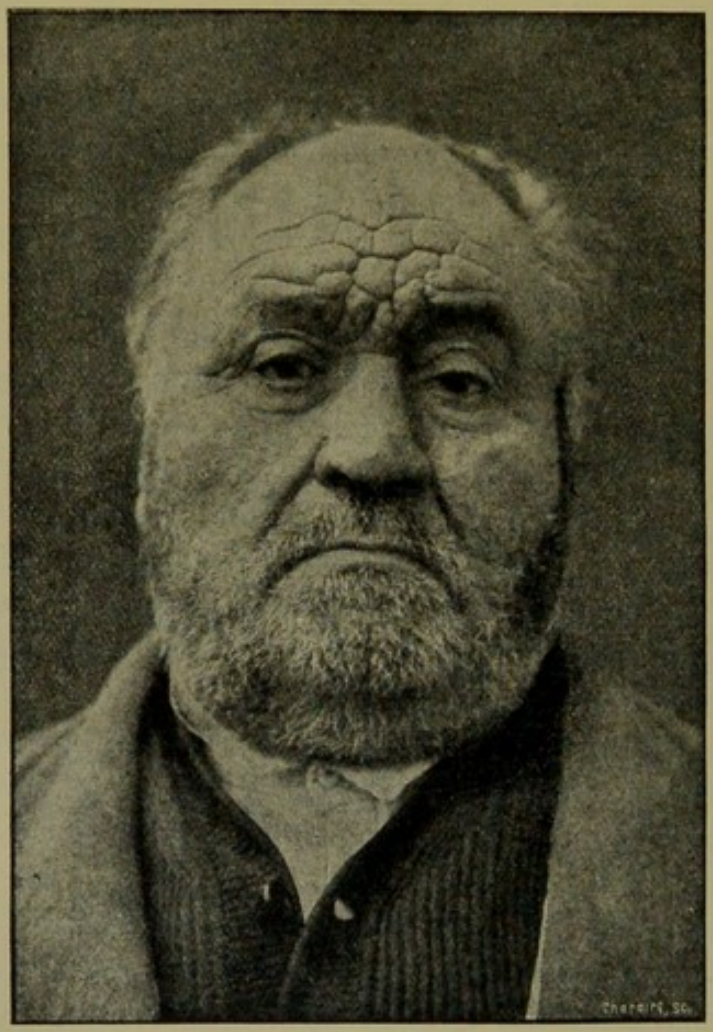


FIG. 2.

II.

The integumentary lesions of the nose, as well as of the lateral and inferior parts of the face—including redness, thickening, acneic folliculitis and perifolliculitis—are sufficiently marked and characteristic in this patient to establish the diagnosis of an hypertrophic rosacea with ease, and at once. But

it is otherwise with the changes in the forehead, which so closely resembled those due to *Leprosy* that several dermatologists who saw the patient, and who examined M. Baretta's model or photographs of the case, thought that the patient was a leper.

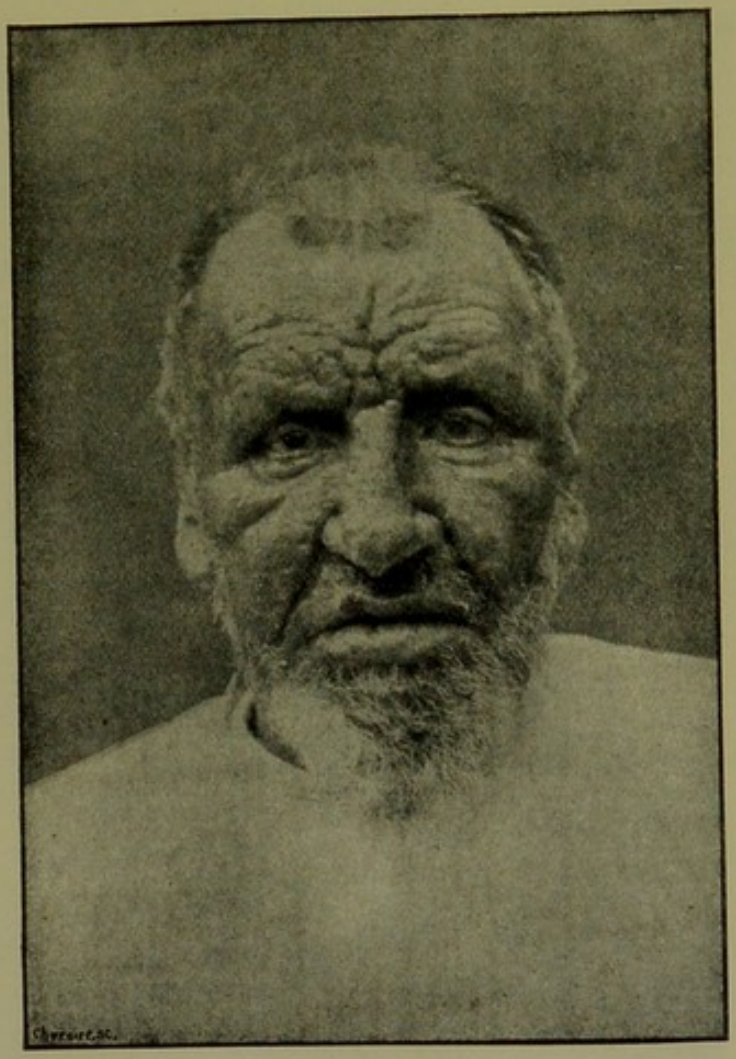


FIG. 3.

It will be easily understood how such an error could arise if an examination is made of the two pictures which we give for comparison, in figure No. 2, of our patient, and in No. 3, a leper whom we had photographed in 1887, the two men being of the same age.

It will be seen how the two types of lesion are worthy of comparison, from a study (among other examples) of Prince

A. Morrow's article on Leprosy, in his *System of Genito-urinary Diseases, Syphilology and Dermatology*, vol. iii., part ii. (Edinburgh and London, 1894), plate xviii., above and to the right. It will interest all to study the foreheads of three female lepers represented in page 570 of Dr. Prince Morrow's admirable article, as well as a large number in the Atlases of Danielssen and Boeck, of Leloir and others.

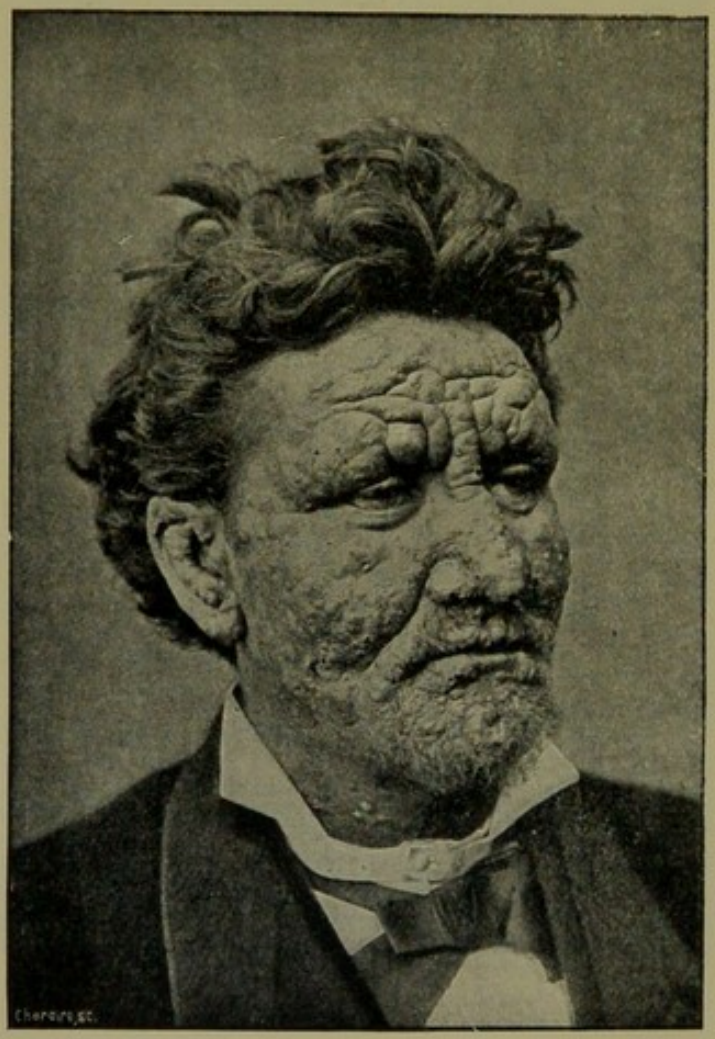


FIG. 4.

Nevertheless, disregarding the other symptoms of leprosy, such as those which depend upon the disturbances of sensibility for example, the differential diagnosis may be established by a simple clinical analysis of the lesions themselves and by certain changes in their environment.

Thus, in rosaceous leontiasis the region of the eyebrows

is intact; for not only is the hair of the part unaffected, but there is no disfigurement, as seen at 12 and 13 in the photo-lithochrome. In leprosy the superciliary regions invaded by the leprous tissue are bossy and completely devoid of hair, with the exception of a few rare cases, in which, in the grooves between the leproma masses, "especially towards the outer

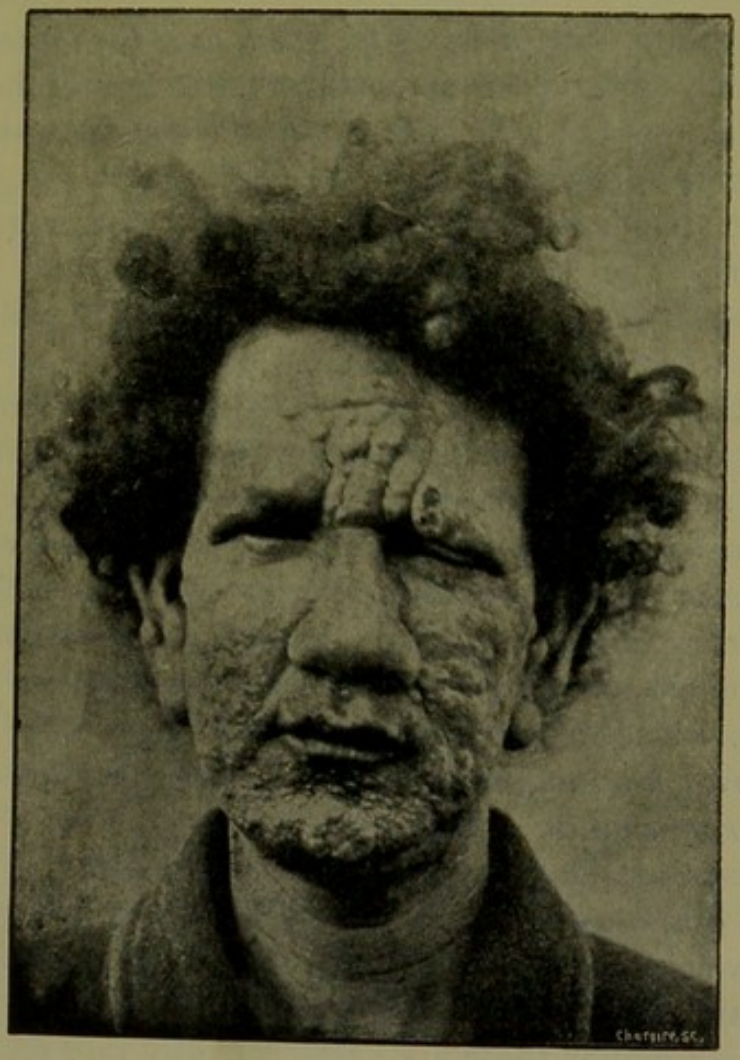


FIG. 5.

side, some tufts of stiff hair, like those of a tooth-brush, are to be seen" (LELOIR, *Traité prat. et théor. de la Lèpre*, Paris, 1886, p. 67, plate viii.). The superciliary baldness, which can be observed in a modified degree in the prodromal period of tubercular leprosy, is always constant when the leprosy of that region is definitely established. In a patient supposed to be the subject of tubercular leprosy the preserva-

tion of the eyebrows is in itself sufficient to negative the diagnosis of leprosy, or, at least, to make it open to doubt. Such is the case with the Javanese, cited by Haymann in *Virchow's Archiv*, 1859, p. 176, and quoted by Leloir, who was declared to be a leper, but in whom the eyebrows were intact, *etc.* On this ground, and on others not less cogent, Leloir contested the diagnosis, and we do so with him.

But further: in leprosy, with a few rare exceptions which we have only observed in patients suffering from other forms of alopecia, one of the most characteristic features is the extraordinary preservation of the hair (which is generally extremely abundant), due to some inexplicable immunity of the scalp. The two examples — figure 4, from *Leloir's Atlas*, plate viii., and figure 5 from my private collection — will serve to accentuate the point.

The hair, like a mane, really completes the leonine appearance along with the leprous forehead which the skin tumours at first signalised: Λέοντιασις *etiam dicta fuit ab extremarum frontis rugarum cum leone similitudinem* (LORRY, *Tractatus de morbis cutaneis*, Paris, 1777, p. 376). This extraordinary immunity appears not to have been pointed out before modern times, for Lorry, who sums up all previous literature, says (*loc. cit.*, p. 377): "*Pili in omni corporis ambitu premoniuntur, in manibus, femoribus et tibiis. In pube et mento rari sunt, ut et in cæsarie.*"

In fact, with the exception of antecedent atrophic alopecia, which is observed in lepers attacked before the age of the hairy development at puberty, destruction of hair takes place only by the direct action of the evolution of leprosy growths in the skin; and as these are extraordinarily rare on the scalp there is really no such thing as leprous alopecia, properly so called.

To resume:—the rosaceous process in its highest degree of development may cause a hyperplastic, sclerotic thickening of the skin or elephantiasis of the skin of the face. Sometimes it is diffuse and only renders the features coarse, at other times it may become localised, gigantic, and disfigure certain regions by rendering them lobate. The most common seat is

the region where the rosaceous congestion attains its maximum, *i.e.*, in the vascular system of the sebaceous apparatus in the nasal region, where it results in a complete transformation—thickening of the skin, excessive sebaceous development of the skin—constituting *sebaceous hypertrophic acne* of the nose or *rhinophyma*. But, as our photo-lithochrome and figure I., p. 4, show, the hypertrophic process may also be localised in the frontal region, and there produce enormous lobate masses, which more or less closely resemble the leprous forehead or leprous leontiasis.

ERNEST BESNIER.

TREATMENT OF ACNE ROSACEA.

The treatment of such exaggerated cases of rosacea as that portrayed in the photo-lithochrome must, of necessity, be surgical, and consists in free ablation of the hypertrophic masses. The ensuing results, as in the allied condition of *rhinophyma*, are often surprisingly successful from the cosmetic point of view.

There is, however, at present, in certain dermatological quarters a deplorable tendency to have recourse to meddlesome, minor surgical procedures for slight cases of rosacea, in which purely medical treatment, combined with soothing or very slightly stimulating local remedies, is generally successful. I refer to the *abuse* of the linear scarifier, of the "micro-brenner" and other sorts of thermo- and galvano-cautery, and of electrolysis, all of which necessarily produce more or less permanent scarring which can in the immense majority of cases be entirely avoided, although in a small number of cases their use is incontrovertible.

Alcoholic excess is certainly at the root of the majority of cases observed in men, and in predisposed persons the amount of alcohol necessary to produce the condition may be comparatively small. In such circumstances absolute abstinence from alcohol is a *sine quâ non* for successful treatment.

But the number of cases due to overindulgence in tea, and

naturally occurring most frequently in women of middle age, is certainly in excess of that produced by alcohol. The type of rosacea thereby produced is erythematous, acneiform and telangiectatic rather than hypertrophic, and the condition varies greatly from time to time. The dyspepsia from which such patients invariably suffer must be treated by complete discontinuance of hot liquids (tea, coffee, cocoa, soup), milk and soda-water being probably the best substitute. It is well also to exclude alcohol. Bismuth and bicarbonate of soda in a bitter infusion before meals is the most generally useful prescription, and the dietary must necessarily be of the simplest, most digestible description.

Ichthyol is undoubtedly a powerful agent for good, controlling as it often does the troublesome flushings which are apt to ensue upon the ingestion of any food, exposure to heat, excitement, *etc.* It is best administered in the form of capsules each containing two and a half minims. Two of these may be given immediately after each meal, and the dose gradually increased, but the British stomach will seldom carry more than four or five capsules at a time without the production of nauseous eructations. It is of prime importance to ensure free action of the bowels.

Rosacea in women at the menopause or obviously reflex to disease or disorder of the female pelvic organs may be treated on similar lines, but is generally very irresponsive to treatment.

In many cases a simple calamine lotion is wonderfully effective in cooling the burning parts. To this a little sulphur may be progressively added, especially if the sebaceous element be marked. In obstinate cases the use of a "scaling paste" frequently repeated is often very satisfactory, as an adjuvant to the general treatment. A formula I am much in the habit of using is as follows :—

℞.	Sulphur. Precipitat.	gr. x to gr. xx
	Resorcin	gr. v to gr. x
	Ung. Zinc. Oxid.	℥ss.
	Adipis Lanæ Hydr.	
	Vaselini Alb. āā	3 ii
	Mix and add	
	Pulv. Amyli, or Terræ Siliceæ,	3i

Sig.—This paste to be well rubbed into the affected parts every night at bedtime and wiped off in the morning.

Such an application must be strengthened according to the tolerance of the patient's skin until some desquamation is produced. The risk of resorcin dermatitis in a certain proportion of cases must not be lost sight of. During the day any form of cold cream may be used with advantage.

J. J. P.

PLATE VII.

CIRCINATE SYPHILITIC LESIONS OF THE SKIN, CONFLUENT AND COCKADE-SHAPED.

Circinate Papulo-Squamous Syphilides.

Model by Baretta, in the Saint Louis Hospital, No. 1701, made in the year 1892, from a patient under the care of M. Thibierge, acting for M. Besnier.

The lesions shown in the accompanying photo-lithochrome illustrate one of the most remarkable appearances that syphilitic manifestations can assume.

The patient was a man, aged twenty-seven, a blacksmith by trade, who was admitted to the Saint Louis Hospital in November, 1892, whilst I was acting as substitute for M. Ernest Besnier. The lesions, which had then existed for several weeks, had developed a little more than six months after the contraction of a syphilis, which, beyond the eruption on the skin of the face, presented nothing worthy of mention.

These manifestations, however, give rise to several important questions, both from a clinical and from a nosographic point of view.

I.

The most striking feature, on a first glance at the photo-lithochrome, is the general configuration of the lesions ; setting aside their colour, their prominence and the epidermic scales developed here and there on their surface, the eye is struck by their geometrical arrangement.

This arrangement is even more striking when, following André Broca's method, the plate is examined through a dark blue glass, which suppresses the red rays, thus abolishing the colour effect, and only allows the outline of the lesions to be

shown as a photographic plate would do. The accompanying woodcut, which is not a diagram, but an accurate linear tracing of the different elements of which the eruption is composed, enables one to verify this.

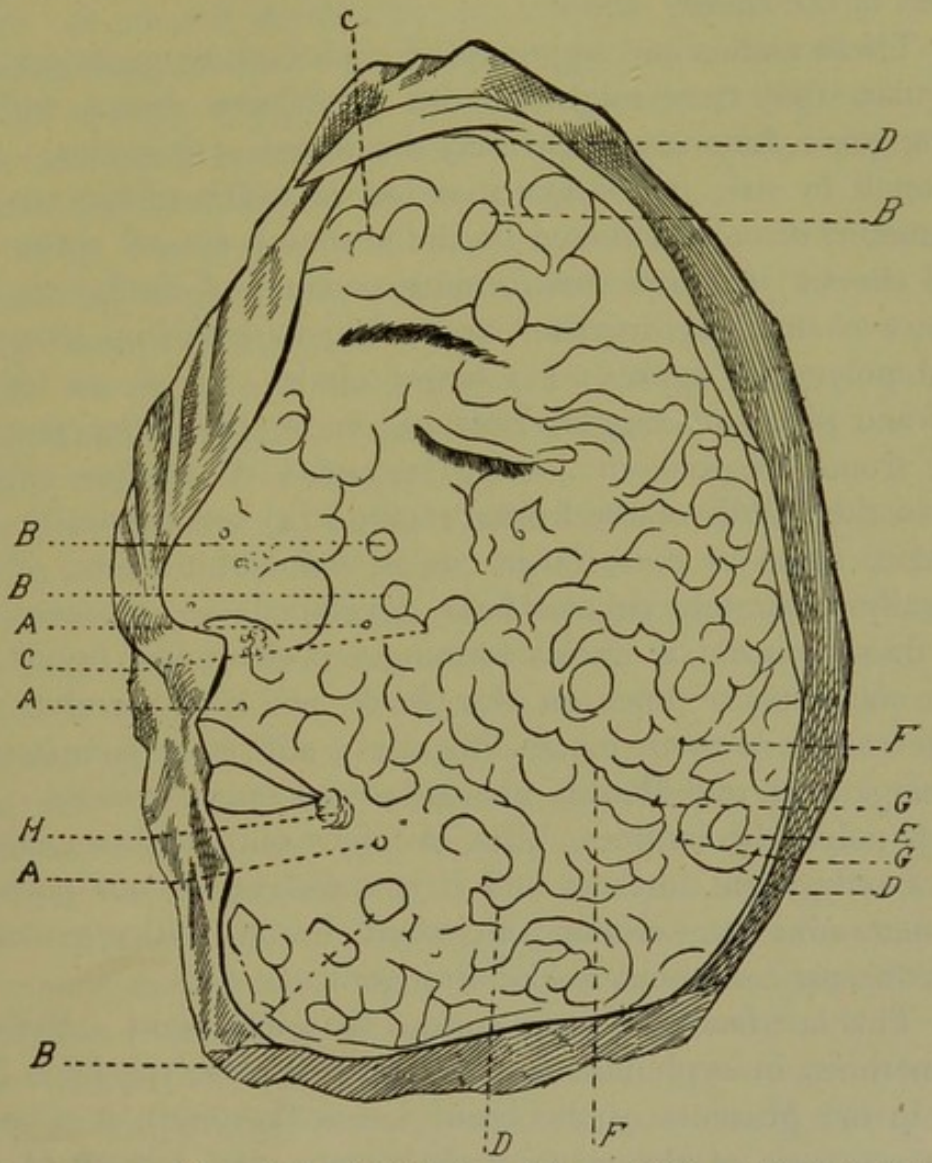


FIG. 1.—*a*, *a*, punctiform lesions, initial stage of the syphilitic patch; *b*, *b*, circinate syphilitic patches of small diameter; *c*, *c*, segments of circles of small diameter; *d*, *d*, circinate patches of larger size; *e*, patch of smaller size lying in the centre of other larger elements, and forming with them a cockade-like figure; *f*, *f*, segments of circles of small diameter uniting to form polycyclic figures; *g*, *g*, crusts, the remains of excoriations resulting from the rupture of pseudo-vesicular epidermic elevations; *h*, mucous patch at the commissure of the lips.

The lesions as a whole—fantastic and extraordinary as they undoubtedly are—remind one forcibly of the patterns with which it is customary for certain savage nations to mark their faces and exposed parts.

These arabesques may be reduced to a very simple form, *viz.*, a circle, or segment of a circle—with the exception of a few punctiform lesions—*a*, *a*,—which represent their initial stage, and are situated principally on the nose and adjacent parts of the cheek.

These circles and segments of circles are so geometrically regular, that they might almost have been drawn with a compass. Amongst them may be noted—(1) circles,—*b*, *b*—small in size, not larger than six or seven millimetres in diameter, discrete, situated on the nose and mæsial portion of the cheeks; (2) crescents forming portions of similar circles, —*c*, *c*— small in diameter, coalescing to make up irregular and polycyclic figures; (3) larger circles,—*d*, *d*—as big as a franc piece, or bigger, isolated, as on the outer part of the frontal region—or joining segments of smaller circles, as in the middle of the frontal region; (4) concentrically parallel to some of these large circles and within them, others equally accurately circular have developed,—*e*—the *ensemble* of these concentric circles forming a cockade-like figure; in the confusion of lines on the cheek, one can perceive and differentiate without much difficulty a still more complicated arrangement, and identify analogous concentric systems—*f*—with polycyclic outlines. But to follow out such an analysis is of only slight interest, and it is sufficient for our purpose to determine the existence of circinate lesions, with a tendency to concentric or cockade-like arrangement.

This last feature is more curious than important. Noticed sometimes in syphilides (as evidenced by the specimen No. 75 in the Museum of the Saint Louis Hospital), it is more characteristic of the acute exanthemata, and less so of the dermatomycoses. It is indeed only the superposition, or, better, the successive development from one centre of two similar, circinate and centrifugal lesions.

This leads us back then to the first feature mentioned, *viz.*, circination, with its variants and its derivatives, and this constitutes the true graphic characteristic of the lesion by which, and by which alone, the nature of the lesion can at first sight be suspected.

Syphilis, more than any other cause of cutaneous disease, is that of which the manifestations tend most frequently to assume circular form, and in all its stages—whether in the primary chancre, or in its secondary symptoms—in roseola, with its ringed elements; in various papular syphilides, undergoing involution in circinate figures or otherwise; even in its tertiary symptoms, which in general configuration—if not accurately circular in form—approach it by being often either semi-circular, or kidney-shaped.

This tendency for all its cutaneous manifestations to assume a more or less circular outline is one of the not least important peculiarities of syphilis; clinically, it enables one to trace out syphilis in cases where its lesions assume fantastic characters and unusual general configuration, which at first sight seem to defy diagnosis.

Anatomically, it explains and reveals the mechanism of the growth of syphilodermata, essentially a vascular affection. Syphilis at every stage—whether primary, secondary or tertiary—exerts its noxious influence on the vessels: the roseola patch shows, as Renaut has pointed out, the congestion of a vascular cone, the base of which it represents on the surface of the skin; it is probable that it is the consequence of the action of the syphilitic virus on the afferent artery to this cone. The circinate arrangement may be explained by the localisation of the same virus on the terminal ramifications of a vascular cone, the central ramifications remaining intact, or the lesions of which they have been the seat having disappeared; centrifugal extension occurs by progressive involvement of parts lying farther from the vascular plexus, following an analogous process in the evolution of dermatomycoses, but here we wish to establish a comparison, not a similarity.

II.

Having considered its form, we shall now consider the lesion itself, its colour, and the state of the epidermis over it.

Its colour, pink, or in some places bright red, in others rather brownish, is here of little importance; it differs only in some barely perceptible shades from that of certain acute exanthemata; alone, it could not determine, nor give a clue to the diagnosis. (The accompanying photo-lithochrome is rather warm in colour, and browner than the lesions observed.)

Colour in syphilides generally has much less value than is usually attached to it. The high diagnostic value of the colouring classically called "raw-ham," "coppery," or "fleshy," which often leads one to consider a cutaneous lesion as syphilitic, cannot be denied, for it is seen more or less distinctly in most syphilides. But it is none the less true that it is lacking in many undoubtedly syphilitic lesions.

When, however, the tint is not of itself characteristic, one can generally contrive by artifice (as in this case) to make manifest a colour-change in the skin which is not without value.

Pressure upon the integument, simple digital compression, or compression by a plate of glass (*e.g.*, the object glass of a microscope), according to Unna's method of so-called *Diascopy*, will accomplish this; compression, by expelling the blood, does away with one of the components of the colour of the cutaneous lesions, the tint produced by the permanent changes in the skin alone remaining.

Most erythematous lesions, being purely congestive, disappear completely on compression; in syphilitic affections of the skin, on the contrary, there is always associated with the congestion either a certain amount of inflammatory exudation, of some dermic pigmentation due to transudation from the affected vessels, or the two conditions are associated; so that there always remains after compression a more or less pronounced yellow or brownish tint.

Most of the circles on the accompanying photo-lithochrome, in addition to their colour and a certain prominence, present epidermic changes; in some places there are brownish crusts —*g*, *g*, fig. 1—remains of excoriations; but more especially the periphery of nearly all the circles, either in whole or in part, is covered by white or greyish scales. In the patient

the scales were less numerous, whiter and finer than they are represented in the photo-lithochrome. These latter lesions are of frequent occurrence in syphilides.

The objective features, therefore, lead one to suspect syphilis. Moreover, in the photo-lithochrome, there may be noted an incontestable indication of syphilis, in the form of a lesion peculiar to the disease, which, in the absence of all history or other information, would permit of its recognition, *viz.*, a typical mucous patch at the left commissure of the lips.

This diagnosis of syphilis, which the alcoholism of the subject, and the constant exposure to the effects of heat in his trade, tended to localise in a striking and rather unusual manner on the face, was ratified by the patient's replies to questions put to him.

III.

We have, therefore, to do with a syphilitic eruption; but what name ought to be attached to it?

Most syphilographers—faithful to the doctrine of Willan's system of classification of cutaneous diseases—would designate it from its objective features, a papulo-squamous, circinate or annular syphilide. Each of these qualifications is self-evident, and the name as a whole would be perfect, if syphilitic skin diseases, merely from their anatomo-clinical features, could be delimitated as clearly as the great divisions of Willan's system of classification of cutaneous diseases. But this is not possible; side by side with syphilides, with clearly defined objective characters, which cannot be confounded with other clinical forms, such as the two extremes—roseola and gummata,—there is a whole series of syphilitic eruptions which, liable to differences in their objective features, are yet identical in their mode of appearance and clinical associations, the multiple modifications of which must be described by a single name.

LEGENDRE (*Thèse de Doctorat*, 1841, p. 28), under the name of *Flat Tubercular Syphilides*; BAZIN (*Leçons sur la Syphilis et les Syphilides*, 1859, pp. 14 and 113), under the

name of *Mucous Patches of the Skin*, and then *Syphilitic Patches of the Skin* (*ibid.*, 2nd edit., 1866, pp. 224 and 225), have described these lesions accurately and in a remarkable manner. One cannot help being astonished, as M. Besnier is never weary of pointing out in his lectures, that they should have remained almost entirely unrecognised by subsequent authors.

Whatever their seat, their extent, or their age, syphilitic patches on the skin are made up of round or oval elevations, depressed in the centre, varying in colour from pink to light or dark red, often purplish or brownish; at some point or another of their surface there is always an excoriation, the result of a localised pseudo-vesicular elevation of the epidermis surmounted by a crust. In contradistinction to the elementary lesions called tubercles, they are remarkable for their softness.

The type may vary in appearance, as its normal development is diminished or exaggerated, or it may be complicated by secondary lesions; hence arise the numerous clinical forms described by authors as different kinds of syphilides.

They vary in size; they are sometimes punctiform, usually measuring from one to two centimetres in diameter, and are generally papular in appearance, very slightly depressed in the centre, which is covered by a crust; they then come under the head of *Papular Syphilides* along with lesions correctly so called.

Often they are larger, and in proportion as they increase in size their centre generally becomes more depressed; their periphery only remains prominent (they form varieties of *Annular* or *Circinate Syphilides*), whilst the centre remains of a pinkish colour, becomes pigmented, or resumes the normal colour of the skin.

The surface of the lesions may be covered by normal or slightly shrivelled epidermis, or the epidermic covering may be slightly raised, forming here and there small vesicles and corresponding to some forms of *Vesicular Syphilides* of certain authors. More frequently the epidermic change is evidenced by the formation of scales, and thus are brought about the different types of *Papulo-squamous Syphilides*. These scales

may be very thin, hardly noticeable, or white and opaque, resembling those of psoriasis, hence the formation of so-called *Psoriasiform Syphilides;* often limited in area, separated into numerous segments by superficial depressions, limited at the periphery of the annular patches, as in the accompanying photolithochrome, they sometimes occupy the whole area of the elementary lesions, the true nature of which is revealed by the circular projection at their periphery; this is shown in the phototype No. 2, which represents the model of a case under M. Hillairet in the Museum of Saint Louis Hospital, No. 516.

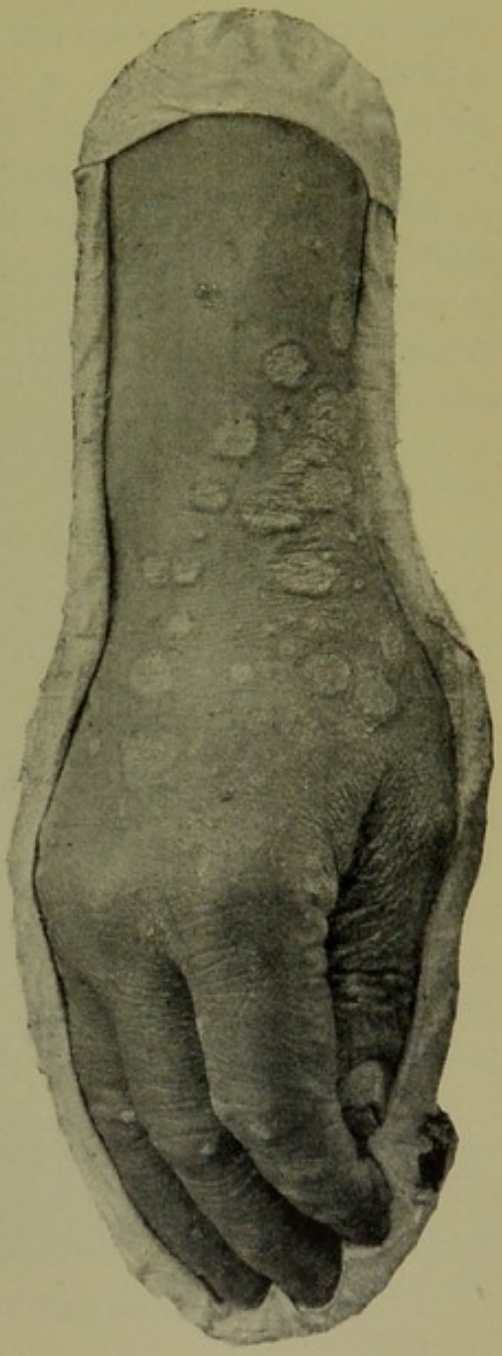


FIG. 2.—Squamous syphilitic patches on the skin.

Often, and especially when the face is the seat of the patches, principally in the vicinity of the nose or forehead, they are covered by a yellowish, friable, fatty coating due to secretory disturbance of the cutaneous glands—the *Seborrhœic Syphilides* of certain authors.

At other times, mainly under the influence of external irritation, the epidermic coat, raised by slight exudation, ruptures and exposes the rete mucosum, resulting in the formation of more or less extensive erosions (*Papulo-erosive Syphilides*), or even of superficial ulcers (*Papulo-ulcerative Syphilides*); the secretions produced on their surface may dry up into more or less thick crusts (*Papulo-crusty Syphilides*).

Although generally only slightly elevated, syphilitic patches may become markedly so from external causes (*e.g.*, repeated friction, producing excoriation of their surface, permanent moisture of the region or uncleanliness), and secondary infec-

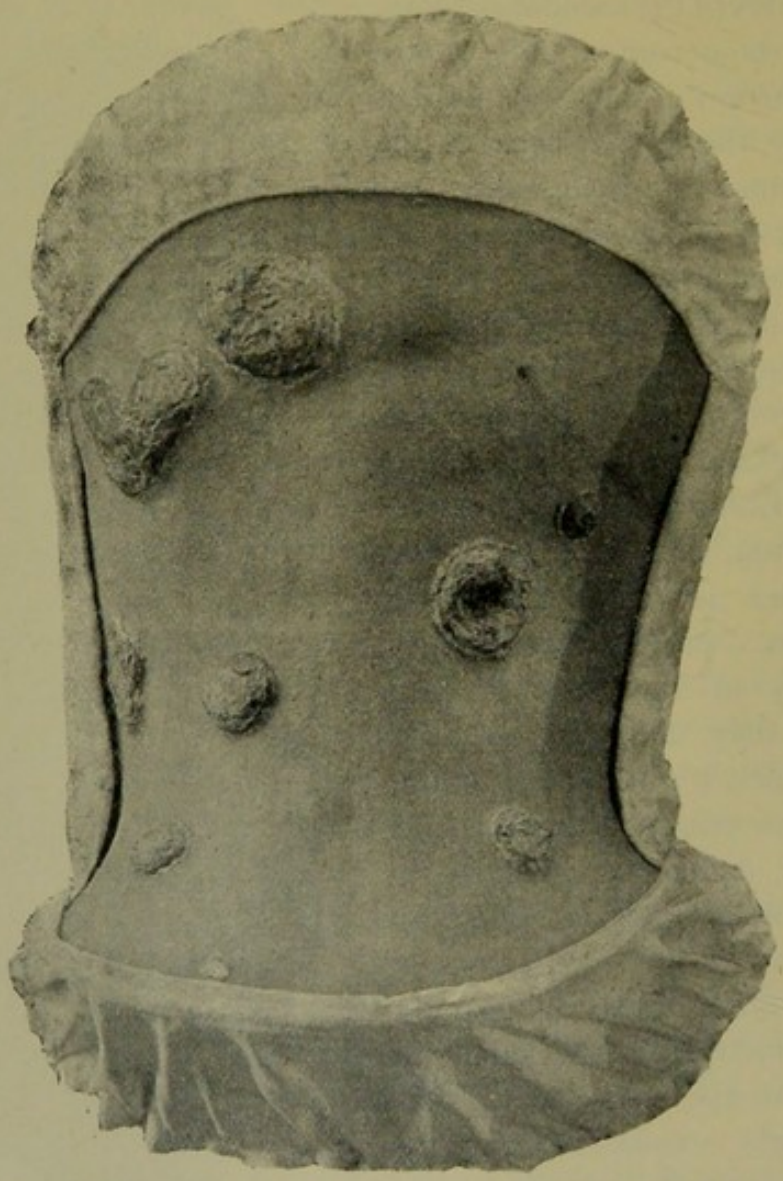


FIG. 3.—Enormous Syphilitic Patches of Papulo-crusty form.

tion is implanted on the excoriated lesions. It is thus that certain hypertrophic syphilides are formed; their surface may be covered with raised papillomatous growths (*Vegetating Syphilides*), as in figure No. 3, from a model placed in the Museum of Saint Louis Hospital by M. E. Vidal, No. 828.

Syphilitic patches may be abundant, nearly confluent, or, on the contrary, disseminated in small numbers.

They may occupy the whole cutaneous surface or may localise themselves more or less definitely in certain regions. They are especially common on the neck, face, and wherever two surfaces of skin come closely in contact, as in the genito-anal region, in the folds of the axillæ, the submammary folds, and the interdigital spaces of the toes.

In all these regions, where portions of skin come in contact, they find conditions of heat and moisture analogous to those of mucous membranes; they become modified in consequence, and assume clinical characters absolutely identical with those of the lesions known and recognised by all authors as "mucous patches".

Besides, when the skin is the seat of syphilitic patches, one may be sure—as Bazin has expressly pointed out—to meet with mucous patches at some part of the bucco-pharyngeal cavity, or on the genital organs.

Thus we are justified in regarding these lesions as identical in character, and only as presenting clinical differences because they occupy regions on the integument which differ in their structure and in the physical conditions necessary for their function.

Again, syphilitic patches of the skin, like mucous patches, may develop at different stages in the evolution of syphilis; they appear in the first week of secondary as well as during the first stages of tertiary syphilis, and in the intervening period they may, and often do recur.

In this they contrast with these different kinds of cutaneous syphilides which appear at a fixed and definite period in syphilis, and do not recur in the same form at intervals of several months; at least not the early syphilides, those of the so-called secondary stage.

Syphilitic patches may, and often do, coincide with other syphilitic cutaneous eruptions, and, by reason of the length of time over which the patches continue to develop, may clinically be very variable in character, so that erosive and hypertrophic syphilitic patches may be met with in association with a roseola, or an early syphilide.

The conception of syphilitic patches of the skin, as expounded by Legendre and Bazin, and admitted by M. Besnier, does away with any special lesion peculiar to syphilis, and having no analogy in other forms of skin disease: a lesion which cannot be placed within the too narrow limits of Willan's classification, and which can only be therein included by the artifice of making of each of these varieties a different clinical form.

But, above all else—and hence its clinical justification—this conception reduces cutaneous syphilitic eruptions into a definite order, and makes their chronology easier to define.

Secondary syphilides assume, as is known, more and severer and deeper forms as the disease gets older; the appearance of ulcerating and hypertrophic syphilides indicates, therefore, either an old or a prematurely and abnormally severe syphilis. But what is true of syphilides in general ceases so to be of syphilitic patches; superficial patches may succeed ulcero-hypertrophic syphilitic patches; the apparent anomaly is the rule, and true prognosis results from accuracy of diagnosis. So, when once syphilis has given rise to localised syphilides, it ceases to produce generalised eruptions; but this rule, applicable as it is to all other syphilitic affections of the skin, is not so to syphilitic patches, and one should not, in presence of circumscribed syphilitic patches, assure a patient that he is secure from more generalised syphilitic eruptions.

But where syphilitic patches conform to the general rules for syphilitic eruptions is in the necessity they indicate for combating this infection; they indicate not only suitable local treatment (local antisepsis, and cauterisation in the ulcerating and hypertrophic forms), but also, and especially, specific internal treatment, into the details of which we need not enter here.

GEORGES THIBIERGE.

TREATMENT OF SYPHILIS.

This has been referred to in the article appended to Plate III.

PLATE VIII.

XANTHOMA PLANUM ET TUBEROSUM
IN A GLYCOSURIC, ICTERIC, AND OBESE SUBJECT.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1600, made in the year 1891, from an out-patient under the care of M. Darier.

A GLANCE at the accompanying plate will suffice to enable one to recognise that the casts represented were taken from a patient suffering from typical *Xanthoma Planum.*

The two parts represented, the face and the hand, show the commonest form of xanthoma planum and in its most characteristic localities. It will be seen that these two parts are far from being the only ones affected.

The real interest in the case does not lie in the precision of the objective features of the eruption, nor in its abundance and almost universal distribution, but in the two following circumstances: (1) The xanthoma planum in these parts was associated with *Xanthoma Papulatum* (vel *Tuberosum*) on other portions of the skin; (2) the patient was corpulent, and suffered from persistent glycosuria and chronic jaundice, with hepatic enlargement. The case is of value, therefore, in considering the question of the unity or multiplicity of the forms of xanthoma, as well as that of the connection between xanthoma, diabetes, and hepatic disease.

E. L., aged forty-seven, overseer in a chemical factory in the suburbs of Paris, attended regularly as an out-patient at the Saint Louis Hospital from November, 1890, to the end of 1891; he never was an in-patient.

Previous History.—He is not aware that any member of his family has ever had a similar eruption, or has suffered from diabetes or hepatic disease. His mother died of albuminuria, at the age of seventy. He has a sister who is very corpulent; a brother, aged thirty-nine, subject to sick headaches, and very

obese, weighing 100 kilogrammes. The patient himself is very strong, and weighed 87 kilogrammes a year ago; his health till now has been good; no rheumatism, gout, sick headache, lithiasis, or similar symptoms. He has never had syphilis; he readily admits excess in alcohol about ten years ago; he drank absinthe chiefly, and liked to get drunk.

The *onset* of disease dates from two years ago, when he had some worry and anxiety. Yellow spots first appeared on his neck, and afterwards developed consecutively in the folds of the palms of the hands, on the elbows, and on the face. The patient states positively that he had previously nothing abnormal on the eyelids.

For a year the eruption gradually spread over the body and limbs; but during the course of the following year the cutaneous lesions were stationary, or nearly so, whilst his general health became affected.

Present State.—When the patient first came under observation in 1890 his condition was as follows: "On the face there are numerous spots varying in size. There is a rather extensive patch on the left side of the forehead, other irregular spots on the cheeks, the upper and lower eyelids, and on the temples and ears. These spots are well defined but irregular in form, their contours 'geographical,' while between them there are smaller islets; the eruptive elements are quite smooth, and only distinguished by their colour, of a yellowish or almost pure golden tint. There is no elevation either in the centre or at the edges of the patches. On palpation, their consistence and suppleness are the same as those of the unaffected parts. The epidermic folds and wrinkles are neither more nor less marked on the patches than elsewhere. But where the skin is very thin, especially along the margin of the eyelids, a little doughy thickening may be noticed on picking it up." This can be seen in the photo-lithochrome on the upper eyelid, towards the inner canthus.

"There is no real predominance of the eruption on the eyelids; the spots are less numerous on the nose, round the mouth and on the chin than on the rest of the face. The scalp is entirely free.

"The colour of the skin between the patches is not normal, but yellowish brown, and, in addition, especially in the temporal regions, over the root of the nose and in the centre of the cheeks, it is of a diffuse violaceous tint."

The latter of these abnormalities of colour is due to slight passive congestion in dilated capillaries. We shall discuss later on whether the brownish-yellow tint should be attributed to jaundice or to a "xanthodermia" of a different nature.

"All round and up the neck there are innumerable irregular yellow spots, the limits of which are often less well defined than on the face.

"On the trunk the lesions are slightly different, and consist of small papules, none bigger than a millet or hemp seed, of bright lemon colour, raised, very slightly indurated, but still clearly perceptible to touch. All have a brownish spot in the centre, which is the follicular orifice of a lanugo hair; nothing can be expressed by squeezing, however firmly.

"These papules are in greatest abundance on the shoulders and back, and especially in the vicinity of the axillæ; they are numerous in the axillæ themselves, on the neighbouring parts of the chest, and on the inner sides of the arms.

"In the hypochondriac regions and flanks, especially on the right side—where they are arranged in a band reaching nearly to the umbilicus—there are papules of like appearance, or a little redder, forming by their confluence discrete patches. Some larger spots, bigger than half a pea, of a reddish-yellow colour, may be noticed in the midst of the others.

"These tubercles, associated with papules or macules, exist also on the buttocks. The gluteal fold is the seat of yellow spots and of papules, coalescing to form sheets of disease. The genital organs are unaffected.

"The lower extremities are but little involved; there are a few tubercles and isolated papules on the thighs near the knees, but nothing on the legs; and on the feet there is only a yellow stripe symmetrically occupying the two sides of the groove which divides the sole of the foot from the root of the great toe.

"On the upper extremities the elbows and hands alone are

affected. On the elbows on either side there is a group of moderately firm papulo-tubercles, of a pink rather than yellow colour.

"On the hands all the folds of flexure on the palms and fingers are accurately marked out by pale yellow stripes, from three to six millimetres in width, with somewhat irregular margins; circular macules are attached to the edges of stripes, or exist independently, *e.g.*, on the first phalanx of the thumb, the second of the middle finger, and near the tip of the index finger of the left hand. In addition, there are groups of little papules surrounding the phalangeal articulations of the backs of the fingers. The yellow stripes on the palms and fingers do not obliterate their folds; but they cause some slight discomfort on flexion, and this is the only affected area of which the patient complains. All the other lesions are absolutely unattended by subjective symptoms, with the sole exception of slight sensations of itching when warm in bed. Squeezing the papules between the fingers evokes slight tenderness. The accessible mucous membranes are nowhere the seat of macules or yellow papules."

The patient suffering from this eruption, so easily recognised as xanthoma, was, as I have said, more than ordinarily corpulent; ever since the summer of 1889, a year after the onset of the eruption, he noticed that he, who had always been a good feeder, had lost his appetite, especially for meat, although he had not suffered from indigestion or vomiting. At the same time his skin had assumed a diffuse yellowish tint, very pale and scarcely attracting his attention; he stated also that his face had become redder between the macules.

This yellowish or, more accurately, brownish-yellow tint may be seen, though not very marked, over the whole surface of the body. Have we to do with jaundice or with that generalised yellow colour so frequently observed in xanthomatous subjects which has been called "xanthodermia" (see BESNIER and DOYON: *Trad. franç. du Traité des Maladies de la Peau*, Kaposi, 2nd edit., vol. ii., note on page 324)? The ocular conjunctiva presents a very markedly yellow colour, as do the soft palate and the mucous membrane

under the tongue. Finally, the presence of bile-pigment in the urine can readily and very distinctly be verified on chemical examination by Gmelin's test. There can, therefore, be no doubt of the existence of true jaundice.

"The abdomen is enlarged, prominent, rather tense, without dilatation of the superficial veins. It is rather tympanitic on palpation and percussion, but there appears to be no ascites; the liver is large, smooth, hard, and extends beyond the false ribs by at least three fingers' breadth in the nipple line; it is not painful or tender on pressure. The size of the spleen is difficult to estimate accurately, but it seems somewhat enlarged; the bowels are regular, and the motions have never been pale; the lungs and heart are normal."

The urine in an obese patient with xanthoma should receive very special attention. We first learn that the patient only passes water three or four times a day, and sometimes at night. The total quantity varies from two to three litres. On 28th November, 1890, M. Cathelineau, head of the chemical laboratory of the clinic of the Faculty, examined a specimen with the following results:—

Urine, dark yellow; specific gravity, 1033; faintly acid; quantity passed in twenty-four hours . . .			2,500	grammes.
Urea,	13 grammes per litre	in twenty-four hours .	32·50	,,
Albumen,	0 gr. 60	,, ,, ,, .	1·50	,,
Glucose,	9 gr. 99	,, ,, ,, (about)	25	,,

Biliary colouring matters in considerable quantity.

The man had, therefore, glycosuria, azoturia, and albuminuria, although only slightly; the azoturia (excess of urea), in association with glycosuria, and, still more, the persistence of sugar in the urine, which was found on the examination of every specimen for a whole year, proved the existence of a true *diabetes mellitus*. However, the disease was only slight, as all other symptoms, excepting those appertaining to the urine, were absent. Thirst was moderate. There was rather a diminution than an increase of appetite; there was no stomatitis, and the teeth were well-preserved; vision was good, strength unimpaired, memory and intelligence normal. Only slight somnolence and occasional attacks of giddiness were

observed. There is no note as to the tendon reflexes; there was no œdema of the limbs.

Course.—For a year the patient came for advice every month or every two months. He was put on modified anti-diabetic diet, one or two litres of milk *per diem*, with either bicarbonate of soda (eight to ten grammes) or turpentine capsules (twelve a day), or Fowler's solution. A solution of perchloride of mercury in collodion (5 per cent.) was applied locally to the palms of the hands, which rendered them more flexible, to the patient's great satisfaction.

The body weight, which had fallen from eighty-seven kilos two years ago to sixty-three, rose to sixty-five and to sixty-nine kilos; strength was well maintained; digestion was easy. The urine varied little in quantity: it was generally cloudy, copiously loaded with urea; albumen and biliary constituents were found in varying proportions, sometimes slight, sometimes considerable; sugar was never absent: examination for urobilin made on two occasions revealed its presence in considerable quantities.

The changes in the xanthomatous features were very slight. The yellow spots on the face and neck seemed at one time less sharply defined; the papulo-tubercles on the elbows and trunk flattened down a little, and became softer; but no lesions disappeared completely; on the contrary, two or three fresh spots appeared round the mouth.

Histology.—Examination of two papules from the back showed characteristic xanthomatous lesions. The epithelium was intact; the papillary layer and the skin all round the follicles were the seat of a neoplasm formed by fatty matter in the shape of little rods or granules, which filled large, often multinucleated cells (xanthoma cells), or appeared partially free in the lymphatic spaces.

Attempts at auto-inoculation with the tissue of the lesions on unaffected parts, and at transmission to animals were unsuccessful.

Diagnosis.—The diagnosis of xanthoma from objective characters, which was self-evident, did not exhaust the whole of the morbid changes present. In addition to the cutaneous

lesions the patient manifestly had hepatic trouble and diabetes mellitus. It was obligatory to investigate the significance of each of the elements of this complex pathological association and their mutual relationship. If there had been no icterus and only xanthodermia, the enlargement of the liver might have been ascribed to the acknowledged alcoholism, or to the diabetes which may accompany enlargement of the liver by itself; persistent icterus without pallor of the stools, and without pain, might have been due, not to calculous obstruction, but perhaps to some other form of disease, *e.g.*, *cirrhosis;* but as the patient presented neither the symptoms of alcoholic cirrhosis nor even very precisely those of Hanot's type of hypertrophic cirrhosis with jaundice, it was impossible to arrive at any more definite conclusion. The existence of some indeterminate hepatic disease only could be assumed as certain.

Addendum.—The patient, who had been lost sight of for four years, returned to Saint Louis Hospital a few days ago, into M. Hallopeau's ward, while M. Jeanselme was acting as his substitute. He was so emaciated as to be scarcely recognisable; he still had icterus, and his skin was of a dark brownish colour, while the abdomen was much distended by ascites and had to be tapped ere long. The xanthoma on the face had given place to a diffuse brownish-yellow tint; the eruption on the neck was no longer visible. On the shoulders and the flanks the collapsed and flabby papules were of a tawny brown colour. The yellow stripes on the hands no longer existed, but were replaced by a light brown pigmentation in the direction of the flexural folds. Grave symptoms were present; muttering delirium, scanty urine; the temperature remained, however, normal. Two days after admission a tapping allowed of the evacuation of 10 litres of dark yellow ascitic fluid, containing very little fibrin, the analysis of which disclosed the presence of sugar and biliary pigment. On the succeeding days the general condition became aggravated: the urine was still scantier; diarrhœa profuse; temperature oscillating between 36° and 37° C. The urine contained biliary pigment and 27 grammes of urea per litre, but the patient only passed 300 to 500 grammes of urine in

twenty-four hours, which contained neither sugar nor albumen. Death occurred on 28th September, 1895, without convulsions or hæmorrhage.

Autopsy.—Liver weighed 1840 grammes, cirrhotic, with olive-green granulations; 180 grammes of almost colourless bile in the bladder; spleen firm, weighing 1120 grammes; pancreas not atrophied; some little perihepatitis and perisplenitis. Nothing resembling a xanthoma patch or tumour in any organ, nor on any mucous or serous surface. Death was attributed to *hepatic insufficiency from hypertropic cirrhosis, with jaundice.*

XANTHOMA (*plaques jaunes folliculaires* of Rayer, *vitiligoidea* of Addison and Gull, *xanthelasma* of Wilson) may appear at any age, and assume either the form of straw-yellow coloured *spots* or *patches*, without alteration in the thickness and consistence of the skin, or that of *papules*, varying in size from a pin's head to a hazel nut, either soft or slightly indurated, and yellowish-white or pink in colour; lastly, it may assume the form of voluminous *tumours* of these same colours, either solitary or conglomerate, sessile or pedunculated.

Xanthomatous spots are pretty frequently observed *limited to the eyelids*, where they usually persist throughout life. In the *generalised* form, as in this case, it is not uncommon to see the association of macular and papulo-tubercular elements. Xanthoma *in tumours* (Besnier) is most frequently observed in cases which are either congenital or develop very early in life, perhaps being hereditary.*

The lesions of xanthoma in their localisation exhibit a preference for the points of the elbows and knees, the backs of the joints of the fingers, the shoulders and buttocks, and, on the other hand, for the folds on the palms, for the wrists and soles. But they may exist anywhere, even on the mucous membranes, and sometimes they are discovered, *post mortem*,

* The *Elastic Xanthoma* of Balzer appears, despite the analogy in its symptoms, to be an entirely different disease from true xanthoma, as is shown by the histological structure of its lesions.

on serous membranes. The distribution of the eruption is generally pretty accurately symmetrical.

A universal yellow tint of the skin is often noted in xanthoma;—according to Kaposi, in more than half the cases. This tint is sometimes due to true *biliary jaundice*, as in the case of our patient; sometimes it is referable to *xantho-chromia*—without staining of the mucous membranes and without bile in the urine (Carry, Besnier)—the nature of which is not known, but which is probably allied to hæma-togenous ("non-obstructive") jaundice.

Other symptoms of hepatic change, especially enlargement, with or without enlarged spleen, digestive troubles, and lithiasis, have frequently been seen in patients with xanthoma. Two opposing explanations have been given of this association: the one is that hepatic affections constitute, as it were, a sort of diathesis (we should now say an "auto-intoxication") which predisposes to a deposit of fat in certain cells; the other view is that the hepatic affection is itself of xanthomatous nature, but this wants anatomico-pathological confirmation.

Finally, xanthoma stands in certain undeniable, though yet little understood, relations with glycosuria and diabetes. A *xanthoma diabeticorum* has been described and the following characters attributed to it, *viz.**: it is intermittent or temporary, the papules are hard, less yellow, often punctated or perifollicular, and there are no spots, or striæ, all the elements being papular; finally jaundice is never present.

This distinction, accepted by a great number of English and American dermatologists, has not been generally adopted. M. Besnier especially repudiates it categorically.

The case before us also refutes the existence of this new type, since, *in a diabetic subject*, we find persistent, very yellow papules, punctated and perifollicular, some soft, others hard, associated with spots and striæ, the whole accompanied by persistent icterus.

Diagnosis presents no difficulty, although so little is known of xanthoma.

* *Trans. of the Pathol. Soc. of London*, 1883, p. 278, report of a sub-committee on a case brought forward by Mr. Malcolm Morris.

Prognosis depends less on the mere lesions of the skin than on the general state of the health and on the existence of visceral lesions, especially in the liver.

Local Treatment is of little value; disfiguring spots and troublesome tumours have been removed, and partial success has attended the application of perchloride of mercury in collodion.

As regards methods of *General Treatment*, beyond those indicated by functional and nutritional troubles, the only remedy which seems of value is the long-continued administration of turpentine as recommended by M. Besnier.

The *nature* of xanthoma is entirely mysterious; it has been attributed to a diathetic condition belonging to the same class as obesity, gout and diabetes—to a *dystrophia* or to *toxæmia* of hepatic origin—to a disease analogous in some respects to leprosy and tuberculosis, and therefore parasitic, *etc.*; so that it is evident that the most elementary data are wanting for the solution of the question.

J. DARIER.

[It may fairly be pointed out that the Report of the Sub-committee of the Pathological Society of London upon Mr. Malcolm Morris's case, referred to and criticised by M. Darier, is now of more than eighteen years' standing, and was based upon one of the earliest recognised cases of the disease. The conclusions therein arrived at have naturally been considerably modified by subsequent observation. In all, about thirty cases have been recorded, and almost all the records are accompanied by interesting critical matter.

The close and probably essential relationship of xanthoma diabeticorum to ordinary xanthoma is universally admitted, but the bare fact alone that a case of xanthoma diabeticorum can usually be diagnosed at a glance suffices to prove that the disease has sufficiently distinctive *clinical* characteristics of its own. In the second edition of *Quain's Dictionary*, 1894, article XANTHOMA DIABETICORUM, I wrote as follows: "The following conclusions have been arrived at from a study of the (then) seventeen indubitable cases on record, a considerable majority of which (fifteen to two) have occurred in males, the age of the persons affected ranging from seventeen to forty-eight years.

"The disease occurs almost invariably in people actually passing sugar in the urine, although generally they have been noted as stout, and apparently in good health. In the majority of the cases the presence of sugar in the urine has been transitory, and accompanied by the other phenomena of true diabetes mellitus. In one case, moreover (Cavafy's), there was only a history

of antecedent glycosuria; while in another (Besnier's), who was an obese man without glycosuria, the father of the patient was diabetic. The eruption evolves quickly, and, after a variable stationary period, extending over months or years, diminishes with considerable rapidity, to ultimately disappear without leaving any trace of its existence. Sometimes its course is intermittent, and successive outbreaks occur, while occasionally fresh lesions develop during the retrocession of the older ones. As a rule the parts first affected are the extensor surfaces of the limbs, especially of the forearms: subsequently the lesions usually appear on the elbows and knees, where they have a great tendency to become confluent and form raised plaques. They are commonest on extensor surfaces, the buttocks, back, face, scalp, mucous membrane of the mouth, and bends of the ankles, but they do not generally affect the flexures. They have only once been observed on the eyelids, and the presence of jaundice has never been noted. The constituent tubercles are much firmer and denser than those of ordinary xanthoma, are well defined, rounded or obtusely conical at the apex, and may present a yellow point like pus at the summit, but are in reality solid; often there is a bright zone of congestion round their base. In some cases the tubercles are very pale, while in others their colour is pink rather than yellow. Itching and tingling are always troublesome, and occasionally there is great tenderness, while neuralgic pains sometimes precede the eruption."

A comparison of these points *seriatim* with ordinary xanthoma will show that their clinical distinction is a matter of some practical importance and usually of ease.

These views are maintained and corroborated in the most recent exhaustive article on the subject by Krzysztalowicz (*Monatshefte für prakt. Dermatologie*, vol. xxix., 1st September, 1899). Another excellent article on the subject, by Dr. James C. Johnston of New York, appeared in the *Journal of Cutaneous and Genito-urinary Diseases*, October, 1895. Both papers contain full bibliographies.—J. J. P.]

TREATMENT OF XANTHOMA.

Excision is the only successful mode of treatment, and may with advantage be occasionally resorted to; it must be made through the entire thickness of the skin and well outside the disease in order to effect a cure, but ectropion and epiphora are very apt to result from operations upon the eyelids, especially near the inner canthus. In a few cases electrolysis has been used with success, and in others destruction with a small galvano- or thermo-cautery has been followed by good results. Probably, however, in the majority

of cases the wisest advice to the patient is to leave the disease alone.

In Xanthoma diabeticorum the usual dietetic restrictions for cases of diabetes must be rigidly enforced, and with the disappearance or diminution of sugar in the urine marked improvement, or even complete disappearance of the lesions, often ensues. Arsenic and phosphorus have been recommended in several quarters and seem worthy of further trial.

J. J. P.

PLATE IX.

TERTIARY SYPHILITIC ULCERATION OF THE TONGUE.

Models by BARETTA, in the Museum of Saint Louis Hospital, Nos. 1441, 172(?), 1174 and 1451, made in the year 1885, from patients under the care of Professor FOURNIER.

THE accompanying photo-lithochrome illustrates the principal types of ulceration of the tongue which occur in tertiary syphilis.

Figures 1 and 2 represent what is called "sclerosing" glossitis in its two forms, *viz.*, *superficial* or *cortical sclerosing glossitis* (fig. 1) and *deep* or *parenchymatous sclerosing glossitis*, called also *lingual cirrhosis* (fig. 2).

Figures 3 and 4 are both good examples of *gummatous glossitis* in its superficial or mucous form (fig. 3) and in its deep form—also called submucous or muscular (fig. 4).

Some remarks may help to elucidate these figures.

Generally speaking, the lesions of tertiary syphilis almost invariably consist of hyperplasia of tissue—hyperplasia which, once established, terminates in one of the two following ways: in sclerosis or in gumma. The tongue is one of the organs in which this "dichotomy" of the tertiary lesions is most marked and can be most distinctly verified.

At first, like all other tertiary lesions, syphilitic glossitis consists of cellular hyperplasia, *i.e.*, lesions formed by superabundant proliferation of young cells, which, deposited in the tissues, multiply, persist, and determine conditions which were formerly known by the vague term "engorgements," and are now known as diffuse or circumscribed *infiltrations*.

Secondly, this hyperplasia subsequently terminates in one or other of the following ways: sometimes it becomes

organised, condensed, and ends by forming fibrous tissue destined to undergo progressive contraction, but it unquestionably continues to *live* and to exist in this form. This process is known as sclerosis, and the resulting lesions on the tongue are called forms of *sclerosing glossitis.*

Sometimes, on the contrary, the hyperplasia undergoes rapid degeneration, tending to its own destruction and necrobiosis: it *dies*, and, like all tissue deprived of life, eliminates itself from the organism. This second process results in the formation of gummata, and the resulting lesions are called *gummatous.*

These two types of lesion have long been confused under the one common head of "gummatous infiltration" or "gummatous swelling" of the tongue; but this mode of classifying all forms of tertiary degeneration under one head has had its day, and is now replaced by the more appropriate subdivision of these lesions into two groups, *viz.*, sclerosing and gummatous forms of glossitis.

I.—SCLEROSING GLOSSITIS.

The characteristic of this first form is, as I have said, that it consists of *living* hyperplasia, capable of organisation and persistence in the shape of a definite fibrous new growth.

At first, sclerosing glossitis takes the form of simple cellular hyperplasia, *i.e.*, of cellular deposit, which infiltrates the tissues of the tongue. Later, these cellular elements multiply, then become organised and condensed, and end by forming a fibroplastic fibroid tissue provided with vessels. Then this neoplasm, by its progressive condensation, strangles the normal tissues of the part; it surrounds and stifles them, causing them to atrophy, and by degrees it takes their place, finally producing in the parenchyma of the tongue that peculiar form of degeneration formerly called *cirrhosis*, but to which the term *sclerosis* is now more appropriately applied.

This sclerosing hyperplasia is not confined to any one locality. Sometimes it is limited to the superficial tissue of

the tongue—to its fibro-mucous covering. It is then known as *sclerosing cortical glossitis.*

Sometimes, on the other hand, it goes deeper, and attacks the tissues beneath the mucous membrane, *i.e.*, the parenchyma of the organ. It then produces a second form, called *deep* or *parenchymatous sclerosing glossitis.*

Finally, it sometimes attacks both the superficial and deep areas mentioned simultaneously.

A.—The first form, CORTICAL SCLEROSING GLOSSITIS (of which fig. 1 is a good example), is an affection of mucous membrane.

Anatomically, it is formed by new growth confined to the covering of the tongue.

Clinically, it is distinguished by circumscribed, superficial, lamelliform indurations of the mucosa of the tongue, with a dry surface, and eroded, or with a red, level, smooth surface devoid of papillæ.

To go more into detail. As it affects the derma of the tongue—which is an organ arranged in layers and with extensive surface—this cortical hyperplasia can only appear as indurations morphologically similar, *i.e.*, spread out and lamelliform, in every respect comparable with the kind of indurated chancre which shows itself on the surface, "like a flat coin, or a sheet of parchment," and which has received the name of "the parchment-like induration".

Two varieties may be distinguished by their extent and importance.

(1) In the first variety, the indurations are small and scattered in islets, or in isolated patches, like disseminated patches of a psoriasis guttata. Generally speaking, they are as large as a threepenny piece or a bean. But some are as small as a lentil or a grain of barley, while others again are as large as an almond or a shilling piece. They are generally circular or oval; sometimes they are very regular in outline, like papules; at others they are more or less irregular, especially when located at the edge of the tongue. Their number varies; usually two or three are present, but sometimes they are single. Occasionally they run together, and five or six, or even more, may be recognised.

(2) In the second variety, the interstitial hyperplasia, instead of being disseminated in islets, is agglomerated to form continuous plaques or sheets, covering a larger or smaller area. A moment ago I compared the first variety to psoriasis guttata; to continue the comparison, the second might be compared to psoriasis in plaques or large patches.

The resulting lesion then takes the form of a sheet of *induration* of the covering of the tongue, which no longer only affects isolated parts, but extends over a considerable portion of the organ, of which it may occupy one lateral half, or, more commonly, a broad anterior and median segment. Thus, in figure 1 we see one of these plaques about the size of a shilling on the very centre of the tongue.

In both these varieties the neoplasm feels unusually resistant to the touch, as if a disc of parchment or cardboard were inserted in the mucous membrane. It is the more readily perceived by contrast with the normal suppleness of the healthy tissue round about.

These sclerotic islets and patches of the mucous membrane may be recognised at sight by two features:—

(1) Morbid redness of the mucous membrane and deeper cherry-red colour (fig. 1, A).

(2) The remarkably smooth and glossy appearance of the mucous membrane, which looks as if it were varnished and its papillæ destroyed.

In health the mucous membrane of the dorsum of the tongue has a downy, villous appearance due to the innumerable papillæ with which its surface is covered (fig. 1, B). This papillary appearance disappears entirely in the condition we are dealing with. On the sclerotic areas the membrane is stripped of papillæ—"depapillated"—as if the papillæ had been shaved off, like mown places in a meadow. On the spots in question the surface of the tongue is smooth and even, like the skin of a cherry, and the layer of saliva which covers it gives it a varnished appearance (fig. 1, A), so that it looks as if it were bare, eroded, and devoid of epithelium. But it is not so. Its tissue is not exposed; its epithelial covering is not destroyed. This can be seen on careful examination with a

lens, and the following little experiment will confirm the observation if need be: pass a nitrate of silver pencil over the surface of the patch of pseudo-erosion, and you will not see it immediately become white, as it would do if there were an erosion and the submucous tissue were exposed.

(3) Finally, these sclerotic islets or patches are generally *flat*, or only very slightly raised. Sometimes, however, they are convex and prominent.

B.—The second variety (DEEP SCLEROSING GLOSSITIS, LINGUAL CIRRHOSIS, LOBULATED GLOSSITIS, *etc.*) is well illustrated in figure 2.

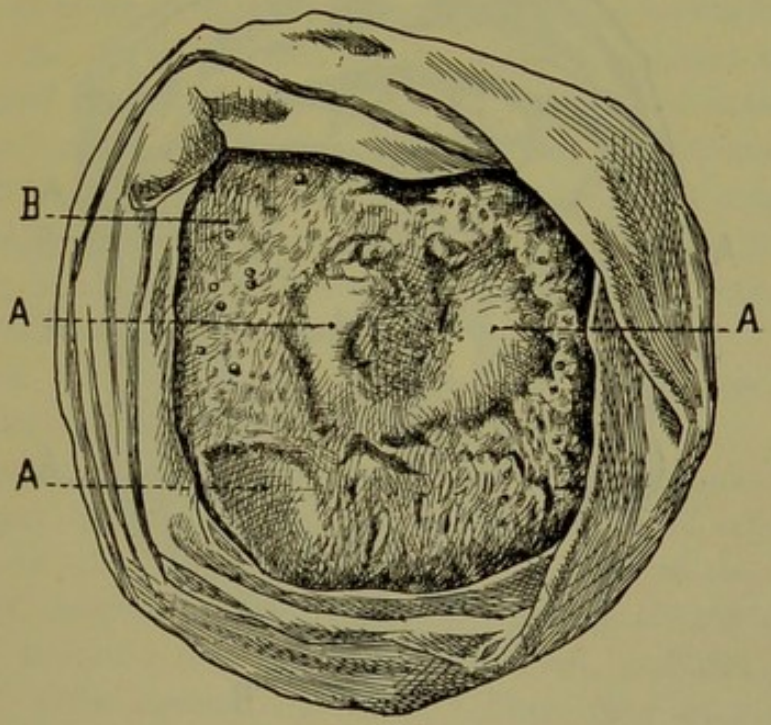


FIG. 1.

Like the form already described, it consists of a cellular hyperplasia, which, instead of remaining superficial, affects the deeper parts—the parenchyma of the tongue itself.

It may affect only these deeper parts, without involving the mucous membrane. But this is very rare, and generally it is both superficial and deep, *i.e.*, affecting both mucous membrane and subjacent cellular tissue; it is, therefore, nearly always *dermoparenchymatous*.

Only exceptionally does this deep sclerosing glossitis remain limited in area; it generally spreads to the whole of one portion

of the tongue—to a third or one-half of the organ, or sometimes even to its anterior two-thirds; it has been seen, but rarely, occupying nearly the whole of the tongue.

Clinically, its manifestations are of the same character as those of superficial sclerosing glossitis, but their importance is widely different. Briefly, they are as follows:—

(1) *Swelling* of the tongue, more or less extensive.

(2) *Mamillation* and *lobulation* of the dorsal surface of the tongue.

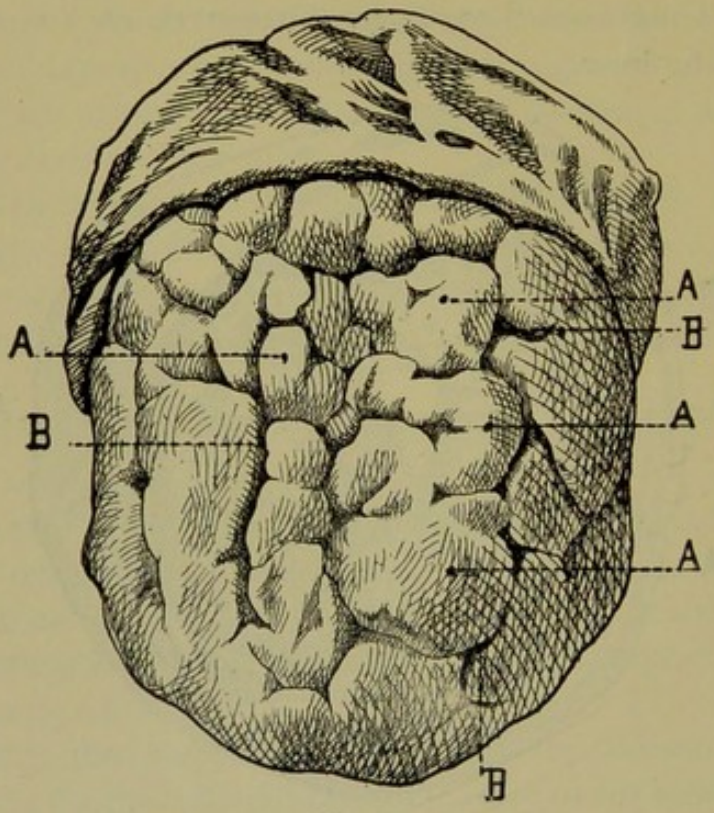


FIG. 2.

(3) *Induration* of the organ and of the deep parts affected.

(4) Various changes in the mucous membrane over the affected part.

To go into further detail:—

(1) The swelling of the organ is obvious at a glance, although it varies in degree; sometimes it is moderate, at others considerable (as in the case reproduced in fig. 2). It takes place in an upward direction, by the dorsal surface being raised. Often the organ at the same time increases transversally.

The swelling is especially striking in some cases. When one half of the tongue alone is affected it looks like a large hump, all the more conspicuous because the other half is relatively flat and depressed.

This swelling is permanent, though it is not rare to see it lessen in a few years by a kind of shrinkage analogous to that observed in cirrhosis.

(2) *Mamillation* and *lobulation* of the dorsal surface of the tongue are the two chief characteristics of the lesion which strike the eye at once and fix the attention.

They are such frequent and typical symptoms in syphilitic glossitis as to be almost pathognomonic of the condition.

For the dorsal surface of the tongue, instead of being regular and even, is irregular, uneven, bossy, and mamillated; it is transformed into a continuous row of projections (fig. 2, A A A), lying close to one another, varying in size, irregular in shape, separated by a network of fissures, so as to offer a distinctly lobulated appearance. On figure 2 about twenty such lobulated projections may be counted.

These lobules are circumscribed and defined by depressions, linear grooves, or furrows (fig. 2, B B B).

These furrows vary from one to three millimetres in depth. Some may be as deep as half a centimetre. They are V-shaped, *i.e.*, they are wider at the top than at the bottom. However, sometimes the projections are so closely crowded together that the fissures are quite closed, and can only be detected when opened by force. Then they may be seen partially open, like cerebral convolutions separated by the fingers.

Finally, the surface of the tongue may be furrowed in all possible directions. There is nearly always one fissure larger, more marked, and deeper than the rest, which corresponds to the antero-posterior median line, or raphe. Transverse or oblique fissures branch off from the median one, as the smaller veins of a leaf do from the central one. Other fissures branch off from these, which run in all directions, and anastomose to form a regular network of intersecting fissures, which give the tongue quite a characteristic lobulated appearance.

I repeat that this lobulation of the dorsal surface of the tongue is most remarkable. It reminds one of the liver in syphilitic hepatitis, of the kidney in renal cirrhosis of syphilitic origin, and of lobulation in cirrhotic organs generally; and the morbid process which the tongue undergoes is, indeed, a *cirrhosis*.

Therefore, judging by my past experience, I feel authorised to state that such *lingual lobulation is almost pathognomonic of syphilis*. Syphilis alone can thus lobulate the tongue. At any rate, it alone can do so to the extent we have described, which is shown in figure 2.

(3) The parts affected by these changes are always *indurated*, and extremely so. They are hard in every acceptance of the word, and of a dry hardness under the fingers not to be depressed or penetrated. They feel like fibroid or fibrous tissue, and even not unlike cancer.

On the other hand, palpation shows that the hardness is deep-seated — very different, therefore, from the superficial resistance and lamelliform induration of superficial sclerosing inflammation. It is evident that the neoplasm is embedded in the thickness of the tongue and is continuous with its parenchyma.

(4) Finally, the mucous membrane is greatly altered over these mamillated, lobulated, and hard tissues. It is changed in colour, being in places of a dark red, vinous hue, especially in the interlobular fissures.

In other parts, on the contrary, it is whiter than usual—even pale and bloodless—due either to stretching from subjacent proliferation or to real diminution of its vascularity from interstitial sclerosis of its tissue.

In addition, the mucous membrane is even, glossy, tender, and devoid of papillæ wherever affected. In some places only the papillæ are left, like so many oases. They then assume a whitish tint, a kind of degenerative *leucoplakia*, as if they had just been touched by a nitrate of silver pencil.

II.—GUMMATOUS GLOSSITIS.

Gummatous glossitis, properly so called, produces cellular hyperplasia, which, instead of becoming a definite and permanent fibroid lesion, degenerates more or less rapidly, undergoes necrobiosis, and is eliminated by ulceration.

This hyperplasia is seen either in the covering of the tongue or in its tissue proper beneath the mucous membrane, and hence we get the two varieties :—

(1) *Superficial* or *mucous gummata.*

(2) *Sub-mucous, deep*, or *muscular gummata.*

The lesions in both these varieties are the true characteristic gummata of syphilis localised in the tongue. That is to say, that in the tongue, as everywhere else, they appear as well-defined tumours or diffused infiltrations, which, at first solid and hard, subsequently soften, open, and discharge a "core," and finally ulcerate.

I. *Superficial mucous gummata* of the tongue are in a sense the gummatous syphilides of the organ.

At first they are small, tubercle-like, spheroidal nodosities in the mucous tissue, as large as a shot-grain, a pea, a cherry stone, a small bean, *etc.* They are slightly raised, but sometimes so slightly as only to be discovered by touch. At first they are firm, consistent, hard, and they vary in number. They may be single, but more often two, three, or four are present. Sometimes they are more numerous, and they then generally form a cluster (*vide* fig. 3), or not unusually a crescentic or horseshoe-shaped group. I have kept notes of the case of one of my patients who had a group of seven gummata on the dorsum of the tongue arranged like a regular half-moon.

After remaining for some time as firm tumours, they, like all gummata, begin to soften gradually. In course of time they rupture by a small opening at the top, which soon increases in size excentrically. Thus a small ulcer is formed, with an area proportional in size to the node destroyed, *i.e.*, as big as the cut surface of a pea or a lentil ; it is rarely bigger

than a threepenny-piece. Ulcers are thus produced which present in miniature all the objective characters peculiar to gummatous ulcerations, *viz.* :—

(1) They are hollowed out, particularly so considering their small superficies, being sometimes as deep as they are wide.

(2) They scoop out tissues, which are hard and obviously infiltrated.

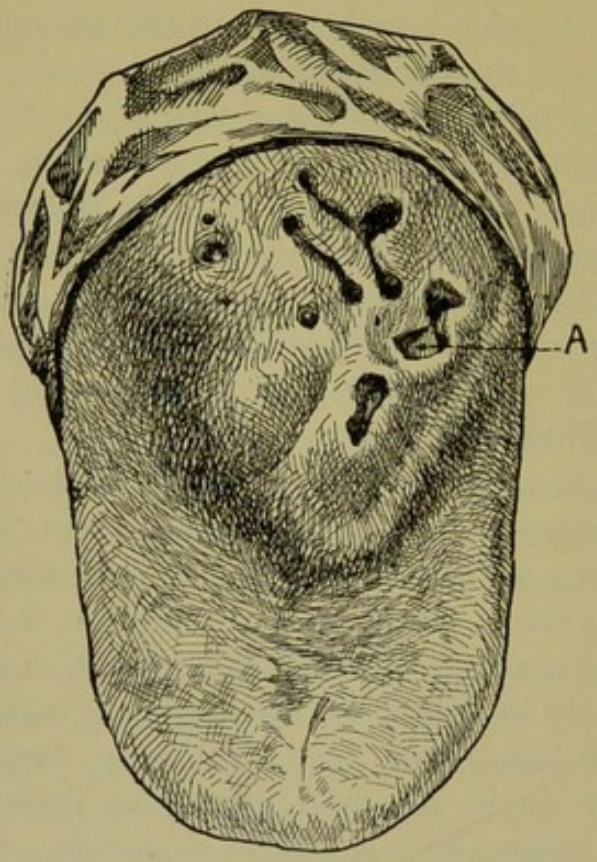


FIG. 3.

(3) Their margins are well defined, often cut quite perpendicularly, as if they had been punched out.

(4) Finally, and principally, they have a yellowish white base, with a mass of dead connective tissue in its centre, covered by an adherent coating, which is a relic of the gummatous slough undergoing gradual liquefaction and elimination.

These characteristics may be nearly all observed in figure 3. Especially well marked are the excavation of the ulcer, its abrupt, perpendicular margin, the central slough of dead

connective tissue (A,) *etc.*, and the arrangement of the lesions in clusters of ten to twelve gummata.

II. *Deep* or *muscular gummata* are more formidable in size than the superficial, and occur in the muscular substance of the tongue. They do not occur indifferently in any part of the organ, but have their own seat of predilection towards its upper surface. Almost always they originate immediately under the mucous membrane of the dorsum. Occasionally they form in the deeper parts, but even then they make for the dorsal surface, where (I know not why) they finally project, break and ulcerate.

They vary in size, being generally as large as a bean, nut, or olive. Though they may be as small as a pea, they are more frequently larger, and they are often met with the size of a walnut; and some have been observed elongated to the length of a date, or of two phalanges of a finger. In shape they are either spheroidal or more often oval, and sometimes they are elliptical.

Sometimes these gummata are single; but as frequently there are two or three, but not more than four of them, together. When they are multiple they tend to form groups.

They behave like gummata situated elsewhere, *i.e.*, when left alone they pass through the four classic stages of gummata, *viz.*, the period of immaturity, softening, ulceration, and cicatricial repair.

1. In the period of *immaturity* they are solid and hard; they may be easily felt by passing the finger over the surface of the tongue as one or more nodules, easily differentiated from the surrounding soft tissues by their consistence and induration.

If the swelling is small it may only be appreciable to touch, although this is unusual, for as soon as they attain any size they project and bulge, and form a visible prominence, which is, of course, proportional to the size of the tumour; as they are sometimes large the tongue is correspondingly disfigured, nor is it unusual to see the tongue thus double its normal size. It has even been seen three times as thick as normal. In a

specimen in the Saint Louis Museum of part of a tongue in which there is an enormous gumma, the contrast between the affected and unaffected parts comes out very forcibly.

2. In the second stage the gumma loses its original consistence, becomes softer, less dry, and then doughy at its most prominent part. Finally, it softens and breaks down, in a way so well known that I need not describe it.

The point of rupture may not widen, and may form a small fistula, though this is exceptional. It nearly always enlarges while it ulcerates, then the outer covering of the mass gives

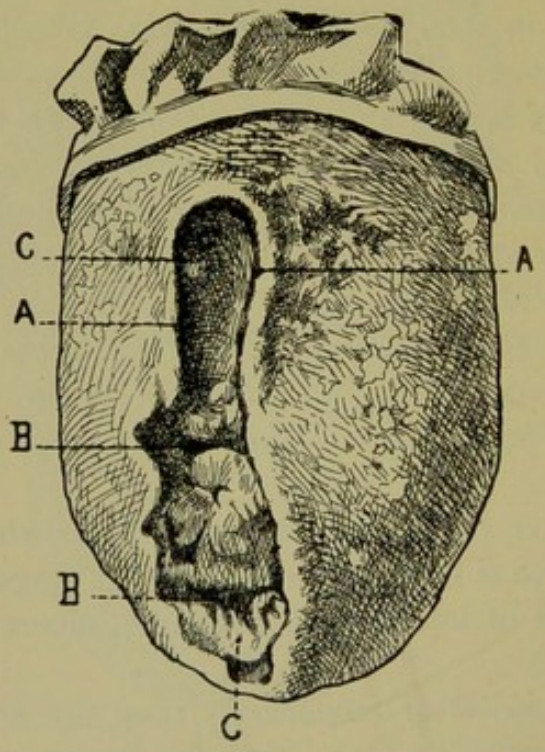


FIG. 4.

way, and a more or less extensive hollow solution of continuity is left which constitutes the gummatous ulcer.

3. The ulcer thus produced varies in size according to the original nodule or nodules. It may only measure some millimetres in diameter, or it may, on the other hand, be very large; some are two, three, five or six centimetres in length, by one, two or three in width. That depicted in figure 4 had an antero-posterior diameter of from five to six centimetres and a transverse diameter of one to two centimetres.

The gummatous ulcer of the tongue is generally oval, with its long axis antero-posterior (*vide* fig. 4). It has all the classical and most characteristic objective features of a gummatous ulcer.

(1) *Deep, wide ulceration.* All gummatous ulcers penetrate very deeply (two to three millimetres at least; more often five or six; sometimes—as in fig. 4—one to two centimetres).

(2) They are surrounded by a hard and red areola.

(3) Their edge is sharply defined, and perpendicular (fig. 4, A A).

(4) Above all else—their most characteristic feature—they have a slough in the centre. This "unhealthy-looking ulcer," as it is commonly called, is so on account of the following features: apart from depth and indurated conditions of its edge, it has, on the one hand, an uneven, irregular, anfractuous, excavated base (fig. 4, B B); and, on the other, a yellow or yellowish diphtheroid aspect, or, more often (its characteristic *par excellence*), has a dead, sloughy mass in the centre, which is (fig. 4, C C) sometimes covered by fleshy adhesions, well described by Chassaignac as "like the flesh of a cod," and sometimes covered by a kind of semi-solid, semi-liquid, creamy coating, which can only be removed with difficulty and imperfectly by washing or with a brush. This "cod flesh" and creamy coating are but the *débris*, the degenerated residue of the gummatous growth.

4. Finally, this form of ulcer is amenable to suitable treatment, and heals up pretty quickly in most cases. It does not differ in its phenomena at this stage from those of gummatous ulcerations situated elsewhere. The cicatrix left is nearly always somewhat depressed and undulating on the flat parts of the tongue, while it is indented on the borders. Generally, however, it it not so deep nor so large as one might expect, taking into consideration how profound the preceding ulceration has usually been. Indeed, it is remarkable that restoration of tissue is more complete and perfect on mucous membranes, and especially on the tongue, than on the skin. It is, therefore, sometimes really astonishing to find only a slight depression or an indistinct linear cicatrix as the sole vestige of a good-sized

gumma. But it is also true that in other cases these lesions leave behind them real losses of substance, leading to considerable and permanent disfigurement.

ALFRED FOURNIER.

TREATMENT OF SYPHILIS.

This has been referred to in the note appended to Plate III.

PLATE X.

DERMATITIS HERPETIFORMIS

IN CONCENTRIC CIRCLES, IN COCKADE-LIKE FORM.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1565, made in the year 1890, from a patient under the care of M. HALLOPEAU.

THIS photo-lithochrome represents a rare variety of Duhring's disease. In the course of its evolution it assumed different forms.

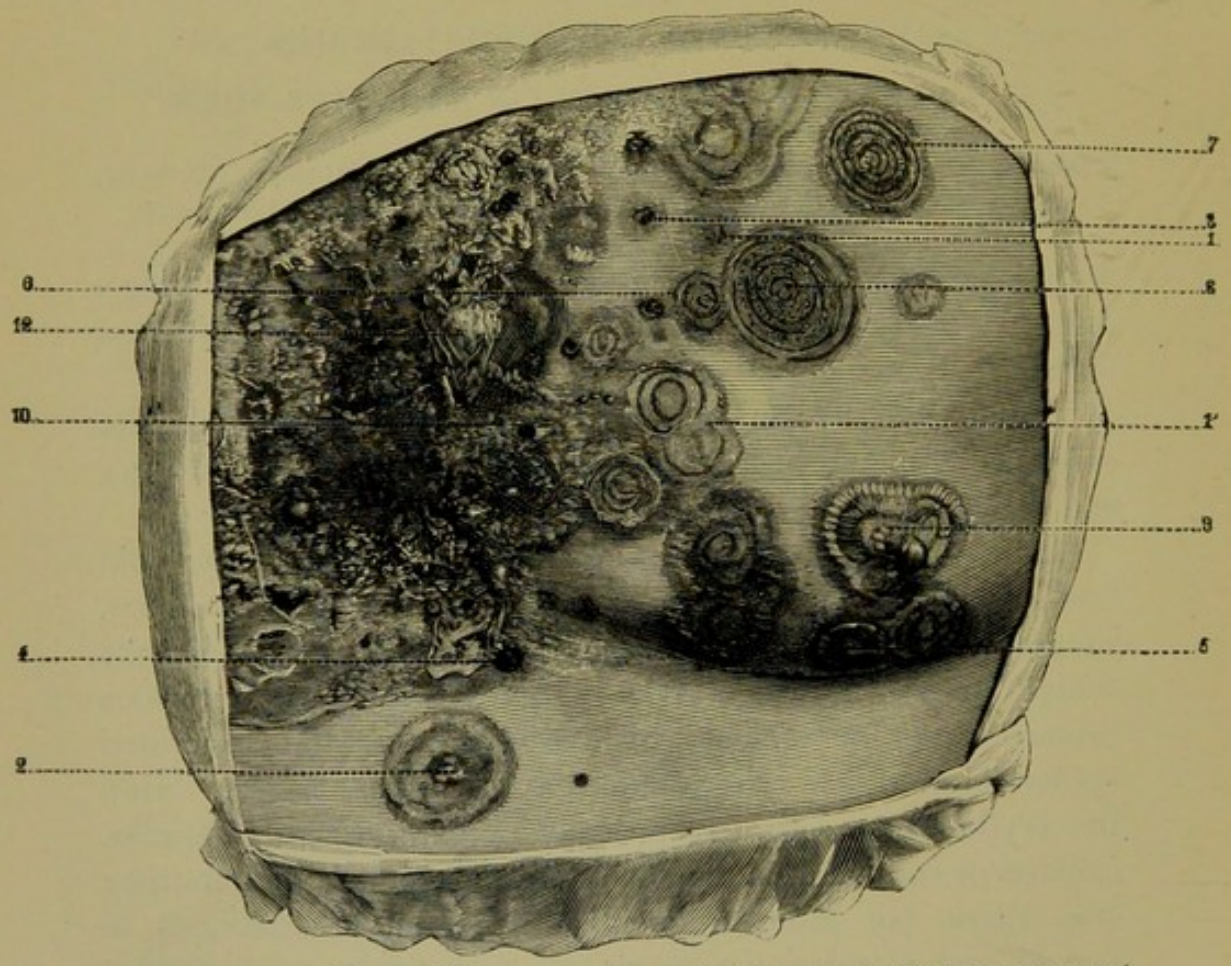
The model, by Baretta, was made at the time when the case was exhibited before the French Society of Dermatology and Syphiligraphy on 11th December, 1890.

The eruption is represented in its different phases. At first it is composed either of a vesicle or of a group of vesicles, situated upon an erythematous spot (1, 2); or of a papule, the central portion of which soon becomes the seat of a bullous projection; or of a bleb, which dries up, and the desiccated epidermis of which soon assumes a dark red tint (4). Soon the erythema spreads excentrically, and a circle of vesicles, isolated or confluent, is seen at its periphery (5); matters may stop there, but more frequently the eruption continues to spread, and a series of new rings, alternatively erythematous and vesicular, are formed in succession (7, 8), their number varying from one to six. On a certain number of the papules the first vesicle forms, not in the centre, but at the periphery, in the form of a collarette (9). If two patches coalesce, the parts which form the two circles (*i.e.*, where they meet) are partially obliterated (10).

The colour of the erythema is bright, dark or pale red, according to the length of duration of the lesion.

The contents of the vesicles are serous at first; they sometimes become sero-purulent.

In various situations over the trunk the patches run together, and thus form large erythematous tracts surrounded by a regularly polycyclical, circinate, bullous, raised margin, measuring from two to four millimetres in radius. In the area thus circumscribed concentric circles, representing collapsed vesicles more or less dried up, may be seen.



1, 2. Primary vesicles. 3. Primary papule. 4. Dried bulla. 5. Erythematous and vesicular concentric circles. 6, 7, 8. Similar circles, but multiple. 9. Peripheral vesicular collarette. 10. Two confluent patches. 11. Large patch made up of confluent smaller patches. 12. Scales upon this patch.

The anterior aspect of the thorax is thus occupied by a large triangular tract of disease like a breastplate (10), which reaches above from one shoulder to the other, and below to the vicinity of the xiphoid cartilage. It is obvious that the delicate vesiculo-bullous raised margin which marks out its boundaries is formed by the coalescence of successive circles; it was partially dried up when the model was made. At

certain points these circles are almost complete (1), only one part of their circumference being wanting, *viz.*, that part which is common to them and the adjoining circles. The centre of this triangular area exhibits no vesicular projections; its colour remains erythematous; it is covered here and there by little crusts or by large scales (12).

This patch is the most extensive one present, but it was not the first to appear. It was preceded by the development of patches in concentric circles, like those of a cockade, in the deltoid region of the right shoulder, on the nape of the neck, and on the chin. Subsequently the dorsal region was invaded; there, polycyclical patches may be seen, but less extensive than that on the anterior aspect of the thorax. They occupy the supra-spinous regions and the sides of the spinal column as far as the gluteal region. Finally, concentric plaques are present in the supra-pubic region, the left axilla, and on the upper part of the right arm.

The viscera appear to be at present (*i.e.*, when exhibited) unaffected. At the beginning of his attack the patient suffered from headache and loss of appetite; he thinks he had fever, but at present has a normal temperature.

Differential Diagnosis.—The essential lesions of this skin affection present a singular analogy to those of the disease described by Bateman under the name of *Herpes iris*, and which is nowadays included under *Erythema multiforme;* but it may be differentiated by its localisation. It does not affect the extremities of the limbs, and especially the dorsal aspect of the wrists and of the ankles, which are the seats of predilection of these forms of erythema. It also differs from them in the intense degree of itching which accompanies it throughout its whole duration, this symptom being a characteristic of the *Dermatitis herpetiformis* of Duhring. Its mode of evolution demonstrates that it is in reality an anomalous form of this latter disease; for the eruption has become distinctly polymorphous, while the tendency to appear in crescentic circles like a cockade has ceased. For a fortnight fresh blebs developed, first on the trunk in the neighbourhood

or in the centre of the patches previously described, then on the limbs and on the genital organs. The spread of the eruption was manifestly excentric, centrifugal—the limbs having been involved only consecutively to the trunk, and gradually, from their proximal towards their distal parts. The hands and feet remained unaffected.

The blebs were subsequently arranged in irregular groups, surrounded for the most part, but not invariably, by an erythematous areola; their size varied from a lentil to a hazel-nut; their contents, at first of a clear pale yellow, soon became sero-purulent.

Shortly afterwards a purpuric eruption supervened, which, limited at first to the lower limbs, soon spread to the abdominal wall. To this there were soon superadded general anasarca and the presence in the urine of albumen, epithelial tube-casts, white and red blood corpuscles—some free, and others adherent to fibrinous casts—indicating the occurrence of an acute nephritis. At the same time the general health seriously deteriorated; the patient fell into a condition of profound asthenia, an abundant ascitic effusion manifested itself, and the patient died on 9th January, 1891.

Whether or not the prognosis in those cases of *Dermatitis herpetiformis* which present lesions arranged in concentric circles like a cockade is more serious than in ordinary cases of that disease, is a subject for future research.

Nature and Pathogeny.—The mode of progression in concentric circles of this erythemato-vesicular eruption can scarcely be explained otherwise than by the centrifugal development of some infectious agent, probably of a toxine; for the tendency to attribute Duhring's disease to the intervention of these products is becoming more and more marked. In all probability the fatal nephritis must be referred to the same cause.

The notable differences which Duhring's disease presents in its symptomatic manifestations and in its manner of development, from the benign cases of long duration which have served as types for its description, up to the cases resembling

pemphigus foliaceus, and having as intermediate types the urticarial, lichenoid, vegetating, and this cockade-like form (with or without visceral complications), may be attributed either to differences in the modes of reaction of the subjects attacked or to the quantity, and more especially to the nature, of the toxines which cause it. If, as we believe, this latter influence is the preponderating one, there is good reason for regarding the disease to which the name of *Duhring's disease* has been given, not as a single morbid entity, but as a group of dermatoses, arising from different, although allied, causes; and this we have already previously done. If this is so, we may hope that the progress of chemical analysis will at some future time furnish us with precise indications as to the nature and origin of these toxines.

Treatment.—In this way only can we hope to establish some form of treatment on a really scientific basis. Ignorant as we at present are, not only of the nature, but also of the origin and seat of formation of these pathogenic substances, we can only aim at them, as it were, in the dark; but, indeed, none of the antiseptics introduced into the gastro-intestinal tract, with a view to acting upon them—such as arsenic, ichthyol, naphthol, benzo-naphthol—appear to have any perceptibly beneficial effect. Nevertheless, it is in this direction that our efforts must be made with the greatest chance of success, and we propose to continue this line of treatment in cases of a similar nature.

At the same time, as our colleague, M. Tenneson, has pointed out, the dressing of open bullæ with antiseptic substances is indicated, to prevent secondary infection. These ought to have no irritant action; in such cases we find gauze compresses useful, impregnated with boiled water (as recommended by M. Tenneson), or with a 3 per cent. solution of boric acid. Itching may be advantageously treated by wrapping in lint saturated with pure carbolised oil, 1 in 20.

The treatment *par excellence* of the intercurrent acute nephritis is, as usual, restriction to absolute milk diet; the history of our patient unfortunately shows that it is far from infallible.

H. HALLOPEAU.

[M. Hallopeau has done well in publishing this delineation of his case, which, ever since its publication, has provoked considerable discussion and criticism at the hands of dermatologists.

A few historical points omitted in the text may here be supplied. The patient was a man aged sixty-three, who had suffered from pains in his joints for eighteen months before his admission to Saint Louis Hospital on 8th December, 1890, three weeks previous to which the eruption first appeared. The whole course of the eruption lasted, therefore, less than eight weeks. On admission it was noted that there were no signs of visceral disease, and no albumen in the urine. The usual indications of an acute nephritis were first noted on 2nd January; at the autopsy this was found to be superimposed upon old renal mischief.

When M. Hallopeau first brought the case before the Société de Dermatologie he termed it a *Herpes*—using the word, presumably, in the sense in which it is still sometimes employed to describe a vesicating erythematous lesion. The supervention of polymorphism in type of the eruption and the severity of the subjective symptoms constrained M. Hallopeau to alter his nomenclature, before the subsequent meeting of the same Society, to that of *Dermatitis herpetiformis*, and in this contention he was supported by such weighty authorities as MM. Besnier, Vidal, and Brocq.

Without venturing to question the accuracy of their diagnosis, the extremely anomalous character of the case must, nevertheless, be recognised on all sides.

Personally, I am inclined to think that too great stress had been laid upon severity of itching as diagnostic of *Dermatitis herpetiformis*: here, as in other diseases, the violence of pruritus seems frequently to depend rather upon the personal factor than on the disease itself. Certainly, *Dermatitis herpetiformis* almost invariably occurs in persons of neurotic stamp, and their itching is usually great and out of all proportion to the amount of lesion present; but in a certain number of cases it may be quite moderate.

The short duration of the case and the supervention of purpuric manifestations are, of course, at variance with the accepted conception of *Dermatitis herpetiformis*, which is *par excellence* a chronic and relapsing disease. But this point cannot be cogently urged against the diagnosis maintained, as the patient died of intercurrent and probably old-standing disease, not to my mind in more than fortuitous relationship with the skin affection, although M. Hallopeau apparently regards them as interdependent.

As M. Besnier also pointed out in the discussion upon this case, it is not necessary to see a relapse of *Dermatitis herpetiformis* in order to establish the diagnosis of that disease. Dr. Colcott Fox has pointed out to me that there is a coloured lithograph of a case similar in lesion and in localisation to M. Hallopeau's in the museum of the Royal College of Surgeons of England, observed by Sir Erasmus Wilson, and recorded by him in the catalogue of the museum—No. 130, second edition, 1875—under the title of *Pemphigus iris*; and I am indebted to the same gentleman for drawing my attention to Sir Erasmus Wilson's description of the condition in his lectures

on dermatology—third edition, 1874, page 124 *et seq.* I note, however, that in the "*Pemphigus iris*" cases the vesication occurred in the centre of each spot, while in M. Hallopeau's case the vesication was peripheral; this latter point weighed strongly with M. Vidal in favour of classifying it as a form of *Dermatitis herpetiformis* rather than as a vesicating erythema (*Herpes iris* of Bateman, *Hydroa simplex* of Bazin).—J. J. P.]

TREATMENT OF DERMATITIS HERPETIFORMIS.

This has been discussed in the remarks appended to Plate II.

PLATE XI.

SYPHILITIC GUMMATA OF THE THIGH.

SYPHILIS UNKNOWN AND UNRECOGNISED.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1568, made in the year 1890, from a patient under the care of Professor FOURNIER.

I.

THE patient whose disease is depicted in this plate (model No. 1568) was a man aged thirty-nine years, whom I had the opportunity of observing at the end of 1890, in the service of Professor Fournier, when I had the honour to be his *chef de clinique*.

The model reproduces the appearance presented by the anterior aspect of the patient's left thigh at the date of his admission to the hospital.

The limb was increased in size, and two large ulcers were present on its antero-external aspect. One, which was the larger, oval in form, and lay transversely, measured seven centimetres in its long diameter; its margins were hard and raised, as if padded; the base, when cleaned up, was covered with bright red granulations in the centre, but towards the ends two thick, dark, blackish-yellow sloughs were still adherent; these were the remains, not yet cast off, of a gummatous sloughing mass. Above this first ulcer there existed a second smaller one, crescentic in shape, probably formed by the junction of two primitive ulcers; its borders were also raised and fungous-looking, its base imperfectly cleaned up.

Around these ulcerations of typical gummatous appearance the skin was purplish red, swollen, stretched, and adherent to

the deeper tissues. On palpation it was easy to feel a large hard mass, immobile and inseparable from the bone. Pressure caused comparatively little pain. The circumference of the thigh at this level measured eight centimetres more than that of the opposite side (left, forty-two centimetres; right, thirty-four centimetres).

The appearance of the lesions was so characteristic that the diagnosis of gummatous syphilitic ulceration was self-evident. But in this case the gumma had originated in the depth of the tissues in the substance of the triceps muscle, and then had extended slowly towards the surface, until, having reached the subcutaneous tissue, it had softened and brought about the perforation and ulceration of the skin. The smaller, less deep ulceration corresponded to the opening of a subcutaneous gumma. Above the large ulceration there existed a small tumour which fluctuated, a gumma less advanced in its development.

The patient exhibited absolutely no other sign of syphilis beyond this enormous lesion; moreover, he denied all syphilitic antecedents, and in this respect his history is of considerable interest.

II.

This is an excellent example of unrecognised syphilis, which shows to what lamentable errors a patient may be led who is unaware of his having had syphilis.

This man had been in good health till the age of thirty-seven years. In December, 1888—that is to say, exactly two years before I saw him—he began to feel painful twinges, rather deeply, in the left thigh. For nearly eighteen months those pains did not greatly trouble him, and he states that he noticed no change in the size of the limb, nor in the condition of the skin.

Then (1st June, 1890) he had a slight tumble; he missed the last few steps in descending a ladder, and a violent strain was thrown upon his left leg. The same evening he felt a rather severe pain in the thigh and knee. The following day he noticed that the limb had increased in size, and, at the same time, a large ecchymosis made its appearance.

The patient went to a hospital and was admitted to a surgical ward. He states that the surgeon thought of operating upon him, and even auscultated his thigh "to hear the pulsations"; so it seems possible that an aneurism was suspected. However, after two surgeons had consulted together the operation was abandoned, and he was discharged, with means of treatment directed mainly towards his pains (opiates internally, belladonna plaster on the thigh).

Nevertheless his pain persisted; and one month afterwards, as he was no better, he returned to the hospital, decided to beg for an operation.

A different surgeon from those who first saw him now attended him. The thigh was now massive and hard, but the skin was purple, the ecchymosis having partially disappeared. Probably the new surgeon diagnosed a malignant tumour—likely enough an osteo-sarcoma—for he proposed to the patient the amputation of his leg at the hip joint.

Terrified, the patient left the hospital, and put himself under the care of a quack, who applied an ointment to the swelling (25th September to 24th October). This ointment, more or less irritant, expedited its evolution, so that the disease "came to a point," to the patient's great satisfaction; *i.e.*, the skin ulcerated at three or four spots and these ulcerations increased and united so as to form the immense ulcer represented in the plate, soon followed by the lower ulcer, also made up by the junction of smaller ones.

A few weeks afterwards (December, 1890) the patient was sent to Saint Louis Hospital. The appearance of the lesions, as we have already described them, left no room for doubt as to their nature. Despite the lack of evidence of antecedent syphilis and the denials of the patient, the diagnosis of syphilis was made and specific treatment instituted.

This treatment consisted of daily mercurial inunctions (mercurial ointment, four grammes) and of iodide of potassium, of which the patient took at first two, then three, and finally four grammes daily. The disease, which had lasted for two years, was thus cured in two months. First, the softened gumma, which had not discharged, and was situated above

the big ulcer, was absorbed without ulceration; the lower ulcers then cleaned rapidly, and cicatrised in less than a month. The large ulcer was longer in improving, and recovery made rapid progress only after the separation of the two big sloughs figured in the plate, which took a fortnight to become detached. But as soon as they separated the wounds began to granulate from the bottom, while their borders became softer and flattened down. Gradually the thigh resumed its normal size, and only the cicatricial markings remained to indicate the seat of these enormous lesions.

III.

In this case, as in so many others, the appearance of the lesions alone, in the absence of all information, sufficed to establish the diagnosis of syphilis, which was confirmed by the happy results of treatment. The patient, surprised at such a conclusion and at such a result from treatment, had no recollection of any previous syphilitic infection, and had never had any treatment. In his case, then, the syphilis had been very benign, and had passed unperceived. However, it was easy, after careful inquiry, to ascertain that this was not the only way in which his unrecognised syphilis had left its marks. For if the subject himself had hitherto been spared, it was not so with his descendants. My interrogatory revealed the followings facts:—

The patient's wife was healthy, and showed no sign of syphilis. They had been married for twelve years. In the course of the three years succeeding marriage the wife had four miscarriages: the first at five and a half months, after six months' marriage; then a second miscarriage in the middle of the seventh month; a third at the seventh month; a fourth one year afterwards at the eighth month. Eighteen months after this last miscarriage she gave birth to a child, still living, which I saw. This child, now aged seven years, was born with paralysis of the right arm, and, one month after its birth, was covered with a universal rash; he could not walk till he was eighteen months of age, nor speak till he was two years; he now presents all the stigmata of hereditary syphilis: cranial and nasal deformities, changes in the teeth, aural discharge, etc.

The inquiry which established the existence of syphilis in his child thus corroborated our diagnosis.

Thus, an unrecognised syphilis had been the cause of several misfortunes; it had resulted in the death of four infants before their entrance into the world; it had for ever marked a fifth child; and after long years had shown itself in the patient himself in such a manner as to jeopardise one of his limbs. It is an admirable example to add to our already long list of cases of unrecognised syphilis.

Let us note in passing the classically recognised gradual diminution in virulence of syphilis on progeny; the miscarriages occurring gradually later and later as the paternal syphilis grows older; the fatal influence of the disease becoming weaker with time, and at last an infant being born alive, although smitten with the disease. Note also that the mother of those fœtuses and this syphilitic child had always remained healthy in appearance, and recognise in this fact a beautiful example of the law of Colles and Baumès. Mark, finally, the really marvellous rapidity with which treatment acted on this man—an old syphilitic, but one who had never been treated; mixed treatment was specially indicated in such a case, and the result so rapidly obtained was certainly due to the combined action of the mercury and the iodide.

This observation carries with it two lessons which from repetition have become commonplace, but which cannot be too well known to practitioners, *viz.*, the importance of establishing a retrospective diagnosis of syphilis in the parents when miscarriages follow each other in a family; and, finally, the necessity for every surgeon, before having recourse to a surgical operation, to give a trial to anti-syphilitic treatment if the diagnosis is not absolutely certain, in order to avoid such grave errors and professional mistakes as those of which our patient was so nearly the victim.

HENRI FEULARD.

TREATMENT OF SYPHILIS.

This has been referred to in the note appended to Plate III.

PLATE XII.

DISSEMINATED EPITHELIOMA OF THE FACE, SEBACEOUS IN TYPE AT THE OUTSET.

Partial Acne Sebacea of Cazenave.

Senile Acne Sebacea Concreta; Epitheliomatous Acne.

Model by Baretta, in the Museum of the Saint Louis Hospital, No. 1194, made in the year 1886, from a patient under the care of M. Ernest Besnier.

I.

Although histology has attained such technical excellence as to be almost perfect, it is of itself incapable of determining the origin and nature of the epitheliomata; on the other hand, micro-biology, already fairly advanced, and micro-biochemistry, of more recent growth, cannot yet furnish a firm basis on which a scientific classification of those changes may be constructed. The true cause of epitheliomatous degeneration, be it parasitic or not, is still unknown.

Clinical knowledge, therefore, remains the safest guide—or at any rate the least precarious—for the prevention, diagnosis, prognosis, and treatment of epithelioma. These are the considerations which have led us to think that the publication of the details contained in this number would be of practical use.

The accompanying photo-lithochrome represents the most remarkable specimen of disseminated epithelioma of the face, of the type called acneic, sebaceous, or seborrhœic, that we have ever seen. It exhibits in one locality the whole series of processes of pathological development, from the onset of the lesion to the complete establishment of its epitheliomatous character.

The model was made during life by Baretta, from the face of an agricultural labourer, aged seventy, who was admitted under my charge into the Saint Louis Hospital on 15th

November, 1886, and placed in bed No. 5 in the Cazenave Ward.

The superficial area of the changes is considerable, occupying as they do nearly the entire face, especially on the left side, *viz.*, the whole of the bridge of the nose, the lower eyelid and corner of the eyebrow, the whole of the cheek posterior to the naso-labial fold—a limit not overstepped—and the region in front of the tragus. Only the forehead, the upper eyelid, the lips, and the chin are unaffected. Very few really healthy areas can be found between these tissues, which are undergoing pathological change, nearly all the surface which appears to be normal being in reality in the first stage of disease.

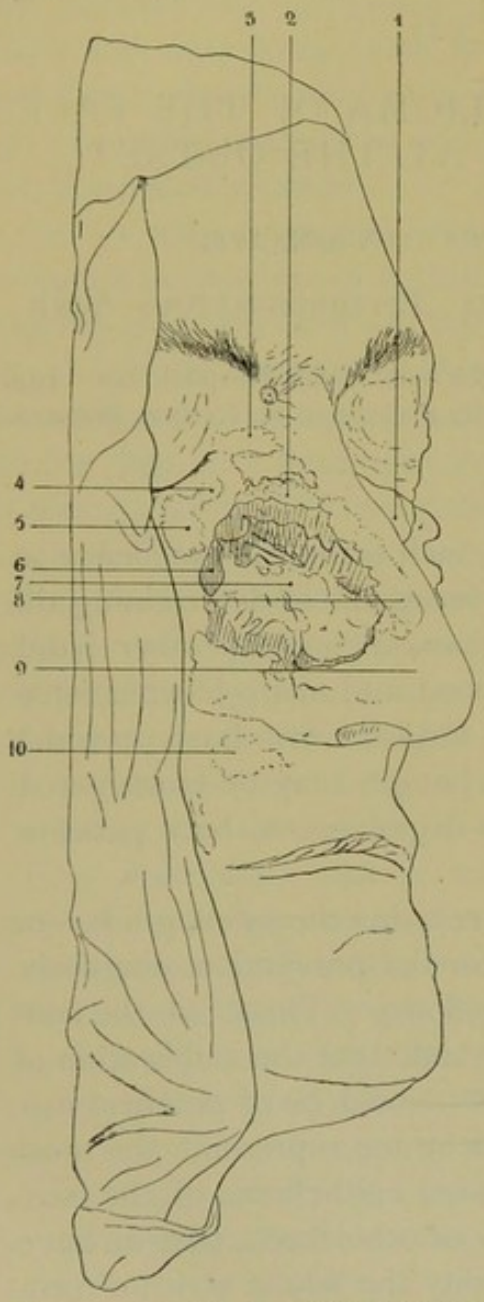


FIG. I.—1. Small epitheliomatous crater. 2, 3, 4, 5, 9, 10. Chalky, epithelial, seborrhœic patches. 6, 8. Epithelial margin. 7. Centre of the large epitheliomatous crater.

(*a*) *Changes in the first stage* (fig. I., 2, 3, 4, 5, 9, 10 and fig. II., 2, 15). These consist of irregular patches or sheets, finely granular, yellowish white in colour, dry on the surface, but not absolutely chalky, as in the form of acneic erythematous lupus to which Devergie (*Traité pratique des Maladies de la Peau:* 1857, 8vo, p. 276) gave the name of *Herpes cretaceus*. These epithelial, seborrhœic, and chalky patches are firmly adherent to the surface of the skin by filiform prolongations into the ducts of the sebaceous glands. They conceal a red non-corneous epidermis, which is finely papillomatous, vascular,

oily, succulent, and which bleeds at the least touch when the scale has been rubbed off, or on the least scraping or abrasion

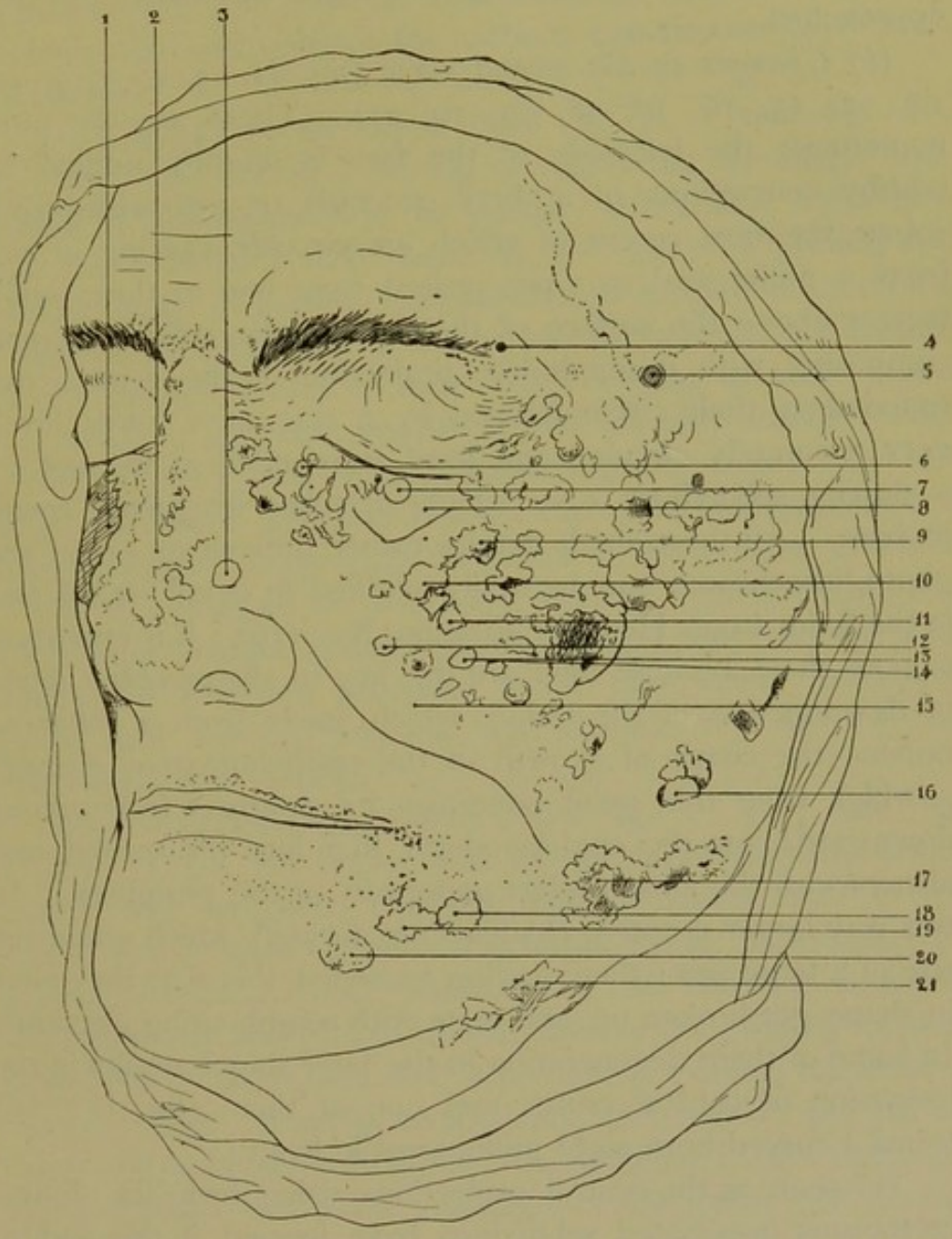


FIG. II.—1. Large epitheliomatous crater. 2, 15. Diffuse, chalky, seborrhœic patches. 3, 9, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21. Composite scabby concretions covering epitheliomatous discs. 4, 5. Epitheliomatous cups deprived of their scabby tops. 6, 7, 8. Agminated epitheliomatous craters. 16. Epitheliomatous horn, eight millimetres in height.

with the nail; and the surface is thickly studded with patulous follicular openings. These changes may be seen at the base and at the periphery of the lesions in their more advanced stage,

giving evidence as to the process from its beginning (fig. I., 2, 4, 5, 8, 9, 10; fig. II., 15), and increase gradually but uninterruptedly as the more perfect epitheliomatous foci are approached.

(*b*) *Changes in the second stage* (fig. II., 3, 4, 5, 9, 10, 11, 12, 13, 16, 17, 18, 19, 20, 21). These are the most numerous: the left side of the face is literally riddled by scabby concretions of a dirty greenish or yellowish-brown colour, the most recent of which are circular, varying in size from a millet-seed to a pea, raised from one to three millimetres above the surface of the skin, rugose, solid, adherent, composite, with a nipple-like projection in the centre, surrounded at their circumference by a ring at a lower level, very accurately circular, and itself surrounded at its root by a sloping seborrhœic zone which stretches irregularly round its base. All these small details, rather difficult to see on the photo-lithochrome, can be easily verified in detail on the cast in the Saint Louis Hospital Museum, No. 1194; it is important to note them because they are the key to the *excentric* mode of development of the lesion, which starts from a follicular orifice—the centre of growth of the epitheliomatous element—which from this point continues its progress from above downwards into the epidermoderm, then into the corium, and always with the most perfect uniformity at the periphery. In this way larger eruptive elements are formed, which attain the size of a large pea; then, having exceeded this size, they alter in shape, get broken up, and unite with neighbouring elements. In some of them degeneration in the later stages results in the formation of conical crusts, and one of them (fig. II., 16) forms a curved horn eight millimetres in length.

As soon as the central projections rising from the diffuse cretaceous inspissated seborrhœa have formed, if the scabby crust be removed (the more recent the concretion the easier this is), even if it is not larger than a grain of millet-seed, a small, perfectly round, cup-shaped, succulent and moist crater is to be found, surrounded by a fine border (fig. II., 4, 5), which is admirably reproduced on the model, and which may be seen with a magnifying glass (fig. II., 4), or with the naked

eye (fig. II., 5). These are the typical epitheliomatous cups. From the date of their formation the scabby concretion becomes mixed, and contains, independently of the seborrhœic elements and microphytes, the ordinary constituents of ichorous exudation.

(*c*) *Changes in the third stage* (fig. I., 1 and fig. II., 6, 7, 8). The scabby covering or cap, being no longer supported by prolongations of the primary seborrhœic concretion into the follicular canals, raised by the epithelial border, and broken up by increasing epitheliomatous exudation, crumbles, drops off, or is rubbed off by mechanical friction; the crateriform openings coalesce, their edges uniting at their points of contact to form the reddish-brown, partially scabby border of the perfectly constituted epitheliomatous ulcer. In this stage the lesion has gone beyond the epidermoderm and has become dermic, destroying the organ at the expense of which it thrives; grouped on the lower eyelid a typical example of these conglomerate epitheliomatous craters may be observed, where the irritation produced by a pre-existent lachrymal fistula had already prepared and ripened the soil for this epitheliomatous growth.

(*d*) *Changes in the fourth stage* (fig. I., 6, 7 and fig. II., 1). These are represented by the large epitheliomatous crater, with irregular, tapering base, which is hard to the touch, and exudes epithelial discharge freely, surrounded by a thick, irregular, hard, cartilaginoid rim, showing traces in its irregularity and broken-up condition of the primary borders destroyed by the coalescence of previously existing but isolated craters. The corium is invaded and penetrated; the periosteum and subperiosteal tissues are included in the epitheliomatous mass, the whole making a "malignant (*térébrante*) epitheliomatous ulcer".

At the periphery a part of the border (fig. I., 2, 8, 9, 10 and fig. II., 2, 3) remains covered by the mixed concretions already described, which, very gradually sloping down in every direction, mingle with the initial elements of the primary cretaceous seborrhœa—*acné sébacée concrète* of certain writers.

II.

It is quite twelve years ago since the patient first noticed *small yellow spots* on his face, and it is highly probable that they date still farther back, for a man of his age and occupation does not often examine his face critically. On the other hand, there can be no question that the slowness of development of senile seborrhœic epithelioma is an essential feature which may assist in extinguishing the peculiar type which precedes the epitheliomatous process—properly so-called—in these peculiar and rare cases in which the subsequent epitheliomatous ulcer is the only lesion which can be observed on the face.

This slowness of development considerably lessens the gravity of prognosis in senile *acné sébacée concrète*, as it enables those who are cautious, and those medical men (unfortunately only too few) who pay due attention to it or who know how to treat it, to take the necessary steps to destroy or cure the lesions.

It was eight years after the first appearance of the yellow spots that the lesion of oldest standing, *viz.*, that situated on the right side of the nose, became an open sore and ulcerated; four years later it assumed the size and depth portrayed on the photo-lithochrome — a lengthy period indeed, but in keeping with the general chronicity of the seborrhœic epitheliomatous process. The second group of ulcerating foci, situated on the left lower eyelid, has been epitheliomatous for three years only.

Hereditary tendency to malignant growth was at work in the patient—at any rate in the form of a predisposition in members of his own generation, such as exists, in reality, in a much larger proportion of cases than statistics generally show.

In a hospital it is often difficult to arrive at a patient's family history that can be relied upon; but if in private practice the physician will persistently investigate, extending his inquiries to the parents, brothers, sisters and grandparents, the result will rarely be entirely negative. It is even desirable in long-lived families to examine the children of old patients,

because in them one may detect—as I have done—the development of the epitheliomatous process on the face of a son or daughter about the age of forty years, though in the father or mother it may not appear until several years later.

It is true that under some circumstances the possibility of contagion or transmission might be pleaded; but these questions are not ripe for discussion, and the probability of constitutional predisposition to a typical cellular development is at present less uncertain.

In the case of our patient, one of his brothers, who died at the age of seventy-five, had "crusty scales" on his face, which always came again after their removal; but he never had "wounds"; and a sister who is alive has had spots like his for ten years, which have never ulcerated.

The patient's age is quite classical—sixty-seven—not for the period of first appearance, but for that of regression, ulceration, extension, and, lastly, of infection.

As in seborrhœic warts, which present so many analogies to seborrhœic epithelioma of the face, the time of the first appearance of the disease coincides with the beginning of integumentary decay, *i.e.*, generally about the age of fifty, but sometimes, especially in women, it begins about the age of forty.

After the fifties there is no great difference between the sexes as regards the pathological processes, and age is nearly immaterial for the development of epithelioma.

His occupation as a labourer, working in the fields, exposed to all the changes of weather and to the heat of the sun for long periods, makes his case equally classic. And this is correct; but we must bear in mind that it is the frequency of *severe* cases of epitheliomatous ulceration in agricultural labourers which is accounted for by the skin of the face being necessarily exposed to the action of the sun in out-door work, and by the difficulties in the way of taking necessary care. In patients in easier circumstances seborrhœic epithelioma in an advanced stage is far from rare after fifty, but greater care of the skin of the face, or more frequent and regular recourse to medical advice, diminishes or attenuates later symptoms.

III.

As we have often pointed out at our clinic and in our writings, the division by authors of the very numerous varieties of epithelioma of the skin will not stand the test of clinical analysis, and up to the present only futile attempts have been made on imperfect grounds to classify them, either according to their nature, their pathogeny (parasitism?), their primary anatomical seat, or their supposed relationship to glandular structures.

We only recognise two kinds of *primary* epithelioma of the skin—one *superficial*, situated at first in the lower layer of the epidermis (*superficial epithelioderma*), the other *deep*, truly nodular, "dermatographic"—that is to say, developing primarily in the corium, and only secondarily affecting the surface as a consecutive process (*deep epithelioderma*). Each may, by downward or upward development, produce *mixed* varieties.

Of superficial epithelioma of the skin we recognise two chief forms: *beaded* (*perlé*) and *multiform*. Our patient's disease belongs to the second class, which, instead of beginning as a bead-like papule and developing from it, first shows itself by the most multiform changes. It only subsequently and secondarily acquires its characteristic features of morphology and evolution. Warts, nævi of all kinds, post-traumatic epidermic changes ("*épidermo-dermites*"), simple hyperkeratosis, eczematous or psoriasiform patches, senile seborrhœa concreta, etc., etc., all may represent the substratum, or constitute the first step towards the production of the protean epithelioderma, which will only acquire its epitheliomatous character later on by virtue of certain conditions—as yet ill-defined—of anatomical seat, of pathogenic cause, of microbic association, or of other unknown factors. In none of these circumstances do we consider the epithelioma as a *degeneration* in the true sense of the word, for though an element of tissue or an organised group of such elements may be invaded, altered, or destroyed, it never happens that these

elements are themselves transformed into another or other elements; the *other* here is a new formation—an "epigenesis".

The variety of forms of epithelioma does not imply difference in their nature: nothing is more common than to see on a cicatrix of senile sebaceous epithelioma fresh growth taking the form of pearly epitheliomatous beads; and it is not rare to see several different types of epithelial growth on the same visage. This fact cannot be doubted, but its accepted interpretation is unsatisfactory; and, provisionally, we can only accept the opinion expressed by W. DUBREUILH, the learned dermatologist of Bordeaux, relative to a case of multiple epithelioma of different types, when he says: "One might admit that a common cause, parasitic or otherwise, could produce different varieties of epithelioma according as it attacked epidermic, glandular or other kinds of cells. But our present knowledge of the starting-point of epithelioma of the skin is so limited as to make it impossible to recognise it in most cases." (*Vide Archives Cliniques de Bordeaux*, July, 1894; and *Travaux de la Clinique dermatologique* du Dr. W. Dubreuilh, 1894, 8vo, p. 117.)

As far as epithelioma of seborrhœic origin is concerned—the first phase of which may be compared to the leucoplakial phase of epithelioma of the tongue—it assumes a sebaceous *appearance* at the beginning, and is not in reality an acne sebacea properly so called. The primary chronic condition, the initial spot which attracted BIETT'S attention without being understood by him, but which CAZENAVE describes as "partial acne sebacea," is not true acne sebacea. Seborrhœa concreta, to which this term belongs, is not a disease of senile skin, but a disease of young and adult skin, and is neither clinically nor anatomically identical with the primary spot of senile, superficial seborrhœic epithelioma. True seborrhœa, the acne sebacea concreta of youth and adult age, maintains its type unaltered as long as it lasts, and, not being epitheliomatous, cannot become so.

Cases of "acne sebacea degenerated into epithelioma" are simply cases of epithelioma with sebaceous-like onset, the lesion of which from the very commencement is an epithelioma

of the skin. It is in this form, as Cazenave pointed out, that "it is not rare to meet with it in old men in numerous disseminated patches".

IV.

The number of lesions the patient had, and the stage they had severally reached on the two different places—the nose and the lower eyelid—made therapeutic interference difficult and complicated, but we were not inclined to renounce it. The patient, however, thought differently; for he left the hospital after a stay of only ten days.

The case is useful, as showing the consequences of neglect of treatment of the disease in its first stage, not only for remedying existing trouble, but for preventing the increase in number of the affected areas on the face. Seeing the number of isolated epitheliomatous spots, and verifying their successive development, one is bound to inquire whether auto-inoculation plays no part in this multiplication, which—rapidity apart—spreads as it does in impetigo.

As soon as one spot appears it is necessary not only to destroy it promptly—for this can be the more readily done, the more limited and the more recent the lesion—but also to suppress any condition favourable to its spread.

At the same time it will be advisable for the person affected to pay henceforth greater attention to the care of the face, and to protect it from ordinary causes of irritation, which may all lead to fresh outbreaks. We advise the face to be washed night and morning with warm water, to half a litre of which have been added either from ten to twenty drops of Lysol, or from five to ten grammes of "coal-tar saponiné," or from ten to twenty grammes of glycerine, containing 2 or 3 per cent. of borate of soda, etc. The face should not be washed and dried with a sponge or towels which have been in habitual and prolonged use, but with absorbent cotton or cloths, which must be boiled every time after they are used.

When the spots first appear they should be rubbed at night with soft potash soap, or covered during the night with

little patches of Vigo's plaster or of resorcin plaster. In the morning, after general attention has been paid to the face, it should be rubbed with absorbent cotton wool, steeped in alcohol, saturated with boric acid, simple or petroleic ether, chloroform, etc.

If the result is insufficient, recourse may be had to a series of local applications of glacial acetic acid, applied only to the spot itself with a small stick or match dipped in the acid, and care being taken that it does not "run". The application is to be repeated if necessary when the epidermal scab has come off, *i.e.*, at the end of a week on the average.

But if the lesion is in the second stage the safest thing to do is to scrape the spot, which has been previously rendered aseptic, and to treat it by "interstitial cauterisation" with the aid of the finest points of the electro-cautery—electro-caustic tattooing—or, failing this, with the thermo-cautery, employed in the same way as we have described in our translation of KAPOSI, t. ii., *Appendice des Traducteurs*, p. 696 *et seq.* We do not say that this is the only method of treatment, and the medical man can still use the chemical caustic methods; but as far as the particular form of epithelioma dealt with in this number is concerned, it is the method we now use both in hospital and private practice. After cauterisation our usual dressing is as follows: during the day, immediately after cauterisation, aseptic adhesive goldbeater's skin; during the night, patches of zinc plaster, or lint compresses steeped in an aqueous solution of resorcin (1 in 200), or small starch poultices. Between the day and night dressings, cleanse with absorbent cotton steeped in the resorcin solution or in perchloride of mercury solution. If destruction has been incomplete, repeat the cauterisation once or twice after cicatrisation. If epithelioma is already present when the medical man is called in—*i.e.*, if the lesion is at the end of the second stage, or has reached the third or fourth—special treatment of the primary form of the epithelioma is no longer indicated, and treatment is the same as for epithelioma in general.

ERNEST BESNIER.

TREATMENT OF EPITHELIOMA OF THE SKIN.

The rational treatment of epitheliomata of the skin is free removal whenever this can be accomplished. When for any reason excision cannot be performed, caustics are useful, but must be used freely so as to destroy the entire growth, if possible; they are often especially useful to check the disease when bone has been invaded.

Solid potassa fusa, chloride of zinc, Vienna and arsenical paste are among the preparations most frequently resorted to.

Potassa fusa must be bored deeply into the new growth and any excess neutralised with a little dilute acetic acid.

Zinc chloride combined with opium is a useful caustic; the following formula may be employed:—

℞.	Zinci Chloridi	ʒ iv
	Liq. Opii Sed. (Battley's)	ʒ iv
	Amyli	ʒ iss.
	Aquæ	ʒ i.

An arsenical paste may be made as follows:—

℞.	Arsenious Acid	gr. x
	Artificial Cinnabar	ʒss.
	Rose ointment	℥ss.

Vienna paste consists of equal parts of unslaked lime and caustic potash made into a paste with alcohol immediately before use.

Kaposi recommends an ointment of pyrogallic acid (ʒ ii ad ℥ i of lard) as being useful.

In the rare cases of disseminated epitheliomata of the sebaceous or acneiform type, such as is figured in Plate XII., the treatment of the early stages is all-important. As soon as one spot appears it should be thoroughly destroyed and care should be taken to protect the face from irritation which may lead to a fresh outbreak.

Very promising results have recently been published of the treatment of rodent ulcer by Finsen's light method (phototherapy) by Finsen, and by Malcolm Morris and Dore in the *British Medical Journal* of 9th February, 1901. In the same

journal may be found reports of encouraging cases treated by X-rays by Sequeira. Both methods are worthy of trial in all early forms of skin carcinoma, but the former, although generally slower in action, is attended by less risk than the latter, which may set up a necrotic process as destructive and as intractable as the original malignant growth. For details of both procedures reference may be made to the articles cited.

J. J. P.

PLATE XIII.

MYCOSIS FUNGOIDES.

ALIBERT'S DISEASE.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1458, made in the year 1889, from a patient under the care of M. ERNEST BESNIER.

THE photo-lithochrome accompanying this number illustrates a perfectly typical case of the disease described by Alibert under the redundant name of MYCOSIS FUNGOIDES, which has been individualised and placed under a definite heading in Dermatology by Bazin and his pupils.*

Mycosis fungoides is frequently enough met with to justify practitioners in studying it carefully, although it was at first considered rare, mainly on account of its proteiform nature and the polymorphism of its manifestations, its periods of quiescence or of temporary remissions, and the frequently very prolonged duration of the malady itself.

* Alibert first described it in 1812, and called it *Pian fongoïde, Frambœsia mycoides.* It, as well as the plate illustrating the disease, may be found in the ninth number of the large folio work dated 1806-1827, and entitled: *Description des Maladies de la Peau observées à l'Hôpital Saint Louis, et Exposition des Meilleures Méthodes de les guérir*, p. 157 and pl. xxvi. The title *Pian fungoïde* is retained in the two editions, small octavo, of the *Précis Théorique et Pratique sur les Maladies de la Peau*, 2nd edition, 1822, p. 126; and it is only in the second volume of the *Monographie des Dermatoses*, large octavo, Paris, 1835, p. 413, and in the quarto edition of the same year, p. 594, that the term "*Mycosis fungoides*" is used to specify the second of the three kinds of the mycosis: *framboisé, fongoïde, syphiloïde.* All that Bazin and his followers did was included by him in his article on MYCOSIS FUNGOIDES in the *Dictionnaire encyclopédique des Sciences médicales*, 2nd series, vol. xi., 1876, p. 180.

I.

The patient, from whose thorax the lesions represented in our photo-lithochrome were modelled by Baretta in 1889 (reduced about a quarter in size), was a hairdresser, aged forty-seven. Age and sex form no absolute criteria in mycosis: yet it is most commonly observed at middle age, or, at any rate, generally shows itself then, and it is decidedly more frequent in men than in women.

As in almost all cases, there was nothing specially noteworthy in the history of our patient. His parents had both lived to over eighty; there was no hereditary taint; none of his ancestors nor relatives of his own generation had suffered from skin disease; he himself lived a regular life and enjoyed the best of health when the first symptoms appeared; and no cause of any kind could be discovered for them, though most carefully sought for. Such is the usual state of things.

The first signs of skin trouble occurred about 1871, in the form of attacks of *pruritus, with nocturnal paroxysms*, worse in winter, but unaccompanied by eruption. In 1872 he first noticed *smooth red patches* on the trunk and abdomen, varying in intensity, but always *extremely pruriginous*. In 1873 there was a lull. In 1874 an exacerbation of the disease compelled the patient to enter the Saint Louis Hospital. He stayed there two months, and was discharged with the diagnosis of "prurigo".

In 1875 he came under Lailler, who got Baretta to make a cast of the lesions, and placed the specimen in the Museum—No. 347—labelled, as it still is, "Lichen ruber (?)". The whole body presented finely papular areas of a common variety of the badly developed lichenoid patches which occur in the initial stage of mycosis.

In 1876 he had very frequent attacks of boils, succeeded in the following years by recurrence of the previous eruptions with severe and rebellious pruritus. Discouraged by the failure of all treatment, and his general health being good,

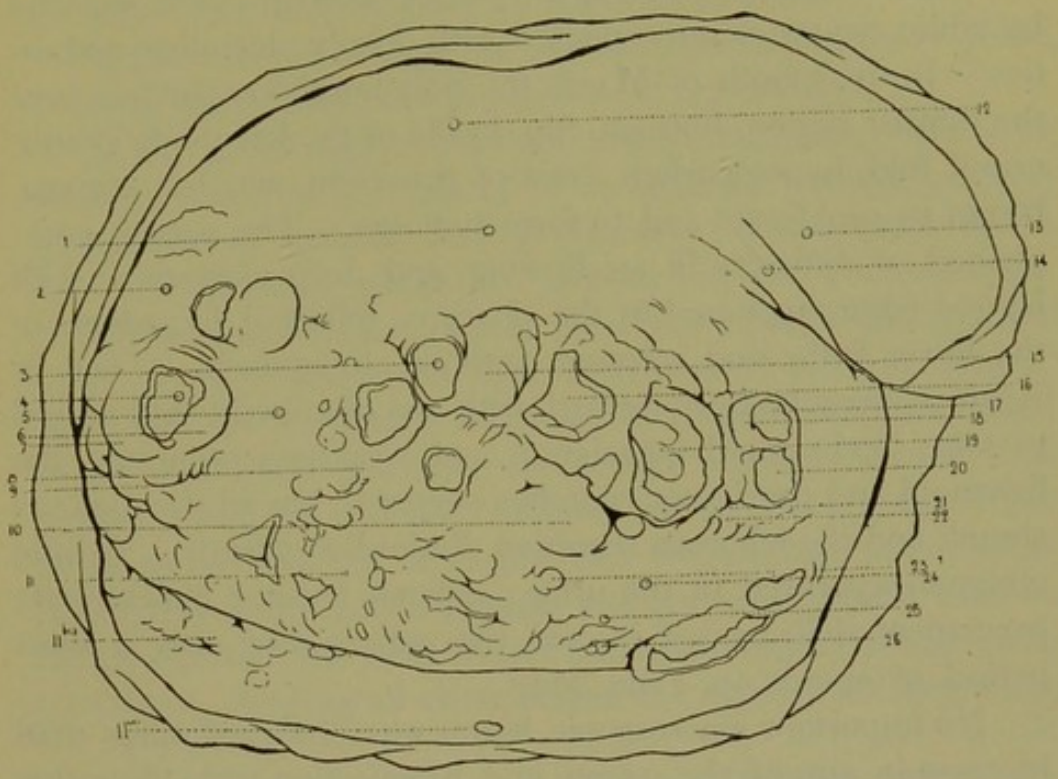
the patient gave up seeking medical aid, and went back to his business.

Not until 1887—*i.e., sixteen or seventeen years after the onset of pruritus and cutaneous eruptions*—did the patient return to the hospital, because in the preceding few months round, red, pea-like projections (one of which had already spontaneously disappeared) had developed on the red squamous patches over the front of the thorax. But in the following months the small knob-like tumours became united at their bases by diffuse swelling, which spread from right to left towards the axilla, and from that time to his death the production and evolution of tumours never ceased for a moment. All the nodosities did not undergo the same uniform process: some softened more or less rapidly in the centre, broke down and ulcerated, leaving craters with yellowish bases, wide gaping openings, and suppurating freely.

During the year 1888 the increase in number and agglomeration of the tumours formed a kind of cuirass over the thorax. Around it lichenoid patches continually formed, and soon small knob-like tumours: numerous hypertrophic patches developed on the neck, around the axillæ, on the posterior part of the thorax, along the crest of the ilium; there were very few on the limbs, but a few small ones about the knees. Simultaneously some of the patches or tumours healed imperfectly, among these latter being some of those which had been opened, leaving a prominent and irregular cicatrix. With the exception of an acute phlegmon of the left axilla the patient's health was satisfactory; he suffered little or not at all, except from the persistent pruritus; appetite was maintained and general nutrition good. There was neither leucocythæmia nor enlargement of spleen, although all the lymphatic glands, especially those of the axillæ, were very large.

Emaciation set in only when the lesions had advanced as far as is shown in our photo-lithochrome, although the appetite remained good and the amount of food taken satisfactory. *Very acute proliferative changes* showed themselves at the same time on different parts, even where the lichenoid changes

had been quiescent for years; and, on other parts, remains of the old condition persisted in the form of polymor-



1. Eczematoid premycosic zone undergoing nodular proliferation. 2, 5. Postmycosic cicatricial area. 3, 20. Nodules undergoing ulceration, ulcerated in patches, with reddish granular base already tinged with yellow. 4. Large tumour in the second stage of ulcerative retrogression, edges irregularly polycylic, base yellowish, with core. 6, 7, 18. Portions of tumour not yet softened, forming a circumferential collar, and giving the nodosity the appearance of a gumma in process of retrogression. 8. Group of nodules arising by the side of cicatrices of extinct "craters". 9. Coalescing nodules. 10, 15. Medium-sized nodules not yet ulcerated. 11. Group of nodules ulcerative from the first, developed on an eczematoid patch, forming an ulceration with yellowish base like that of the "craters". 11 *bis*. Group of rapidly formed nodules on an apparently healthy surface. 11 *ter*. A rapidly ulcerating nodule. 12. Eczematoid, squamous, premycosic zone. 13. Ordinary lichenoid premycosic zone, similar to those which appeared and disappeared for many years all over the body. 14. Lichenoid zone forming a peripheric collar (Hardy's "Hypertrophic lichen"). 16, 19. Large coalescent tumours, deformed by contact, in advanced retrogression, collapsed. 17. Ulcerated nodule in the second stage, a "crater" beginning to form with a yellow base. 21. Collar in advanced state of degeneration. 22. Group of small nodules in process of development on a lichenoid patch. 23. Small nodules arising from apparently healthy skin. 24. Cutaneous zone without macroscopic changes. 25, 26. Miliary nodules.

phous patches with obstinate pruritus. The patient, who had been very courageous up to now, began to become anxious.

In the following year, 1890, the disease progressed rapidly. Tumours developed quickly at the base of the left arm; many of what had been tumours in the preceding stages were replaced by white cicatrices intermingled with deeply ulcerating nodosities. In the month of March the polymorphous patches over the lumbar region, buttock, hip, inside of the left thigh, genito-crural fold, hypogastrium, crest of the ilium, and left scapula, began to proliferate and to form tumours. The patient complained of difficulty in swallowing, and deep ulcerations with jagged edges appeared in the pharynx, followed by œdema of the lower limbs and scrotum, without albuminuria. Then, in April, a sacral bedsore formed, with loss of appetite and refusal to take food; rapid emaciation and weakness occurred; the lichenoid and pruriginous patches persisted, but all the tumours shrank and the ichorous secretion diminished greatly. A little albumen appeared in the urine; œdema became generalised; permanent delirium set in, and the patient died after a short period of agony on 22nd May.

No important macroscopic lesion was observed other than increase in size of the spleen, and tumefaction with ulceration about the upper laryngeal orifice, aryteno-epiglottidean folds, and posterior surface of the larynx. The trachea, lungs, pleuræ, alimentary canal, and liver were all normal.

II.

Thus in our patient, as is the case with very rare exceptions, the disease went through two very distinct phases or stages; the one, initial, primary, germinal, the duration of which may be very lengthy—since it lasted in this case more than eighteen years; the other, ulterior, terminal, secondary, active, of much shorter duration.

During the *first period* the cutaneous eruptions may be exceedingly polymorphic: *generalised or localised erythrodermiæ and erythrodermatites; lichenoid, eczematoid, or psoriasiform eruptions, forming figures or not, ill defined, benign in appearance, but remarkable for their exceedingly rebellious*

nature, and liable to disappear rapidly, to become instantaneously cured, sometimes entirely so to all appearance, but also and at the same time accompanied by *obstinate pruritus*.

While this phase lasts the health is good, nutrition normal, strength maintained, and the patient is not uneasy.

In the *second stage* the disease unexpectedly manifests great activity, either in its entirety or in separate regions, or (very exceptionally) without any preliminary macroscopic lesion. The efflorescences which are present become infiltrated succulent, œdematous, congested, passively hyperexudative, and bullæ develop either over their surface or at their periphery.* Infiltrated areas: oozing, ichorous, eczematoid, moist, crusted, sordid and fœtid patches; furunculoid or ecthymatoid folliculites develop; rounded tumours of all sizes, shaped like tomatoes or bunches of raspberries, vegetating, sarcomatoid, which grow and cicatrise partially and temporarily; the tumours soften, ulcerate, and form craters like those formed by ulcerating gummata. During all these stages the mycosic elements may

* The bullous mode of development of mycosis in the active stage is conclusively proved by a case under our care. The patient had been in the initial doubtful stage for more than twelve years. We had long suspected that it was Mycosis fungoides in the germinal stage; but as years went by and the disease never got beyond this, although it spread by degrees to the upper limbs and trunk, and invaded the plantar regions, we were still hesitating when, *more than ten years after the onset*, characteristic phenomena supervened, and the active proliferative stage set in. It appeared in two distinct forms: (*a*) small fungoid tumours the size of a hazel nut or filbert arose at the edge of two very old patches, which were but slightly infiltrated; (*b*) dermic infiltration of a large number of patches with annular phlyctenulæ and fungoid vegetations at their periphery, some complete bullous patches growing on old lichenoid patches, true "pemphigus vegetans"—"*état fongoïde et bulleux*"—forming either proliferative discs or true fungoid rings with wide edges raised from one to two centimetres, covered with crusts, ulcerating, and forming fœtid ichorous wounds.

It was at least twelve or thirteen years—possibly fourteen or fifteen—after the disease began that nutrition began to suffer, and about a year and a half later cachexia supervened and ended in death.

In the second and much more difficult case, a bulla, which grew quickly on an erythematoid base, formed the first eruptive symptom from which the typical tumour immediately and quickly sprung—malignant *Mycosis fungoides*—with speedy fatal conclusion.

undergo entire retrogression—without cicatrix, if resolution began before ulceration; if after, with cicatrix. All these phenomena—primary lesions, secondary lesions, retrogression of one or the other—may coincide and be produced in a given time, even during the cachexial period, up to the very last. In this stage *the general health alters and the patient becomes rapidly thinner*, more or less rapidly according to the extent and degree of proliferation, the rapidity of infective phenomena, and the visceral changes; cachexia is established and death supervenes in cases of generalised, very extensive, or rapidly acute disease. It would be extremely interesting to give a description of the very numerous clinical forms which Alibert's disease can assume, from the partial, subacute forms, malignant from the start, to the generalised and long-quiescent forms, which terminate in cachexia only by slow degrees; from the partial, quiescent, benign forms amenable to treatment, to the pernicious lymphodermic forms which closely connect mycosis with lymphadenoma. But this observation does not allow of the developments necessary to make such points clearly understood: we shall limit ourselves to briefly adding two considerations of practical value, not alone to dermatologists, but to medical men generally.*

1. In all cases of doubtful pruriginous skin disease, persistent, not amenable to ordinary treatment, whether it be like some indeterminate "erythrodermia," or psoriasis, or eczema, squamous, diffuse, discoid, or circinate, or like an urticaria not amenable to treatment, lichenoid prurigo, *etc.*, the question of

* On the entire question of Mycosis as far as it concerns us, see—1. *Les Notes et Appendices de la Traduction française de Kaposi*, première édition, t. ii., pp. 143-145, Paris, 1841, et seconde édition, t. ii., pp. 614-636, Paris, 1881.—2. *Lymphomatose cutanée généralisée* ou *dermatite lymphoïde généralisée*, avec nodules, plaques, et tumeurs; *lymphodermie pernicieuse* de Kaposi, in *Réunions cliniques de l'Hôpital Saint Louis pendant l'Année scolaire* 1888-89, p. 138, et *Ann. de Dermatologie*, 1889, p. 547.—3. *Deux observations nouvelles pour servir à l'histoire clinique du Mycosis fongoïde, et particulièrement de la période prémycosique de cette maladie, Bulletin de la Soc. franç. de Dermat. et de Syph.*, Mars, 1882, p. 106, et *Ann. de Dermatologie*, 1892, p. 243.—4. *Sur les érythrodermies du Mycosis fongoïde* (en collaboration avec M. HALLOPEAU), *Congrès international de Vienne*, 1892, p. 161.

the possibility of *Mycosis fungoides* in an early stage must be considered. The physician who remembers this will avoid more than one error and more than one miscalculation.

2. The initial premycosic stage is not an incubation period properly so called, but is the disease in action, not only in the parts which show lesions, but also in the apparently healthy parts, where its subjective manifestation is itching. Eruptions called "premycosic," from the most abortive types up to the great erythro-lymphodermatites, are of the same elementary essential nature, and differ in degree but not in character of the lesions. Hence the conclusion is arrived at that clinical teaching will now find in a "biopsy" a valuable means of confirming or invalidating a dubious diagnosis, thanks to the most recent works on the histology of the disease by Philippson, Darier, Leredde, Malherbe, *etc.*

III.

The long duration of the disease, the possibility of its spontaneous cure (however rarely met with), the certainty of complete spontaneous retrogression of the efflorescences of the skin in the primary stages, and even of large-sized tumours, all lead one to hope that remedies will one day be found to arrest Alibert's disease. But up to now no drug has been found to act on mycosis as mercury does on syphilis, or iodide of potassium on actinomycosis.

In our patient, iodide of potassium, administered perseveringly, and on several occasions, seemed to act favourably for two or three years, but it did not prevent the development of the infective stage. It is true we did not push the doses to the extent to which we now know they may be pushed.

Arsenic given internally was unsuccessful; it would be advisable to make fresh attempts hypodermically: we are now treating a case in this way.

The same observation should be made with regard to the administration of mercurials, which should also be tried by subcutaneous injection.

Serum therapeutics might also be utilised. We have, along with Darier, used repeated injections of "antistreptococcic serum" in a patient under our conjoint care: we discontinued them after noticing that their effect seemed to be to cause more active proliferation of the lesions. But we are bound to add that this increase in the spread of the disease ceased soon after we left off the injections. Further investigations will probably account for this.

Local treatment is merely palliative, and cannot be considered as curative except in cases in which the lesions are slow, dry and localised. Ablation may be performed without relapse, as we have twice proved, and as can be, or could be, proved by "biopsies". Growths can also be destroyed by the thermo- or electro-cautery, or by different forms of caustic.

When the efflorescences are dry and numerous, *pruritus* may be considerably relieved by the use of carbolic and menthol zinc paste composed as follows:—

Vaseline..... }	āā 50 gr.
Oxide of zinc..... }	
Menthol..... }	āā 0 gr. 50 to 1 gr.
Carbolic acid..... }	

By tepid intermittent douches, lasting from two to three minutes, like those used by Jacquet for neurodermal diseases in general and in particular for lichen planus.

By lotions to the body at 37° or 38° Centigrade lasting some minutes, containing 20 to 40 drops of lysol, or 20 to 40 grammes of coal-tar saponiné, to the quart of hot water, *etc.*, *etc.*

Where the eruption is in patches, limited in area, pyrogallic plasters, 5 to 10 per cent., may be applied.

The sarcomatoid tumours of mycosis may, as Vidal suggests, be treated by pyrogallol ointment, 10 to 20 per cent., care being taken to protect the surrounding skin, and to keep an eye on the urine in order to leave off the application as soon as it assumes the brown shade indicative of early toxic symptoms.

Camphorated naphthol may be used with partial or temporary success in the same way on limited spots if the kidneys

and urine are watched, or as injections in the sarcomatoid tumours, as Brocq has advocated.

In the stage of ulceration recourse must be had to the most vigorous asepsis: cotton-wool dressings, gauze saturated with iodoform, salol, or carbolic acid, without relaxing the necessary caution to avoid toxic symptoms.

Finally, in cases of considerable conglomerate ulceration we have relieved the patients and protected their neighbours or the nurses against the extreme offensiveness of the mycosic suppuration by the use of subnitrate of bismuth with 2 to 10 per cent. of salol. The powdering is done by insufflation; the powdered parts are covered by aseptic gauze and protected by cotton-wool dressings. We have never seen toxic symptoms due to either bismuth or salol, but great care must be taken and a constant watch kept in the use of all antiseptic dressings to ulcerated parts.

ERNEST BESNIER.

[The word *Erythrodermia* has been introduced into dermatological terminology by Dr. Besnier to connote extensive areas of reddened skin, usually accompanied by some degree of infiltration. It involves merely a *provisional* opinion as to the nature of the lesion.

As an incentive to further trials of Serum Therapeutics in Mycosis fungoides, it may be borne in mind that Bazin's first case entirely and permanently recovered after an attack of erysipelas.

Synonyms for Mycosis fungoides are: Granuloma fungoides (Auspitz, Payne, *etc.*), Fibroma fungoides (Tilbury Fox), Inflammatory fungoid neoplasm (Geber, Duhring), Lèpre indigène (Guérard), Lymphadénie cutanée (Gillot), Lymphodermia perniciosa (Kaposi), Multiple fungoid papillomatous tumours (Köbner), and probably Eczema hypertrophicum or tuberculatum (Erasmus Wilson).

Reference may further be made to the Editor's article—"Mycosis Fungoides"—in the third edition of *Quain's Dictionary of Medicine*.—J. J. P.]

TREATMENT OF MYCOSIS FUNGOIDES.

Little need be added to Dr. Besnier's remarks on the treatment of this fell disease, as no methods have up to the present exercised any definite and permanent beneficial action on it.

I have seen one case of temporary cure lasting over more than six months from large doses of arsenic given both by the

mouth and by intramuscular injections, but the disease recurred and death resulted from double pneumonia. The local application used was a 10 per cent. pyrogallol ointment.

Injections of carbolic acid into the growth on the supposition that the condition is one of parasitic origin have been recommended, but no lasting improvement has been obtained.

The production of an artificial attack of erysipelas certainly appears to be a rational procedure and one justified by the gravity of the disease.

J. J. P.

PLATE XIV.

PSORIASIS.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1040, made in the year 1885, from a patient under the care of Professor FOURNIER.

PSORIASIS is one of the commonest skin diseases, and the accompanying plate illustrates a mild but typical case.

The eruption of psoriasis takes the form of well-defined and, most frequently, rounded patches, covered with abundant, dry, bright, and generally whitish scales, the skin underneath them being red and shining, and bleeding readily. This redness extends a little beyond the scales and encircles them with a coloured border, which is distinctly visible in the plate.

The size of the eruptive elements varies; it is also usual for them to assume the most varied forms in the same patient.

Sometimes they appear as small papules the size of lentils, or like wax that has been dropped and stuck on the skin (*psoriasis guttata*). In the plate some of these may be seen on the skin of the penis and on the upper part of the arm; this is the usual appearance in the initial stage. Sometimes, by coalescence of several patches, or by the excentric development of each one, the patch may attain the size of a coin—a franc piece or a five-franc piece—whence the name *psoriasis nummularis* frequently applied to this, the commonest form of the malady. By extension and fusion of these different spots the patches may become so large as to entirely cover a large area of the body, especially in old-standing cases.

Sometimes the lesions assume a more or less circular shape (*psoriasis annularis*, *lepra Willani*); or they present a figured, festooned appearance, with the most peculiar geographical outlines; this form is known as *psoriasis gyrata*.

The accompanying woodcut (specimen No. 242 from the Museum) of the back of another patient with psoriasis shows these different forms: in the centre *psoriasis guttata* is seen, and some *psoriasis nummularis*, and at the side large circles typical of the variety last described. The thickness of the scales in this specimen was quite extraordinary, where they formed large, whitish grey masses several millimetres in thickness.

Scales are evidently the most characteristic elements of this eruption. Indeed they are never absent, even in its most initial stage, when they may be seen with a magnifying glass (E. Besnier). The scales are generally whitish grey and shining; they are easily lifted up and detached, sometimes a scratch with the nail being sufficient to detach the scale whole from the small spots; the skin underneath is then bright red, and from the exposed papules a little blood exudes. This sign is of clinical importance.

The white colour of the scales is due to the presence of very numerous air bubbles, which infiltrate the horny layers.

Psoriasis may attack all parts of the body, though it has its sites of predilection, the chief of which are the tips of the elbows and the knees. To the examination of these parts the physician generally turns to form or verify his diagnosis of psoriasis; but this symptom is not always present. Psoriasis, of the limbs especially, is often distributed with almost accurate symmetry.

After the elbows and knees, the parts most frequently attacked are the sacral region and the scalp, which in some cases seems covered with a thick layer of plaster.

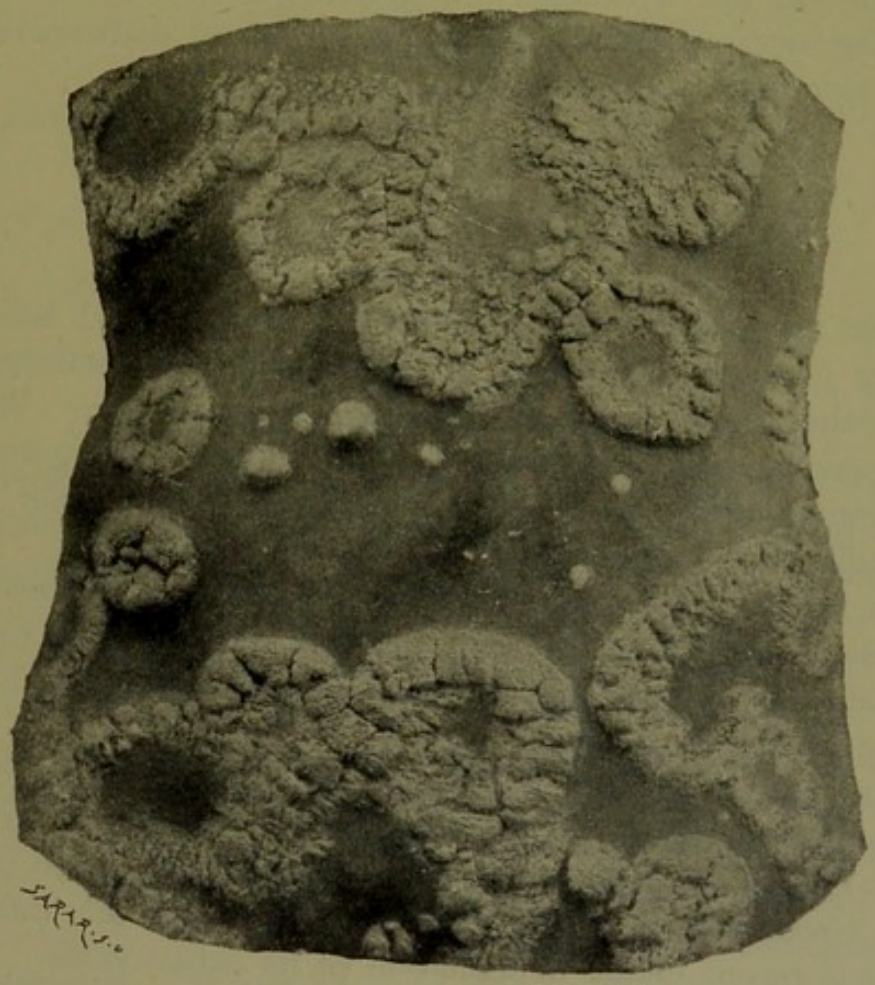
The face and extremities are not so frequently attacked, and psoriasis of the nails is a rare but obstinate variety.

Psoriasis never seems to attack the mucous membranes proper: the labiæ majoræ and the glans penis, which, however, are covered by a cutaneous and not a mucous coat, may be the seat of the eruption; this can easily be seen by reference to our coloured plate, where both the skin of the penis and the glans are covered by psoriasis.

Intense pruritus is not generally a symptom of psoriasis,

nor does the disease usually interfere with general health: it seems, on the contrary, to prefer strong and muscular persons, and is often met with in stout people.

Psoriasis, moreover, appears to come under the broad heading of "neuro-arthritic" disorders, coinciding sometimes with glycosuria, following on emotional disturbance or alternating with different nervous derangements. It is sometimes



accompanied by articular symptoms, or diseases of the joints. Finally, psoriasis is often hereditary, and is not contagious.

In several respects this form of skin disease possesses features generally known as "diathetic". The parasites described by some authors as present in the scales have no specific action, and the parasitic nature of the disease is doubtful.

The method of progress of psoriasis follows no definite

rules. Its time for appearing is uncertain; in most patients it begins in childhood, or at least in youth. It occurs in outbreaks, between which the skin is normal in appearance; but it is rare for it to disappear everywhere entirely at any time. The outbreaks last, even under treatment, at least several weeks; the intervals between attacks vary from several months to years; the length of the temporary recovery depends on the treatment. Digressions from regular ways of living, nervous fatigue, alcoholic excess, and diabetes bring on or aggravate outbreaks.

HENRI FEULARD.

TREATMENT OF PSORIASIS.

The prognosis usually attributed to psoriasis is, I believe, unduly gloomy. Numbers of cases recover spontaneously, or as the result of treatment, and do not relapse. When treatment is undertaken it ought to be followed out vigorously and continuously; and if this is attained good results may generally be brought about, at least temporarily.

In severe cases confinement to bed is a *sine quâ non* for success, much of which may perhaps be attributed to the equability of temperature and consequent physiological rest to the skin thus obtained.

Internally, the drug which has the most beneficial effect on psoriasis is undoubtedly *arsenic*, but its indiscriminate use in all classes of cases is to be much deprecated, since under some circumstances it may do actual harm, and this fact has led to a recent undue depreciation of its actual value. The conditions under which arsenic is most likely to do good are:—when the disease is of some duration, when the scaly spots are pale and show no tendency to spread, and when the digestive functions are normal. In the more acute forms, where the spots are inclined to spread and are surrounded by a bright red margin, when the tongue is furred and the digestion poor, this drug should not be given.

Arsenic may be administered in liquid or in pill form. The Liquor Arsenicalis (Fowler's solution) is the most con-

venient preparation, and the dose should commence at about two or three minims and be very gradually increased up to six or eight minims or more three times a day, care being taken to give the drug after meals and to diminish the dose if any of its physiological effects are observed.

When it is not convenient to take arsenic in liquid form it may be prescribed in the form of the so-called Asiatic Pill, the formula of which is :—

℞.	Acidi Arseniosi	gr. $\frac{1}{20}$
	Piperis Nigri	gr. ii
	Gum Arabici	gr. i
	Aquæ	q. s.

Make 100 pills, of which one to be taken three times daily.

A pill I frequently employ is composed as follows :—

℞.	Sodii Arseniatis		
	Strychninæ	āā	gr. $\frac{1}{24}$
	Sacch. Lactis		gr. i
	Pulv. Trag. Co.		q. s.

Sig.—One pill three times daily immediately after food.

Arsenic is always slow in its action, and its efficacy in preventing relapses is dubious. In acutely inflammatory cases it disagrees and even provokes an attack of acute generalised exfoliative dermatitis. Moreover, long courses are liable to be followed by a troublesome warty and subsequently diffuse hyperkeratosis of the palms and soles; by diffuse dirty-brown pigmentation of the body, sometimes confined to the previously diseased spots, and by peripheral neuritis and tremors resembling those resulting from mercurial poisoning.

The Cacodylate of Sodium, an organic arsenical compound, has recently been advocated by Gijselman in the treatment of psoriasis. When injected subcutaneously it is said to cause marked diminution of hyperæmia, infiltration and scaling of the patches. Its extremely offensive odour—like that of all the cacodyl compounds—is a potent argument against its employment.

Carbolic Acid may be given in pills of 1 grain each, 3 grains to 6 grains been given daily; it has been especially recommended by Kaposi, by whom it is thought to be as successful as arsenic.

Salicylate of Sodium or, preferably, *Salicin* in 20 grain doses is occasionally successful in the more acute cases where arsenic is contra-indicated.

Iodide of Potassium has been loudly extolled by Haslund of Copenhagen, and I have had many examples of its great efficacy in suitable cases, *viz.*, those which are acutely inflammatory and showing a tendency towards generalisation.

It must be given in large doses—from 20 grains to a drachm or even more three times a day—small doses being in my experience quite useless. Its utility may be compared to that of the same drug in similar doses in bronchial asthma. The expense of the drug has been advanced as an argument against its use, but the objection does not go very far.

Tartarated Antimony is sometimes useful in acute cases (Malcolm Morris) and may be given in doses up to ten minims of the wine three times a day.

Turpentine is considered by Crocker to be useful in aiding the reduction of the scaling and hyperæmia of the patches; it may be given in capsules or in an emulsion in doses of ♏ x to ♏ xv three times daily, beginning with the smaller dose. It is not a pleasant drug to take and it is often badly tolerated; if it is given, however, the patient should take large quantities of barley water, and a sharp watch should be kept with a view to its possible effects on the kidneys.

Thyroid treatment, so greatly praised by Bramwell, has not met with much success; here and there a case appears to have done well, but there is no uniformity in its action and it cannot be recommended. Probably the beneficial results attributed to it were due to the prolonged rest in bed during its administration.

Locally the objects of treatment are to reduce the hyperæmia, to remove the scales, and thus finally to get rid of the actual lesions.

The methods by which these objects can be arrived at are various and must be carefully selected with a view to the special conditions present in each case. In acute cases the mildest remedies are at first called for, such as calamine lotion and zinc ointment, and if the disease is very general the

patient should be immersed in an alkaline bath at a temperature of 90° to 100° F., for a period of from twenty minutes to half an hour night and morning.

The following proportions of alkalies may be used in a bath of 30 gallons of water :—

Potassii Carbonatis ℥iii

or

Sodii Carbonatis ℥iii.

If there is much itching present a few ounces of liquor carbonis detergens may be added with advantage. Bran or borax may often be added with benefit.

Salicylic acid is a valuable local remedy and is often very efficacious for removing the scales; it may be used either over extensive areas or for localised patches of the disease where it is not desirable to resort to stronger measures. It may be simply mixed with vaseline or it may be combined with a simple zinc ointment in the proportion of from 5 to 10 per cent. as follows :—

℞. Acidi Salicylici gr. xx
Ung. Zinci Oxidi
Paraffini Mollis āā ℥ss.

A mild ointment of salicylic acid is also a very good application for psoriasis of the scalp, but before it is applied the scales should be softened by shampooing the parts well with a mixture of soft soap and spirit, such as—

℞. Saponis Mollis ℥iv
Spiritûs Vini Rectificati ℥ii.

When all acute symptoms have entirely subsided stronger measures may be used, and for this purpose the tar preparations and chrysarobin are by far the most successful.

Preparations of wood and coal tar may both be used and of the former the oleum Cadini (juniper) will be found the least irritating variety, but on the whole the coal tars are the most useful. The tar preparations have the great advantage of being fairly safe in the hands of patients and they can be applied in ordinary strengths to any part of the body, including the face, though the preparations for the latter should always be weak. Coal-tar preparations may be applied in the form

of the Liquor Picis Carbonis (now Official) or the Liquor Carbonis Detergens (℥ i to ℥ ii to ℥ viii of water). Oil of Cade may be used as an ointment in strengths of ℥ss. to ℥ ii to the ounce, and soft soap or salicylic acid may be combined with it if necessary.

Hebra recommends oleum Fagi (beech) in the following formula :—

℞.	Sulph. Precipitati		
	Olei Fagi	āā	5 parts
	Saponis Mollis		
	Adipis	āā	10 parts
	Pulveris Cretæ		1 part.

Patients using these preparations should take baths very frequently to remove the scales. Walker strongly recommends the tar bath ; the patient paints himself all over with pix liquida before entering the bath, and then remains in it for about half an hour. Tar may also be used with advantage in the form of medicated soap.

The disadvantages of the tar preparations are their disagreeable smell, their staining properties, and the fact that continued applications may give rise to an acneiform eruption ; more rarely some constitutional symptoms may follow the absorption of the drug.

In order to obviate these disadvantages Naphthol β and Thymol have been introduced, and the latter with its not unpleasant odour may be often usefully applied to the face in strength of 5 to 20 grains to the ounce of excipient.

Chrysarobin is by far the most successful application in psoriasis, but it must always be used with great caution. It must never under any circumstances be applied to the face, nor should it be employed in acute inflammatory phases of the disease ; further, the patient must be fully warned of its staining properties, which ruin all clothes which are brought into contact with it.

If the disease is widespread and a rapid cure is desired, the patient must give himself up entirely to the treatment, remaining by preference in a hospital or nursing home. Baths should be taken two or even three times a day, and the scales removed by rubbing with a stiff brush, after which

an ointment of chrysarobin should be well rubbed into the affected spots.

The formula recommended by Unna is as follows :—

℞.	Chrysarobin	gr. xx
	Ichthyol	gr. xii
	Acidi Salicylici	gr. x
	Vaselinum ad	℥ i.

For small patches chrysarobin may be applied in the form of a plaster, or a solution in liquor gutta-perchæ or collodion may be painted on with a stiff brush.

Patients tolerate chrysarobin very differently, and in some a very weak preparation will give rise to an acute dermatitis ; it is therefore essential to begin with weak preparations in all cases and gradually increase the strength if the drug is borne well ; thus the amount of chrysarobin in an ointment should never at first exceed 10 grains to the ounce, and a smaller quantity than this is often advisable. The combination of ichthyol with the chrysarobin tends to diminish the likelihood of the occurrence of an acute dermatitis.

Pyrogallol is also a drug which has considerable power to remove the disease, but like chrysarobin its staining properties and its liability to cause inflammatory conditions are serious drawbacks to its use, and if too large a surface be exposed to its action there is a possibility of the occurrence of hæmoglobinuria.

It is, however, often especially useful for the scalp and may be applied in the form of an ointment (2-5 per cent.) or as a lotion. The following formula is recommended by Brooke :—

℞.	Pyrogallol	gr. xv
	Liq. Picis Carbonis	♏ xv
	Ichthyol	℥ i
	Aquam distillatum ad	℥ i.

The same authority also recommends the following for small isolated spots :—

℞.	Pyrogallol		
	Acidi Salicylici	āā	gr. xxx
	Collodion		℥ i.

Whenever pyrogallol is used the possibility of constitutional symptoms must always be remembered. For obstinate patches Beiersdorff's plaster-mulls containing mercury, sublimate, and carbolic acid (No. 88) are often useful. Although a large number of those who suffer with psoriasis appear to be in robust health, a careful inquiry into their general condition should always be made and any disturbances of the alimentary canal should if possible be corrected.

The patients should lead a regular life and avoid colds and chills, the diet should be plain and the amount of alcohol strictly limited or even stopped for a time altogether.

J. J. P.

PLATE XV.

TUBERCULAR LEPROSY OF THE FACE.

UNIVERSAL LEPROSY OF THE SKIN. RECOVERY OF THE FACE.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1311, made in the year 1888, from a patient under the care of M. BESNIER.

I.

WE have selected the cast illustrated in the photo-lithochrome of this number from the large and valuable examples of leprosy in the Saint Louis Hospital Museum because it portrays a remarkable variety of the "*leprous mask*," is a type of complete tegumentary leprosy, and because, the patient having been considerably benefited by long internal and external treatment, we are singularly fortunate in being able to give a photograph of him with his face restored to health, nine years after the cast was made from which the photo-lithochrome is taken.

The patient, a literary man, was twenty-seven years of age at the time of his admission, in 1887, to the Saint Louis Hospital, Ward Cazenave, No. 52. Born at Guadeloupe—a leprous district—he belongs to a large family, none of the members of which have suffered from leprosy, nor has he ever come in contact with any leper, as far as he knows. He has never had syphilis or any other disease except the endemic fever prevalent every year in the rainy season.

The first symptom appeared when he was about nineteen—nine to ten years before the cast of the face by Baretta was made—and showed itself by intolerance of hot weather, with some slight loss of flesh. Shortly afterwards spots of pigmentation developed on the right leg, whilst the skin there became scaly, with more or less complete loss of hair—*leprous anidrosis* and *leprous ichthyodermia*.

In 1879-1880 no fresh development occurred, the patient being treated in his native country by arsenic and preparations of conium. In 1881—the third year of the disease—*patches of erythema* supervened, which were infiltrated and *analgesic.*

In 1882-1883 *deep erythematous infiltration* appeared around the eyebrows, with some alopecia. The left leg, four years afterwards, was attacked similarly to the right.

In 1884 regular *tubercles* appeared on the lobe of the right ear and then on the left.

In 1885 the first tubercles around the eyebrows appeared on the infiltrated areas, with pigmentation, infiltration, and loss of hair on the backs of the hands.

In 1886-1887 the upper and lower limbs and the face were universally covered with maculæ, constituting general tegumentary leprosy, the leprous infiltration being diffuse, nodular, or patchy; tubercles were present everywhere, although most marked on the face. The *stage of infection* set in, the first signs of iritis appeared, and very sharp febrile attacks of nodular leprous erythema occurred periodically. Simultaneously there was disseminated peripheral neuritis, marked by dissociated zones of impaired sensibility, of which we shall give a diagram further on.

II.

In the beginning of 1888, when the cast of the lesions shown in the photo-lithochrome was made, the face was covered with purplish, swollen maculæ, and exhibited leprous tubercles of every sort—some accurately round and spherical, others altered in form by pressure. They varied in size from the smallest millet seed to a pea—*i.e.*, they were smaller than in the acutest tubercular form, which, in our experience, is the gravest. Most of the tubercles, which were partially anæsthetic, were intact; a few only were eroded or excoriated.

In the photo-lithochrome note the thickness of the vertical folds of the glabella, the depth of the intersuperciliary sulci and of the naso-frontal fold, which make the forehead re-

markable; the tubercles are scattered and relatively few in number. The whole is a typical "*leprous forehead*" (see the description and history of the leprous forehead given on pages 54 to 59 of this work and figs. 2, 3, 4, 5 in the same article).

The *superciliary regions* are typical: thickened, mammilated, prominent, quite denuded of hair, their outer part being so swollen as to cover a part of the upper eyelid; only a few stray tubercles are present.

The *eyelids* are intact. The *nose* is much thickened and purplish; the skin is infiltrated, including that of the nostrils, which are thereby diminished in calibre and have lost their hair. There are numerous small tubercles embedded in the leprous skin.

The *naso-genial and the naso-labial sulci* are deep, on account of the thickening of the corresponding folds.

The *upper lip* is thickened, hairless, prominent, and covered with tubercles, with considerable increase in the subnasal folds and of the furrow limited by them. The whole of the chin is thickly studded with projecting tubercles.

The *cheeks*, of a dusky purplish colour, are a mass of conglomerate tubercles.

On the *neck* there are general pigmentation and some scattered tubercles.

On the *upper limbs* there are pigmentary maculæ and lenticular spots of a yellowish-brown colour. Tubercles and pigmentary spots are present on the backs of the hands, especially on the wrists; the skin is purplish and smooth. The lower limbs are speckled with fawn-coloured spots, and a great number of tubercles are present on the most extensively affected areas. On the fronts of the legs there is a serpiginous ichthyotic condition, with large squames adherent in the centre and free at the margin. On passing the hand over the skin, all over these limbs, especially on the inner surface of the thighs, deep-seated nodosities, which do not project much, may be felt. The number increases with each febrile attack.

The *ears*, being in a leprous pachydermatous state, present

considerable increase in bulk, especially of the helix, anti-helix, and lobule; there are not many raised tubercles. In spite of this infiltration the "*leprous ear*" preserves its shape, and does

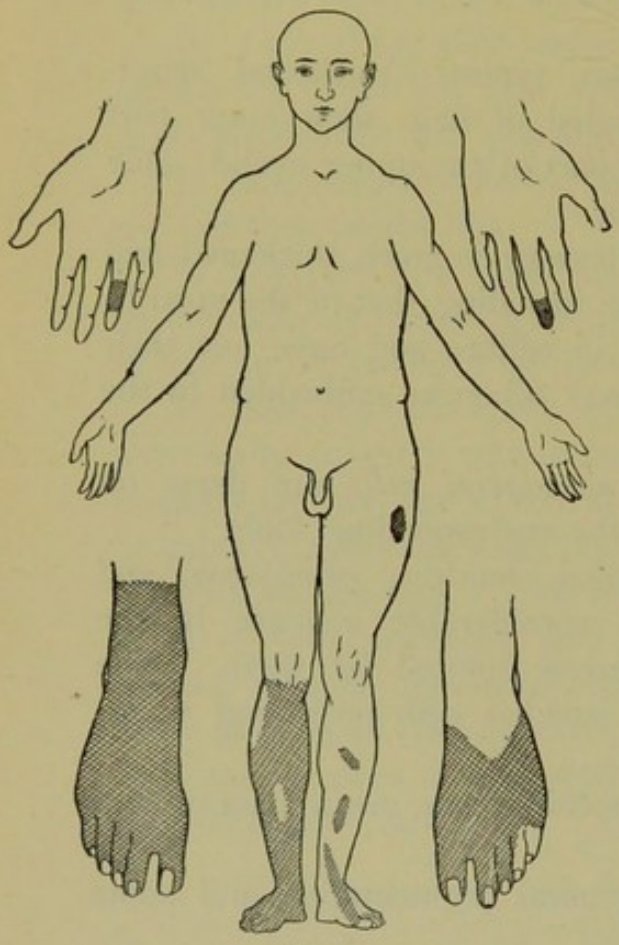


FIG. 1.

FRONT.—Analgesia is distributed as follows:—*On the Left:* The ungual phalanx of the middle finger; limited areas on the thigh and leg; the back of the foot excepting the two last toes. *On the Right:* The second phalanx of the ring finger; the leg except in places; the back of the foot.

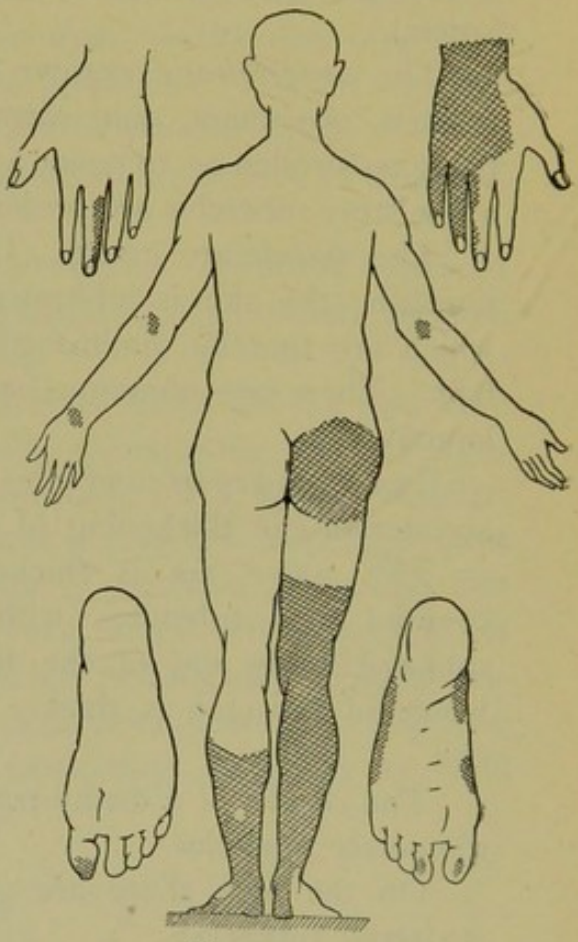


FIG. 2.

BACK.—Analgesia is distributed as follows:—*On the Left:* The neighbourhood of the olecranon; the back of the wrist and inner side of the middle finger; the lower two-thirds of the leg except a small spot; the great toe. *On the Right:* The region of the olecranon, back of the wrist, and ulnar side of the hand and fingers; the nates; the lower third of the thigh, popliteal space, leg, and a band on the sole of the foot, continuous with the analgesia on the dorsum.

not contract adhesions with the retro-auricular region, as does the "*lupous ear*," which is very often swollen and embedded in the surrounding lupus tissue.

In the *buccal cavity* there are stray tubercles, most abundant about the base of the uvula.

Besides anæsthesia, analgesia, dissociated and delayed sensibility of the face, the disorders of sensation are confined to the limbs, and scarcely affect the trunk at all, as is the usual rule.

The preceding figures show exactly the parts affected by leprous anæsthesia in our patient in 1888.

At all the analgesic points tactile sensibility was preserved; analgesia included loss of the sense of provoked pain, and nearly always loss of thermic sensibility. As is usual, the body and the upper limbs, except the very extremities, were almost intact in spite of the presence of maculæ and infiltration: on the lower limbs the analgesic zones increased towards the extremities. Some, though not absolute, symmetry existed, apparently very analogous to that which is exhibited by psoriasis, the analogy going even as far as the unaffected areas. Reflexes were normal; there was no necrobiosis or mutilation.

III.

1. During 1888, 1889 and 1890 the disease followed its usual course and presented its classical phases: *keratitis*, with *conjunctivitis* and *irido-choroiditis*, recurred several times, and these were promptly and appropriately treated. *Severe paroxysms of fever* took place, many times interrupting systematic treatment, and almost always coinciding with eruptions of nodular erythemata on the upper and lower limbs, particularly on the inside of the thighs.

During the following three years these paroxysms became less frequent and milder, and finally ceased.

Internal treatment—chaulmoogra oil up to 300 drops, salol up to five grammes, in the twenty-four hours—was perseveringly administered, whilst the tubercles were destroyed with the cautery, and the methods for external reduction that we shall mention later on were employed. In 1892 the patient was sufficiently better to be discharged and to resume his social life. During the last three years the patient, who had heard us mention treatment with chlorate of potash, has taken almost

constantly a gramme of chlorate of potash dissolved in water every twenty-four hours.

By comparing the photo-lithochrome of the patient taken in 1887 and the photographs beneath (figs. 3 and 4)—one taken in 1888 and the other in 1896—the reader can judge of the result obtained.

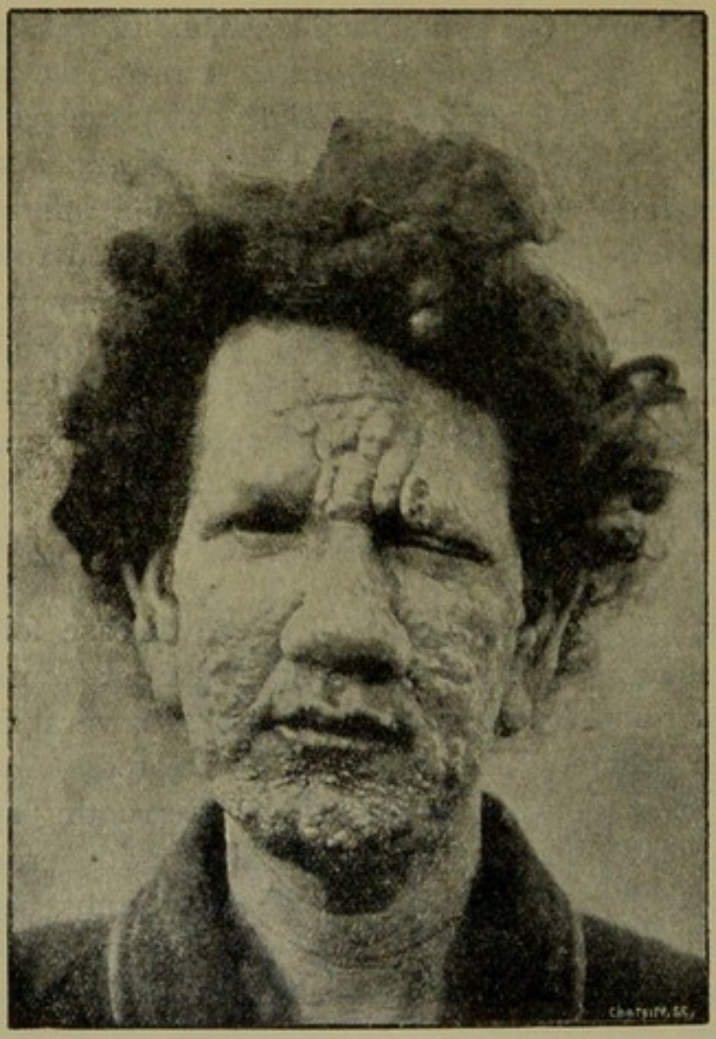


FIG. 3, 1888.

Since 1893 the patient has never had an eruptive outbreak : the last, a very slight one, occurred after bronchitis. The only symptom observed from 1893 to 1896 has been a slight, recent iritis. Now, in 1896, tactile sensibility is normal generally. At all the spots shaded on the diagram there is some dulness of sensibility to pain and some thermo-anæsthesia. On the trunk and upper limbs there are a few scattered maculæ, and on the

lower limbs there are maculæ and anidrosis of the legs, with some desquamation.

2. Cases like the one we have related are not of very frequent occurrence. However, the observation of years has enabled us to follow up many cases of leprosy from leprous countries, and permits us to state that in those who have not

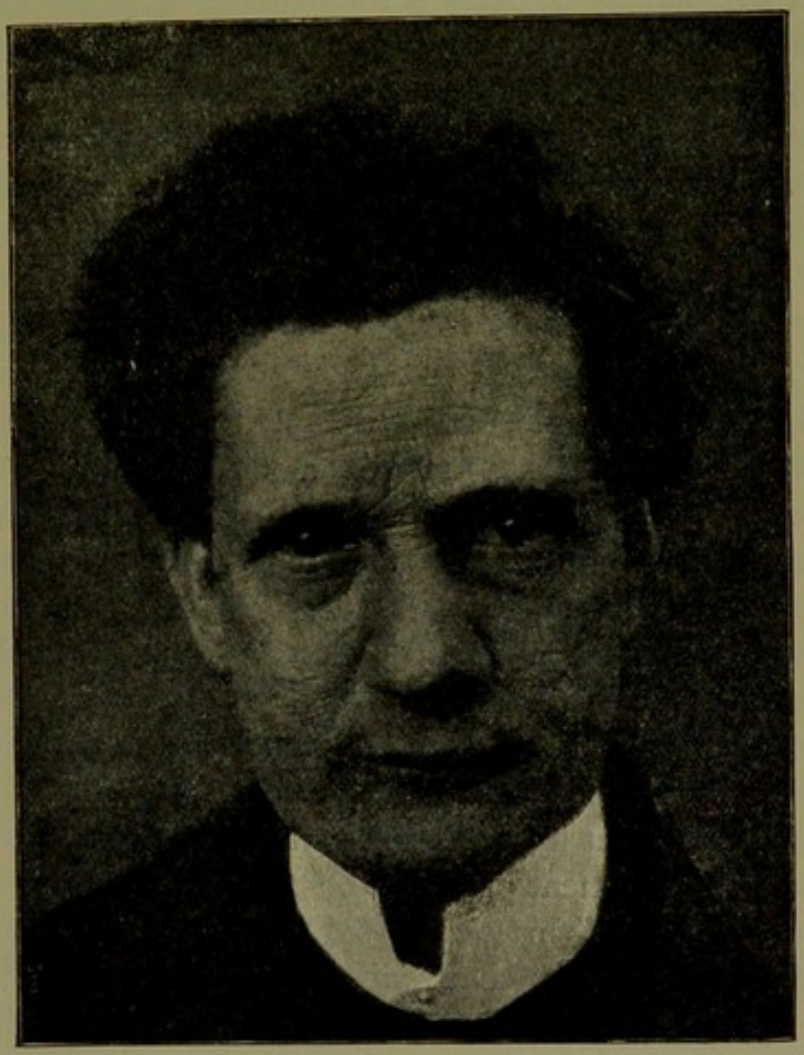


FIG. 4, 1896.

let the disease go on too long before emigrating to a non-leprous country, the prognosis in cases suitably treated may be very favourably modified. We have another case, similar to the one described, on our hospital list, and we have observed several in private practice. It would not be true to say that all these patients are cured, but we are following up several who, for from ten to fifteen years, have been sufficiently well to lead an

ordinary life. These lepers are mainly foreigners who have emigrated to Paris after having been recognised as lepers in their own country. A few are Frenchmen who have traded in leprous countries, or have held civil or military appointments in the colonies. Many are priests and missionaries, but the majority are sisters of some religious order who have contracted the malady in penal settlements or in different leprous countries. These latter cases are often the most severe, and quickly end fatally; these sisters, thinking solely of their faith, are inspired by their admirable devotion, and only return to their own country when too ill to carry on their charitable work.

IV.

Can the encouraging result obtained in our patient, and in others, be due to the natural course of the malady, to emigration, or to the treatment employed? It is a difficult question to answer satisfactorily, for we have never treated our patients in a purely expectant manner; on the contrary, they have all been submitted to prompt and active treatment, and we think we are justified in saying that the rapidity of recovery and its amount are directly proportional to the tolerance of the patient for the treatment employed and to the attention he himself pays to strictly carrying out hygienic rules and to following the internal and external treatment prescribed. (See H. LELOIR, "Traitement de la Lèpre" in *Traité de Thérapeutique appliquée de Alb. Robin*, Fasc. V., chap. xii., p. 217 *et seq.* Paris, 1896, 8vo.)

1. *Emigration* plays a very important part in the treatment of leprosy, and in this respect early diagnosis made in the leprous country is of the highest importance. Unfortunately the medical man often hesitates to tell the dreaded truth; and often, too, he does not make a sufficiently thorough investigation to enable him to make his diagnosis early. The choice of locality is wide, as a patient may with equal benefit reside in any *non-leprous* country, particularly in Central Europe, if he avoids staying at the seaside, near large rivers or near large

lakes, and goes where hygienic and sanitary matters are well attended to.

2. We attend carefully to the *diet* of our lepers and to digestion. We never allow them to take fish, pork, salt provisions, coffee in excess, or alcohol. Emunctory elimination is kept active, and fermentation in the gastric and intestinal tubes is reduced to a minimum.

3. As a general hygienic rule, in addition to the different applications to the leprous parts, the whole skin of the body should be carefully washed daily with hot water, containing soap, lysol, carbolic acid, coal-tar, *etc.*

The mucous membrane of the nose, mouth and pharynx should be thoroughly irrigated twice every twenty-four hours with solutions of boric acid or of borax with some aromatic; all erosions and leprous lesions should be reduced by the galvano-cautery.

The conjunctiva and cornea should be carefully watched, and the hygiene of the eye attended to; antiseptic lotions should be applied and therapeutic treatment resorted to as soon as any affection of the eye occurs.

4. The *internal treatment* of leprosy consists primarily of the administration of chaulmoogra oil. From long experience we can state that, if an oil of good quality in sufficient doses is regularly and perseveringly taken by a patient and tolerated, the result is always successful. But this remedy, which is unpleasant to the patient and often badly borne at first, or when saturation occurs, can only be perfectly applied by a physician who knows how to use it and who can watch its use. For adults a medium dose is 200 drops in the twenty-four hours: several times the subject of this observation tolerated 300 drops. The best and simplest way of taking the oil is to measure it in a small spoon the size of the dose, and for the patient himself to pour it into the empty half of a bread wafer of which the top has been cut off, and to cover it again with the other half. It should only be prepared just at the time of administration; for many reasons this method is preferable to taking it in capsules. The oil, taken in three or four doses during or at the end of meals, should be continued as long as possible for periods of

two weeks, with intervals of a week between each, without allowing the patient to get disheartened or discouraged by the first feeling of dislike or intolerance. In some cases the use of laudanum, camphorated tincture of opium, bismuth subnitrate, strychnine, *etc.*, *etc.*, enables the physician to overcome difficulties of detail in its application, with which his experience and authority should enable him to contend.

The only real contra-indication may be the subsequent pathological condition of the *kidneys*, which in two cases prevented our pursuing the treatment. The nephritis with albuminuria in these two cases was ascribed by the patients to the oil. However this may be, we can state that this symptom is rarely met with, but points to the desirability of a preliminary examination of the urine and of carefully watching it during treatment.

We cannot recommend the use of substitutes for chaulmoogra oil, and especially of gynocardic acid, as we have never found any of them successful.

In cases where patients cannot possibly take the oil the most beneficial thing is *salol*, which, like Lutz, we have employed in large doses, which have been borne, and administered with the care that should be bestowed on all salicylates and phenates.

Chlorate of potash, one gramme every twenty-four hours, was taken, as we have said, by our patient during the last three years: we cannot say how far this medicine assisted in the improvement which was already—as a matter of fact—accomplished. We have never seen reason to resort to toxic doses of this drug.

As for *ichthyol*, we have only used it when the above-named preparations were contra-indicated, as its effect on leprosy has always appeared to us uncertain.

We have never inoculated *tuberculin* for leprosy, for which we consider it valueless and even dangerous.

5. In the treatment of leprosy, in addition to the specific or special remedies, the physician should employ, whenever indicated, all the general therapeutic agents. Amongst the restoratives, *arsenic* and *sulphur* are of primary importance:

the arsenical waters of La Bourboule and the sulphur waters of Luchon and Uriage, to which we send our lepers, are really useful. It is needless also to say that all symptoms that may occur require general medication according to circumstances. Finally, in nervous cases bromide of potash in large doses may be of great service.

6. *External treatment* plays an unduly neglected part in leprosy. Besides the daily baths which we have already mentioned, we use reducing agents to facilitate resolution of leprous infiltration, and particularly friction with 10 per cent. pyrogallic ointment, or plasters, being careful to watch the urine constantly, which becomes brown as soon as saturation begins, and before intoxication, properly so called, manifests itself. Resorcin ointment (10 to 20 per cent.) can also be used for the same purpose, but less effectually. Chrysophanic acid ointment is justly recommended by Unna, and its effect is undoubted. But conjunctivitis from the use of chrysophanic acid is to be dreaded and avoided in leprosy more than in any other disease.

7. We particularly wish to accentuate the fact that the changes in our patient's face (see figs. 3 and 4) are the result of a long course of *galvano-cauterisation*, a certain means of reducing leprous tuberculisation wherever localised. The thermocautery may also be used for the same purpose: but its effects are more difficult to limit, cicatrisation of the ulcers after the scabs separate takes longer, and, above all, the plastic results are much less satisfactory. By our method each tubercle is cauterised interstitially by means of single or multiple points, or of our electro-caustic bars when the surfaces to be destroyed and rectified are larger. After cauterisation should follow daily pulverisation with weak carbolic-acid water, dressing with sublimate or iodoform gauze, management of the cicatrisation by means of nitrate of silver and zinc pencils, *etc.*

The same galvano-caustic applications should be made to all affected points of the mucous membranes of the lips, nose, mouth, tongue and pharynx. By their means it is quite easy to check and to destroy the leprous foci so common in all these parts; and the results obtained are very remarkable. In the

patient whose case we have described, and in many others, they enabled us to limit and destroy all the changes in the mucous membranes.

8. If we had the good fortune to see an isolated initial leprous nodule supposed to be the result of inoculation, we should not hesitate to employ, not, as Marcano and Wurtz did, ablation, but destruction by the cautery, to avoid all possibility of reinoculation or of auto-infection resulting from an operation involving bleeding.

ERNEST BESNIER.

TREATMENT.

In addition to the methods of treatment above enumerated the intramuscular injection of perchloride of mercury has been found remarkably efficacious in a number of cases. A quarter of a grain dissolved in 15 minims of water with a little added spirit may be given as an initial dose once a week, and the amount as well as the frequency of the injections may be gradually increased according to the patient's tolerance.

J. J. P.

PLATE XVI.

MYCOSIS FUNGOIDES

PRESENTING TUMOURS FROM THE FIRST.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1530, made in the year 1890, from a patient under the care of Professor FOURNIER.

SINCE Alibert's first description of *Mycosis fungoides* this name has been applied to a form of skin disease marked in its early stages by tumours differing in size and appearance; most of them have a tendency to ulcerate, but many may disappear spontaneously, either after ulceration by cicatrisation, or by a kind of regression.

In most cases this stage is preceded by a period of shorter or longer duration, but which may last for several years, in which there are eruptions of eczematoid appearance with some thickening of the skin, and sometimes generalised redness (*premycosic erythrodermia*); intense pruritus is another frequent symptom of this earlier stage.

In Fasciculus XIII. of his work M. Besnier has given a most complete description of the commonest form of the disease. But side by side with it is another variety, the only symptom of which is the presence of tumours of mycosic nature which arise from apparently healthy skin. The patient whose history we give here, with illustrations of different phases of the malady, suffered from this latter form of the disease.

I.

As the case was several times admitted into hospital under Professor Fournier's care we had full opportunity for observing

him. The history has been partly given elsewhere by Dr. Bruchet, one of our then colleagues (*Réunions Cliniques de l'Hôpital Saint Louis*, 1888-1889; *Comptes-rendus*, p. 169).

He was a man aged sixty-five when first admitted to the Saint Louis Hospital in 1886; but the disease had then been in existence four years. The patient said there had been a kind of subcutaneous lump on the right thigh above the knee since 1882, and afterwards another had formed, which had ulcerated; these growths both healed spontaneously.

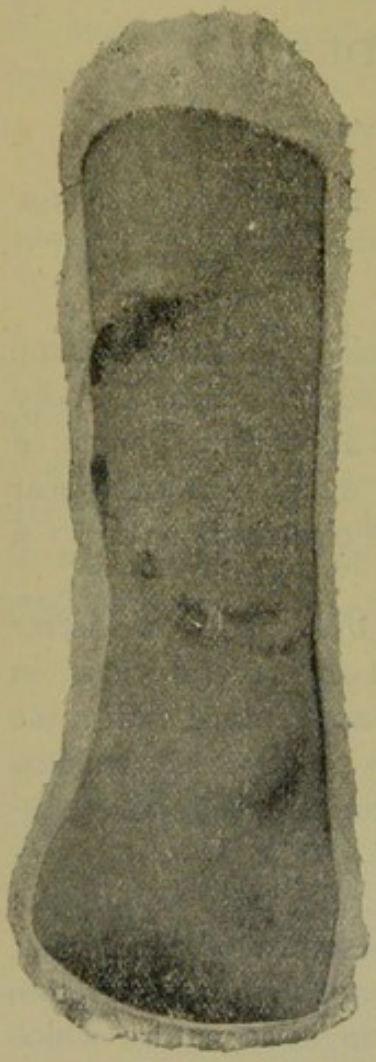


FIG. 1. CAST 1180.

In 1884 a fresh tumour appeared in the skin of the right leg along the outer edge of the *tendo Achilles*, which developed in the form of an elongated semicircle, and healed in three months.

In 1886, always on the same leg above the external malleolus, a small tumour appeared, which increased until it was as large as a five-centime piece; then ulcerated, and afterwards, as it grew, assumed an elongated shape like a segment of a circle, so that when he entered the hospital, in May, 1886, the tumour was a semicircular, raised, pad-like swelling (*bourrelet*), exactly shown in figure 1 (cast No. 1180). This tumour looked just like a large cheloid: the skin surrounded by the growth was atrophied, brownish and cicatricial in appearance; this had been the primary seat of the lesion which had spread excentrically, subsiding and cicatrising along its central edge as it developed at the periphery.

In addition, the patient presented numerous small nodular growths, some in the skin, others under it, on several parts of the body, such as the instep and thigh, while there was one on the scrotum.

These tumours, except the one in the thigh, gradually underwent reabsorption whilst he was in the hospital. The large swelling on the leg, however, continued to increase, then divided into two segments which developed separately, ulcerated at some parts, and finally disappeared, leaving merely a cicatrix as a mark of their previous existence. The patient left the hospital in October, 1886, but re-entered it in March, 1887. The tumour on the thigh which was there when he left had increased, and, by a process analogous to that followed by the lesion on the leg, had formed a large semicircular swelling on the anterior part of the limb, well shown in figure 2 (cast No. 1243).

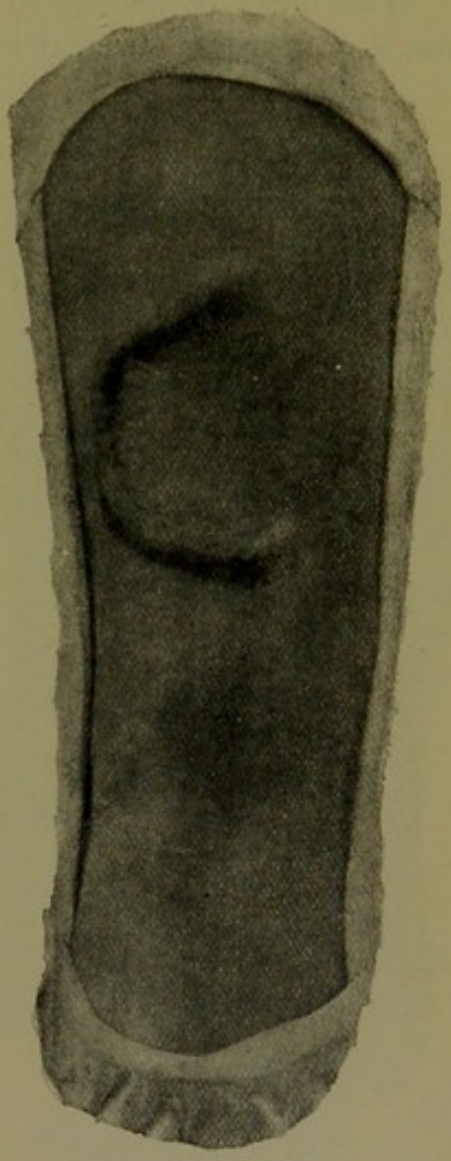


FIG. 2. CAST 1243.

The progress was the same as in the lesions already described, *viz.*, excentric development of the neoplasm, which became enormous, then regression from the centre, division into two, then three, segments, which gradually and very slowly separated and underwent reabsorption.

In November, 1887, a small portion of one of the small nodular growths of the large swelling grew active again, increased rapidly in size, and became a perfectly typical "fungoid" tumour (fig. 3, cast No. 1295). This tumour, in turn, underwent the usual regression and disappeared completely.

In October, 1888, the patient had only two insignificant small nodular tumours, when symptoms of another nature

developed. A copious urethral discharge appeared, soon followed by inflammatory swelling of the testicles. The swelling was enormous, especially on the left side, and was due to the increase in size of the testicle—especially of the epididymis—and to the formation of a hydrocele.

The onset of the malady was acute, and it looked at first like a gonorrhœal urethritis followed by epididymitis of both testes. Investigation showed, however, that the disease was not of venereal origin. The progress of the orchitis was very slow, and five months afterwards, in the beginning of 1889, there was still a small flabby hydrocele on the right side, with slight induration of the tail of the epididymis, and the left testicle was still very large—the size of a hen's egg.

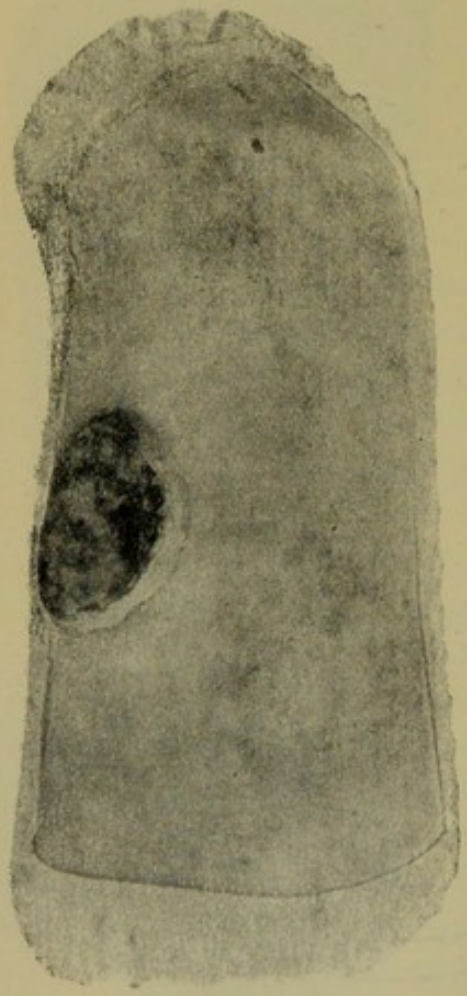


FIG. 3. CAST 1295.

In February, 1889, a tumour, exactly like those just described, developed on the upper part of the thigh, which, at the end of the month of March, formed a mass like a large macaroon, nearly a centimetre in depth by five centimetres in diameter, the whole surface being ulcerated and covered with red fleshy and fungating granulations. Its appearance was that of the typical "framboesioid," "tomato-like" mycosic tumour (fig. 4, cast No. 1480).

Four fresh tumours then appeared on the left side of the thorax: one situated in front of the axilla soon showed rapid development, and ran the usual course. This is the tumour in its ulcerative stage shown in our photo-lithochrome (cast No. 1530). It gives the reader a very good idea of the appearance

of a fully developed isolated mycosic tumour. The one in question is the size of a small orange; its consistence is of variable degrees of hardness; its base is broad and sessile; its surface fungating, ulcerated, yellowish and bleeding.

It differs slightly in appearance from the enormous bossy tumour, situated almost at the same spot, which is represented in Fasciculus XIII. of this work, and which was formed by the agglomeration of several tumours. In our case each tumour developed independently.

These mycosic growths were painless, and the patient's general health was good, though the disease had lasted for eight years (1882-1890). Yet the tumours went and came continuously; as soon as one subsided another appeared.

Figure 5 (cast No. 1531) shows one of the tumours, prior to its ulceration, situated on the inner side of the upper part of the right arm (September, 1890). After being away for three months the patient returned to the hospital on 17th January, 1891, and this time never to leave it.

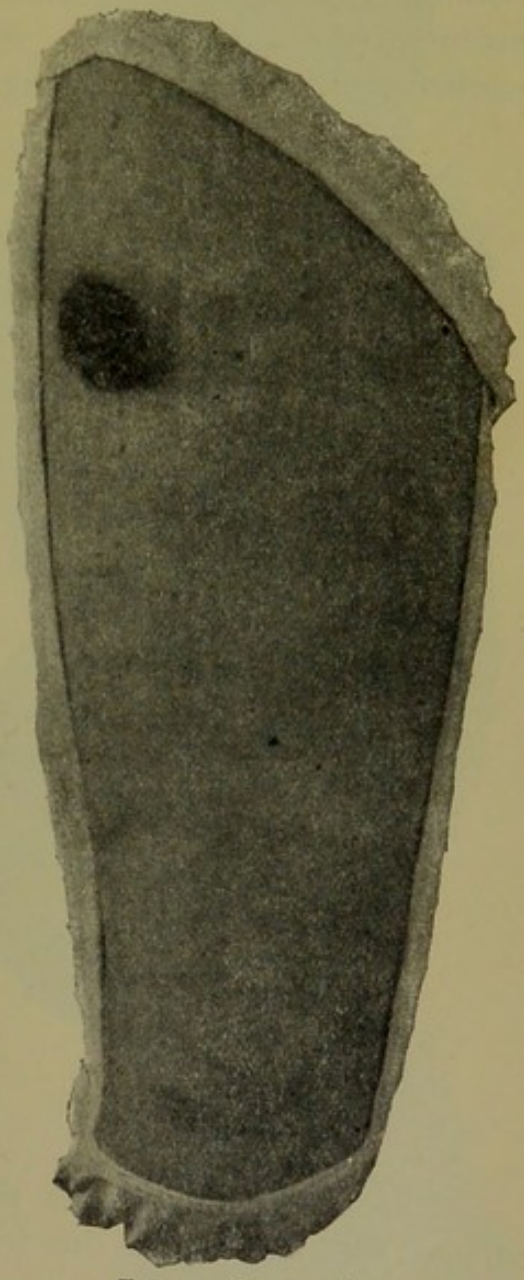


FIG. 4. CAST 1480.

Tumours then increased in number in several regions, especially on the right arm, left cheek and thorax, in the left lateral and posterior regions. There we watched an enormous mycosic tumour develop, which attained the size of twenty-four centimetres in length by thirteen in width, and seven in

depth. This enormous discharging and fœtid growth produced cachexia, on which coma supervened, followed by death on 6th June, 1891.

The *post-mortem* examination made by Dr. Darier showed nothing typical. There was generalised atheroma of the arteries (the patient was seventy when he died), with cardiac hypertrophy, sclerosing nephritis and diffuse cerebral softening of the cortex.

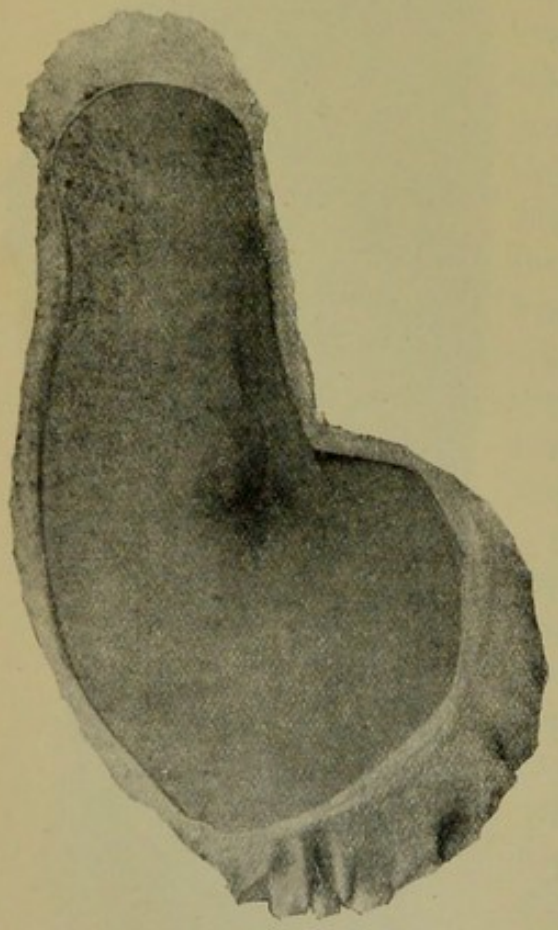


FIG. 5. CAST 1531.

The lymphatic glands were normal; the spleen, small and hard, weighed 180 grammes; the liver was small but healthy; the suprarenal capsules, intestine, bladder, and ureters were normal.

The large tumour in the chest, though adherent to the wall of the thorax, could still be detached from it; but for six by eight centimetres at the corresponding point the pleura was involved and adherent to the lung, which was congested and œdematous. In addition there were old pleural adhesions without fluid accumulation on the right side.

It is rather remarkable that there was little trace to be found *post mortem* in the testicles of the lesions observed during life; the right was normal; the left, as well as the epididymis, seemed rather sclerosed, but there was neither tumour nor cicatrix to speak of; the *tunica vaginalis* was thickened and there were some adhesions at the back; both vaginal cavities contained fluid.

II.

The case just recorded is a thoroughly typical one of mycosis fungoides, presenting tumours from the first (*à tumeurs d'emblée*).

There was no premycosic stage, evinced by intense pruritus and various forms of eruption, but the skin was healthy to all appearance, and the first symptom was the development of tumours. These varied considerably in size, at first appearing as subcutaneous and cutaneous tubercles as large as a nut, then as tumours the size of a macaroon, and finally the enormous fungoid mass appeared which occupied nearly the whole of the left side of the thorax.

Figure 6 (cast No. 942), representing the arm of another patient with mycosis, formerly under the care of Dr. Després, gives an idea of what a mycosic tumour may become on a limb.

The mode of evolution of these tumours was as variable as their size; some appeared and disappeared without any alteration in the skin which covered

FIG. 6. CAST 942.

them, and were entirely subcutaneous throughout their existence; some, on the contrary, invaded the skin, broke down and ulcerated, giving rise to the mushroom-like growths typical of mycosis fungoides.

One of the most curious characteristics of some of these tumours was to form segments of circles or semicircular swellings; these developed excentrically, as if creeping along the surface of the skin, and spread at the periphery, while they healed at the centre.

Both M. Hallopeau and M. Tenneson have shown cases of mycosis fungoides at the *Société française de Dermatologie* in which the tumours were semicircular, pad-like swellings, which developed excentrically. In one of these cases this pad-like swelling persisted around the ulceration (*Annales de Dermatologie*, 1892, pp. 31 and 524, and 1893, p. 848).

A not less interesting and peculiar feature of these tumours is their spontaneous disappearance after having existed for several months, leaving behind them a slightly depressed and pigmented cicatrix. On the other hand, M. Hallopeau (*Annales de Dermatologie*, 1892, p. 1255) observed in a case of mycosis, in which tumours were the first symptom, the occurrence of gangrene with complete destruction of the part involving the exposure of the whole parietal region of the cranium over which it was situated.

It is remarkable, too, that these tumours, which are so horrible to look at, are nearly always painless, and only cause discomfort by their locality, by their large size, or by the fœtid discharge from them.

We have noted for how long a period our patient's general health remained unimpaired, for in his case the disease lasted ten years; but in the commoner varieties of mycosis its duration may be longer still; for the tumour stage, during the course of which cachexia appears, and then often only after several years, is itself preceded by a sometimes excessively long premycosic stage. Finally, let us note that the orchitis in this case, which was rightly attributed to mycosis, is not a unique fact, for Quinquaud, in a discussion on this subject, stated that he had seen it in a patient in whom changes of

true mycosic nature were found *post mortem* in the testicle (*Annales de Dermatologie*, 1889, p. 582).

III.

Treatment for mycosis fungoides is of very little use, as up to now it has not been possible to arrest the progress of the disease. M. E. Besnier has given a list of his chief remedies in a preceding article (Plate XIII.).

In mycosis, presenting tumours from the first, the futility of treatment is less flagrant, as the most painful and distressing symptoms (the extensive eczematoid eruptions, the often very intense pruritus) are happily wanting.

The physician has only to look to the growths, most of which, however, regress spontaneously for a long time. Therefore, in this form of disease, all he has generally to do is to try to remove tumours in uncomfortable situations, or later, when ulceration has occurred, to conceal the repulsive wounds by appropriate dressings and counteract their often fœtid smell.

Surgical ablation has been performed without the occurrence of relapse, and may be performed according to the first indication given.

Aseptic or antiseptic dressings with iodoform, salol, carbolic acid, powdering with absorbent powders, and protective coverings of camphorated naphthol are all that are required to fulfil the second condition.

HENRI FEULARD.

TREATMENT OF MYCOSIS FUNGOIDES.

This has been referred to in the note appended to Plate XIII.

PLATE XVII.

AGMINATE TRICHOPHYTIC FOLLICULITIS.

Synonyms: RINGWORM OF THE NECK. KERION CELSI.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1051, made in the year 1890, from a patient under the care of Mons. VIDAL.

TINEA TRICHOPHYTINA—or "ringworm" due to the presence of trichophyton—occurs in extremely varying forms. The disease here illustrated, so different from common "ringworm," is a proof of this statement, and has been selected on that account.

It is an example of the kerion of Celsus, or *agminate trichophytic folliculitis*, the general characters of which may be described as follows: it consists of a patch, fairly accurately circular (and generally quite accurately so), projecting from half to one centimetre above the level of the surrounding skin, its surface being almost flat or slightly mammillated. The borders of the patch slope down to the healthy skin.

Its surface is red, ulcerated, and oozing: it is thickly studded with small follicular intradermic abscesses, in the centre of each of which there is a hair, and pressure causes a drop of pus to exude from them. This pus and epithelial *débris* cover the diseased surface, and collect chiefly at and around the openings of the follicles, which they conceal.

The condition begins by a single point of folliculitis very like a boil, and four of these are represented in the photo-lithochrome to the left of the main patch. Gradually fresh inflammatory follicular lesions unite with the original, and, finally, a circular patch of agminate folliculitis, such as is here represented, is constituted.

Such a lesion, so inflammatory in its appearance and general characters, and which requires only a few days for its complete evolution, is, nevertheless, not the seat of very marked sensory disturbances. Some itching at the beginning, a sensation of burning when the folliculitis is fully established, and, lastly, some stiffness of the part produced by subjacent œdema, are almost all the symptoms complained of by the patient. The disproportion between the objective phenomena and the sensory disturbances is one of the striking features of the affection. Nevertheless, the glands of the affected part are swollen and painful on pressure.

There is often only a single patch, as in the case here represented. But there may be numerous such patches, the result of multiple inoculations from the beginning; thus six or seven similar patches may be present in the same individual. Or they may become multiple as the result of successive inoculations. The size of the secondary patches is then in direct proportion to their relative age; they seldom exceed seven centimetres in diameter, and are usually about half that size.

The back of the neck is one of the seats of predilection of the disease, but all parts of the body may be affected—most frequently those which are exposed, such as the scalp, face, neck, the backs of the hands, and the wrists.

Of parts covered with hair, the beard is that most frequently attacked. Kerion is not very often observed on children's scalps; on the contrary, it may be observed, although rarely, on the scalp in adults.

Careful objective examination of a kerion easily demonstrates that the elementary lesion is a folliculitis. When the diseased surface is carefully cleaned, a number of pin-point holes can be seen under the crusts, blocked with epithelial *débris* and pus. Many of the follicles, denuded of their epithelium, exhibit no hairs. The majority of the hairs which remain are detached from their papilla, and yield to the forceps without the slightest effort and without causing pain to the patient. At the periphery of the patch a further accessory crown of desquamating epidermis is often present, and on it are a few

scattered vesicles, which are commencing points of folliculitis.

When the lanugo hairs which surround the lesion and form the centres for the commencing folliculitis are extracted, it is found that some break, leaving their roots behind; and the microscopic examination of these lanugo hairs will reveal the presence of trichophyton.

So characteristic a lesion is easy of recognition. The *diagnosis* will rest especially upon the peculiarly circular outline of the patch—generally almost accurately circular—on its macaroon-like shape, on the presence of small follicular abscesses on its surface, on the small number of similar lesions on the same person, and, lastly, on the special points in the history which we shall mention in connection with the ætiology of the disease.

Differential Diagnosis.—An error in diagnosis could only occur in connection with *boils* or *carbuncles*, but in both of these diseases the subjective symptoms are always excessive, and out of proportion to the objective phenomena. In agminate trichophytic folliculitis, on the contrary, the subjective symptoms are practically *nil.*

It is not even necessary to discuss the diagnosis from chronic lesions, such as *tuberculosis*, *epithelioma*, etc., for here we are dealing with an acute lesion, of very rapid development, fully established in less than a week.

Eczema in nummular patches ("patchy follicular eczema"), which is often situated on the backs of the hands and wrists, may be mistaken for this form of trichophytosis. Nevertheless, it is generally easy enough to distinguish the two affections. The pustulation of patchy eczema is *epidermic;* in agminate folliculitis the suppuration is deep, *intradermic.* In eczema it is situated indifferently around the lanugo hairs or between them; in agminate folliculitis it is exclusively confined to the follicles. Although some patches are very accurately delimitated, their margin is never so accurately circular, nor so sloping, as in agminate folliculitis. Nevertheless, if diagnosis at a first glance is generally easy and certain, it may become difficult in cases of very mild trichophytic folliculitis, or in

patchy eczema which has been much irritated. In these rare cases the microscopical examination of the pus may decide the question.

Microscopical Examination.—Place a drop of pus from a follicle on a slide : place over it a cover-glass, and without further manipulation at once examine the specimen, using an Abbé condenser, small diaphragm, objective No. 7, ocular No. 3. Among the elements of normal pus will be found chaplets of mycelial spores, round or oval, lying in apposition in their long diameter, measuring five to eight micro-millimetres in their

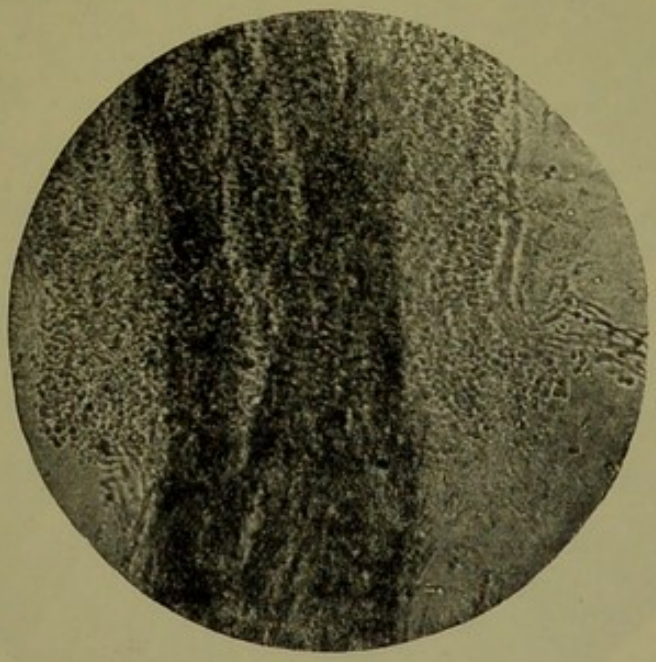


FIG. 1.

transverse, diameter. To examine haphazard some of the dead hairs removed from the surface of the lesion is to run the risk of committing an error in diagnosis. The majority of the hairs lying on the surface are dead, detached by the peri-folliculitis at their base, without having been invaded by trichophyton. To obtain a positive result, a hair or lanugo hair must be found *at the periphery of the patch, which breaks off.* It should be examined microscopically after being heated between the slide and the cover-glass in a drop of aqueous solution of caustic potash (30 grammes in 60 grammes of water). It will then be seen that not only is the hair partly invaded by

sporulated mycelial elements, but that it is also enveloped in a thick crust of spores in chains, the mycelial filaments being parallel to the hair and situated *outside it* (fig. 1). This last character (*trichophyton ectothrix*) indicates, in the light of facts now acknowledged, that the trichophyton is one of animal origin, the communication to and growth of which upon man are accidental.

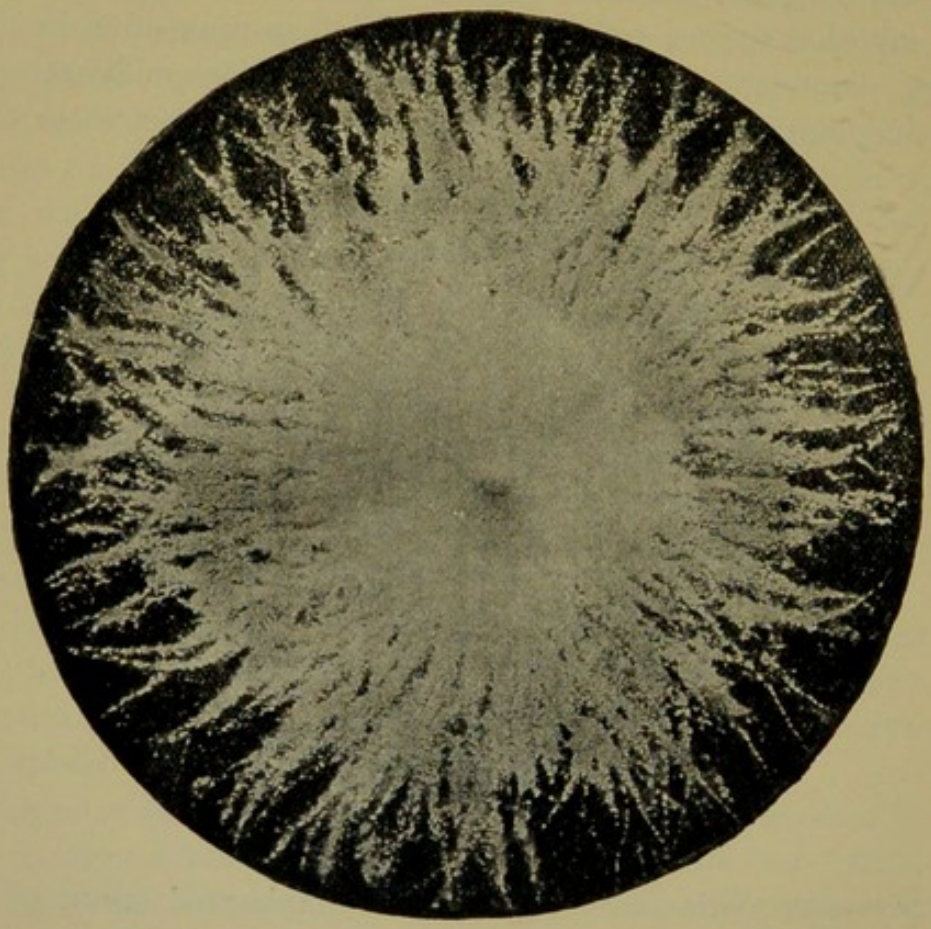


FIG. 2.

Cultures.—Cultivations of the parasite demonstrate its botanic species. Cultures which are of very rapid growth upon appropriate media (*e.g.*, beer wort, "gélose au moût de bière") are white and powdery, while projecting from their circumference are large diverging rays, lanceolated, and also powdery (fig. 2). This trichophyton is one of the commonest in man, and belongs to a botanical series ("the trichophyta with white cultures") which have for their usual

primary hosts certain animals, especially the cat, dog, pig, sheep, calf and horse. The species of trichophyton which produces agminate folliculitis is that which has the horse for its usual habitat. This is the reason why this form of trichophytosis occurs almost exclusively in males. It occurs in grooms, coachmen, butchers, etc. A large number of models similar to that reproduced in the accompanying photo-lithochrome exists in the Saint Louis Hospital Museum, almost all of which, like this one, occurred in patients following such occupations.

Besides, the disease in the horse, easily mistaken for horse-pox (? glanders), is well known as due to trichophyton, and yields an identical culture. In the great majority of cases in the human subject the origin from horses is easily traced, and inquiry into the history of the case usually suffices to determine it.

Consideration of the Present Position of the Question of the Trichophytons.—It is impossible, while discussing so special a lesion as this, to pass over in silence the evolution undergone by the question of the trichophytoses (or conditions produced by trichophytons) in recent years.

We know that Gruby described in 1842-43-44 three types of cryptogamic skin diseases, microscopically distinguishable from, and independent of, favus.

The first is that which we have just described, the *trichophyton ectothrix;* the second is the trichophyton of the tineæ of children, the *trichophyton endothrix;* the third he called the *microsporon andouini*, or "ringworm" of children, with small spores.

The descriptions of Gruby were denied, discussed, modified, then forgotten; but they have been fully verified by recent bacteriological research and by the study of the parasites in cultivation. The "ringworm" of children, with small spores (*microsporon andouini*), is now known and recognised even with the naked eye from the commoner form of *trichophyton endothrix.* And this latter is equally definitely separated from trichophytic lesions of animal origin (*trichophyton ectothrix*). But what Gruby could only know as three species micro-

scopically distinct, bacteriology has now differentiated into three separate groups. And the number of known trichophytons, especially of those which affect animals, increases daily.

Now, some of these trichophytons give rise to special lesions, each recognisable by the naked eye, *i.e.*, to a "trichophytosis" with special objective characters. Such is precisely the case with the subject of this article; we know that it is an equine trichophytosis transferred to man.

Another point worthy of notice here is the existence among the animal trichophytons of *pyogenetic* forms, capable of producing pus by themselves and without the intervention of the common pyogenetic organisms. Such is the case with all, or nearly all, of the "ectothrix trichophytons with white cultures," and of these the trichophyton of the horse, which causes agminate trichophytic folliculitis, is the type.

The *treatment* of the affection is simple; it includes as the first essential the thorough cleansing of the lesion. Starch poultices covered with camphorated alcohol efficiently accomplish this in two or three days. They soften the crusts and enable them to be lifted off, taking with them the dead hairs. Those which remain should be removed by epilation.

Immediately after this preliminary treatment daily applications of tincture of iodine should be made, care being taken to ensure the penetration of the drug into all the diseased and gaping follicular orifices. Connected with this mode of treatment there is one danger to be avoided. The local irritation is already severe, and sometimes the tincture of iodine, if not pure, augments the intense congestion of the affected part as well as causes momentary pain. This is a result which ought neither to be sought for nor obtained. It is therefore better in most instances to use tincture of iodine diluted with two or three times its volume of alcohol. Its antiseptic power thus remains considerable, while its irritant action is diminished.

For the first few days, between the iodine applications, the permanent use of starch poultices sprinkled with *liqueur de Labarraque* (solution of hypochloride of sodium), or camphorated alcohol, may be employed.

At the end of a week the lesion will have entirely changed

in aspect. It will be covered with epithelium, and will have become a pink raised patch, slightly indurated, studded over with little projections still hard to the touch and painful on pressure. The follicular inflammatory points will have disappeared, the little mammillary indurations being the last signs of them.

In a few weeks of this simple treatment, whatever be the seat of the lesion, its cure will be complete : the patch will have subsided to the level of the surrounding skin. It will still be indicated by diffuse redness studded with fine yellow points. These yellow points are intradermic, and are the sebaceous glands of the destroyed hairs, visible by transparence.

In the ensuing months redness will disappear, while the patch will become white and cicatricial. A very few hairs, which have accidentally escaped the destructive folliculitis, will appear, but always so scanty that when the lesion is on the scalp their number will be insufficient to mask the cicatrix.

This form of trichophytosis, therefore, terminates by spontaneously leaving a cicatrix, smooth, distinct, and devoid of hair. This point is all the more important to bear in mind as common ringworm, as is well known, ends by a *restitutio ad integrum* of all the hairs previously diseased. This characteristic, along with others, distinguishes the kerion of Celsus from all common "ringworms".

To resume very briefly the principal points of this article :—

(1) *Clinically, agminate trichophytic folliculitis* is a special form of trichophytosis which exists pretty frequently in this country, and is characterised objectively by round raised patches, having the form and prominence of a macaroon "let into" the skin. The elementary lesion is a suppurative folliculitis which results in the shedding of the hair.

(2) *Histologically*, it is made up of follicular abscesses, the intradermic situation of which explains its termination by a cicatrix.

(3) *Bacteriologically*, it is caused by a trichophyton, lying mainly outside the hair, which has pyogenetic properties ; it is the trichophyton of the horse with white, powdery cultures.

(4) Despite its aspect and the rapidity of its development, it is a benign lesion, the cure of which is brought about in a few weeks, although at the expense of a distinct cicatrix.

SABOURAUD.

[The "Ringworm question" is too burning a one at present to permit of dogmatic assertion, or of formulating definite conclusions regarding it. By far the most important, most elaborate, and most conclusive contributions towards settling it have been made by M. Sabouraud, from whose able pen we shall have further articles on the subject in this Atlas. M. Sabouraud's conclusions are published in handy form in a work entitled *Les Trichophyties Humaines* (Rueff et Cie, Paris, 1894), which is accompanied by an admirable atlas. His most mature views, founded on much recent experimentation, will be found in the *Transactions of the Third International Congress of Dermatology*, held in London, 1896, which also contains a valuable contribution to our knowledge of the deep-seated pus-producing trichophytons by Professor Rosenbach, of Göttingen, of which M. Sabouraud's present article treats.

The most important recent British articles on the subject are by Dr. H. G. Adamson (*British Journal of Dermatology*, vol. vii., 1895, Nos. for July and August), and by Drs. Colcott Fox and Blaxall (*ibid.*, vol. viii., 1896, Nos. for July, August, September, October), both of which are well illustrated, and in almost all respects confirm M. Sabouraud's conclusions. Mr. Malcolm Morris's views, contributed to the Congress above mentioned, are in some minor matters divergent, whilst, amongst others, Krösing (*Verhandlungen der Deutschen Dermatologischen Gesellschaft*, 4th and 5th Congresses) and Leslie Roberts (*British Medical Journal*, 1894) may be signalised as attacking M. Sabouraud's position from the cultural point of view as to the varieties of species of the Ringworm fungi.

It seems clear that the term "Ringworm" must sooner or later fall into disuse, like all merely clinical, fanciful designations. At present we may apparently with scientific propriety use the words MICROSPOROSIS and TRICHOPHYTOSIS as indicating the diseases caused by small-spored and large-spored organisms respectively.

Upon one point only would I venture, from personal experience, to remark upon M. Sabouraud's article. In this country Kerion is very common upon children's heads, and in association with *microsporon*, whereas I have never observed it in the scalp in adults, although it is common in "Ringworm" of the beard. Possibly the immediate cause of Kerion in children may be the irritant applications usually made by parents before the children come under observation, but I am inclined to think that botanical differences in the fungi in different countries afford a more likely explanation of the fact. In this connection the extraordinary differences in frequency of occurrence in different countries of the various fungous forms may be recalled, for all "Ringworm" of

the scalp is practically unknown in Breslau, while only large-spored forms are found in some parts of Italy.

I have copious experience of cases of the form of agminate trichophytic folliculitis of equine origin described in this number, and can confirm all M. Sabouraud's statements regarding it.—J. J. P.]

TREATMENT.

Little need be added to M. Sabouraud's remarks under this heading, except to emphasise the importance of first cleansing the part and of epilating thoroughly. I have found the tincture of iodine, even when freely diluted, a somewhat severe remedy; an excellent non-irritating application is the pharmacopœial white precipitate ointment diluted with an equal quantity of lanolin.

J. J. P.

PLATE XVIII.

LUPUS PERNIO.

CHILBLAIN LUPUS.

Model by BARETTA, in the Museum of the Saint Louis Hospital, Nos. 1694, 1695, made in the year 1892, from a patient under the care of M. TENNESON.

I.—Photo-lithochrome No. XVIII. shows an extreme, and therefore exceptional, case of *lupus pernio*, such as is not seen in everyday practice. It is appropriate, however, to publish an account of a remarkable variety of any disease, the diagnosis of which would be a matter of difficulty, for the benefit of physicians not possessing some previous acquaintance with it.

II.—The patient, whom we brought before the *Société de Dermatologie* in November, 1892, was then forty-six years of age. The disease had been present on the face for ten years, and on the arms for three years.

The affected parts are of a dark cyanotic tint, and are swollen. Palpation reveals some induration, firm over the cheeks and nose, softer over the other affected regions. Telangiectases are present, but no dilatation of the follicular orifices. On the lobule of the nose there is a cicatrix and some loss of substance, the result of an old traumatism with which the *lupus pernio* has no relationship.

Lenticular, yellowish tubercles are present over the cheeks and nose, and stand out prominently from the cyanotic background. Their histological examination shows that they are common nodules of tuberculous lupus. Many of them have spontaneously developed into cicatricial tissue.

There are smaller cyanosed patches on the right eyelid, on the cheeks, in the right submaxillary region, and on the lobes

of both ears. The swelling is soft and its limits badly defined over the dorsal surface of the hands, but there are no lupus tubercles there. One cyanosed patch, the size of the palm, is present on the right fore-arm, and another smaller patch on the left arm.

Since 1882 the patient has had an attack of "erythrodermia," and several attacks of osteo-arthritis, similar to those which M. E. Besnier has pointed out in "exanthematic lupus". At present the ligaments of the phalangeal articulations are deformed and lax. There are trophic disturbances of the nails. The patient has some emphysema and chronic bronchitis. The heart sounds are muffled; the urine is normal. The patient is stout.

III.—*Lupus pernio* has not hitherto received from writers the attention it deserves. It is a tuberculous affection (*tuberculide*), as distinct from lupus erythematosus as from lupus vulgaris. No one form of tuberculosis excludes the existence of others; but different sorts of lupus seldom exist in combination, and the development of common lupus tubercles in the course of lupus pernio is an occurrence hitherto unrecorded, so far as I know.

Lupus pernio is situated on exposed parts—hands, face (especially the lobe of the ear), the nose, and the upper lip. It occupies extensive areas, but they are badly defined, with no precise outlines.

The objective symptoms are as follows: Cyanosis, telangiectases, hard or soft infiltration, diffuse swelling, cracks, vesicles of short duration, small scars, succeeded by ulcerations, which become covered by crusts and persist a long time if they are not properly dressed or are treated with local irritants. The lesion, if it is of old standing, may thus be studded with irregular cicatrices. There is dilatation of the orifices of the follicles over and around the cyanosed surfaces; this symptom is not constant, but its value is of the first order. When it is absent, one thinks of "chilblains" at the beginning of the disease; but the lesions persist after the winter, last for years, and finally recover, without leaving any marks in certain parts, while in others they terminate in smooth, supple, regular

cicatrices, without the occurrence of previous ulceration. The subjective symptoms are almost *nil*, the patient being as sluggish as his disease: "C'est un lymphatique, un animal à sang blanc."

Treatment.—General treatment must be enjoined; but it would be tiresome to enumerate the agents to be employed, and I prefer to forewarn readers against abuse of general treatment. Every year, in hosts of scrofulo-tubercular subjects, sea-baths, and all the rest, cause the occurrence of suppuration in cases of arthritis, osteitis, and adenitis, which, if treated in less severe fashion, would have behaved in quite a different manner.

Local treatment is a simple matter. It consists of eliminating all topical irritants, and by this simple means results are often obtained even more satisfactory to the patient than to the medical man. For the cracks and ulcerations, whether artificial or not, wet dressing with weak boric acid solutions may be employed. If the dressing is well applied and kept in place, a *closed* lesion is soon obtained. Afterwards, non-irritating plasters are the best form of application; they very materially improved our patient.

In this connection I would state that I hold there are only two forms of plaster: *those which inflame*—and it matters little what they contain as long as it causes irritation; and those *which protect the skin* from external excitation—and it matters little what they contain as long as it causes no irritation. Lupus tubercles, which may in exceptional cases develop on a lupus pernio, ought to be scraped with a small, sharp curette, then destroyed with the galvano-cautery.

TENNESON.

[Mr. Hutchinson informs me that this is a different condition to that which he has described under the name of *Chilblain Lupus*, and that he would regard the lesions here depicted as merely exemplifying the occurrence of *Lupus vulgaris* in tissues rendered vulnerable by weak peripheral circulation.

Although Mr. Hutchinson has not published any exhaustive article on the subject his views may be gleaned from passages in his *Archives of Surgery*, vol. i., p. 240 ("On certain Local Disorders More or Less Cognate with Raynaud's Malady"), and vol. vi., p. 7 ("The Philip Holmes Series"). —J. J. P.]

TREATMENT OF LUPUS PERNIO.

This disease when present on the face probably yields to no form of treatment. When present on the extremities much good can be done in the way of prevention of ulceration by having the hands and feet always protected by thick woollen gloves and stockings. Plenty of exercise should be taken and the parts frequently massaged. Doubtless galvanism is of service in many cases as it is in Raynaud's disease. And rubbing the parts twice daily with equal parts of the compound camphor and belladonna liniments seems to stimulate the sluggish circulation.

J. J. P.

PLATE XIX.

PAPULO-TUBERCULOUS SYPHILIDES

SPREADING CENTRIFUGALLY.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1786, made in the year 1894, from a patient under the care of M. HALLOPEAU.

THIS eruption is remarkable chiefly on account of its arrangement in circles or segments of circles, of the unusual size and abundance of the elementary lesions—considering that the case was a late form of secondary syphilis—and also on account of the notable changes presented by the face.

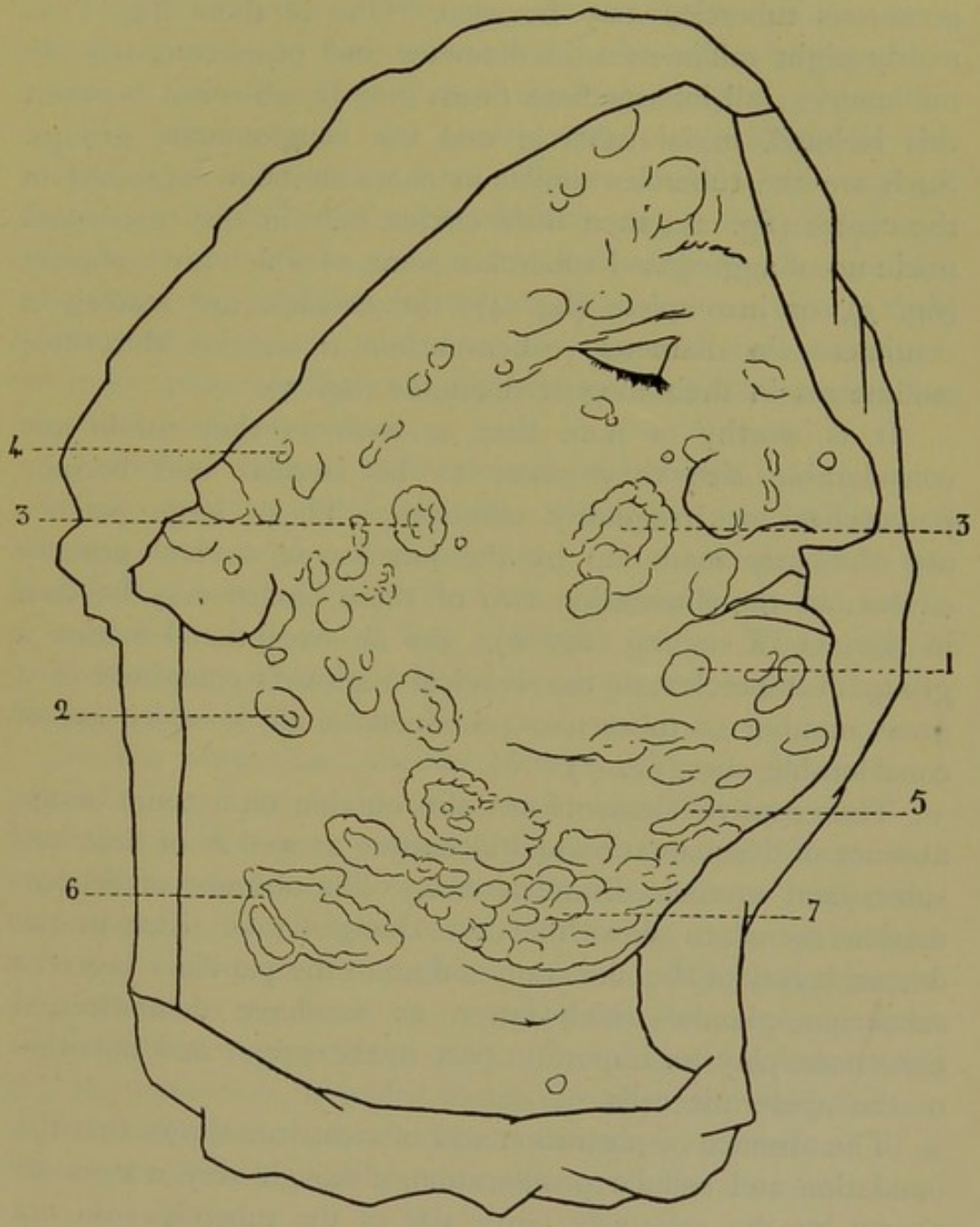
The disease started about twenty months before the date at which the model was made by M. Baretta. The first generalised eruption occurred in the end of 1892; it disappeared in a few weeks, leaving some macules and superficial cicatrices of somewhat "ribbed" or "crimped" appearance.

The skin affection figured in the accompanying photo-lithochrome first made its appearance in the beginning of May, 1894; it appeared simultaneously all over the body. ts elementary lesions were not regularly and universally distributed, as is usually the case with the early syphilides of the secondary period, but isolated or grouped in curved lines.

Among the prominences, some are large and appear to infiltrate the skin deeply; these merit the name of cutaneous *tubercles*. Others are much smaller, while between the two extremes there are lesions of all intermediate sizes.

Their colour is a deep ham red; their consistence remarkable firm; they do not yield under the pressure of the finger. The isolated lesions are the largest. The curves in which the agglomerated lesions are arranged are of variable

shapes: some represent small circles; some are elliptical or in segments of ellipses; others form polycyclical patches, one of which, situated on the left shoulder, is of unusually large size, measuring seventeen by twenty-five centimetres; on



several parts of the trunk there are coalescing circles and the parts where they come in contact persist, this being contrary to what usually obtains in syphilis, as can be observed in the illustration.

Over the thorax, in the lumbar region, and over the limbs there are numerous circinate or polycyclical patches, depressed in the centre, and made up of isolated or confluent tubercles. The eruption is especially abundant over the face, where numerous tubercles may be seen. One of them (fig. 1) is nearly eight millimetres in diameter and projects nearly six millimetres; all intermediate forms may be observed between this isolated, initial tubercle and the conglomerate groups. Such are the tubercles similar in character, but depressed in the centre (fig. 2); then little circles, pale in the centre and made up of aggregated tubercles, some of which are complete (fig. 3), or incomplete (fig. 4); the smallest are scarcely a centimetre in diameter, others attain a size of thirty-five millimetres in their longest diameter (fig. 5).

It is worthy of note that as soon as they attain any considerable size they cease to be circular and become polycyclical or irregularly elliptical. These large patches are obviously made up by the junction of several primary circles; in the illustration two of these circles may be seen in the act of uniting (fig. 6). As an exceptional feature a group of tubercles in the cervical region is composed of a great number of tubercular prominences, all of which are of considerable size (fig. 7).

The eruptive elements are also notable on account of the absence of desquamation and ulceration as well as of cicatrices subsequent to their disappearance. The absence of desquamation seems to show that the changes take place in the deeper layers of the skin rather than in the papillary layer or sebaceous glands, which latter, as we have demonstrated elsewhere, play an important part in the origin and nutrition of the epidermic cells.

The absence of ulceration and of cicatrices shows that the exudation and cellular proliferation, although very active—as shown by the relatively large size of the tubercles—do not alter the normal elements of the derma very profoundly, and do not materially interfere with its interstitial circulation.

The photo-lithochrome shows that the features of the woman are markedly altered: the tubercles in the eyebrows

have produced partial loss of the hair there; those in the eyelids have caused swelling and disfigurement; the tip of the nose is also increased in size.

There cannot be a shadow of doubt as to the *diagnosis;* the "raw-ham" colour of the eruption, the absence of cicatrices, and the absence of fresh lesions within the area of the patches enable us immediately to discard the idea of *lupus.*

The infiltration of the eyelids, the exaggeration of the natural lines of the face, and the loss of hair over a great portion of the eyebrows might raise the suggestion of *leprosy;* but the course of the disease, the colour of the lesions, the integrity of the eyes (despite the abundance of eruption in their neighbourhood), and the absence of sensory disturbances, are, taken altogether, sufficiently typical to render any search after Hansen's bacilli superfluous.

Treatment must be both internal and external.

This eruption yields to the "mixed" preparations of mercury and iodide of potassium. The patient took the biniodide of mercury in doses of two centigrammes, and iodide of potassium in doses of four grammes daily. The employment of the hypodermic method did not seem justified by the circumstances of the case.

At the same time, circular pieces of Vigo's plaster were applied to each of the patches, and renewed every three or four days. We have repeatedly pointed out the fact that syphilides treated locally by mercurial preparations heal much more rapidly than if the disease is attacked only by internal means. This fact proves that the cutaneous absorption of drugs becomes peculiarly active when the skin is changed, as when syphilides are present on it. In this patient, indeed, we saw the cutaneous tubercles flatten down under the influence of the medication, and completely disappear at the end of a few weeks, without leaving any traces of their existence.

ORIGIN AND NOSOLOGICAL SIGNIFICATION.

Instruction as to the mode of development of the lesions is to be gained by a minute study of those here represented. Evidently, we are dealing with *local* processes. The initial

lesion is invariably a large isolated tubercle ; soon it undergoes retrograde evolution ; sometimes it flattens down and completely disappears ; more frequently, before doing so, it becomes surrounded by a number of similar but smaller lesions. This increase in number of the tubercles can only be explained by migration of the germs of contagion from the initial lesion of which they were the primary cause, and by their secondary multiplication in other situations. To this process we apply the name of *intra-inoculation.*

The "daughter-papules" thus produced may be arranged in a circular line, and thus form a complete ring, while at other times the ring remains incomplete ; it seems as if the contagium had only found a soil suitable for its germination in certain directions. The perfectly or imperfectly circular figures thus produced may continue to spread by the excentric production of new tubercles and the subsidence of the original ones, this being a mode of development common to the majority of infective skin diseases, and we have already pointed it out in connection with mycosis fungoides, tuberculosis, and leprosy. Syphilides are characterised from this point of view by the fact that they do not generally relapse *in loco*, whereas in lupus we constantly see fresh nodules form in cicatrices or in macules left by the previous manifestations of the disease ; in syphilides, however, the parts primarily affected by the eruption usually remain permanently free.

We have previously endeavoured to establish the fact that asserted relapses *in situ* are, in reality, generally only relapses in the immediate neighbourhood. However that may be, it is clear in the present case that the areas primarily invaded by the neoplasms remain exempt from fresh changes.

In the majority of cases the parts common to different curves—*i.e.*, where they join—flatten down and resume the appearance of healthy skin ; this phenomenon has been compared to luminous "interference". The details given of the concomitant lesions on the trunk show that the rule is not an absolute one.

We have seen that the papules arranged in circles, or in segments of circles, are notably smaller than the isolated

tubercles. This fact can only be explained by a diminished activity of the more recent "intra-inoculated" contagium, for the existence of less favourable conditions of soil in the parts secondarily attached could scarcely be invoked. By such an hypothesis one could not explain how all the secondary lesions, which we call "daughter-papules," should all be of the same size, albeit smaller than the primary tubercles distributed in the same region.

The production of these secondary "intra-inoculations" is extremely remarkable, seeing that the patient is refractory to all fresh inoculations of the virus. If a series of "intra-inoculations" take place in the course of the disease, and if it is only by this mechanism that the various successive eruptions which occur can be explained, the reason must be that the contagium undergoes some modification in the organism which renders these intra-inoculations possible, at the same time as it makes transmission to healthy subjects a matter of impossibility.

These local processes, secondary or tertiary, modify the views held until quite recently as to the mode of production of the different manifestations of syphilis. It can no longer be regarded as a definitely generalised disease. Doubtless the organism affected by it is modified in its entirety, for it resists all fresh extrinsic inoculations of the same contagium; but so it is with other infectious diseases of short duration, such as the eruptive fevers. This immunity cannot therefore permit us to admit the persistence of the disease itself. If, on the contrary, we carefully consider the evolution of syphilis with its latent periods, sometimes of long duration, with the absolute integrity and perfect functional activity and mode of reaction of the parts free from syphilitic manifestations, with the customary non-transmission of the disease to fœtal products after the secondary period, and finally with these successive "intra-inoculations" which provoke and essentially characterise its late manifestations, we are led to admit that: *after a short phase of generalisation which corresponds to the secondary period, the disease is further represented only by a certain number of foci, localised according to the mode of reaction of the subject, either in the organs which make up the skin, or in*

the arterial walls, bones, nervous system, or viscera. Each of these *foci* may remain long inactive, like the grain of wheat in the pyramid—to use M. Besnier's happy comparison—then, at a given moment, the tissue in which the contagium lies becomes a favourable soil for its development, and a fresh manifestation occurs. In the skin this is evidenced according to the date of the disease by a papule, a tubercle, or a gumma; afterwards the process spreads locally by the production and "intra-inoculation" of new infective elements. Therefore, the disease is no longer a generalised one, but is confined to a certain number of *foci* of contagion, either latent or in activity.

It is extremely probable that these virulent foci give rise to cutaneous changes by the toxins which they produce. Some facts seem to indicate that the conditions of soil necessary for the production of infective elements, and the special reaction of the tissues under the influence of the toxins, do not exist simultaneously in all parts of the skin. Thus it is, for example, in those cases in which syphilides are arranged from the beginning in curved lines without the existence of any primary tubercle or gumma; in such a case it may be supposed that the deposit and proliferation take place in the virtual centre of the curve, but that the toxins produced at the point could not provoke an inflammatory process, which can only occur in the secondary *foci* formed by the excentric migration of the infective elements.

If syphilis, as we have just tried to establish, after the end of its secondary period and during the later stages of its evolution, is no longer a generalised disease, but is confined to a limited number of local *foci*, latent or active, then we can conceive how patients suffering from grave local manifestations of the affection (*e.g.*, cerebral disease) may generate semen the innocuous character of which is proved by the healthy character of its products, and how such individuals may react like healthy persons under the influence of traumatisms. Thus we have observed in a patient suffering from grave disseminated specific manifestations, a contused wound of the upper lip caused by the weapon known as a "*coup de poing américain*" (knuckle-duster) to heal by first intention.

Such are the lessons which seem to us to be learnt from a study of the cast as regards the nature of syphilis, its pathogeny, and the method of extension of its lesions. They lead us far indeed from the conception formerly held under the name of *the syphilitic diathesis.*

H. HALLOPEAU.

TREATMENT.

This has been referred to in the note appended to Plate III.

PLATE XX. PART I.

DERMATITIS VACCINIFORMIS INFANTILIS.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1332, made in the year 1887, from a patient under the care of M. HALLOPEAU.

History.—By a curious coincidence three cases of this disease, previously unknown, showed themselves simultaneously in 1887 in the services of M. E. Besnier, of M. A. Fournier and myself, so that we were able to study them at the same time, but independently. Models were made by M. Baretta from M. Fournier's patient and from mine, the latter being represented in the accompanying photo-lithochrome. Since that time I have seen two other cases, one of which also figures in our museum.

M. Feulard published a study of the disease in the *France Médicale* in 1887, based upon M. Fournier's case; clinical lectures have been devoted to it by M. E. Besnier (*Bulletin Médical*, 1887) and by myself (*Journal de Lucas Championnière*, 1888).

Despite the small number of cases hitherto known, the disease has received the various names of *Erythème vacciniforme infantile* and of *Syphiloïde vacciniforme infantile* (Besnier), of *Herpès vacciniforme* (A. Fournier), of *Ecthyma vacciniforme syphiloïde* (Hallopeau), and of *Eruption papuleuse d'aspect vacciniforme ou syphiloïde* (Feulard).

The name which we now adopt has the advantage of prejudging nothing as regards the controversial nature of the elementary lesion.

Ætiology.—This form of dermatitis has hitherto only been observed in the first months of life; dirt, and especially the

long-continued contact of linen soiled by urine and fæces, seems to be its determining cause.

Clinical Characters.—The elementary lesions are usually localised round the genital organs and anus. Thus they are seen on the contiguous parts of the buttocks, on the labia majora, and at their commissures, as well as on the prepuce. They also occur on the neighbouring parts of the thighs, and in the groins. In other regions they are rare, but in the little girl figured in the plate, the popliteal spaces were affected; there were even some lesions on the outer side of the legs.

The lesions develop by preference at the bottom or on the sides of the cutaneous folds; they often occupy symmetrical positions on parts in contact, and this localisation testifies to their auto-inoculation. They thus attack the folds of the groins, of the thighs, and of the buttocks.

Their appearance is slightly different, according to the stage of their evolution. M. Bouisson, who studied their development carefully in M. Besnier's patient, saw them begin, as a small erythematous spot, or minute nodule; this initial lesion is soon capped by a vesicle which is small, flat, and of short duration. It occupies the centre of the elementary lesion which ultimately develops and soon assumes the appearance of a cupped papule, singularly resembling the aspect of a vaccinia lesion on the sixth or eighth day of its evolution. Sometimes the lesions are grouped together in series; sometimes they remain discrete, although contiguous; sometimes they join so as to form confluent plaques, which are almost always longitudinally arranged along the natural folds of the part.

The model illustrates only isolated elements, but they are quite typical. Their size varies from a millet-seed to a large lentil, and they may even be larger; their central portion is depressed; their colour is either opalescent or silvery white; they are surrounded by a light pinkish areola. To this coloration and to their marked umbilication they owe their singular resemblance to the pustules of vaccinia.

The lesions assume a different aspect when they are ag-

glomerated in confluent masses in the folds of the skin. In one of our models they are seen to constitute uniform swellings in the crural folds, eight millimetres in breadth, and projecting for about three millimetres; they attain a length of nearly ten centimetres; they are abruptly delimitated from the healthy tissues, and their internal surfaces are ulcerated. Moreover, they exhibit the same opalescent or silvery tint as has been recognised in the isolated elementary lesions.

In addition to the aggregations in long lines corresponding to the folds of the skin, *agminate patches* may also be observed, with polycyclical outlines and depressions in the centre; they are of much smaller size and do not exceed two centimetres in diameter.

Soon after their appearance the lesions become eroded in the centre and ooze slightly. Subsequently, ulceration becomes more marked, and a thin crust forms in the umbilicated portion. Some swelling of the inguinal glands has been noted.

As long as the child is improperly looked after, the eruption persists without change. On the contrary, cleanliness and simple dressings with starch powder rapidly bring about its subsidence and cure. Soon, according to Feulard, no traces of it remain except some brownish macules destined to disappear completely. No scars result.

Diagnosis.—The reason of this form of dermatitis not having been previously described is undoubtedly that it has generally been confounded with syphilis. The localisation of the initial lesions about the genitals, their papular character, their excoriation and slight oozing, are all so many characteristics which might lead to this erroneous conclusion. Still, observation of the patient for a few days suffices to convince one that an affection of another description is being dealt with, for no syphilide is ever observed to disappear so completely and in so short a time without specific treatment. On the other hand the umbilication of the primary lesions, their silvery tint, their agglomeration in masses along the margins of the cutaneous folds, the shallowness of the ulcers, and their mode of grouping in linear series, constitute an *ensemble* of characteristics which ought to prevent all such confusion.

M. Jacquet in 1886 described an eruption which might be mistaken for dermatitis vacciniformis, under the name of *Erythème papuleux fessier post-érosif.* It is specially characterised by the occurrence of rounded papules, with greatly raised margins which ooze slightly. It differs from the form of dermatitis we are treating of in the following points, *viz.*, the initial lesion is an erythematous plaque, succeeded by superficial ulcers which are notably irregular in outline; hypertrophy of the skin, evidenced by the production of papules, only occurs secondarily, and these do not present the opalescent or silvery tint so remarkable in dermatitis vacciniformis; at their periphery there may also be observed a fine folding or crinkling of the epidermis in a radiate arrangement, which helps towards their recognition; finally, the seats of election are the gluteal regions and backs of the thighs, and not the inguinal and crural folds, as in dermatitis vacciniformis.

We shall see that this localisation also serves to differentiate this form of dermatitis from that described under the name of *Ecthyma térébrant*, as well as other characteristics upon which we shall dwell when describing the other model represented in the photo-lithochrome accompanying this article.

Prognosis.—This is most favourable, as ordinary cleanliness and the simplest dressing suffice to clear off the eruption.

Nature.—*Dermatitis vacciniformis infantilis* has special characters of its own, and represents a clearly differentiated clinical type, one may say a *morbid entity.* It may be affirmed that it is a local infection, and that auto-inoculations can only be explained by direct transmission of the infective agent; the absence of disturbance of the general health, and the localisation of the lesions in a part where they can be transmitted by inoculation, show that the disease is not one *totius substantiæ.* Unfortunately, bacteriological examination has hitherto only revealed the presence of the ordinary microbes of suppuration; further researches should be made in this direction.

We possess no data as regards its pathological anatomy, as no biopsy or autopsy has been made. It seems, however, highly probable that the immediate cause of the umbilication is the same as that in the vaccinia and variola pustule.

H. HALLOPEAU.

TREATMENT.

See note appended to the following article.

PLATE XX. PART 2.

ACUTE ECTHYMA OF INFANCY.

(ECTHYMA TÉRÉBRANT DE L'ENFANCE.)

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 420, made in the year 1887, from a patient under the care of Prof. FOURNIER.

THIS model represents a beautiful example of the disease, and is instructive as affording an opportunity for studying all the steps in the development of the changes.

Description of the Ulcers.—Small erythematous papules are first noticed; other similar lesions present in their centre a punctiform ulceration, which is the result of the rupture of a vesicopustule, the existence of which has, however, been of so short duration that all the lesions in the plate developed either before or after it. These latter are represented by ulcers, the size of which varies from a few millimetres to nearly two centimetres, the difference in area corresponding to the rapidity of extension of the ulcerative process.

From the beginning the ulcers are remarkable for the abruptness of their margins, which are scooped out like those of a simple chancre. Their base is cupped and covered with sanious detritus. From the very beginning they spread progressively and rapidly in a centrifugal direction; their outline either remains circular or becomes oval; a slight erythematous areola surrounds them.

Meanwhile the ulceration extends in depth as well as in superficies, thus justifying the epithet of *térébrant* (lit., *boring*), applied to this form of ecthyma.

The lesions have a tendency to spread by auto-inoculation, as was shown by Vidal, and neighbouring lesions may coalesce

and thus form large polycyclical patches. By the loss of substance which they involve, by the violent pain which they provoke (to which the constant crying of the children affected amply testifies), and by the absorption of septic matter which takes place, these ulcers aggravate the cachectic condition which favoured their initial development, and they give rise more or less rapidly to marasmus, cachexia and death, unless active therapeutic means are adopted.

The lesions are chiefly situate on the buttocks; but not infrequently they invade the thighs—especially their upper and posterior parts—and the inguinal regions. Any region of the body may be secondarily infected, and aberrant lesions have even been seen on the scalp, while pretty frequently the buccal mucous membrane is simultaneously involved.

When the disease is about to recover, the losses of substance lose their sanious character, granulations develop and, more or less slowly, cicatricial tissue forms. The lesions always leave indelible scars.

Ætiology.—This skin affection appears always to occur in young children in the first two years of life. It is caused by the permanent contact of fæces and urine, in which, in all probability, a pathogenic agent develops, which is not yet identified, but which certainly differs from that which develops in similar circumstances and gives rise to the lesions of *Dermatitis vacciniformis.*

Diagnosis.—This disease must be differentiated from the other ulcerative eruptions which are observed in infants of the same age.

First we must separate them from dermatitis vacciniformis, described in the previous article. Doubtless the two diseases develop at the same time of life; they most frequently affect the same regions; both are ulcerative, auto-inoculable, and caused chiefly by uncleanliness. But, side by side with these common characters, we find essential differences—*e.g.*, their situation is different, for while dermatitis vacciniformis chiefly affectsthe cutaneous folds, *ecthyma térébrant* is principally localised on prominent parts. Again, neither the abruptly cut margins of the ulcers, nor the deep destruction of tissue

so remarkable in *ecthyma térébrant*, are present in *dermatitis vacciniformis*. Finally, their prognosis is widely different; for while *dermatitis vacciniformis* is a benign disease which easily recovers with ordinary cleanliness and without leaving other traces than simple macules, *ecthyma térébrant* involves a most grave prognosis, and, when it recovers, results in the production of indelible scars.

In 1878 O. Simon described a bullous dermatosis which gives rise to ulcers similar to those of *ecthyma térébrant*; but in spite of the analogy, the initial development of bullæ seems to indicate a different morbid process from that which causes the latter eruption.

The same remark applies to the *multiple gangrenes* which sometimes develop in young infants. The gangrene is connected with special chemical changes which are not met with in ecthyma.

One cannot but recognise that it is important to distinguish *ecthyma térébrant* from syphilitic ulceration. The mode of onset, the spread of the ulcers, their situation, and the cachexia may be the same in the two conditions. Nevertheless, syphilides in general are more indurated at the margin, more neoplastic; they have less tendency to suppurate; they are more disseminated; and at the same time as they change their situation, specific coryza, lesions at the angles of the mouth, and ulcers about the anus usually appear. Finally, in cases of doubt, the results of specific treatment soon clear up the diagnosis.

The ulcers of *ecthyma térébrant* closely resemble those of soft chancres: they have the same abrupt margin, the same sanious base, the same tendency to excentric extension, the same easy spread by auto-inoculation. But their situation, the mode of onset by an erythematous papule, and the depth of the ulceration permit of a distinction being drawn.

Treatment.—This should consist chiefly of the employment of appropriate antiseptic measures. If the lesions are not too extensive it will be well to dust them with iodoform or di-iodoform; or europhen may be used, an antiseptic which has the advantage of being active and not irritating, while

it exhales no disagreeable odour. Compresses of absorbent wool, impregnated with a solution of corrosive sublimate (5-1000) or of carbolic acid (1-200), yield equally good results. It is unnecessary to insist upon the necessity for absolute cleanliness and a suitable *régime*.

Nature of the Disease.—The immediate cause of this form of ecthyma is not yet determined. It may be affirmed that it is a parasitic disease, in view of its auto-inoculability and its progressive spread, and that it is in all probability of microbic origin; but the nature of its causal element is not yet certain.

M. Wickham found the *streptococcus pyogenes* the predominant organism in a case observed by M. Baudouin in the service of Professor Fournier. More recently M. Ehlers has established the existence of the *bacillus pyocyaneus* in material from the same ulcers. The results of experiment will decide if either of these microbes is the immediate cause of the disease.

H. HALLOPEAU.

[I am not aware that any cases have been identified in Britain as belonging to either of the types described in this and the preceding article, although cases presenting extremely similar characteristics are of not infrequent occurrence. These are habitually attributed to "pus infection," and it seems dubious whether there is any practical advantage in further elaborating the diagnosis. Possibly further bacteriological research may justify their separation from other forms of "staphylococcia," which are freely acknowledged to differ widely in their clinical manifestations.

The name "Ecthyma" is in Britain now regarded as superfluous, and is practically obsolete.

J. J. P.]

TREATMENT.

Absolute cleanliness and the employment of antiseptic washes as above indicated, followed by the application of diluted ammoniated mercury ointment, will seldom fail to quickly cure the lesions of both these infantile disorders.

J. J. P.

PLATE XXI.

LESIONS IN A HABITUAL COCAINE AND MORPHINE CONSUMER,

Simulating Tubercular and Ulcerating Syphilides.

Model by Baretta, in the Museum of the Saint Louis Hospital, No. 1803, made in the year 1894, from a patient under the care of Prof. Fournier.

The accompanying photo-lithochrome represents polymorphous lesions resulting from injection of morphine and cocaine, which are here reproduced on account of their resemblance to syphilitic manifestations.

In the middle of the arm a scabbed lesion is to be seen, which simulates two syphilitic conditions, *viz.*, the tuberculo-crusted syphilide—*rupia syphilitica*—and the hard chancre. In the case from which the model was taken there was very marked induration immediately around the scabby lesion, but there was no multiple adenitis of the axillary glands.

Outside this rupia-like lesion there are prominent cheloid cicatrices, violaceous or vinous in colour, and surrounded with dilated veins, which constitute a veritable border to them. Lower down the arm the lesions diminish in intensity, and are only represented by erythematous, violaceous, or purpuric patches.

The clinical history of the case is as follows :—

The patient B., a domestic servant, aged forty-two years, was admitted to hospital on December 29th, 1894, under the care of Professor Fournier. Ten years previously she suffered from puerperal peritonitis, resulting in the formation of painful adhesions.

To assuage the abdominal pain the employment of morphine was resorted to, and the patient continued it, gradually augmenting the dose. It is now difficult to ascertain with precision the quantity of morphine injected daily; it was probably about 0·10 gramme. From time to time for the last two

years the patient has also used cocaine, but it is impossible to ascertain in what doses.

The patient is a neuropathic, formerly a hystero-epileptic, and is addicted to alcoholic excesses. She has even induced her husband to follow in the same evil path: it is a morphino-maniac alcoholic *ménage*.

She has used the same syringe for the last ten years, and it is in a remarkably dirty state. For several years, whenever the patient has given herself an injection, an abscess has resulted. Usually, the abscess has not been accompanied by abundant suppuration, but extensive ulceration has resulted, followed by a cheloid cicatrix.

At the present time there is present on the arm, as the result of an injection, a form of lesion, which has repeatedly been produced before now. This consists of a nodular swelling covered with a crust, simulating in all respects syphilitic rupia, or a giant tuberculo-ulcerative syphilide. On other parts of the body, and especially in the interscapular region—where her husband has been in the habit of giving her morphine injections—there are similar lesions and cicatrices simulating syphilis. In the same region there are also scars, which would lead one to think that the patient has several times been treated with the actual cautery. The sensibility over the affected regions is normal.

Accidents caused by the use of morphine, although they seldom are present to so marked a degree, are not at all rare. The results of the injection itself—*i.e.*, of septic traumatism—are superadded to the drug eruption, which is sometimes the result of the absorption of morphine from the digestive tract, and especially of other derivatives of opium.

A.—THE DIRECT LOCAL ACTION OF MORPHINE IS ALWAYS A TRAUMATISM AND IN CERTAIN CASES AN INFECTION.

I. *Traumatism.*—The prick of the injection needle is but slightly felt at the moment. As soon as the liquid has penetrated, the patient experiences general and local sensations. The general sensations are sometimes a transient vertigo, a feeling of nausea soon passing off, or a flush of heat, which in some cases end in diaphoresis of short duration. Most of these phenomena are only produced by the first few injections. Locally, the sensations experienced are different; anatomically, the condition produced is an intense vaso-motor dilatation, which gives rise to a feeling of itching, pricking, or burning.

In a few moments all is well, and the pink œdematous swelling, indicative of the seat of injection, rapidly disappears. If the needle meets with a small venule some drops of blood result. In some instances, the injection made too near the epidermis—*i.e.*, not sufficiently deep—gives rise to a slough, but such a slough is a real direct traumatism, and not the result of an infection.

II. *Infection.*—Suppurative accidents are rare since the introduction of sterilisable needles. It is astonishing to notice that sometimes, in spite of the employment of decomposed solutions and of dirty needles, no accidents result. From this point of view a veritable predisposition may be said to exist. Certain subjects cannot have an injection without developing pustules, or induration and sclerosis of the skin round the puncture, while in others abscesses or even phlegmons form.

The following septic accidents may be provoked by the injection of morphine: (1) A pustular eruption, which may consist of a single pustule, or of an agglomeration of pustules surrounding the seat of injection; (2) a furuncular eruption; (3) the "morphine carbuncle"; (4) intradermic abscess, as in the case of our patient; (5) subdermic phlegmons; (6) deep phlegmons, which may result in huge losses of tissue, and in grave accidents in morphino-maniacs already reduced to a cachectic condition; (7) erysipelas and erysipelatoid lymphangitis; (8) sloughs, either as an immediate effect or as the result of abscesses.

B.—THE INDIRECT MEDICINAL ACTION OF MORPHINE ON THE SKIN. PATHOGENETIC ERUPTIONS.

Morphine, like any other medicament, may cause drug eruptions in certain subjects which are different in different cases. We are still ignorant of the mode of production of these eruptions. But we may say that such eruptions develop most easily in persons liable to cutaneous affections, in neuropathics, and in those under the influence of any infection or intoxication, most frequently of digestive origin.

All the following forms of eruption have been noted: (1)

Simple erythema, consisting of ephemeral spots or patches of erythema; (2) exudative erythema, polymorphous erythema, erythema with nodules—in one word, all the varieties of erythema multiforme; (3) urticaria—the commonest of all the drug eruptions—generally benign, but sometimes of long duration and extremely obstinate; (4) desquamative erythemas; (5) scarlatiniform erythemas, with all degrees of redness and desquamation, often accompanied by itching; (6) vesicular eruptions—*eczéma morphinique*; (7) lichenoid eruptions; (8) miliarial sweat eruptions; (9) "morphine prurigo"; (10) pustular, furuncular, anthracoid eruptions; (11) erysipelato-urticarial eruptions; (12) disseminated gangrene.

Eruptions produced by morphine are thus of a purely dermatological order, but they are capable of simulating by quite another mechanism the pustules and gangrenes which are the direct infective result of the punctures.

In addition to the immediate results there are late accidents, which constitute the "cutaneous type of morphino-mania".

Later Manifestations.—Of these our patient presents a good example. She has the emaciated pale face, the drawn features, the deeply set expressionless eyes, and wrinkles so marked that she looks quite an old woman. The skin has a dull earthy look; the flesh is flabby, the epidermis is dry and harsh. All the regions available for injections are riddled with indurated tubercles, which cause the skin to project and stud it with irregular nodules, for the most part painless. Here and there cicatrices, either depressed or prominent, the result of abscesses, disfigure the patient with red or brownish marks. Such is the general aspect of old morphino-maniacs. Not all, indeed, exhibit abscesses or indurated lumps, but in all the skin assumes this characteristic earthy appearance.

Cocaine is not comparable to morphine as regards its cutaneous effects, but one seldom sees its effects alone. In most cases, patients begin by being morphino-maniacs before becoming cocaine-maniacs. The result is the same in both instances.

What is to be done in such cases? Obviously, the first

duty of the physician is to suppress the morphine. The local treatment is merely that of the skin disease, the appearance of which is simulated by the morphine eruption.

It must be borne in mind that suppression of morphine is a delicate matter, and that the cure of the morphine habit generally necessitates isolation, and always the intervention of a physician accustomed to carry out its treatment.

The method of rapid suppression is dangerous, and even sometimes fatal. The method of slow suppression almost always results in relapse. There remains then the method of *progressive* suppression, which consists of keeping a close and constant watch, in order to obviate the risk of attempts upon their life, which frequently occur in the delirium of morphinomaniacs; and in diminishing the dose gradually but rather rapidly, so that the drug is totally discontinued in a period varying from a fortnight to a month. In this way some of the accidents accompanying suppression of the drug are avoided, and especially the sensations of chill and heat, which produce a state of considerable excitement in the patients.

GASTOU.

PLATE XXII.

RINGWORM OF THE BODY.

Synonyms: TRICHOPHYTOSIS CUTANEA, HERPES CIRCINATUS.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1357, made in the year 1888, from a patient under the care of M. E. BESNIER.

IT cannot be said that the accompanying photo-lithochrome represents a common type of trichophytosis, if two of the fundamental characteristics of ringworm rings are borne in mind, *viz.*, the rarity of the occurrence of more than one at a time on the same subject, and their accurately circular outline.

On the other hand, a constant characteristic of ringworm with multiple circles is fully demonstrated, *viz.*, that all the lesions, from the objective point of view, are really identical.

We propose, then, in this case, to study the three characteristics which we have laid down as the most general and the most constant in trichophytosis of the skin.

I.—*The remarkably circular outline of many of these lesions* cannot be denied. There are, indeed, hardly any skin eruptions of other origin which can assume so accurately geometrical an outline on so large a scale.

The upper patch on the right side is very typical in this respect—its parasitic nature explains this circularity without any difficulty—for this character is reproduced in all ringworm cultures, and always for the same reason, *viz.*, that parasitic branches spread centrifugally like divergent rays from the central point where cultures are inoculated. If each ray encounters similar physical, chemical and physiological conditions they will be all of equal length, and the lesion, like the culture, will be discoid. But many germs growing near one

another will sometimes give rise to confluent lesions, and the condition produced, instead of being multiple, as at first, becomes single and polycyclical.

II.—It is a well-established rule in France that *trichophytic lesions are always limited in number;* the number of patches reproduced in the photo-lithochrome is seldom attained and still more rarely surpassed.

Generalised forms of trichophytosis do exist—*e.g.*, the *Tinea imbricata* of the Pacific islands—but not in our country.

The *Pityriasis rosea* of Gibert is not of trichophytic origin; this view is contrary to that still held by the Vienna School, who maintain that the disease is a generalised trichophytic eruption.

III.—*The similarity of trichophytic lesions co-existing on the same individual* is here perfectly demonstrated, and a single glance suffices to satisfy oneself of it. This conviction is rendered only the more complete by careful examination of the form and size of the patches, of their margin—which is redder than their centre—and also of their elementary erythemato-squamous and vesicular lesions. Finally, the tint of the erythema, which indicates the degree of congestion of the underlying vascular network, is the same in each patch.

These various points indicate a uniformity of objective characters, all the more remarkable because it is of constant occurrence. Multiple trichophytic lesions occurring in the same individual are always similar.

This identity becomes a point of still greater importance when compared with *the extraordinary differences in appearance between different forms of trichophytic disease occurring in different subjects.*

A comparison of this plate with that representing *agminate trichophytic folliculitis* (Plate XVII.) is very striking in this connection, for the two lesions, although both of trichophytic origin, have objective characters as dissimilar as possible. This polymorphism of trichophytic affections on different subjects, as opposed to the absolute monomorphism of multiple lesions present on the same subject, was an enigma until the recognition of the *plurality of the trichophytons.* The lesion in

this case is distinct from that of agminate folliculitis, because the trichophyton which causes it is not that which causes agminate folliculitis. And all the trichophytic circles present in the case now under discussion are identical one with another, because it is one and the same parasite which gives rise to them.

The case presents several other points worthy of special mention : round the margin of almost all the patches a peripheric zone may be observed, which is more acutely inflammatory than the central portion of the lesion, because the life of the parasite is more active at the margin of each patch. It is there that it proliferates, and thus that it spreads.

Meanwhile the centre of the patch subsides, and often its surface shrinks and crinkles, as in the lower circle on the left side. In a few days it will desquamate freely. Sometimes, as in this case, the surface of the trichophytic patch exhibits scattered vesicles throughout its entire duration. But, as a rule, it is only at the margin of the lesion that early or originating vesicles are met with, while in the centre they disappear.

There is another infallible means of gauging the degree of vitality and activity of the trichophyton in the lesion. The activity of the trichophyton is directly proportional to the regularity of the circination of the margin of the diseased patch. The more accurately defined the margin of a trichophytic patch, and the more "padded up," as it were, so much the more easy will it be to demonstrate the parasite, and to obtain cultures of it.

On the contrary, when a trichophytic patch subsides spontaneously, as frequently happens, it always first loses its circular outline. It becomes irregular and ill-defined before entirely disappearing.

The raised pad-like swelling round the margin of an active trichophytic patch is certainly one of the most useful characters for determining a differential clinical diagnosis, whether it be a simple papular rim, or studded with seborrhœic squames, or with vesicles or pustules.

The *differential diagnosis* of cutaneous trichophytosis, taken as a whole, may be made from twenty different diseases ;

for its polymorphism—in relationship with the plurality of the trichophytons—explains how it may be confounded with diseases so distinct as seborrhœic eczema, psoriasis, circinate seborrhœa (the "flannel eczema" of old French writers), with erythemata (figuratum, medicamentosum, multiforme), with pityriasis rosea in the early stage, *etc.*, or even with tertiary serpiginous syphilides.

Each case might be discussed in relation to very dissimilar diseases, but we cannot here enter into such details. If the primary characteristics of trichophytic rings are borne in mind, *viz.*, the accurately circular outline of the patches, their small number, and their similarity one to another, the majority of possible errors will be avoided, and but few will be committed, even by those with only slight dermatological experience. Besides, the diagnosis can always be confirmed by microscopic examination of the pus or serum of the vesicles, or of the detached scales. The material for such investigation should always be taken from the most external part of the most active lesions.

The preliminary procedure is the same for a scale as for a hair, and consists in its dissociation with the aid of heat and liquor potassæ (30 per cent.). Any solvent solution, and especially acetic acid, may be used in the same way as liquor potassæ.

As we have already described the microscopical *technique* (Part V., page 115) we do not need to repeat it.

A mycelial parasite is found, which spreads between the epidermic cells, separating them, and presents general morphological characters, which are identical for all cases.

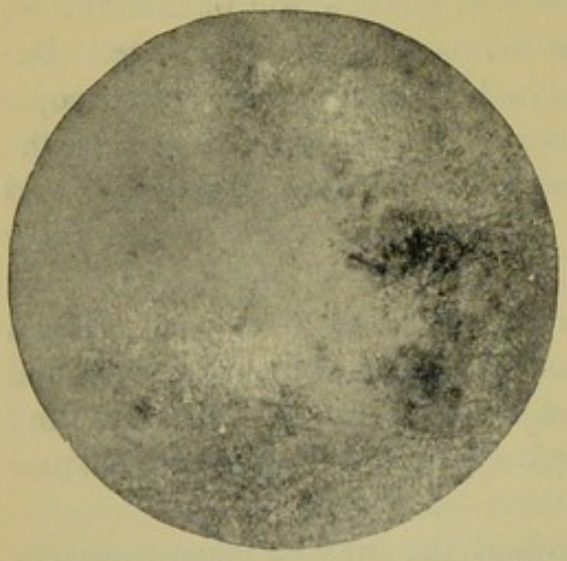
(1) The mycelial filaments are usually almost accurately rectilinear or at least only slightly sinuous; they never follow the outline of the epidermic cells, but extend straight forward in long branches between two epidermic layers.

(2) They are made up of rectangular cells, usually uniform in size and very regular, from about eight to ten μ in length by four μ in breadth. Sometimes these mycelial cells assume a sporular form, and then they resemble the spores found in ringworm (trichophytic) hairs.

(3) The filaments divide dichotomously, and this is a rule to which there are no exceptions.

After what has been said regarding the different forms of trichophytic affections, the question naturally arises as to what special parasitic species gave rise to the lesions figured in the photo-lithochrome. To this question no certain answer can be given, as the model was made many years before there was any inquiry into the plurality of the trichophytons.

Judging from objective characters alone, one may say that we are dealing with a trichophytic disease of animal origin, for in cultivations we do not see—at least in France—such large and so numerous circles caused by the common species of trichophyton which produce the ringworm of children.



Trichophyton in a scale × 200 diameters.

But with what animal species are we dealing? From lesions similar to these in every aspect, a trichophyton yielding acuminate cultures of a violet-black colour has several times been derived; it is rare in France and very common in Italy, but its animal origin remains unknown. That is all one can say about it.

It should be added to this necessarily incomplete diagnosis that several trichophytons, of different botanical species, and living habitually on different animals, may give rise in man to lesions too similar one to another for the eye to differentiate them easily. Not all trichophytons give rise to a form of lesion so easily recognisable and so accurately differentiated as agminate folliculitis.

From the clinical point of view, however, the origin of the various forms of cutaneous trichophytosis is of little moment; their prognosis is favourable, and their treatment easy. A few vigorous applications of tincture of iodine, repeated daily till the patch is completely exfoliated and local congestion has

entirely subsided, constitute the best form of treatment. One or two weeks suffice to obtain cure, and the lesions, like those of all the forms of cutaneous trichophytosis, excepting agminate folliculitis, disappear without leaving any traces.

SABOURAUD.

[In England the occurrence of multiple patches of "Tinea circinata" on glabrous skin is certainly not so rare as one would infer from Dr. Sabouraud's text to be the case in France. The trichophyton yielding acuminate dark violet cultures is of very exceptional occurrence here, as in France, and we have no clue to its origin.

I am inclined to favour the use of liquor potassæ of the British Pharmacopœial strength (about 6 per cent.), and employed cold, to that recommended by Dr. Sabouraud—at least, in the bustle of active practice, whether in the consulting room or in the hospital out-patient department. The position of the mycelial elements can be rapidly and very accurately determined during the clearing up of the specimen.—J. J. P.]

TREATMENT OF RINGWORM.

Vigorous washing twice daily with soft soap and warm water, followed by the use of salicylic acid and any weak mercurial ointment, will soon remove ringworm of non-hairy parts where the fungus lies in the superficial epidermic layers. Decolourised tincture of iodine is equally efficacious and not open to the same obvious objection as the usual iodine preparations.

A few words as to the treatment of ringworm of the scalp may be appropriate here, although the subject is not illustrated in the Atlas. Ringworm of the scalp is very troublesome to cure, mainly on account of the difficulty of bringing the parasiticide drugs into direct contact with the parasite, which spreads to the very bottom of the hair follicles which are bottle-shaped with very narrow necks. It is decidedly preferable that the hair be cut quite short (*e.g.*, with American clippers) and kept so throughout the treatment over all the patches and for a little distance round them; this not only aids the application of local remedies, but also enables any spread of the disease to be recognised at once, and treated in its early stage when it is most amenable to treatment.

There is some difference of opinion regarding the question of washing the head in ringworm, but I have personally no doubt that it is advisable and free from risk to cleanse the scalp daily with soft soap for the removal of scurf and for the diminution of the seborrhœic basis upon which the trichophyta flourish luxuriantly. The head must be carefully dried, and the scalp may often be advantageously mopped with sulphurous acid afterwards, previous to the application of the customary ointments. In many localised cases systematic epilation is to be recommended, but only for hairs which are easily detached. In any case, however, it is a rather painful process and cannot be carried out satisfactorily in young children.

The number of drugs which have been recommended at various times is very great, and an eloquent testimony to their inadequacy to "cure" ringworm; but the success of all of them, when that may be said to be attained, depends not only upon perseverance and the manner in which they are used, but mainly perhaps upon the stage of the disease in which they are applied. The best method of reaching the fungus is by means of ointments which must be well rubbed into the diseased parts, and the best basis is probably lanolin mixed with a small quantity of olive oil. Ammoniated mercury, salicylic acid, sulphur and oleates of mercury and copper ointments are all commonly used, either alone or in combination. The addition of salicylic acid to any preparation increases its penetrative power owing to the solvent action which the acid has on the epidermis.

The following formula, recommended by Norman Walker is a useful one for general use:—

R. Sulphur. Precip.
Hydrarg. Ammoniat. āā ʒss
Acidi Salicylici gr. xx
Lanolini
Vaselini āā ʒss

The oleate of mercury is also useful, but its effects should be carefully watched and the preparations should be weak to commence with (about 2 per cent.), and gradually increased in strength if necessary.

Morris recommends a lotion of salicylic acid dissolved in chloroform or ether (gr. v ad ℥i) as being very effectual in clearing away scales and fat and also for sometimes effecting a rapid cure in early cases. Tincture or liniment of iodine may also be painted on with benefit in early cases.

Formalin has been recommended and is doubtless efficacious, but its application often gives rise to a good deal of pain. A 5 per cent. ointment is as strong as is generally bearable. If it is used it must be well rubbed into the diseased parts and the eyes must be carefully protected with a towel in order to avoid the irritating effects of the vapour.

Rapid cures may sometimes be obtained by the use of chrysarobin which acts as a parasiticide and also by exciting inflammation of the skin round the fungus and so indirectly leading to a cure. The drug, however, has many drawbacks which are referred to in the note on Psoriasis, and if used in ringworm it must be limited to small patches and withdrawn at once when any tenderness arises. Its application is liable to produce erythema of the face and conjunctivitis, and for this reason alone it requires to be used very cautiously. If, however, it is used it may be applied in the form of the compound chrysarobin ointment, the formula of which is as follows :—

R.	Chrysarobin	gr. xv-xx
	Ichthyol	gr. xii
	Acid. Salicylici	gr. x
	Vaselinum ad	℥i.

After chrysarobin has been rubbed into the patch Unna covers the head with a glyco-gelatin dressing to prevent it reaching the eyes, and keeps the dressing on for three or four days. Norman Walker recommends a convenient method of applying it in the form of a "Salve Stick," thus :—

R.	Chrysarobin	℥iii
	Wax	℥ii
	Lanolin	℥v

melted together and made up in the form of a rod.

Croton oil is a very severe form of treatment, chiefly advocated by Aldersmith, and only applicable to a very limited number of cases, such as very chronic cases of limited area or

in isolated patches of the more acute forms which it is very important to cure with great rapidity.

One drop of oil should be painted over the patch and the part then covered with a small linseed-meal poultice. The effects are to produce a mild pustular folliculitis, *i.e.*, practically an artificial kerion, which will destroy the fungus, but at the same time there is the danger that the hair follicles may be also destroyed and a permanent bald patch result.

If a few hairs only are to be treated the oil may be applied on a blunt needle directly into the follicles.

It is usually wise to begin with a diluted preparation such as a liniment of one part of croton oil to ten of olive oil; the effects of this powerful drug can then be better estimated and the strength can always be increased if necessary.

In kerion the fungus becomes destroyed and the condition needs only mild treatment subsequently, such as lotions of lead or boracic acid or a simple zinc or ammoniated mercury ointment. A kerion must never be incised, although fluctuation may often appear to be present.

After the swelling has subsided a careful examination must be made in order to ascertain if any fungus still remains.

Ringworm of the beard. Epilation is most important and the hairs should be allowed to grow long enough to make the process as easy as possible. Antiseptic ointments such as ung. hydrarg. ammon. should then be well rubbed in. Walker especially recommends an ointment of oleate of copper for this form of the disease.

Quite recently both X Rays and Finsen's Light Treatment have been applied for the cure of ringworm. Of the latter I have no personal experience; my experience of the former is hitherto entirely negative. The depilation which is undoubtedly produced, at some risk, by X Rays does not involve any destruction of the parasite.

It is unnecessary to allude to the thousand and one quack remedies and procedures claimed to cure ringworm of the scalp with rapidity.

J. J. P.

PLATE XXIII.

SYPHILITIC HYPERKERATOSIS.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1722, made in the year 1893, from a patient under the care of M. ERNEST BESNIER.

PHOTO-LITHOCHROME No. XXIII. is a notable example of *syphilitic hyperkeratosis*—that is to say, of marked hypertrophy of the epidermis upon a substratum consisting of a "specific" infiltration of the corium of the plantar region; it differs essentially from the *primary keratoses*, in which the derma only shows trifling changes, which are apparently consecutive to lesions, affecting in the first instance the generative layer of the epidermis.

I.

Unfortunately, we can only give but few details regarding the patient, as the clinical notes are missing. We only know that he was a hotel waiter, an occupation which naturally involves much fatigue, and which, to some extent, explains the localisation of the lesions. He was thirty-three years of age, and eight years previously had contracted syphilis of severe type, as it assumed an ulcerative character in the secondary period.

The right foot is represented in the plate, but the left was simultaneously affected, or nearly so, and the lesions there presented the same localisation and the same appearances. Even as regards the vegetating lesions in the retro-malleolar region the conditions were the same on the two sides, the model of the left foot being also preserved in the Museum (No. 1723). The only perceptible difference is the slightly less advanced condition on the left side.

The photo-lithochrome reproduces very exactly the external appearance of the condition, which a few complementary remarks will more fully elucidate.

Two principal elements are to be considered—*viz.*, the *keratosis* and the specific *neoplasm.*

I. *The Keratosis.*—Its distribution is not uniform, but in large zones, roughly circular in arrangement, as may be seen in the fore part of the heel, corresponding to the heads of the metatarsal bones, and to the fore part of the calcaneum. Its colour is greyish-white, modified by common atmospheric impurities mixed with sweat, and by that of the subjacent syphiloma. In thickness it varies from one to four or nearly five millimetres; it is traversed at certain points by shallow fissures, at the bottom of which the bleeding derma is visible.

It is most abundant over the points of maximum pressure, but is not strictly limited to these regions. Thus, there exists, as in certain other hyperkeratoses, a sheath round the heel, but it is incomplete posteriorly, while it extends considerably in front of the heel anteriorily, where it terminates by an enormous, very prominent outgrowth, which corresponds to the posterior part of the plantar arch, where pressure is slight. In the same way, the greater part of the plantar surface of the big toe (its central portion) is devoid of keratosis. On the other hand, it covers fairly accurately the ends of the second, third, fourth and fifth metatarsals, and extends, although in a thin layer, over their dorsal surface.

It appears, then, that the keratosis is more independent than in other forms of keratodermia, and this is explicable by the evolution of the syphilitic lesion, the seat of which may certainly be originally determined by long-continued pressure, but cannot be limited by it, in virtue of the customary excentric spread of syphilitic new growths.

II. *The Syphiloma.*—The syphilitic infiltration is diffuse and not deep, nor prominent, while it occupies almost the whole plantar region. On the heel it shows itself as redness, which the layer of keratosis allows of being only partially seen. It is, however, above the heel in the retro-malleolar groove that the lesions are most marked in the form of large fram-

bœsioid vegetations, the size of which increases in proportion as they are distant from the plantar region; this latter point is significant.

II.

The latter point is, as has been said, significant, and merits further notice. Nothing could, indeed, be more conclusive for showing that as far as regards the determination of *keratodermia* the special anatomical structure of the part is the responsible factor, and but little importance is to be placed upon the nature of the original lesion. Whenever these two factors, *viz.*, plantar skin affection and pressure, occur together, there hyperkeratosis always appears—or nearly always. Again, wherever the special structure of the plantar horny layer ceases, the skin affection loses its keratosing character. In the case we are studying it passes from the condition of a diffuse infiltrating neoplasm into a vegetating neoplasm, as in the retro-malleolar region. It may be recalled in passing that the transition from a keratosing neoplasm to a vegetating one may be seen on the left foot equally clearly and at the same point. These and other considerations, which it is superfluous to develop here, easily lead us to understand that the diagnosis of different forms of keratodermia may sometimes be extremely difficult.

This cannot, however, apply to *congenital keratodermia* as described by Unna and E. Besnier,* in which, as in Besnier's case (model in Saint Louis Museum, No. 961), the whole of the surface of the sole in contact with the ground is cornified, the line of demarcation with healthy skin being abruptly indicated by a narrow erythematous margin.

Nor can there be any difficulty regarding common *symmetrical keratodermia of the extremities*, which develops in "second childhood". It is, according to E. Besnier, erythematous, irritable, and perhaps in association with some central nervous disturbance. Although the lesions are most marked at points subjected to pressure, they develop independently of

* French translation of *Kaposi*, second edition, p. 40, note 1.

all trade work; the disease spreads by fits and starts, and is worst in winter. The hyperkeratosing lesions are arranged in localised spots in front of the lower and anterior end of the metatarsals. The intermediate skin is absolutely normal, and is separated from the healthy parts by an erythematous zone from five to six millimetres in width.

The forms of *keratodermia in foci* and *accidental keratodermia* may add to the confusion. The former develop in separate multiple islets on the palms and soles, out of all proportion to the intensity of the lesions. The latter occur at any age under the influence of unaccustomed pressure; they always remain partial and curable, and are chiefly observed in persons who, after passing the greater part of their life without doing any manual labour, give themselves up to it later on.

Forms of *ichthyosis* termed local, excepting some possible confusion with keratoses of special nature, enjoy an equal facility of diagnosis on account of their congenital origin, and the absence of all subjacent neoplastic infiltration.

But, on the other hand, keratoses resulting from dermatoses of the palms, sometimes lend themselves very easily to errors of diagnosis. This remark is applicable to keratoses of *eczematous*, *psoriatic*, or *lichenous* origin. Syphilis may be suspected as the result of the history of the case; or, again, owing to the existence of lesions of the skin in other regions. If the soles alone are affected—and the most doubtful cases come under this category—one must remember that symmetry is, generally, an attribute of eczema, psoriasis and lichen. Nevertheless, our case is a striking demonstration of the inconstancy of the law. There are, therefore, a limited number of cases in which, all other clinical characters being ambiguous, the therapeutic test alone can settle all doubts, at least, as between syphilitic keratoses and other secondary keratoses.

III.

The therapeutic test may be modified by special conditions, demanded by the anatomico-pathological nature of the keratosis

lesions. For, if the specific neoplasm yields as usual to appropriate treatment, the keratodermial element, on the contrary, by reason of its very banality, resists all forms of medication, whether mercurial or "mixed," and demands special treatment. Such was the case with our patient, in whom it was necessary, in addition to specific treatment, to resort to surgery, and to scrape away the keratosed surfaces before a satisfactory result was obtained.

LUCIEN JACQUET.

TREATMENT OF HYPERKERATOSIS.

Hyperkeratosis of the palms and soles, whether congenital (tylosis) or acquired, may be kept under control, although seldom actually cured, by prolonged daily soaking in hot water, followed by a vigorous application of soft soap and painting with a 10 per cent. ethereal solution of salicylic acid. Plasters or plaster mulls of salicylic acid may often advantageously be used either continuously or during the night only. The horny layers may also be softened by resorcin compresses (5 to 10 per cent.), and redundant epidermis afterwards removed by the scalpel or by rubbing with pumice stone. Salicylic acid plasters or other preparations may then be used.

J. J. P.

PLATE XXIV.

PSORIASIS FIGURATA.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1140, made in the year 1886, from a patient under the care of M. ERNEST BESNIER.

THE frequent occurrence and considerable interest of this important skin affection fully justify the publication of a new case soon after that studied by Feulard in one of the recent articles of this Atlas (Plate XIV., p. 137). The more so as there are great differences between the two modes of eruption of the same disease, and even after this second study we shall still be far from having exhausted the question of polymorphism in psoriasis.

I.

Photo-lithochrome No. XXIV. reproduces the upper dorsal region of a man, aged twenty-two years, who was admitted to hospital on 12th February, 1886, under the care of M. Ernest Besnier. His pathological history, of little interest, may be described in few words. X. is strongly built and has always enjoyed perfect health, thus bearing out the general law in accordance with which psoriasis is regarded as a *morbus fortiorum*. There is nothing noteworthy in his family antecedents; he has never heard of any form of skin eruption in his parents or in any relative.

He has been "a psoriatic" since the age of five years, when his head only was affected. The appearance of the eruption upon the trunk and limbs dates from his thirteenth year. Since then he has had periods of remission, but never complete freedom from the disease; some spots have always

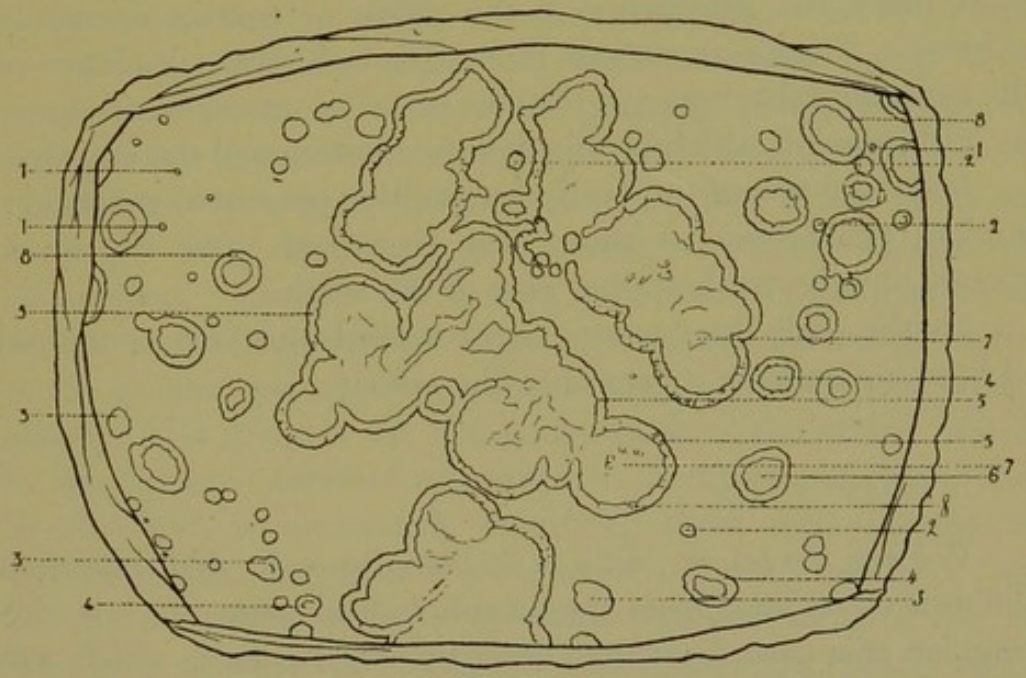
remained active, especially upon the scalp. The outbreak, part of which is reproduced in the photo-lithochrome, is the most confluent one he has ever had; the lower limbs have only been attacked for a few days. Only the feet, hands and face are free from eruption, and they have always been so.

The eruption on the back is absolutely typical of figured circinate psoriasis. Among other details may be noted—

1, 1, 1, the initial psoriatic point—if the phrase is allowable.

2, 2, 2, the squamous "gutta".

3, 3, 3, the complete disc.



1, 1, 1. Initial psoriatic points. 2, 2, 2. Scaly gutta. 3, 3, 3. Complete disc. 4, 4, 4. Discs with excentric evolution in various stages. 5, 5, 5. Large psoriatic festoons. 6. Erythematous macule. 7, 7. Remains of erythematous discs included in larger discs. 8, 8, 8. Subsiding raised margin.

4, 4, 4, the disc undergoing excentric development in its different phases, from the hollowed-out disc to the complete ring.

5, 5, 5, large psoriatic festoons resulting from the fusion of the large discs.

It is superfluous to give a detailed objective description of each of these elements. It suffices to say that, generally speaking, they are red or pale pink in colour, and that the discs, as well as the rings, are covered with thin glistening scales.

The evolution of the elements is interesting to follow. It is clear, on simple inspection, that the festoons originate from a real eruptive transformation, the successive steps of which can be followed, and that this transformation starts by a peripheral extension of the initial spot, which leaves in the centre a macule, either erythematous or pigmented (6), and sometimes, in the larger circles, traces are left of a circle enclosed therein (7), evidencing a special hyperactivity of the morbid process at certain periods of its evolution. The well-known method of production of festooned borders by fusion of large discs and subsidence of the points of contact is equally evident. Finally at various points (8, 8, 8) the subsidence of the psoriatic raised margin testifies to the spontaneous tendency to retrogression which terminates the existence of the eruption.

Over the rest of the body the eruption presented practically similar characters to those just described, and the same remark applies to the upper part of the thighs.

On the scalp there were extensive piled up layers, composed of hard squames of a greyish-white colour.

II.

We see, therefore, without insisting upon it, that important differences, at least from the morphological point of view, distinguish this case from that described by Feulard, which was a psoriasis in large patches, with thick scales, a *nummular* psoriasis of the commonest type of the disease. We are forced to an inquiry as to whether the identity of the two forms is to be accepted as an infallible dermatological dogma; whether we are dealing with two varieties of the same disease, or, if the diagnosis of psoriasis, which was formerly unhesitatingly accepted in this case, may not be rendered dubious or modified. This retrospective glance is all the more justifiable in view of the works of Unna (in 1886) on seborrhœic eczema, which have, to a certain extent, disturbed the calm which existed on the subject of the nosology of psoriasis and have, at all events, modified the former conception of its differences from, and its relationship with, eczema.

The question is worth putting, even although it cannot here be studied and discussed in all the detail it merits. Now, if it be true that the starting point and original focus of the disease was the scalp, as in the case of most old-standing seborrhœic eczemas, it is also true that the growth of hair is perfectly preserved in spite of the duration of the disease for seventeen years, and that the scales are dry, hard, and contain no fat as they do in indubitable seborrhœic eczema.

Finally, one cannot but point out that if, as Besnier, Vidal and Unna have taught,* there exists chiefly in men a particular eczematous affection which assumes the form of more or less circular or semilunar discs, of confluent rings losing their margins at points of contact and forming festooned figures, and which exhibits isolated follicular elements which increase excentrically to rapidly become circular; and if this affection, as is generally admitted, now belongs to the "eczematoid seborrhœas," nevertheless it must be acknowledged that cases similar to this one present important distinctive marks in the much greater prominence of the margin, in the customary absence of itching in the shiny, dry state of the scales, and in its much more obstinate resistance to therapeutic agents. Let us also add, as necessarily modifying these reserves, that in dermatological diagnosis the objective character of the lesions is very deceptive, and that to obtain definite ideas of the relationship of seborrhœic eczema and figured psoriasis—which Unna would include along with them—we must wait for the information which the future will yield to us upon the subject of the pathogenic cause of these conditions—be it *morococcus* or what not!

III.

I shall not enter upon the general therapeusis of psoriasis, even in the most summary manner, but shall simply point out the means employed by M. Besnier in this case to obtain for

* French translation of *Kaposi* by Besnier and Doyon, second edition, vol. i., p. 679.

his patient a temporary cure, the only result hitherto obtainable in our strife with psoriasis. For some days universal inunctions of lard were applied, then of equal quantities of oil of cade and cod-liver oil.

At the end of a fortnight pure oil of cade could be employed. At the same time alkaline baths were used, and arsenic taken internally.

In five weeks there were no signs of scale, the raised borders of the patches had subsided, and only some macules remained, indicating the seats of previous lesions.

LUCIEN JACQUET.

[There is no problem in dermatology more complex than the relationship of psoriasis to the seborrhœic processes, but this is not a suitable place to discuss it. Unna has practically abandoned his original view that psoriasis is merely a form of seborrhœa. The article on the subject in his recently published monumental work is well worthy of study (*Histopathology of the Diseases of the Skin*, translated by Dr. Norman Walker, p. 260 *et seq.*).

My own view, taught by me for a considerable number of years, is that psoriasis occurring in persons with seborrhœic skins presents certain well-marked peculiarities, among which may be noted abnormality of distribution, special tendency to circinate configuration, and great proneness to unusual inflammatory complications, even to the supervention of exfoliative dermatitis.

I regard it as highly probable that these secondary phenomena are due to microbic contamination, the microbes being the same as those responsible for the dermatitis so frequently consequent upon seborrhœa; but I have never seen any convincing arguments advanced for the microbic origin of psoriasis itself; indeed, many facts appear to me to establish psoriasis as a disease of "nervous" origin.—J. J. P.]

TREATMENT.

See note appended to Plate XIV.

PLATE XXV.

ERUPTION FROM BROMIDE OF POTASSIUM.

Model by Baretta, in the Museum of the Saint Louis Hospital, No. 1188, made in the year 1886, from a patient under the care of M. L. Brocq, acting for M. E. Besnier.

The history of the subject of this eruption is extremely painful, and of itself suffices to prove that syphilophobia may give rise to the profoundest cachexia, and probably may cause death. The first part of the case was published in 1886 in the *Annales de Dermatologie et de Spyhiligraphie* under the title of "Cutaneous Bromism, with large elementary Lesions, after taking small doses of Bromide of Potassium for a short time; Pemphigoid Eruption during the period of cicatrisation". Now we must add *syphilophobia, frequent relapses, profound cachexia, probable death.*

I.—The patient was a man, thirty-one years of age, a policeman, of strong constitution and good muscular development, who had never suffered from any disease except a moderate and uncomplicated gonorrhœa about a year previous to his admission to hospital. He had never had a chancre or any skin eruption. He only suffered for some months from pains in the lumbar region and headache. For this he had been prescribed a "soothing" medicine, which he had been taking for ten days, when he noticed the presence of two red pimples, like warts, below his right nipple.

The following day the pimples increased and some pus exuded; five or six more appeared on the back and face. He then stopped taking the medicine, and was treated by the application of iodoform powder and poultices. In spite of these measures fresh eruptions appeared, the initial lesions

increased, and he came into hospital on September 10th, 1886.

II.—The lesions were then situated on the scalp, face, neck, scapular regions, and on the front of the trunk. There was nothing on any other part of the skin except one isolated lesion on the left calf.

The number of lesions present was eighty-two ; they were of all sizes, from papulo-pustules—the size of a pea or small hazel-nut, soft, with red base and rounded summit, formed by stretched epidermis, showing by transparence turbid, yellowish pus—up to tumours arranged in plateaux projecting a centimetre or more from the surface, as big as a ten-centime piece. The base of these tumours, which was very friable, was covered by violaceous epidermis ; their surface was slightly depressed in the centre ; all over them there were present, in varying numbers—five, six, or eight—gaping orifices bounded by violaceous and swollen epidermis. Pressure upon the borders of the tumours was very painful, and caused pus to ooze from all the openings. The tumours were veritable purulent sponges, the oozing from which was marked on the lightest pressure. There was no infiltration of the derma or hypoderma at the base of these elementary lesions ; all the diseased tissues projected above the general surface.

The smaller papulo-pustules were especially manifest in the interscapular region. The two largest tumours were situate below the right nipple, and these were the first lesions to make their appearance. Between these two extremes intermediate lesions of all sizes were present on the trunk and on the head.

There was no disturbance of the general health ; the appetite was good ; the digestive functions normal ; and there was no abnormality in the urine.

The *Diagnosis* was then dubious ; the patient (for what reason I know not) denied having taken any medicine. It was therefore impossible to make any positive diagnosis ; so, at the request of M. Brocq, I made auto-inoculations, under a watch-glass, of pus from the tumours into two healthy regions of the skin. The result was absolutely negative. Then

only, when pressed by M. Brocq's interrogation, the patient told us of his "potion," and was able to procure for us what remained of it. It was a mixture of iodide and bromide of potassium, containing about 0·50 centigramme of each salt in 20 grammes. He had taken two tablespoonfuls daily for eleven days. I shall afterwards explain my reasons for incriminating the bromide rather than the iodide.

III.—The eruption disappeared with considerable rapidity; the day after admission fresh lesions ceased to appear; on the succeeding days the most prominent of the tumours distinctly subsided, while pus oozed in less abundance on their surface and from the orifices upon them; in some the derma of a bright red colour became visible, bleeding on the slightest pressure. From this time onwards none of the patches increased in size; but they remained very tender on pressure and bled on the least provocation.

Such was the condition when, in the beginning of October, some shrivelled bullæ, imperfectly filled with unhealthy-looking serum, first appeared in the dorsal region; then others came out at the root of the neck and in the neighbourhood of the single lesion present on the left leg.

It was then that the accompanying photo-lithochrome was made. In it may be seen a large number of the elementary lesions of the eruption of all sizes, some being still slightly prominent; but the majority and the largest of them are flattened down, excavated, and have lost the characters of "purulent sponges" which they presented so accurately. In close proximity to the bromic elements—properly so called—the bullæ already described may be seen. To what do these correspond? Whether they are abortive bromic lesions, the granulating power of the tissues having failed to constitute them perfectly, or, on the contrary, they are due to a pemphigoid outbreak, the result of secondary infection, I am quite unable to state.

However that may be, in a few days (October 15th) the evolution of these diverse lesions was ended, and each one of them—the patches as well as the bullæ—was replaced by a cicatricial macule of reddish-brown colour, with sharply defined

margins and delicate epidermic covering, very vascular and slightly depressed below the level of the surrounding skin. The general health continued excellent and no change was observed in the mucous membranes. In this state the patient left the hospital.

The treatment adopted was of extreme simplicity, and consisted of dressing with boric vaseline till the lesions had completely flattened down, and then the application of round pieces of cinnabar plaster. It is clear that the principal agent in the cure was the discontinuance of the causal medicament.

IV.—This observation was destined to have an epilogue, which, I admit, greatly surprised me at the time. About a year afterwards, passing accidentally through one of the surgical wards in the Saint Louis Hospital, I thought I recognised the patient in one of the beds. It was indeed he, but changed and almost unrecognisable. He was pale, thin, cachectic, and in various regions presented enormous collections of pus. He told me that after leaving M. Besnier's service some one had told him, on seeing his cicatrices, that he was syphilitic, and that in consequence he had been forced to take iodide of potassium, and that since then he had had several eruptions, thus leaving no doubt as to his syphilis! I attempted to reason with him, but it was labour lost. He was an inveterate *syphilophobe*, and I am convinced, although I do not positively know it, that he must have ere now succumbed to the results of his delusion. It is probable that if during his stay in our wards we had properly conducted the interrogatory, it would have revealed the elements of neuropathia and neurasthenia in his history which remained unknown to us, and of these the pains in the loins and head which first gave cause for the unfortunate bromide and iodide mixture were probably indications. Perhaps, also, had we been better informed, we might have forewarned him against the *phobia* which was his ruin; and I think that in such a case one ought to foresee such a possibility and to treat the patient by *suggestion* in the right path.

V.—The following are the reasons which induced M. Brooq to blame the bromide rather than the iodide which

the medicine also contained: (*a*) There were at no time phenomena indicative of irritation of mucous membrane (coryza, running at the eyes, etc.), which are more marked in poisoning by iodides. (*b*) On the other hand, the lesions seemed to correspond accurately with the description which classic authors have given of the bromide eruption, for there were present more especially anthracoid excrescences, such as have been seen by Voisin, Mitchell, Kaposi, etc. (*c*) The extension and evolution of the eruption appeared to correspond more with the elimination of the bromide, which is slower than that of the iodide. Thus the first manifestations in our patient appeared on the eleventh day after beginning his medicine. He then stopped taking it, but an eruption, at first scanty, nevertheless persisted and became even more marked for about ten days after the total suspension of the medicament.

It is, nevertheless, certain that the man had also manifest intolerance of iodides, for after leaving hospital he had eruptions from taking this salt. Of these I have only had his account. I, therefore, cannot give any description of their characters.

LUCIEN JACQUET.

PLATE XXVI.

HYPERTROPHIC PAPULAR SYPHILIDES.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1187, made in the year 1886, from a patient under the care of M. L. BROCQ, acting for M. E. BESNIER.

IT is impossible to give even a summary account of the patient who furnished the subject of the accompanying photo-lithochrome. He was an adult male, belonging to the most degraded class, extremely careless as to his person, and offering a most filthy appearance, affected with *scabies*, and probably also with *pediculosis*. That is all that can be said about him, as he only passed through the hospital; but the latter points referred to have considerable importance and explain, to some extent at least, the nature and objective characters of the lesions which impelled him, however late, to seek for medical advice.

I.

No hesitation was possible as regards the nature of the lesions present; they were certainly syphilides, but their objective characters, and especially their size, were distinctly exceptional, at least in the region depicted in the photo-lithochrome.

Let us begin by some remarks regarding their characters. They existed, scattered here and there, over almost the entire skin, but their principal seat—selected for representation—was the front of the chest, where the lesions were most numerous and most typical. Common ecthymatous elements may be seen, along with pustular scabby syphilides, and three

large, giant papulo-hypertrophic syphilides. These latter, oval in shape, were the size of a franc piece; they projected above the surface from one and a half to two centimetres; they were firm to the touch, and their surface was wet and oozing; their colour was dark coppery red, and they glistened as if varnished, owing to the secretion on their surface. In addition, each of the giant papules appeared to be indistinctly surrounded with a bright red collarette, forming a frame to the neoplasm.

II.

There can be no doubt as to the name suitable for such lesions. They are vegetative papulo-erosive syphilides, veritable hypertrophic mucous patches of the skin, or, in one word, condylomata. It is certainly not very exceptional to find them in syphilis. The *plaques of Legendre* are well known to syphilographers, and their development during the secondary stage, either alone or simultaneously with macules, or common papular syphilides, cannot be surprising. The unusual size which they have acquired in this case is more remarkable and less easily explained. The more or less exuberant hypertrophy of erosive patches is very familiar in certain regions, *e.g.*, the vulva, anus, folds of the groins, scrotum, umbilicus, the hollows behind the ears, the infra-mammary folds, etc.,—all parts where constant contact, stagnating secretions, and lack of cleanliness frequently give rise to the condylomatous proliferation of syphilides, especially in persons with delicate skins. Exceptionally this condition is met with between the toes, in the axillæ, on the buttocks and thighs; but this papulo-erosive hypertrophy has never, as far as I know, been seen in a part so exposed and so exempt from all the conditions which usually favour morbid proliferation of tissue as in this case.

In the absence of other causes there existed in our patient one circumstance which may be invoked as an explanation of the unusual character of his syphilides, *viz.*, he was certainly the subject of scabies, and very probably also of pediculosis. Besides, he was in a wretched condition of squalor, and had

long borne his skin troubles without giving them any thought.

One is naturally led to think that his neglect of ordinary cleanliness, the complete absence of treatment, constant contact, and especially, his persistent scratching, must have provoked the proliferative and vegetative changes in his syphilides, which but for these complications would have preserved their usual proportions. The existence of a typical papulo-erosive patch at the anterior fold of the right axilla affords some confirmation of the possible influence of scabies in this respect, for it is impossible to help thinking that one of the scabietic lesions, so common in this region, must have been the starting point for the development of the syphilide.

III.

Although I am not in a position to enlighten the reader as to the evolution of the lesions in this man, who, I repeat, merely passed through Saint Louis, I must still give a short exposition of what generally happens in cases of this sort.

If there is one point upon which all classical authorities agree, it is the striking contrast offered by the great size of these papulo-hypertrophic syphilides and the extreme facility with which they disappear under the most simple means of treatment. Thus, the application of lotions of the liqueur de Labarraque (*liquor sodæ chlorinatæ*) diluted with water, the separation of the growths in regions where they are in juxta-position by inert powders such as oxide of zinc, and some simple baths, are sufficient to cause disappearance by absorption of these syphilitic masses which one would think only amenable to surgical ablation. Moreover, the employment of specific treatment is not absolutely necessary to attain this result.

But these considerations, which are, generally speaking, true as regards papulo-hypertrophic masses developed on mucous membrane, are not so applicable to lesions situated on the skin, in which recourse must be had to more active measures. First, it is clear that in the patient under discussion it was necessary in the first instance to rid him of

the parasites which infested him. This having been done, and without interfering with a methodical antisyphilitic treatment, one ought, in my opinion, to have recourse to slight cauterisation of the syphilides with tincture of iodine, with nitrate of silver either in solution or in the solid stick, with Burnett's solution (a 1 to 10 to 1 to 20 solution of chlorate of zinc), or with the acid nitrate of mercury used with rigorous care, *i.e.*, applied in very small quantity. But in view of the large size of the syphilides I think that the preferable procedure in a case of this sort would be that of Corradi of Florence, which is too little known, and which consists of cauterisation with nitrate of silver, and retouching the cauterised surface immediately with a cylinder of metallic zinc, which has the advantage of increasing the chemical action.

LUCIEN JACQUET.

TREATMENT.

See note appended to Plate III.

PLATE XXVII.

RUPIOID AND EARLY GANGRENOUS SYPHILIDES.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 276, made in the year 1887, from a patient under the care of M. HALLOPEAU.

THESE syphilides belong to the category to which Bazin gave the name of *early malignant*. They are of interest on account of their clinical characters as well as of the pathological problems which they raise.

The history of the patient whose eruption is represented in the accompanying photo-lithochrome may be epitomised as follows :—

Paul V., twenty-seven years of age, a horse dealer, was admitted to bed No. 4 in the Salle Bichat on June 29th, 1887. He was a big, strong man, of vigorous constitution, one might say an athlete. His previous health had been good ; he assured us that he did not indulge excessively in alcohol, and he showed none of the characteristic signs of ethylism. He had consulted a physician one month previously for an ulcer on the prepuce, which was at first considered to be a simple chancre ; it was accompanied by painful glandular swellings in both groins.

Eight days afterwards, M. Paulier, altering the previous diagnosis, advised inunctions of Neapolitan ointment (*ungt. hydrargyri*). The patient, *sponte sua*, carried these out for four minutes four times daily in the groins. At the end of forty-eight hours he was attacked with severe mercurial stomatitis, accompanied by fever, and was compelled to remain in bed for a fortnight. He then resumed his work, exerting himself excessively.

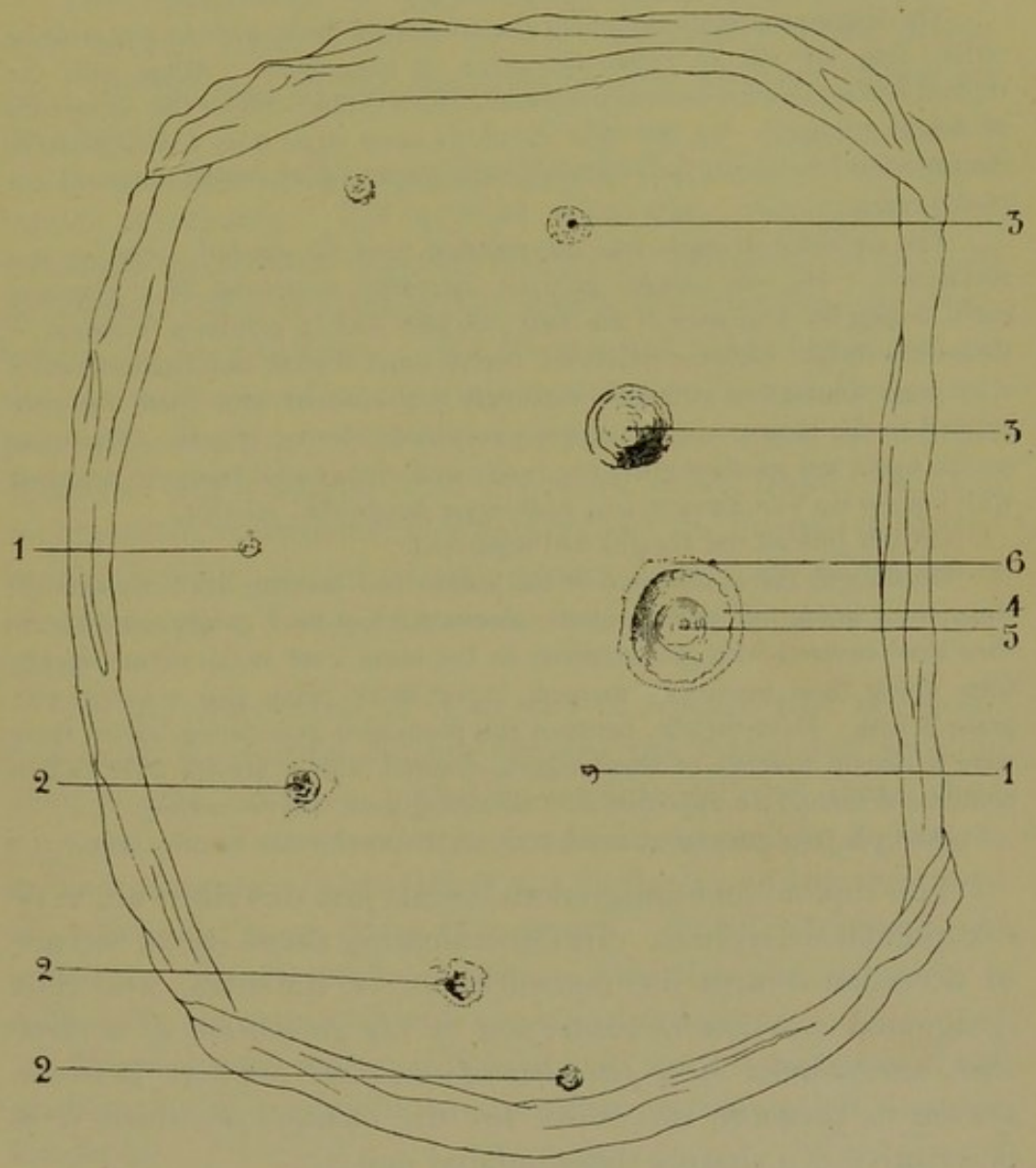
On 17th June the eruption appeared upon the trunk, which made him come to the hospital.

The scar of a chancre was present on the prepuce, about the size of a lentil, and depressed in the centre ; the mass of enlarged glands persisted ; there was no roseola.

The limbs and trunk were the seat of papules, some capped by pustules in different stages of evolution, and with ulcers covered with scabs like oyster-

shells, surrounded by bullæ, and at the periphery by an erythematous areola. All intermediate stages between these eruptive elements were present. They figure in the photo-lithochrome.

At first the lesions are *papules*, crowned with *pustules* (1), the contents of which are sero-purulent. Soon their central portion becomes covered with a thick black scab (2), while a bullous elevation is formed at their periphery.



In a few days the elevation extends excentrically at the same time as the blackish scabs, becoming larger and larger, imbricated and prominent, assume the aspect which entitles them to the name of " limpet-shell shaped " (3). They become about three centimetres in breadth; an erythematous areola surrounds them to the width of about a centimetre.

If these scabs are removed by poulticing, their margins, sharply defined as if punched out (4), are exposed; rapidly they increase in depth from the

periphery towards the centre, where they transgress the limits of the derma and involve the subcutaneous cellular tissue, thus assuming the shape of a cup, the centre of which is destroyed over an area measuring more than a centimetre in diameter (5). Thus there is a cupped depression deeper than the derma by about five millimetres; it is filled by greyish and bloody *detritus*, with an obviously gangrenous smell. Light pressure upon the part is not felt; the bullous elevation and the areola persist (6).

The lesions are scattered about the trunk and limbs without any definite order; they are not all either ulcerative or gangrenous. Along with the rupioid scabs there are lenticular papules, which evolve without the occurrence of deeper changes. On the right tonsil an ulcer more than a centimetre in diameter may be seen; it is covered with greyish *detritus* and hollowed out in the centre.

The patient's strength was not reduced, and his general condition was satisfactory. He was treated daily by mercurial inunctions of 5 grammes each, lasting for a quarter of an hour; he also took 3 grammes of iodide of potassium daily. Gauze compresses, twelve times folded, impregnated with a 1 to 5000 solution of corrosive sublimate and covered with oiled silk, were applied to the ulcers, which had been previously cleared of scab. The ulcer on the tonsil was touched every two hours with cotton wool tampons saturated with liqueur de Van Swieten (*sol. hydrargyri perchloridi, 1-1000*).

On 5th July all the sloughs had separated.

On the 7th the appearance of the lesions had become distinctly altered; the central subdermic portion of the ulcers had lost their gangrenous aspect; they were covered with granulations, on the same level as the dermic ulcers into which they insensibly merged, these latter being also covered with granulations. Nevertheless, between the prominent granulating lesions there were a certain number of small ulcers, covered with a greyish layer, which could be detached; it appeared as if sloughing were still proceeding.

On 13th July the granulations were on the level of the healthy skin.

The rupioid and gangrenous lesions just described are very exceptional in syphilis. In denominating them *rupia*, we are in accordance with the nomenclature of Bateman, who thus designated *a lesion characterised by the formation of a thick scab, surrounded by a phlyctenoid elevation.* There is every reason to preserve this term, for the change of which it is descriptive is a sharply differentiated one.

Its immediate cause is an infiltration with centrifugal spread and disintegration; the progression is evidenced by the peripheral bullous formation, the disintegration by the ulceration. The production of the limpet-shell shaped crusts has, as its immediate causes, the successive drying up of the exudation and its imbrication.

Very seldom is this disintegration complicated with gangrene; it ought to be so, as the bloodvessels in syphilitic lesions generally remain permeable. It is also very rare for secondary syphilides to transgress the limits of the skin, and to involve the subcutaneous tissue, as in our patient.

The appearance of rupioid syphilides was remarkably early in this case, as they showed themselves three weeks after the patient, for the first time, sought medical advice for his chancre.

It is otherwise as regards the conditions in which these lesions developed. All authors who have discussed these eruptions agree that they are especially observed in persons debilitated either by preceding illness, by excesses, by overfatigue, or by privation. We have noted that our patient, on the contrary, was of most robust constitution, not alcoholic, and previously healthy. Can one, in such a case then, invoke the agency of slight fatigue from overwork in his trade? or must we blame the enfeeblement resulting from the intense mercurial stomatitis which attacked the patient after forty-eight hours of treatment? These causes do not generally produce such effects.

On the other hand, it is worthy of remark that the acute mercurial intoxication did not prevent the malignant development of the eruption, although afterwards the same drug employed in more favourable conditions contributed towards its improvement. This fact is not in favour of the treatment of syphilis by large doses of mercury. Local phenomena of intolerance do not imply in such a case that the organism is sufficiently impregnated with the curative agent.

Diagnosis offered no difficulties as the co-existence of the chancre, multiple adenitis, and tonsillar ulceration left no room for doubt.

The *prognosis* was not so grave as it is generally supposed to be in such cases; the changes, indeed, regressed with remarkable rapidity under the influence of a methodically regulated specific treatment.

This *treatment*, in contrast to that recommended by most authors, consisted essentially of the external and internal use

of mercury associated with iodide of potassium, which in a few days brought about the most satisfactory results.

We must add, in opposition to the observations recently advanced by Professor Neisser (Third International Congress of Dermatology, London, 1896), that our experience has been similar in most of the cases of malignant syphilis which we have had to treat. They are in themselves one of the principal causes of enfeeblement in the subjects affected, and it is, therefore, incumbent upon us to have recourse to any means capable of acting directly upon their cause—the syphilitic contagium.

In this case we employed inunction; now we should not hesitate to have recourse by preference to hypodermic injections, and especially to those of salicylate of mercury, which have the advantage of being efficacious and easily supported.

Following Professor Tarnowsky's example, we should repeat them once a week, injecting deeply a cubic centimetre of a preparation consisting of 4 grammes of the mercurial salt in 32 grammes of oil of vaseline. It is a good practice to rub the part where the injection is made for some minutes afterwards, to facilitate absorption.

Pathogeny.—Three causes have been invoked to explain these early malignant manifestations of syphilis.

Some maintain, and among them we would cite Professor Neisser, that a *deficiency of resistance of the subject* must be incriminated; that the activity of the virus is always the same, but that different organisations offer it different media; that lesions developing in debilitated or predisposed subjects assume greater gravity without any tangible reason; that proliferative as well as regressive changes are in such persons both excessively active.

Professor Tarnowsky (London Congress, 1896) maintains that *the difference of medium depends chiefly upon the fact that the tissues constitute a favourable soil for the development of pyogenic microbes associated with the syphilitic contagium*, and that it is by modifying it in this manner that the various conditions susceptible of debilitating the organism act. These

microbes are generally the *staphylococcus aureus et albus* and sometimes *special bacteria.*

Lastly, *all the phenomena may be explained by increased activity of the virus.*

Of all these methods of interpretation there is one the accuracy of which permits of experimental investigation, *viz.*, that which attributes a preponderant *rôle* to the association with microbes. But we must say that hitherto bacteriological research does not seem to be in favour of it.

It may be admitted, that pyogenetic microbes found in syphilitic ulcerations, only develop there secondarily. Unna clearly is inclined to adopt this view; he has, moreover, only very rarely observed the association with staphylococci; he even seems to recognise in syphilitic neoplasms an immunity towards pyogenetic infection. M. Jeanselme has arrived at similar conclusions from the study of a patient under my care suffering from extensive pustulo-ulcerating syphilides; out of five cultures two were sterile, two yielded large tetragonous bacteria with white cultures, one only yielded staphylococcus albus and the growth was feeble.

This being the case, it is difficult to attribute the occurrence of pyogenetic changes to the agency of microbes.

A priori, also, the pathogenic *rôle* attributed to these staphylococci may be considered as improbable; for if these microbes are frequently recognised as the cause of common suppuration, they never cause the bullous elevations with limpet-shaped scabs which characterise syphilitic rupia, and they appear to be incapable by themselves of causing gangrene of tissue.

It appears, then, that the syphilitic virus itself may become pyogenetic. Does it, then, possess activity in those circumstances? This seems most improbable. We know that experimentation can modify to a considerable degree the pathogenic power of a virus. It seems highly probable that different media which different organisms present *may* modify the action of the virus in the same way. Thus the virulence of the bacillus of tuberculosis becomes greatly diminished when it develops in the skin. In other conditions the reverse may occur.

The excessive activity of the virus may, therefore, be due to conditions of medium which the tissues offer it; it may also arise in the subject who conveyed the poison. In the absence of any adequate cause for debility (as in the subject of this article) the latter interpretation is as likely as that of a predisposition of indeterminate nature.

The lessons to be learnt from the study of these anomalous syphilides may be resumed as follows:—

1. *Early syphilitic rupia may be complicated with gangrene.*
2. *It may involve the subcutaneous tissue.*
3. *It may occur in robust subjects without satisfactory determining cause.*
4. *It is amenable to energetic mixed treatment.*
5. *It is probably not due to association with pyogenetic microbes.*
6. *Its immediate cause appears to be an excessive activity of the pre-existing virus, or the affected organism may present some predisposition of determinate or indeterminate nature.*

H. HALLOPEAU.

TREATMENT.

See note appended to Plate III.

PLATE XXVIII.

GANGRENOUS SYPHILIDES.

(1) TUBERCULO-GANGRENOUS SYPHILIDES. (2) GANGRENOUS GUMMA.

Models by BARETTA, in Professor FOURNIER'S Private Collection—No. 85, made in 1876, and No. 367, made in 1880.

THE cutaneous lesions portrayed in this photo-lithochrome are seldom met with in syphilis; and, when syphilides do present this gangrenous aspect, it may almost always be said that the syphilis is grave, or even somewhat anomalous.

Bazin, who was the first to study this form of syphilide, grouped it among his class of *early malignant syphilides.**

Our two cases—although they have common characters, including among them the occurrence of gangrene—differ somewhat with regard to their form. In the tuberculo-gangrenous syphilide, Model 85, the gangrene appears to be superficial and to have invaded the skin from the beginning. In Model 367 the morbid process appears to have spread from the depth towards the surface and we are dealing with a regular gumma, which has undergone evolution like other gummata, but the core of which has assumed a gangrenous appearance. This plate may be usefully compared with that given in Plate XI., in which a gumma of the thigh, occurring in the course of syphilis of unknown origin, was reproduced. In this case the gumma originated very deeply; but, as it is represented in the plate during its ulcerative period, with its

* Bazin, *Leçons sur la Syphilis et les Syphilides*, Second Edition, Paris, 1886, pp. 385, 444. Plate No. IV. in that work illustrates a case similar to our first one.

central core on the point of elimination, its appearance is very similar to that of Model 367.

In the present case, however, the slough is larger and of a more markedly greyish-green gangrenous tint. In both an almost identical appearance of the gummatous ulceration is to be seen, with its base already granulating, its margins abruptly cut, and a groove of demarcation established, showing where the slough is separated from healthy tissue.

In Model 85 the slough is superficial and spreads on a level with the surrounding skin ; but the circular groove indicating its separation may be seen in the form of a pink band or areola. The slough has been cut with scissors, so as to show the subjacent ulceration which has already taken place ; and this ulcer, when the slough has completely separated, will represent almost exactly, but with less depth, the appearance of the ulceration in Model 367.

Another point of distinction worth noting is the number of lesions on the same subject. Whereas the gumma or the gummatous syphilide is generally single—or, at least, occurs in very limited numbers in the same person at the same time —tuberculo-gangrenous syphilides, on the other hand, appear simultaneously or in rapid succession on numerous parts of the body. The regions most frequently attacked are the face, the posterior aspect of the trunk, the upper parts of the arms and thighs.

They originate as large papulo-tuberculous lesions of a coppery-red colour ; some of these undergo a gangrenous change, transforming their centre into a black and dry slough, which increases rapidly in size. The growth of these sloughs takes place by the development at the periphery of new concentric gangrenous zones ; so that a careful study of them discloses the traces of successive zones of which they are composed (Bazin).

The sloughs are black, very dry, and depressed in the centre ; they are surrounded by a hard, prominent, dark red, pad-like swelling, which is in continuity with them until the stage of elimination is reached, and also merges into the surrounding tissues.

When separation is about to occur, a furrow forms between the slough and this swelling as we have already shown; the slough gradually loosens and finally separates, leaving an ulcer at its seat. This gradually fills up, and ultimately is replaced by a whitish scar surrounded by a coppery zone.

As in the majority of the other forms of gangrene of the skin, the production of such changes can only be explained by the occurrence of vascular lesions, of thromboses occupying an entire zone of small cutaneous vessels, and involving, as the result of the arrest of the blood supply, the necrobiosis of the region which it is their function to irrigate.

These vascular changes are only an exaggeration of what is found on the histological examination of deep ecthymatous syphilides, which the lesions under discussion approach from the clinical point of view, although they are more intense in grade.

In a case of deep ecthymatous syphilides, in which a "biopsy" was made by Balzer, microscopic examination showed that the morbid process originated in, and was specially localised in, the vascular system.* He writes as follows:—

"It is seen in the sections that the infiltration of embryonic cells is localised with a marked predilection for the periphery of the vessels, around which they form, as it were, sheaths, more or less voluminous, and especially noticeable in the parts only slightly affected. Similar sheaths are met with around the perivascular lymphatic tissue, which is itself engorged with young cells. This cellular infiltration is not only observed outside the arteries of the skin; it also invades their external coat. And we have observed an intense inflammation of the inner coat in several arteries, with abundant proliferation of its nuclei. Only the middle coat remains unaffected."

As in the case of other cutaneous gangrenes—with the exception, perhaps, of those of tropho-neurotic origin—the cause

* Balzer, quoted by Fournier, *Leçons sur la Syphilis*, second edition, 1881, p. 323

usually invoked is the state of depression into which the patient has fallen, or, in one word, *cachexia*.

These ulcero-gangrenous forms are met with in severe syphilis, in malignant syphilis, and, as Bazin has shown, generally in those cases which pursue a rapid course and have been called "galloping syphilis". A pre-existing bad state of health, the moral collapse in which some unfortunate syphilitics fall, the existence of such well-known aggravating factors as paludism, alcoholism, etc., the lack of treatment, or the advanced age of the patient, generally explain the malignity of the disease. Although we are unable to procure full information regarding these two cases, it appears probable that in them some of these ætiological factors were at play.

Thus, the lesion in Model 85 was observed in a man seventy years old, only recently infected, and, therefore, at an age when syphilis is generally severe.

That in Model 367 occurred in a young woman, whose syphilis remained for a long time unrecognised, and was, therefore, untreated; she was, moreover, according to the notes, profoundly cachectic.

The treatment of these manifestations is naturally "specific"; but tonic measures play a part as important, if not more so. In some cases, indeed, specific treatment should be stopped, as it increases the weakness of the patient. We must, therefore, have recourse to tonic medication in the first place, to nourishing food, injections of serum, sea-baths, etc.; indeed, to everything that can increase the patient's strength.

The "mixed specific treatment" ought to be employed, but in such a way that the stomach is free for the administration of food and tonic medicines. Iodides should, therefore, be administered in the form of enema, and mercury by inunction, or, better still, by subcutaneous injection.

Lastly, local treatment is of great importance. The separation of sloughs must first be promoted by emollient applications, or antiseptic sprays. These latter may also be used to clean the base of the ulcers, to promote the growth of granulations, to protect the wounds from infection. They may be covered with moist antiseptic dressings, or with

powders (*e.g.*, iodoform, di-iodoform, quinine, carbonate of iron, etc.), such as are used for unhealthy wounds.

Finally, a few light applications of acid nitrate of mercury will notably stimulate progress towards cicatrisation.

HENRI FEULARD.

TREATMENT.

See note appended to Plate III.

PLATE XXIX.

EPITHELIOMA ARISING FROM A LUPUS SCAR.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 981, made in the year 1884, from a patient under the care of M. E. BESNIER.

THE importance of the case here represented centres in the general interest of the question of the development of epithelioma secondarily to lupus and scar-tissue. From the personal point of view it will suffice to say that the patient here represented came under the observation of my master, M. E. Besnier, at the age of thirty-three years, on 24th March, 1884, when she presented the appearance reproduced in the photo-lithochrome; that her lupus dated back to early childhood, her epithelioma to the age of thirty years or thereabouts; and that her general condition remained satisfactory till the very last months of her life, when hæmorrhage, anorexia and emaciation supervened, and became more and more aggravated up to the date of her death on 11th June, 1886.*

I.

We have to deal with an enormous epitheliomatous growth situated in the right pre-auricular region, which appears to have started, about three years previously, from the centre of the cheek; at all events, it is stated that fungating lesions,

* The only details of the autopsy worthy of note were: (1) The complete absence of epitheliomatous infiltration of the tissues and viscera. (2) The existence of tuberculous lesions in the apices of both lungs, in the form of recent grey granulations, and tubercles with fibro-caseous masses as big as hazel nuts, and depressed pigmented scars riddled with chalky nodules, from which fibrous bands took their origin.

which were then present, were destroyed by thermo-cautery at that time.

However that may be, at the time of admission to hospital the mass was bulky and prominent; the photo-lithochrome, as well as Baretta's model, gives but a very imperfect conception of the prominence, the inevitable contraction of the modelling

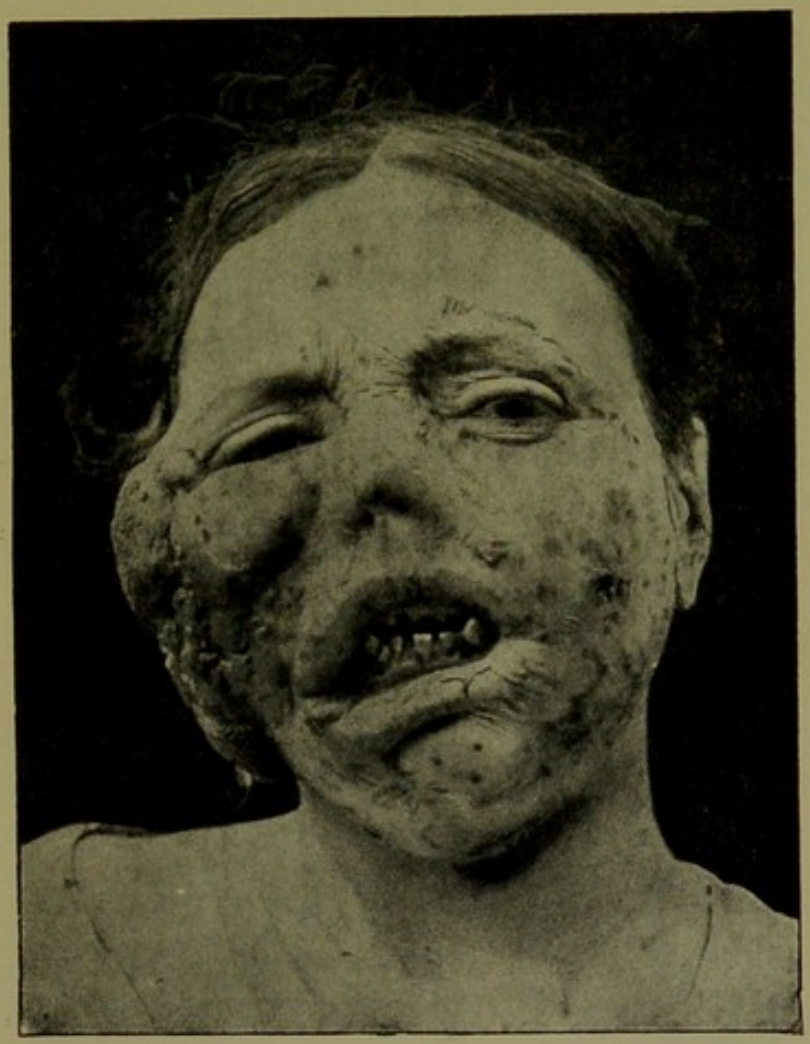


FIG. 1.

medium always resulting in marked shrinkage of the neoplasm in cases of this sort. A correct conception can, however, be obtained by a glance at the accompanying block, made from a photograph (fig. 1), which, being taken "full face," shows the outline and prominence of the tumour. It will be manifest that there is an enormous spreading epitheliomatous plateau, an immense cancroidal fungating mass, bounded at the

periphery by an incomplete raised margin, traces of which are clearly seen at the upper part of the growth in the photo-lithochrome.

The mass, which was shiny and oozed as if varnished, was of a brick-red colour as a whole, but from this background there stood out a large number of rounded granulations the

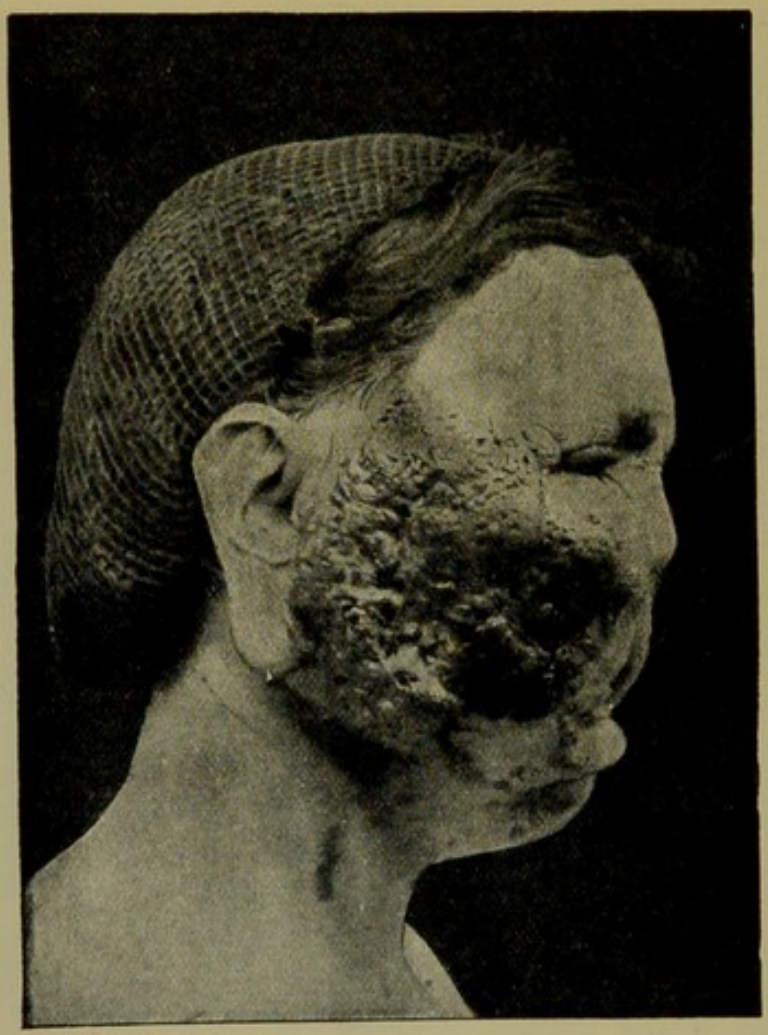


FIG. 2

size of a small pea, some of which were dark red, like hæmorrhages. Others, on the contrary, were bright red, or even whitish and lustrous like wax, these being the characteristic "granulations" of epithelioma, which can generally be easily enucleated and crushed between the fingers. They constitute the bodies which appear histologically to be composed of epithelial cells, either arranged without any definite order or,

on the contrary, grouped in concentric circles, the latter corresponding to Lebert's "epidermic globes" or "cell nests".

II.

No profound study of the photo-lithochrome is necessary to be assured that the epithelial growth does not arise from healthy tissue, but that it has developed from an immense lupus scar, which, extending from ear to ear, occupies almost the entire face, with the exception of the forehead. This cicatrix, which was of very old date, and the irregularly digitated, fringed border of which on the neck can be recognised in the plate, had produced, among other disorders, *ectropion*, most marked in the lower lip. Like most old lupus scars, it was not simply and exclusively fibrous, for at several points reproduction of lupus nodules could be seen, and the lobule of the ear, more especially, can be seen to be infiltrated with lupus tissue. The epithelioma, therefore, is grafted *on a lupus scar*, as our heading indicates.

III.

This is a notable example of the fungating form of these epithelial growths; but in addition to the cases in which the new growth shows itself in the form of a prominent tumour there are others in which phagedæna of the cancerous mass is penetrative and ulcerative rather than exuberant. I would draw attention to figures 3 and 4 from a case recently observed by M. E. Besnier. This unfortunate woman attained the culminating point of human hideousness owing to disfigurement from lupus, from its scars, and from epithelioma; but in her case the ulcerative tendency greatly predominated over the tendency to tumour formation, so that the cervical region was converted into an immense ulcer, at the lower end of which the common carotid artery could be seen beating.

In the figures (3 and 4) one of the common secondary effects of neoplasms of all sorts may be noted, *viz.*, *œdema* of the neighbouring parts. The upper and lower lips are trans-

formed into œdematous swellings; the right lower eyelid has become an immense prominence, blocking up the eye and rendering the part completely unrecognisable. In the photo-lithochrome an analogous state of affairs may be seen in the lower lip and upper eyelid, but only to a very slight degree.

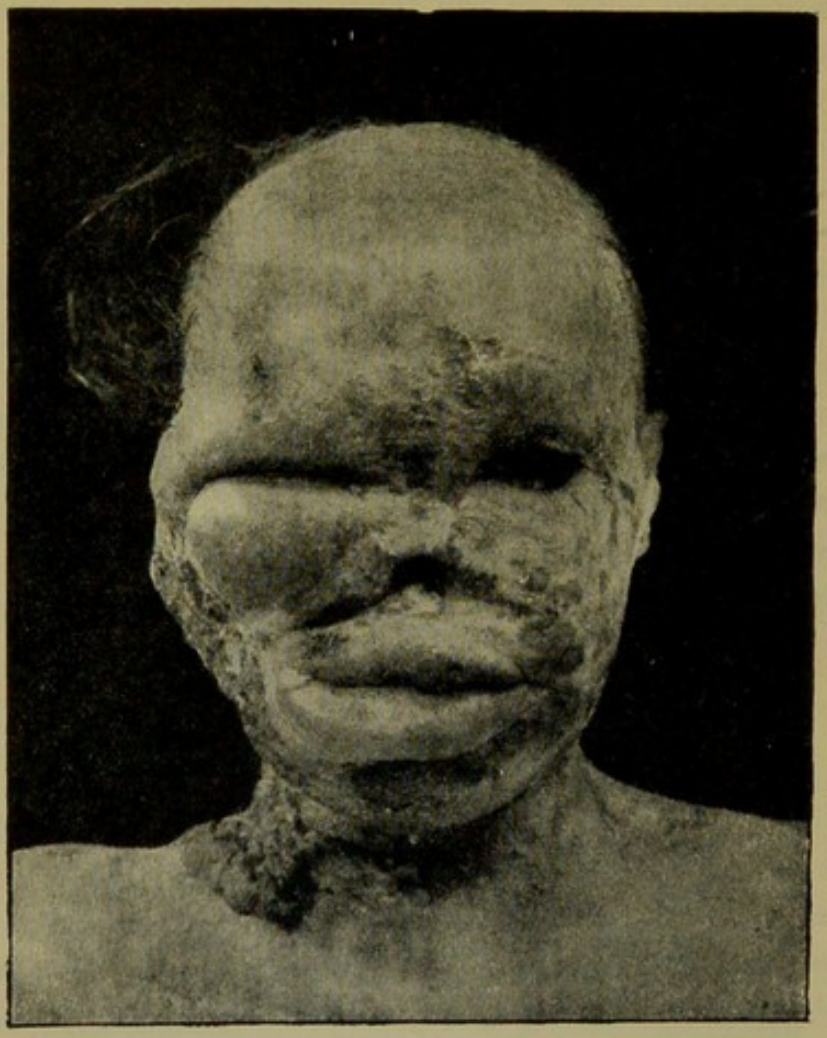


FIG. 3.

IV.

In spite of the benign character generally attributed to epitheliomata arising from scars,* the evolution of these epitheliomata is very rapid and fully justifies the epithets of "penetrative," "phagedenic," "serpiginous," etc., applied by

* *Vide* C. Durand, *De l'épithélioma pavimenteux des cicatrices*, Thèse de Paris, 1888.

writers to them. The rapid spread of disease in this case can be verified by a comparison of the photo-lithochrome with the photograph (fig. 2) taken a few months later, from which it will be evident that the growth had progressed in every direction, and that the labial ectropion had become more marked.

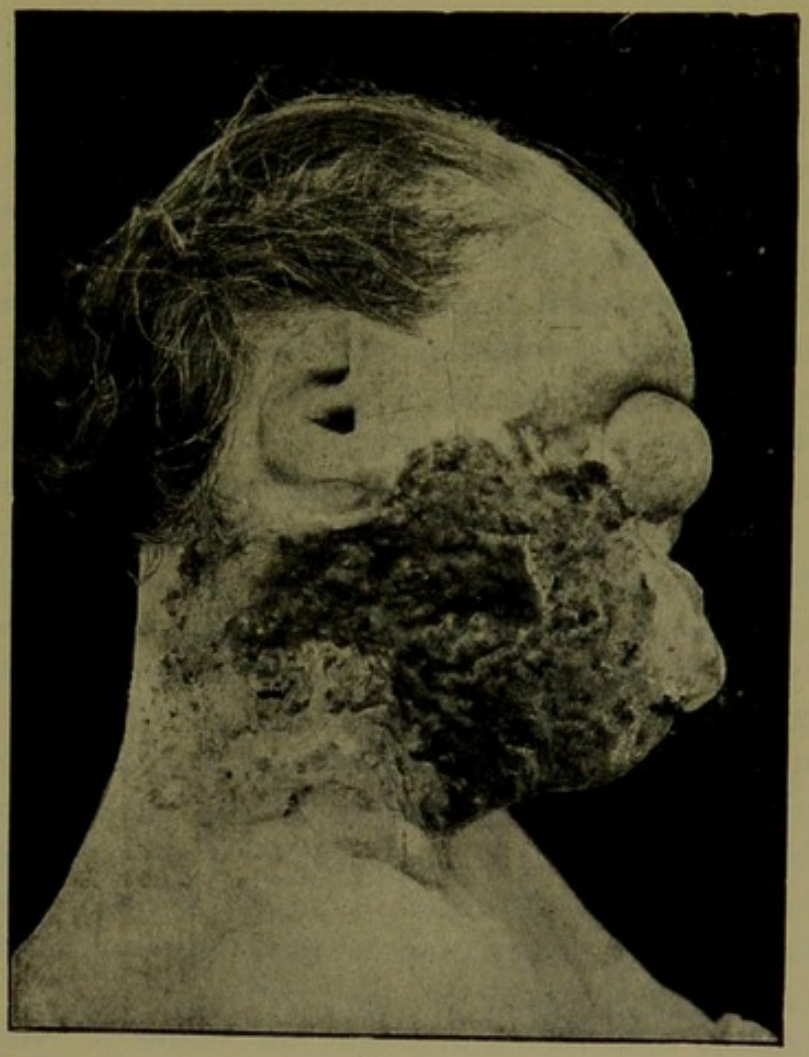


FIG. 4.

But there are cases in which the much more rapid spread of the disease should be designated by the epithet "galloping". Such is M. Vidal's case* of a woman, still young, in which, in less than six months, the upper lip, the right cheek, and the sides of the nose became red, infiltrated, and had attained an

* *Réunion clinique des médecins de l'hôpital Saint Louis*, 13 juin, 1889, p. 215.

enormous size, while a small epitheliomatous granule situated below the left nostril grew in a week as big as a hazel nut.

V.

The influence of the irritation of tissue in the ætiology of epithelioma is so well known as to require no further insistence here; it is a fact of the most absolutely commonplace order that all parts of the skin or of the mucous membranes which have been subjected to injury, or are the seat of repeated and prolonged irritation, whatever be its nature, may become the point of implantation, the seat of invasion, the surface of germination, and, as M. Besnier has said, the soil for cultivation of the "epitheliomatogenous" agent. And this very commonplaceness suffices to show that the different forms of irritation play probably only "the *rôle* of an adjuvant or provocative condition, facilitating the access of an irritant, specific, ubiquitous agent".*

But among those sources of irritation lupus stands in the front rank, if not on the ground of frequency, at least on account of the hypothetical interpretations which have been attributed to its action.

Firstly, it is to be noted, as has already been pointed out, that perhaps it is not so much the lupus as the resulting cicatricial tissue which is responsible; for it is well known that scar tissue devoid of all neoplasm may become the starting point of epithelioma, many years after its formation, sometimes after as long as fifty years.

But in our case the cicatrix was not "pure". Numerous foci of new lupus growth were present, and doubtless existed at the time of the development of the neoplasm. We are bound, then, to inquire whether tuberculosis of the skin can of itself determine the origin of the new growth. Nothing in this case tends to support the hypothesis which would regard epithelioma as a degeneration or transformation of one morbid tissue into another; nothing about it authorises one to see in

* French translation of Kaposi, second edition, vol. ii., note on page 669.

it an atypical modification of the primary pathological product analogous to the asserted "cancero-syphilitic hybrids," for instance. On the contrary, the very characteristic appearance of the epithelioma, its mode of evolution, its limitation—despite the very extensive area invaded by the lupus — all tend to indicate an implantation, an inoculation, an "epigenesis" upon a previously prepared soil.

VI.

To dilate upon the question of treatment here would be superfluous, as it was evident at the date of the patient's admission to hospital that only palliative measures of slight value could be employed. The only lesson to be learnt from the sight of such frightful lesions is, that every medical man treating a case of lupus should watch the diseased or cicatricial area with constant and scrupulous care, and as soon as any suspicious nodule or ulceration appears should resort without hesitation to one of the destructive agents now at our disposal, *viz.*, caustics, scraping, thermo-cauterisation, or, if need be, surgical removal.

LUCIEN JACQUET.

PLATE XXX.

ERYTHEMA IRIS.

ERYTHEMA IN CONCENTRIC CIRCLES. HYDROIC ERYTHEMA. HYDROA VÉSICULEUX OF BAZIN.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1318, made in the year 1888, from a patient under the care of Professor FOURNIER.

ERYTHEMA IRIS, also termed erythema in concentric circles (*en cocarde*), is a variety of polymorphous erythema. It is a figured, bullous erythema (E. Besnier), in which the elevation of the epidermis by exudation and the erythema are arranged concentrically so as to form an eruption in concentrie circles, thus justifying the epithet bestowed upon it.

This variety has been well studied by Bazin under the name of Hydroa vesiculosum. Erythema iris is, therefore, often denominated hydroa in France, or, preferably, hydroic erythema.

The eruption begins as dark red, circular spots, slightly projecting above the general skin level, and with accurately defined margins. Their size varies from that of a lentil to a twenty-centime piece; they are generally surrounded by a pink areola. A small vesicle soon appears in the middle of them; this dries up rapidly, and a blackish central crust forms, while the liquid is more or less completely absorbed at the periphery; these changes take place in two or three days.

The eruption then assumes the special aspect easily recognised in the photo-lithochrome with a blackish scab in the centre, outside it a greyish phlyctenular zone formed by macerated epidermis, which is only partially attached to the derma after the partial resorption of the liquid contents of the

vesicle. There is a surrounding zone of erythema limiting the primary elementary lesion. In some cases, as in this, a second concentric zone of vesicles forms outside the original lesion, bounded in its turn by another zone of erythema, more or less extensive. The "cockade-like" rings are thus, so to speak, doubled. Their size, as depicted in the plate, is, however, exceptional.

In addition to the erythemato-bullous lesions in circles, characteristic of this variety of polymorphous erythema, there are generally also present patches of simple erythema or of papular erythema, as may be seen in the plate; in other cases vesicular, or even bullous lesions, may also occur.

The usual seats of hydroic erythema are the backs of the hands, the wrists and elbows, the fronts of the knees, and the ankles. This variety of erythema is more frequently accompanied by eruptions on the mucous membranes, especially of the mouth and lips, than any other. On the lips in particular superficial greyish lesions may be seen, the result of separation of the upper layers of the mucous membrane; some ulcerate and simulate to a marked degree syphilitic mucous patches, for which hydroa of the lips has very often been mistaken.

The number of these lesions on the lips is sometimes so great and their confluence so marked that a veritable stomatitis may result.

Hydroic erythema is not a serious affection; it spontaneously disappears in four or five weeks.

It usually appears in successive attacks; each individual lesion develops in a few days, but the general duration of the disease is prolonged by the appearance of successive crops. Sometimes the severity of the buccal manifestations is so great that mastication is interfered with, and solid food cannot be taken.

A special feature of the disease is its tendency to relapse, and this is one of the causes of its being confounded with syphilis, especially when it appears on the mucous membranes. I have lately seen two young men who have suffered from frequent attacks of hydroa with intense implication of mucous

membrane, both of whom had been subjected to "specific" medication by their medical men on the occasion of each attack.

The *general symptoms* accompanying erythema iris are the same as in other forms of polomorphous erythema. Usually slight, they consist in the most marked cases of fever at the commencement, aching pains, malaise, anorexia, etc., and are generally of short duration. The immediate cause of the eruption, as of most erythemata, is unknown.

The *general pathogeny* of the multiform erythemata is treated of in masterly fashion by Besnier and Doyon in their Annotations to the second French edition of Kaposi's *Traité des Maladies de la Peau*, vol. i., page 379.

The *general causal factors* are individual predisposition and, especially, early adult age; the effect of season is often invoked, but appears to us unimportant, although we have observed the greater number of our cases of hydroa in hospital practice in spring and autumn; lastly, there are commonplace causes, such as chills.

Among *special causal factors* may be cited the ingestion of certain foods or drugs, the absorption of septic substances, the most diverse forms of infection. Polymorphous erythema may show itself, as is well known, in the course of numerous general diseases such as rheumatism, gonorrhœa, cholera, typhus, puerperal fever, leprosy, syphilis. It may be noted that the patient who formed the subject of this model fulfilled two of these conditions, for he was eighteen years of age, and suffered from an infective disease, *viz.*, syphilis. On admission the diagnosis in addition to erythema was "syphilitic chancre, benign roseola".

This co-existence of syphilis and erythema multiforme is an interesting fact to notice from the general pathological point of view, as well as from that of exact diagnosis, for, as we have said, it is with syphilis that hydroa is apt to be confounded, especially when it affects the mucous membranes. The diagnosis must rest upon the discovery of the eruptive elements on the skin, upon the recognition of their characteristic concentric arrangement, and upon the determination

of the little umbilicated scab surrounded by a slightly dark zone, if the eruption has partially disappeared.

The *treatment* of hydroic erythema is very simple; it is chiefly that of the symptoms, and need only be employed if the eruption is confluent in the mouth, when it is the same as for other forms of stomatitis. Simple powdering with starch suffices for the lesions on the skin, and on no account must the lesions be irritated or made to suppurate by ill-timed dressings. No general treatment is called for unless there be general symptoms. Iodide of potassium which has been sometimes lauded in multiform erythema seems to yield no results.

General hygiene, especially attention to the digestive functions, mild alkaline medication, and perhaps arsenic in small quantities, may be recommended as preventive of relapses.

HENRI FEULARD.

[The misleading name of "Herpes" iris is still in frequent use in this country to designate the eruption here illustrated, the obvious relationships of which are with the group of multiform Erythemata. Nomenclatural absurdity reaches a still higher point in Germany, where Ringworm is commonly termed Herpes (!) tonsurans.

There appears to be a general tendency towards limiting the use of the term Hydroa to the large and somewhat inchoate group of vesicular and bullous eruptions intermediate between the multiform Erythemata on the one hand and Pemphigus on the other, including the Dermatitis herpetiformis of Duhring.—J. J. P.]

TREATMENT OF ERYTHEMA IRIS.

Erythema depends on a variety of causes and its origin should be carefully sought for in every individual case. Many attacks depend upon some digestive disturbance or an idiosyncrasy towards some particular food or drug, and can be got rid of by a simple purgative and an alkaline mixture.

Others are of rheumatic origin, and will disappear under salicylates, salicin, or salol.

In very acute cases Boeck has recommended antifebrin. In severe cases the patient should remain in bed in order to ensure complete rest.

If local treatment is necessary simple soothing preparations are indicated. The lesions may be dusted with a powder composed of equal parts of powdered zinc oxide and starch, or calamine lotion or zinc ointment may be applied.

If there is much irritation a lotion containing a small quantity of liquor carbonis detergens (℥ ij ad ℨ viii) will often be found to give relief.

Between the attacks tonics such as iron, quinine and cod-liver oil should be given and occasionally small doses of arsenic are useful in preventing relapses.

J. J. P.

PLATE XXXI.

LICHEN PLANUS OF WILSON,

OF THE PAPULO-ERYTHEMATOUS VARIETY.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1061, made in the year 1885, from a patient under the care of M. HALLOPEAU.

AMONG the most remarkable evidences of progress in modern dermatology must be cited the differentiation of the various clinical types which constitute different morbid species or different diseases, in the fullest acceptation of the term.

One of the most striking and most characteristic skin affections is the Lichen of Wilson. It is usually termed, in ordinary parlance, Lichen planus ; but this designation is defective, as there are "tuberous" forms of the disease.

By the character of its elementary lesions, by the frequent involvement of the buccal mucous membrane, as well as by its distribution, this skin affection is sharply differentiated from the other papular eruptions, with which it was previously confounded under the name of *Lichen*, until the works of the eminent English dermatologist, Erasmus Wilson, revealed the characteristics which properly belong to it.

Wilson's Lichen is a polymorphous affection ; the appearance of its elementary lesions may vary within such wide limits that at first sight it looks as if one were dealing with different diseases ; only the co-existence of the various concomitant types allows of their being consigned to the same category.

This polymorphism may be learned from a study of the numerous models representing the disease in the Saint Louis Hospital ; there may be seen, besides the typical papules, obtuse or acuminate papules ; or erythematous, circinate, "tuberous" patches ; or even eruptions in sheets, or atrophic

lesions; and even then the series is not complete, for the type described by Kaposi under the name of "moniliform" is not yet represented.

Several of these varieties may occur at the same time, and it was so with the patient whose eruption is partially delineated in our photo-lithochrome; for although this eruption was composed of flat papules over the greater part of the body, it assumed the erythemato-papular type with miliary elements beneath the breasts.

The patient's history may be thus epitomised: She was fifty-five years old, and was admitted on 21st May, 1885, to bed No. 40 in Biett Ward; in her previous history there was nothing worthy of note, except the occurrence of rheumatic pains in the joints, and headaches; she said she was nervous. The eruption which brought her into hospital began two years previously; at first it was very discrete; after the death of her husband, eight months before admission, it had extended over the entire trunk.

When the model was made the eruption was for the most part discrete, but confluent in places. Thus, in the flanks there was present on both sides a broad band, which descended down the outer sides of the thighs and extended into the loins. The eruption was also very abundant and partially confluent in the lumbar region, from which it ascended up along the spinal column as high as the fourth dorsal vertebra, whence it extended laterally in the interscapular regions. It was also abundant and erythematous in the submammary regions.

The elementary papules are mostly flat, shiny—especially when seen by oblique light—and somewhat prominent; their colour, for the most part, resembles that of sugar candy, but in places is coppery; in size they vary from a millet to a hemp seed; most of them are rounded; a certain number, however, are elongated and assume an oval shape, their long diameter sometimes greatly predominating over their transverse. These elongated forms are chiefly present in parts where the skin is in folds—*e.g.*, in the groins—and they are then the mechanical result of the folded arrangement of the parts; but the rule is not absolute.

A limited number of the elementary lesions are partially covered with fine scales of a greyish-white tint, which are easily detached.

Some of the papules are brighter in colour at the periphery, while a few present a cupped depression in their centre; they thus assume an umbilicated appearance. They are either isolated or confluent, and may be arranged in groups, or in linear series.

In some regions the papules are seen to be surrounded with a faint erythematous zone.

In the submammary regions the appearances presented by the eruption are quite special; it is arranged in the form of a broad band, which lies transversely, and covers the lower portion of the breast, as well as the subjacent part of the chest wall; it is three centimetres in width at its broadest part; its characters are far from uniform; it is manifestly composed of the union of multiple papulo-erythematous plaques, the outlines of which can be easily discerned, but a certain number of these plaques are still isolated outside the principal group. There exists, therefore, rather an agglomeration of papulo-erythematous islets than a uniform band of eruption.

These elementary plaques are of very variable dimensions. All sorts can be seen, from little aggregations of two or three small papules up to groups composed of twenty or thirty, but the essential lesion is always a papule. The erythema represents the areola previously pointed out around the isolated lesions, and the diffuse redness and formation of extensive erythematous plaques are the results of confluence. All over this affected part the lichen papules are remarkable for their small size; the majority are not bigger than pin heads; some are smaller and punctiform, justifying the name of *miliary* assigned to them by Dubreuilh. The redness of these patches is much greater than that of the isolated lesions. In this region, too, the eruption is not so dry as elsewhere, and sometimes it is found to be moist, or even to ooze slightly. This is, however, the result of its localisation; the eruption of itself is not responsible for the phenomenon.

This skin disease, although only slightly itchy at first, became much more so afterwards; the patient asserted that her subjective sensations were aggravated by mental emotion.

No change was noted in the mucous membrane of the mouth.

Diagnosis presented no difficulty. The punctiform umbilication of some of the lesions, their grouping in linear series, and the itching precluded all idea of syphilis. The tint of the papules in places recalled that of the nodules of Lupus, but their shining aspect, smooth surface and umbilication all rendered any mistake on that point impossible. Only the erythemato-papular patches could present any difficulty of interpretation if they existed alone, for the erythema somewhat simulated intertrigo, which is so common in the infra-mammary regions. But careful examination disclosed the presence of the small papules which are foreign to the symptomatology of that affection.

On the other hand, the existence of the papules typical of Lichen round the borders of the erythema leave no room for doubt as to the disease, for they are incontestably the papules of Wilson's lichen; but the case presents certain characteristics which deserve mention.

1. *The aspect presented by the papules is not that most frequently observed in Lichen planus*, for almost all are rounded, although as a rule the elementary lesions are distinguished by their polygonal form and geometrical outline; nor can the delicately crinkled cross-marking (*quadrillage*) of the skin, which represents the abortive form of the eruption, be noted.

2. *The formation of broad, papulo-erythematous bands by confluence of the initial lesions is not by any means a usual occurrence in the clinical course of these lichens;* here the erythema seems to be the consequence of the irritation and inflammation, of which these bands are the seat. The congestion does not remain confined to the primordial lesions, but spreads from their periphery, and thus makes up the broad erythematous bands where the papular eruption becomes confluent.

3. *It is of interest to inquire why the eruption is more*

abundant in the infra-mammary regions than anywhere else. The simple contact of adjacent cutaneous surfaces in the groove below the bosom would afford a sufficient explanation of the fact; for we know that one of the special characters of Lichen planus is to localise itself for preference in parts subjected to pressure, or to frequently repeated irritation, such as the waist, the front of the forearms, the loins, etc., and we recently saw a case in which the eruption was confined to the parts in contact with the shirt collar. In favour of the hypothesis of an infective agent of external origin, the changes in the reaction of the skin due to constant impregnation of the infra-mammary groove with sweat and sebaceous products might also be invoked.

4. *The vascular areolæ visible on several papules are also worthy of observation.* They exactly recall by their arrangement the *striæ opalinæ* frequently observed on cutaneous plaques, and which often represent the sole manifestations of the disease in the mouth. This leads us to think that these striæ, which have not received sufficient attention from histologists, are due to the presence of exudation along the course of the blood-vessels.

A small number of the papules present a depression in their centre corresponding to the dilated orifice of a sebaceous or sweat duct; and it is possible that this dilatation is also present in other elements, although masked by hyperplasia of the epidermis if, as Neumann and Kaposi think, the disease affects the hair-follicles and surrounding tissue in the first instance. The characters of the lesions inside the mouth are, however, not in favour of this primarily glandular localisation.

We remember to have seen *dilatations of the sweat-pores existing alone*, and not surrounded by papules, in the palms in some cases of lichen planus of the forearms. This observation does not tally with the theory that the umbilication of the papules of Lichen planus is due to the retention of their central portion by a gland duct while the surrounding tissues are raised from swelling of the papillary layer.

5. *Do the particular characters which we have just indicated in the eruption represented by the photo-lithochrome*

furnish us with any indications as to the nature of this disease, about which there is so much controversy? Two principal theories are evoked; some authors, at the head of whom stand Besnier, Köbner and Jacquet, consider the immediate cause of the disease to be *a disorder of innervation*, and powerful arguments militate in favour of that view. For a neuropathic condition is manifest in the majority of the subjects affected with the disease; its appearance is often consecutive to violent mental emotion, and this appears to have been the cause of the relapse which brought about the wide dissemination of the lesions in the case here represented; the localisation of lichen according to the distribution of nerves has often been reported; it has been pointed out that the *lichenisation* appears to be consecutive to the pruritus; the distribution of the elementary lesions in linear series may be explained by trophoneurotic changes resulting from scratching.

To these arguments the partisans of the *infective theory* reply: The neuropathic condition is not constant; it may be consecutive to the disorder caused by the intense pruritus; lichenoid lesions distributed along the course of nerves do not belong to Wilson's type; the pruritus is not the essential cause of the eruption, which may develop without any abnormal sensation, as in the case of lichen planus in the mouth; the arrangement in linear series is explained by propagation and auto-inoculation of successive infective elements; it is by diminishing the resistance of the epidermic layers that rubbing or repeated contact evokes the localisation of the eruption in its seats of election.

We have pointed out the linear series of papules which permit of these different interpretations, and we have also seen that the signification of this localisation of the papulo-erythematous eruption in the infra-mammary folds may be considered as in support of one or the other theory: the problem still awaits its solution.

As regards the evolution of this variety of Wilson's Lichen, it may be asked whether or not we are dealing with an acute attack. It generally is so in the case of the erythematous

forms; and this question is not uninteresting, for, as we have already said, the acute forms generally run a rapid course. In appearance more intense and more grave than the chronic forms, they have, nevertheless, a tendency to terminate rapidly by resolution.

Unfortunately it was not so with our patient, for after remaining several weeks in our ward she went out without any appreciable change in her eruption, although improved as regards her subjective symptoms, which were of the most distressing nature. This means, that in spite of the erythema the case was really not one of the acute type; but the fact that the eruption had assumed this character in the infra-mammary regions was due to purely local causes; elsewhere the eruption was really a chronic lichen planus.

From these considerations it results that the *prognosis* of this papulo-erythematous localised form of the disease must be considered relatively grave, as it is an affection of long duration and distressing on account of the painful concomitant sensations.

As regards *treatment*, the localisation of the disease below the mammæ points to the necessity for separating the cutaneous surfaces, the contact of which gives rise to irritation, either mechanical or chemical. This is accomplished by the interposition of a layer of aseptic lint and absorbent wool. The application of lotions of boric acid or acetate of lead may also be advised. As far as active treatment is concerned, that which appears most efficacious in chronic cases of Lichen planus may be employed—*viz.*, the local application of glycerole of tartaric acid (1 in 20), warm douches, and arsenical preparations internally or hypodermically.

H. HALLOPEAU.

TREATMENT OF LICHEN PLANUS.

The most effective drug in the treatment of chronic lichen planus is undoubtedly arsenic, but it is by no means uniformly successful and the cases in which it is used must be selected with judgment.

The most convenient method of administering arsenic is

either the Pharmacopœial liquor arsenicalis or in the form of a pill; the dose must be increased until improvement commences or until physiological effects—which must be carefully looked for—are produced, but the drug should not be continued longer than is actually necessary, as it tends to increase the intensity of the patches of pigmentation which are left by the disease. Hypodermic or intramuscular injections of arsenic have also been recommended in doses of ♏ii of the liquor freely diluted; their advantage consists in the greater rapidity of the effects which are produced, but they are often very badly borne. The acute stages of the disease should never be treated with arsenic.

Where arsenic fails or is contraindicated tartarated antimony or perchloride of mercury may be tried. Tartarated antimony in the form of antimonial wine may be used in acute cases where arsenic cannot be given, and has often proved successful in doses of ♏xv three times a day.

Perchloride of mercury was first recommended by Liveing, and may be given in the form of the Pharmacopœial liquor. The red biniodide of mercury, in doses of $\frac{1}{16}$ to $\frac{1}{32}$ of a grain in pill form, is also much prescribed. In cases associated with marked nervous irritability bromides or valerian may often be given with advantage; in others general tonics are indicated, as strychnine, quinine and iron. Absolute rest in bed is an important factor in the treatment of acute cases, where it does much to shorten the duration of the disease. Externally, the choice of applications must depend on the stage. In acute conditions, calamine or lead lotions are useful, and the addition of a little tar will relieve itching; thus liquor carbonis detergens may be added to calamine lotion in varying strengths from ♏x to ℥i in the ounce. Thymol or naphthol (gr. x or more ad ℥) may be used as an ointment made up with lard or vaseline, or dissolved in the Pharmacopœial paraffinum molle.

The following formula is useful for very itchy chronic patches:—

R.	Acidi Carbolic.		gr. x
	Hydrarg. Perchlor.		gr. i to ii
	Unguent. Plumbi Subacet.		℥ ii
	Unguent. Zinci Benz.	ad	℥ i.

J. J. P.

PLATE XXXII.

BISKRA BUTTON.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1215, made in the year 1887, from a patient under the care of M. E. VIDAL.

THE heading of this article is justified by the fact that the patient who formed its subject contracted the disease represented at Biskra. But it must be at once observed that this narrow designation corresponds to nothing of a specific, or even of a special nature, at least in the actual state of our knowledge. For the Biskra "button," is singularly like the Aleppo "button," and both are strikingly like all the other "buttons," or "boils," which come from the East. Consequently innumerable names of purely local origin applied to them may be abandoned in favour of the more comprehensive term of "endemic Oriental boil," or "endemic boil of hot countries," proposed for them by M. Besnier.

I.

The patient whose case we are about to study shortly was twenty-two years of age. It was published in full by M. Bouquet in his inaugural Thesis on Biskra button, Paris, 1887, *chez* Davy. There was nothing remarkable in his history, except that, having gone to Algeria as a soldier in December, 1885, he remained in Biskra from February to December, 1886, and while there in October he contracted intermittent fever of tertian type, which lasted for two months and was cured by sulphate of quinine. He left Biskra to return to France on December 2nd, and at that time presented no cutaneous lesion.

It was only *eighteen days afterwards*, whilst in Paris, that he noticed on the dorsal aspect of the left wrist, over the base of the fourth and fifth metacarpal bones, a small boil, which spread for two or three days, while its centre became covered with a rounded yellow scab, beneath which there was pus. Some days afterwards similar lesions appeared simultaneously, scattered over different parts of the body.

Thus, on admission, his nose, which was red and slightly swollen, presented at its tip a yellow scab, the size of a lentil, somewhat prominent and surrounded by some small miliary pustular prominences.

Around the primary lesion, on the dorsal aspect of the left wrist, there were four "buttons," made up of a flattened scab, slightly umbilicated in the centre, of brownish tint, and resting on a red prominence, the size of a lentil, surrounded by an erythematous zone, which disappeared on pressure. On the palmar aspect of the same wrist, in front of the lower end of the radius, there were two small similar lesions, and another in the lower third of the internal border of the forearm.

These analogous lesions were present on the right wrist, two in front of the epitrochlea, and finally several others were scattered over the thighs, buttocks, popliteal spaces and legs.

In the erythematous zones, around each of these lesions, small miliary red tubercles could be seen, which were considered to be the initial lesions.

The general condition of the patient was good; he had no internal disorder, and no albumen in the urine. As treatment a piece of red plaster, according to M. Vidal's formula, was applied over each boil.

II.

This was the mode of evolution of those lesions: On the following days the scabs separated, disclosing small ulcers with abruptly cut margins and yellow purulent bases. The majority of these ulcers were rather deeply excavated, only that in the nose being quite superficial. The photo-lithochrome brings out these differences.

Despite treatment the lesions spread, not only in depth but also in area, and each lesion continued to spread excentrically till the middle of January, 1888, as may be seen in the ulcer on the nose, which in the plate is the size of a fifty-centime piece, although at first it was only the size of a lentil. On the other hand, one of the lesions on the buttock assumed a carbuncular aspect, and it was easy to express little purulent masses from its base, as if from the "rose" of a watering pot.

In the middle of January the majority of the ulcers showed a tendency to cicatrise, their bases granulated up to the level of the margins and became covered with a smooth yellow crust. The ulcers on the left wrist persisted longer, but on January 25th they began to heal, and by the middle of February their recovery was complete, only purplish depressed scars remaining.

III.

I shall now indicate in a few words the points in which this case resembled the classical cases of the disease, and those in which it differed from them.

The period of incubation, or, to speak more exactly, the period of latent germination, was longer than one would expect according to the experimental researches of Weber, Boinet, Depéret, and Chantemesse, who agree in putting it at about three days. In one patient this period lasted eighteen days, and in a case quoted by Kaposi it lasted six weeks (second French edition, page 534).

But it must be pointed out, as E. Besnier had done, that the experimental conditions are "extremely variable, according as the irritating germ is deposited on the surface of the healthy skin lodged in a follicle, or received by a pre-existing lesion either traumatic or pathological," and that the apparent variations depend without doubt "upon circumstances which delay the arrival of the germ at the seat of growth, and upon the variations of the conditions necessary for its fructification". As regards the morphology of the lesions on the wrists, and in most of the regions affected, there is nothing which renders

them distinct from those of ordinary cases, but it is different with the lesion on the nose. Three points about it are remarkable: (1) Its surface extent, as may be easily seen by examining the plate; (2) its extreme superficiality, for the lobule of the nose is not really invaded, and no cicatricial contraction ensued; perhaps these peculiarities are the result of the anatomical texture and immobility of the part; (3) the remarkable miliary outgrowths which surround the ulcer. This is certainly not an undescribed condition in Oriental boil, for Fleming long ago described it, and so did Tilbury Fox; Brocq carefully referred to it also in connection with a case published in the *Annales de Dermatologie* (1883, vol. iv., page 529). Finally Besnier compares these miliary lesions "to the yellow points which are seen through the epidermis by transparence in the earliest phase of the development of favus". Still it seems to me that this growth at the periphery occurred in a very striking fashion in this case of Vidal's. However, the activity of these miliary elements appears to have been in inverse ratio with their number, for none of them passed the initial stage; they dried up and disappeared without leaving any traces of their existence.

IV.

But it is far otherwise with lesions which attain their full development, and although they naturally tend towards spontaneous cure and complications (such as lymphangitis, lymphadenitis, and erysipelas, etc.) are rare, still the question of treatment must not be overlooked.

The duration of the disease may be very long, as is evidenced by the name—admittedly exaggerated—applied to it of *Bouton d'un an* (Boil lasting a year), and then its seat of election on exposed parts renders it an extremely disagreeable infirmity. And although "the fatalism of Orientals is satisfied with the results of spontaneous cure occurring under the influence of the protective scab,"* it is nevertheless prefer-

* E. Besnier, *loc. cit.*

able for Europeans, at all events, to have recourse to more rapidly curative measures. Besnier has employed the electric cautery without success, but in a case in which the lesions were at their height; and he does not doubt that this means, employed at the start, would suffice to arrest the early foci of disease. Doubtless this would be an ideal remedy, and it could always be resorted to for secondary growths.

When those present are very active the most perfect methods of applying local antisepsis must be used and antiseptic dressings, which also isolate the part, applied so as to avoid all risk of secondary dissemination of the parasite. Dressing with Vidal's "red plaster," as carried out in this case, appears to be particularly suitable.

LUCIEN JACQUET.

[The fullest published account of this disease, by Dr. J. Murray, is to be found in the *Transactions of the Epidemiological Society*, 1883, vol. ii., page 90.

A very extensive list of writers on Oriental boil is given by Hirsch in his *Handbook of Geographical and Historical Pathology*, published by the New Sydenham Society in 1886, vol. iii., page 681 *et seq.*

Brocq (*Traitement des Maladies de la Peau*, 1890) gives the composition of Vidal's "red plaster" as follows:—

Minium (red oxide of lead)	10 parts
Cinnabar (sulphide of mercury)	6 „
Diachylon plaster	1 part

To be spread on sparadrap.

J. J. P.]

PLATE XXXIII.

SQUAMOUS ECZEMA.

KERATODERMIC ECZEMA.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 966, made in the year 1884, from a patient under the care of Professor FOURNIER.

UNDER the above names, as well as those of "horny eczema" and "dry eczema" (Erasmus Wilson), a somewhat remarkable type of skin affection is described, characterised by its strict localisation to the palms and soles. We are reduced to a somewhat general objective study of the case under discussion, as particulars regarding it are almost entirely wanting; all we know is that the patient was a man, sixty-four years of age, the soles of whose feet were also involved, and as a model of them is in the Museum they will also be described here.

I.

A few words of description of the palm of the hand represented in the photo-lithochrome may not be out of place. It is seen to be invaded almost in its entirety, and the lesions even transgress slightly upon the region of the wrist; the disease spreads thence in a continuous sheet over the thenar and hypothenar regions, and outside them; then it covers the hollow of the hand, and gradually diminishes over the palmar aspect of the fingers to terminate about the distal interphalangeal joints. All over this area there is a greenish yellow squamous sheet, oozing in places, and several millimetres in thickness at its points of maximum density. In the parts corresponding to the principal folds of flexion it is

traversed by *rhagades*, or deep fissures, which bleed and are probably very painful, which accounts for the impossibility of opening the hand experienced by the patient, and for the necessity for modelling the hand in a position of semiflexion, as the plate well shows.

The appearance of the sole of the foot (also Model 966), although quite different, is very instructive. It is easy to determine the presence there of an erythematous background, which is masked in the palms by the intensity of the disease; it is light in tint, but quite distinct, visible by transparency through the thickened horny layers, and occupies the entire sole, with the exception of the heel and of the ball of the big toe, which regions appear, on the contrary and by comparison, to be pale and anæmic. It is, moreover, probable that the thickness of the horny layer in these situations resists the establishment of the congestion of the vascular network in the derma and subdermic layers, which is evidenced over the remainder of the soles by the presence of erythema.

From this basis horny accumulations project, some in the form of small, greyish, very superficial masses; others—especially along the vault of the plantar arch and its external border—as a fine network or in slightly serpentine lines. The horny accumulation is marked only in the anterior metatarsal region and in the interdigital spaces, and even there the condition is not comparable with that of the palms.

II.

The difficulty in diagnosis of diseases of these regions is always great, whatever be their degree of intensity. The reason of this has been often explained, and this has already been done—although in a succinct manner—in this atlas (Plate XXIII., page 213) relative to a case of syphilitic keratosis in the service of Mons. E. Besnier. All lesions of these regions have a tendency to assume the horny type, and to become uniform as regards it; and this is but a particular instance of a general law in dermatology, which may be formulated as follows: "All parts of the skin which are

anatomically and physiologically specialised have a tendency to impress common characteristics upon lesions affecting them (*à banaliser leurs lésions*), and always in a similar determinate manner". This is especially true of the scalp, of the face and of the armpits, where different diseases tend to assume the seborrhœic type, and it is still more true of the palms and soles where the horny type is assumed.

Thus, lesions of widely different nature (psoriasis, eczema, lichen, syphilides, etc.) tend to become uniform one with another, and also with certain affections special to these parts —such as the essential keratodermias, the nature of which is very imperfectly known.

However, in the particular case now before us there was no prolonged hesitation; for the sensation of itching, the moist appearance of the horny masses, and the rapidity of evolution allowed Prof. Fournier to make the diagnosis of keratodermic eczema from the very start.

III.

The pathogeny of this affection is very obscure, as may be easily conceived. Still, there is one point accurately determined—*viz.*, that forms of local irritation have a distinct influence as determining causes. On this point I can say nothing as regards this patient, as I do not know his history; but I am able to bring forward a very well-marked case in support of the view.

The patient in question was a woman, aged fifty-two years, who had always enjoyed good health. At that time she lost almost all her fortune, and her health deteriorated; her menstrual periods ceased; she became nervous and sleepless, and fatigued herself with overwork and sitting up late. She did tailoring work, and continually used the large tailors' scissors, which almost fill up the palm of the hand. In these conditions, a state of affairs exactly corresponding to a milder degree of squamous eczema, as represented in our plate—*i.e.*, horny thickening, with bleeding and painful cracks—appeared in the palm of the right hand and impinged

upon the thenar eminence, accompanied by violent attacks of itching.

It seems to me evident that these factors entered into play in the determination of the skin affection in this case :— (1) The nervous disorder which this patient experienced in consequence of the loss of her fortune and of the overwork undertaken with a view to remedy it. (2) The influence of the menopause, which often discloses itself in the form of congestive attacks supplementary to the menstrual flows which have disappeared. (3) The constant contact of tailors' scissors resulting in a traumatism of the palmar region and determining the localisation of the disease, which pretty rapidly yielded to the treatment adopted.

IV.

It goes without saying that the first therapeutic measure to employ ought to be functional rest of the diseased part and the withdrawal of all local "trauma" when such has been detected. This having been accomplished, the horny layers of epidermis must be softened with india-rubber, or, better still, with poultices of potato starch very soft and emollient, and, for preference, applied cold. To these measures may be added appropriate baths for the feet or hands, such as tepid water, decoction of elecampane root, etc.

Should these means fail, soft-soap plasters may be used, made by spreading soft soap mixed with a little alcohol over a piece of flannel in a layer a millimetre and a half in thickness. This may be left on during the night; the following morning it is taken off by applying water and soaping the part. The application may be repeated if necessary.

When the peeling of the part is thus accomplished, recourse may be had to ointments of oxide of zinc or salicylic acid. Finally, in the most obstinate cases, when the area affected is not large, I think I am able to state that linear scarification renders the greatest services.

LUCIEN JACQUET.

TREATMENT OF ECZEMA.

As the subject of eczema is not referred to elsewhere in this work, a few observations relative to the treatment of this all-important skin disease appear to be indicated here, although it is impossible to enter into anything approaching detail. One of the greatest recent advances in dermatology, especially from the practical therapeutic point of view, is the recognition of the fact that eczema is not a single morbid entity, but that several conditions arising from totally different causes are included under the term; or, in other words, that various forms of dermatitis of varying origins eventuate or culminate in an eczematous state. Hence the recognition of different *types* of eczema.

True or, as it is sometimes called, "nervous" eczema is eczema arising on previously healthy skin. In it nervous phenomena, including extreme itching, predominate; it is the form most frequently arising in persons of gouty or neurotic habit. Its manifestations are those described in the text-books as "classical"; its most characteristic lesion, the vesicle, is devoid of micro-organisms; there is good reason for believing that it is the result of some or various forms of auto-intoxication. General treatment is of more importance than local remedies, to which, indeed, the disease is often most rebellious and capricious.

"Seborrhœic" eczema is a far commoner condition and may be regarded as the result of a dermatitis, almost certainly of microbic origin, on skin rendered vulnerable by pre-existing seborrhœa. It frequently begins in the scalp and spreads downwards, attacking localities where sebaceous glands abound, *e.g.*, the face, neck, præsternal region, back and genital regions. A subvariety of the seborrhœic form is "flexural" eczema, which attacks the axillæ, the bends of the elbows and knees, the groins, the abdomen where the skin is thrown into folds, and the thorax under pendulous mammæ. In such localities not only are sebaceous glands abundant but numerous sweat glands are also present, and it is probable that similar changes

under microbic influences occur in the sweat as in the sebaceous secretion, the resultant of which is an irritant to the skin of the part. In the seborrhœic forms of eczema, the local origin of which is predominant, itching is seldom a pronounced symptom and local treatment may be generally relied upon for the relief or cure of the disease. At the same time the necessity for treating any general constitutional depravity must not be lost sight of. The natural predisposition of some skins to develop eczema from purely local irritants, *e.g.*, in so-called "trade" eczemas, is often spoken of as the eczematous diathesis.

The condition termed "follicular" eczema, which consists of groups and patches of inflamed follicles, sometimes coalescing to form weeping areas, is generally situated upon the outer sides of the forearms, and over the calves and peroneal regions. It ought probably to be entirely dissociated from the eczemas, its relationship being much closer with the folliculites or sycoses. It is a curiously intractable disease to all forms of treatment, both constitutional and local.

The general treatment of eczema is of greatest importance in cases of the nervous or gouty-neurotic type. In such the regulation of the diet and especially of the amount of alcohol taken is of prime importance, and must be conducted on the universally admitted general principles. It is in such cases that the avoidance of washing—until quite recently a measure insisted upon in all forms of eczema—may with justification be enjoined. Any necessary cleansing may be carried out by means of thin gruel, bran or starch and water, weak carbolised oil, etc.

Acute eczema must be treated like any other acute disease, the patient being kept in bed on low diet and the bowels freely opened, preferably by salines. Greasy applications are seldom tolerated; but weak lotions, *e.g.*, of lead or boric acid, are generally useful. In localised patches black wash is often an excellent remedy, but is usually best diluted, *e.g.*, with lime water. Oily applications, such as the Linimentum calcis, are generally well borne after the acute stage passes off; and at a still later period, when discharge has almost disappeared,

various powders (calamine, zinc oxide, chalk, etc.) may with advantage be incorporated with it.

Scales and crusts must be removed by applying strips of linen, soaked in oil or a weak solution of sodium bicarbonate; cold boric starch poultices are also useful for this purpose.

In subacute, recurrent and chronic eczema, any defect in the general health such as gout, dyspepsia or constipation must be treated on general principles and the patient placed in the most favourable conditions for repair to take place. The bowels should be specially attended to and suitable laxatives or purgatives given.

The internal administration of arsenic, so prevalent at one time, only tends to aggravate the malady, especially in the more acute forms of eczema, and should be reserved for certain selected cases of a chronic, dry, scaly nature. It is, however, serviceable in young children, when it may advantageously be combined with iron.

The *local* indications are: to subdue hyperæmia and inflammation, to get rid of discharge, to alleviate itching, to counteract harmful influences from without, such as exposure to the air or contamination by micro-organisms, to supply fat when this is deficient, and to stimulate chronic patches when necessary.

Erythematous and vesicular eczema should be treated on the lines already laid down for acute eczema, with soothing lotions and bland powders such as calamine, zinc oxide, carbonate of magnesia, prepared chalk, emol-keleet, talc, etc., or by a combination of a powder and a lotion as in the familiar calamine lotion. Protective varnishes such as Pick's linimentum exsiccans or Unna's gelanthum are sometimes of service. As discharge and the more acute inflammatory symptoms subside a paste may be substituted for the lotion and powder with advantage, and this may be cautiously followed by the use of ointments. Pastes are made by adding one of the various absorbent powders mentioned above to ordinary ointments with a fatty basis. A good example is Lassar's paste, which consists of a mixture in equal parts of oxide of zinc, starch-powder, lanoline and vaseline to which 2 per cent.

of salicylic acid is often added. Linimentum calcis, to which various drugs may be added so as to form a thin paste, is a favourite application, and cold creams—which are cooling as well as absorbent—are also useful. An example of the latter is Adipis Lanæ ʒ i, Vaselini ʒ ii, Liq. Calcis et Aq. Rosæ āā ʒ iij. The Unguentum Aquæ Rosæ (B.P.) is also an excellent preparation, and sulphur, salicylic acid, lead salts or tars may be combined with it. Such creams should be applied in a thick layer.

Glyco-gelatine of zinc may be used in erythematous eczema, especially when this is associated with varicose veins of the leg; or even in weeping eczema when the discharge is not abundant. It is also useful in papular eczema. It is composed as follows: ℞. Zinci Oxidi et Gelatini āā ʒ iss, Glycerini ʒ ii, Aquæ distillatæ ʒ iv. The gelatine and water are mixed first, the zinc oxide and glycerine being afterwards stirred into the mixture in a water-bath. Before use it must be melted in a glue-pot or similar vessel, and applied with a brush; the part is then dabbed with a pledget of absorbent wool before the glyco-gelatine quite dries, the result being a pliable coating which exerts a certain amount of compression.

Papular eczema may be treated with weak lead or tar lotions or with black wash. Ointments, such as those of zinc oxide, oleate or benzoate, or boric acid, should be used cautiously. The unguentum diachyli, made by mixing emplastrum plumbi (B.P.) with equal parts of olive oil at a gentle heat, often gives good results.

When eczema becomes pustular antiseptics such as boric-acid lotion or weak ammoniated mercury ointment (gr. v ad ʒ i) are indicated, great care being taken that the application is not strong enough to aggravate the condition.

Chronic scaly eczema may require the addition of stimulating or keratolytic drugs to the zinc, boric acid or other ointment. For instance, mild mercurials, tar, salicylic acid, etc., are often useful. In obstinate cases with much thickening a weak chrysarobin ointment (gr. x ad ʒ i) may be tried. Another method is to swab the patch with a solution of caustic potash (1-6) and subsequently apply lead or other soothing

lotions and ointments. Seborrhœic eczema is best treated by ointments containing sulphur, resorcin, carbolic acid, salicylic acid, mercurials, etc.

Space permits of only a brief allusion to the local forms of eczema and their treatment.

Eczema of the scalp is best treated by cutting the hair short in cases in which there is much discharge and removing any crusts that may have accumulated. Active inflammation is met by the use of lotions; when this has subsided ointments may be applied. In dry scaly forms which are almost always seborrhœic in nature, shampooing with Hebra's spiritus saponis alkalinus should be combined with the use of other remedies. Dusting powders and zinc-ichthyol or zinc-salicylic salve-muslins may be used in young children.

Eczema of the face when acute requires soothing lotions such as calamine lotion, to which a little liquor plumbi subacetatis or liquor picis carbonis may often be added. Sulphur, resorcin, or salicylic acid may be used in the seborrhœic varieties. Crusts must be removed from hairy parts and the hair cut short.

When the lips and angles of the mouth are affected the digestion should be inquired into and any error of diet corrected.

Marginal eczema of the eyelids is treated by removal of the crusts and the application of the yellow oxide of mercury ointment. This variety is common in strumous children.

In *eczema of the axilla* narrow strips of plaster or salve-muslins may be used, or the dressing kept in position by means of a pad and bandage. Pastes containing ichthyol (gr. xxx-lx ad ʒ i) and resorcin (gr. x-xx ad ʒ i) often give good results.

Scrotal eczema is sometimes very irritable and painful, and attended by great swelling and offensive discharge. In such cases, rest in bed and the application of zinc, calamine or lead lotions are indicated. As the inflammation subsides, weak tar may be gradually added to the lotion and followed by diachylon ointment or Lassar's paste with salicylic, boric or carbolic acid.

Eczema of the anus often gives rise to intolerable itching and is very resistant to treatment. It generally begins as a pruritus of purely nervous origin, and in these cases change of air and scene and general hygienic measures are indicated. Care, however, should be taken to exclude any local cause such as hæmorrhoids, fissures, prolapse and worms. If any of these exist they must be removed before any further treatment is adopted. Digestive disturbance is sometimes at the bottom of the mischief and should be inquired for and remedied.

As regards local treatment it is most important to see that the part is thoroughly cleansed immediately after the bowels have acted. The use of paper must be avoided.

If the eczema is not too acute, soap and water may be used. Water as hot as can be borne, applied for two or three minutes, is often very efficacious in relieving the itching. Having thoroughly dried the part various ointments may be applied. Calamine, the diluted red oxide of mercury, and calomel ointments are among the best. Lotions of weak tar or carbolic acid often give good results or a solution of nitrate of silver (gr. x ad ℥ i) may be painted on. When there is much infiltration salicylic acid paste (gr. x-xxx ad ℥ i), strong carbolic acid or a 10 per cent. caustic potash solution may be used. In many cases the use of the thermocautery affords permanent relief. Sometimes the administration of considerable doses of antipyrin or phenacetine is very efficacious.

Eczema of the palms and soles is frequently associated with hyperidrosis and is characterised by great thickening of the cuticle and the formation of painful fissures, especially along the lines of flexure. This condition is treated by the removal of the hardened epidermis by means of salicylic plaster (5 per cent.) or by the constant application of a weak solution of liquor potassæ. Weak salicylic pastes to which ichthyol may be added are then used. Preparations of tar such as the liquor picis carbonis, sufficiently diluted, are also of service.

J. J. P.

PLATE XXXIV.

PUSTULAR SCABIES.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1492, made from an out-patient.

SCABIES is certainly one of the commonest skin diseases, and numerous examples of it are seen daily in the out-patient department of Saint Louis Hospital. Scabies patients crowd to the hospital from all parts of Paris, attracted by its reputation and by the "rapid treatment" which they know they will receive there. Thus, in one single morning all the different clinical types which the malady assumes may be seen.

The ACARUS, or insect which is the cause of scabies, betrays its presence in the skin by signs of two sorts: *subjectively*, by itching, nearly constant, more or less marked according to the case, and worst at night; *objectively*, by eruptions, some due to the existence of the insect in and upon the skin—burrows and pearly vesicles,—others merely resulting from scratching caused by pruritus — papules, vesico-pustules, pustules, etc. In some cases these secondary lesions predominate over the others and imprint a special character upon the case; thus, for instance, pustules like those of ordinary ecthyma may develop over all the regions attacked by the parasite; to such cases the name of *pustular scabies* is given. The accompanying photo-lithochrome may be considered as typical of this form.

The pustules present in pustular scabies are characterised by their rather large size, by their rounded form, by the inflammatory areola surrounding them, and by the black point in their centre (Hardy). All these features may be

easily seen in the plate. In addition to the fully developed pustules there are others which have already dried up and have given place to blackish crusts, as well as some miliary pustular lesions, which are pustules in their earliest stage.

Mixed up with these pustular elements a few excoriated pruriginous papules are present, represented in the plate by deep red points, but no burrows can be found anywhere. The burrow is the passage or mine which the acarus makes for itself in its way under the epidermis; it appears as a small—usually wavy—line, varying from two or three to six or seven millimetres in length, but occasionally in rare cases attains to two or three centimetres. One end corresponds to the point of entrance of the acarus into the epidermis; the other end is also prominent, and sometimes a greyish point is discernible, which is the acarus itself; its tint merges into that of the surrounding skin, and it is often very difficult to find in people accustomed to the frequent use of baths and soap; but in others less careful of their person, the burrows, getting coated with dust and dirt, become black and are easily recognisable. Scratching often tears them open, and in pustular scabies they disappear, destroyed by the suppurative process.

In the same way it is difficult to find the other lesion typical of scabies, *viz.*, the "pearly vesicle," a miliary elevation of epidermis generally found in the burrow behind the acarus, and most frequently met with on the sides of the fingers; these pearly vesicles are generally scanty in number.

In pustular scabies suppuration attacks all the affected parts, and causes the disappearance of the pathognomonic signs, the burrows and vesicles.

The *localisation* of scabies lesions—between the fingers, about the wrists, elbows, front of the axillæ, breasts, lower abdomen, buttocks—is, however, so typical, that the presence in these regions of ecthymatous pustules ought always to evoke the idea of scabies even in the absence of the usual signs of the disease.

The suppurating forms of scabies are generally met with in young persons and in lymphatic subjects.

We know how common superficial suppurative diseases of the skin—impetiginous and ecthymatous *pyodermites*—are in children; and we recognise the part which rubbing and scratching play in their dissemination by secondary infection. We can thus conceive with what ease, in a severely itchy disease such as scabies, as soon as pyogenetic microbes have invaded any one part on the skin surface, they are rapidly disseminated to other parts where the acarus already is located, or to parts which the acarus does not frequent—*e.g.*, the face. In such a case there is an impetigo secondary to the scabies.

In suppurative cases other accidents resulting from pus infection may accrue—such as phlegmons, abscesses, suppurating glands, etc. In exceptional cases, such suppurations may be the starting point of important visceral complications—such as nephritis. Another result of the ecthymatous transformation of scabies lesions worthy of mention is the appearance which lesions on the penis sometimes assume; sometimes they are accompanied by inflammatory induration, and may, to a certain extent, simulate syphilitic lesions. These are the special features which serve to distinguish pustular from simple scabies.

The diagnosis in a case of this sort—in which the burrows and pearly vesicles usually do not exist—rests, as we have said, on the topographical distribution of the pustules in the seats of election of scabies—*viz.*, the interdigital spaces, wrists, elbows, armpits, breasts, buttocks, etc. This typical distribution suffices for the differentiation of this pustular eruption from impetigo and simple ecthyma, with their banal characters and indiscriminate distribution.

The most important point to consider in the study of pustular scabies is that of treatment. Without entering upon a complete consideration of the treatment of scabies, which would extend far outside the limits of this work, we content ourselves by saying that there are two methods employed for the cure of the disease—the one slow, the other rapid.

The type of rapid treatment is that applied on a large scale every day at Saint Louis Hospital, which was instituted

by Bazin and modified by Hardy. It consists of the three following stages :—

1. The patient is rubbed all over the body for twenty minutes with soft potash soap, the object being to open up the burrows and expose the acari and their eggs.

2. The patient is then put into a tepid bath, in which he soaps himself for an hour.

3. The body is dried with towels after the bath, and then is rubbed for twenty minutes with a sulphur ointment, according to Helmerich's formula modified by Hardy, which is as follows :—

Lard	300 grammes.
Sulphur	50 ,,
Carbonate of potash . .	25 ,,

Generally the patient is recommended to keep the ointment on the skin till the following day, but this is usually useless, and sometimes dangerous on account of the irritation which the prolonged contact of sulphur with the skin is apt to provoke.

This method of treatment, generally called the "rub" (*frotte*), is, as we see, completed in less than two hours ; it is that almost invariably prescribed for scabies patients coming to Saint Louis Hospital, and it may be said to cure the great majority of cases (90 to 95 per cent. according to Besnier). But in certain cases it may cause the production of eczematous lesions, and even of pustular eruptions. Thus it is not applicable, even in a mitigated form, for cases of scabies complicated with inflammatory lesions, such as pustular scabies which is now occupying our attention.

One can easily conceive what pain and agony would result to patients suffering from this type of scabies from the tearing up of hundreds of purulent elements, and also what troublesome consequences might ensue from this sort of rubbing treatment as regards secondary inoculations of ecthyma. Besides, as we have already said, pustular scabies usually occurs in lymphatic and debilitated subjects, or in children.

The rapid treatment by the Saint Louis method is therefore unsuitable for pustular scabies, as is also the method

termed "Belgian," which is similar to the Saint Louis method, but the sulphur ointment is replaced by a solution of sulphide of calcium—Vleminghx's solution.

Even the slow methods, such as inunction on several successive nights with naphthol ointment (Kaposi), balsam of Peru, styrax, etc., cannot well be employed at first, and generally recourse must be had in the first instance to a preliminary emollient treatment, having for its object the subsidence and disappearance of the pustules. Boric acid compresses, starch baths, inunction of zinc ointment containing small proportions of naphthol or balsam of Peru, enable one to attain this object in a few days. Ointments containing styrax in vaseline or oil, 5 to 25 per cent., may then be employed, especially in young children.

I have mentioned that nephritis may accompany pustular scabies; it is usually regarded as infective, and caused by the invasion of the microbes of suppuration. But nephritis and albuminuria may follow upon the "rub," and probably result from the excessive irritation of the skin in that method of treatment.

This complication, which may arise in simple scabies, would be still more undesirable in severer cases, where the sources of irritation and surfaces for absorption are numerous; this is an argument in favour of resorting to mild treatment.

The complementary treatment of every case of scabies consists of the disinfection of the bedding and of all clothes worn; it is of course obligatory, and is only mentioned here for memory's sake.

HENRI FEULARD.

PLATE XXXV.

DISSEMINATED LUPUS PERNIO,

AFFECTING THE EARS, UPPER EXTREMITIES AND CENTRE OF THE FACE, WITH TUBERCULOUS SYNOVITIS.

Models by BARETTA, in the Museum of the Saint Louis Hospital, Nos. 992, 1150, 1230, and 1429, from a patient under the care of Mons. ERNEST BESNIER.

I.

THE accompanying photo-lithochrome represents some of the models made by Baretta from the same patient in a number of consecutive years. It demonstrates a perfect example of the form of cutaneous lupous tuberculosis which we have defined and described by the name of *lupus pernio.**

* ERNEST BESNIER. Lupus pernio de la face; synovites fongueuses (scrofulo-tuberculeuses) symétriques des extrémités. *Comptes-rendus des Réunions cliniques de l'Hôpital Saint-Louis pendant l'Année scolaire* 1888-89, pp. 82-85; et *Ann. de Dermat. et de Syph.*, 2e *Série*, 1889, vol. x., p. 333.

We have also given the following short description of *lupus pernio* in our Annotations in the *Second French Edition* of Kaposi, Paris, 1889, vol. ii., p. 260:—

"(*c*) The asphyxial form of lupus erythematosus—or lupus pernio—is met with on the face and extremities; it begins on the lobes of the ears, then appears on the dorsum of the nose, or in the malar regions, and on the backs of the hands. On the face and nose the original tint is erythematous, with the usual follicular punctuation; on the ears it most closely resembles indolent livid chilblains or cutaneous asphyxia; but instead of being accompanied, like the common forms, only by a cretaceous exfoliation, beneath which eroded cicatrices form, necrotic areas are produced, to which vegetating, superficial, crusting ulcers correspond, and to these a succession of true losses of substance succeed. On the backs of the hands the discrete lesions are those of common lupus erythematosus, but with more marked lividity."

In a subsequently published observation,* Mons. Tenneson shows that real typical tuberculous nodules may exist in this form of lupus, and this observation establishes the real nature of the disease.

Whether it be superficial or deep, or in a sheet (Vidal's † variety, "en nappe"), whether or not tuberculous nodules can be actually observed, this lupus belongs to the vascular type,‡ and its asphyxial character clinically individualises it in either form—*lupus asphyxialis*, *lupus pernio.*

The case under discussion, like that reported by Mons. Tenneson, represents a grave, unusual, but not entirely exceptional type, a certain number of which exist among the numerous and varied category of abortive and incomplete cases. It will be easy for observers on the look-out to collect a series of them, and to recognise the clinical triad of manifestations affecting the ears, face, and finger-joints.

The relationship between lupus pernio and the classical chilblain, as well as with local asphyxia, is incontestable; as regards their early, slight, and incomplete forms, their analogies are numerous, rendering necessary some discussion of their differential diagnosis. Seasonal intermissions, prurigino-ous or painful sensations, the integrity of the joints and synovial membranes, the coldness, etc., characterise ordinary

* TENNESON. Lupus pernio. *Bullet. de la Soc. franç. de Dermat. et de Syph.*, 10 Nov. 1892, p. 417, and this Atlas (English Edition, No. V., Plate XVIII.).

† VIDAL differentiates two forms of *lupus en nappe*, the one *superficial*, the other *deep*. *Bullet. de la Soc. franç. de Dermat. et de Syph.*, 1892, p. 417.

‡ We recognise three forms of Cazenave's lupus: (*a*) vascular; (*b*) follicular; (*c*) mixed. The vascular form includes three principal varieties: (*a*) *simple lupus erythematosus*; (*b*) *lupus erythemato-exanthematoides*, *lupus exanthematicus*; (*c*) *lupus erythematosus lividus*, *asphyxialis*, *lupus pernio* (*loc. cit.*, p. 258). No type of lupus is necessarily, or absolutely, pure; all sorts of combinations and associations may be observed, if a sufficiently large number of cases are collated; in spite of opinions to the contrary, there exist simple and composite forms of lupus, of which the types, or forms, are *lupus erythematosus* and *lupus tuberculosus* on the one hand, and on the other *lupus erythemato-tuberculosus*; and the *varieties* of each form may also exist in combination.

chilblains on the hands, and usually permit of their easy differentiation.

The disease has also obvious relationships with the variety of vascular lupus described by Mr. Jonathan Hutchinson under the name of *Chilblain Lupus*, both on account of similar localisation and identical nature; still, the clinical forms of the two varieties are quite distinct, as one can easily see by glancing at Plate LI. of his smaller atlas.*

The difficulty is a little greater as regards the ears, on account of the lowness of their normal vitality, and of the ease with which the lobe of the ear undergoes necrobiotic changes under the influence of various conditions, such as disturbances of central circulation, malarial infection, chilblains, frostbite, etc. The diagnosis of lupus must be determined by the co-existence of other lesions of the same class, by their permanence, the absence of algidity, etc.

On the face, and especially on the nose, permanent chronic chilblain simulates very closely asphyxial lupus in its earliest phases, and the diagnosis ought, therefore, to be reserved until infiltration of the derma, telangiectases, etc., are definitely established. But in all these cases a complete clinical analysis ought always to include lupus in general, and asphyxial lupus in particular, in arriving at a differential diagnosis.

II.

The changes depicted in the photo-lithochrome, in the chronological order of their appearance, are situate upon the ears, hands, and central portion of the face. The patient is a robust-looking adult male, although of tubercular stock. He is a cellarman, and his principal work consists of bottling and unbottling wine.

(1) EARS.—During the severe winter of 1879-80, the patient being then twenty-six years of age, his ears were attacked simultaneously and insidiously with redness and

* JONATHAN HUTCHINSON. *A Smaller Atlas of Illustrations of Clinical Surgery*. London: Newman & Co., 1895.

"pimples". In the succeeding summer they did not lose their discoloration; the changes progressed, and erosions were followed by the typical ulcers which we had represented in Model No. 992 in the Saint Louis Hospital Museum, made by Baretta in 1884. At that date the lobes of both ears were almost entirely occupied by fungating ulcers, representing the most advanced degree of the necrobiotic lesions which exist there, and are so common in persons affected with one of the varieties of vascular lupus. The external ear on both sides is reduced in size by one-half; on the right side everything has disappeared down to the concha, except the upper part of the helix and the fossette of the antihelix. The lobule is only represented by a swelling slightly more prominent than the rest. We then (1884) destroyed all the lupus nodules with the galvano-cautery. In 1886 the improvement persisted, as is shown by the model which we had made and which is in the Museum, numbered 1150. In 1889 he was exhibited at the *Réunion clinique des Médecins de l'Hôpital Saint-Louis;** and in 1895, eleven years after cauterisation, we had the last model made of his ears, the cure of which remained perfect (Model No. 1821).

Although we had destroyed almost the entire helix and lobule, the cicatrix remained absolutely entire and solid throughout the eleven years, presenting in winter neither chilblains, nor frostbite, nor local asphyxia, nor ulceration. This is superabundant proof that the ulcerating and destructive lesions were epiphytic (lupic), and that they depended neither upon a series of chilblains nor upon local asphyxia.

In vascular lupus, as in all forms of lupus, all lesions of whatever description are connected with the presence of the tuberculous agent—are, therefore, *extrinsic;* and as we do not possess a vaccine or remedy against tuberculosis, the predominating therapeutic indication must always be the local neutralisation of that agent or the destruction of the tissues invaded by it, or their extirpation wherever the anatomical conditions of the part permit of it.

* *Loc. cit.*

(2) UPPER EXTREMITIES.—About the age of twenty years the patient had suffered from the first manifestations on the hands, which were considered to be chilblains, and of which, according to his own account, no appreciable traces remained. Only when the ears were attacked, or shortly afterwards, did the superficial and deep lesions develop, the more advanced stages of which are represented in our photo-lithochrome, which was executed in 1895 from the third model, No. 1820, in the Museum.

The deep lesions represent the most marked type of generalised fungous synovitis with its disfigurements and characteristic signs. The superficial lesions exhibit diffuse vascular lesions in sheets, with changes in the nail-bed, which are neither of traumatic origin nor purely trophic, and which we regard as one of the forms of tuberculosis—*viz.*, of the nails —which are not generally recognised.

The variety of fungous synovitis in question belongs to what we have called scrofulo-tuberculosis. We collected a series of them, and gave a model of one of them to the Museum of the Hospital in 1888 (No. 1354). It must not be confounded with those scrofulo-tuberculous forms of dactylitis which are extra-synovial, epiperiosteal, and hypodermic, specimens of which are reproduced in Models 272 and 397 in the Museum; these latter are arthrodactylites.

(3) CENTRE OF THE FACE.—The most important of all things to remember, from the practical point of view, with regard to lupus pernio is that, although it belongs to the group of vascular tuberculous skin affections, it is peculiar in the fact that in certain regions it invariably ulcerates, and that it may, on this account, lead to irreparable mischief. We were able to obliterate the disease on the ears by the cauterisations, which its localisation there permitted; but the conditions on the face and on the tip of the nose are different, and in order to destroy the morbid tissue, one would need from the first to destroy, both in depth and in surface, more tissue than it is actually in our power to do. Lupus pernio is an infiltrating tuberculosis, diffuse, "en nappe," the limits of which are very ill-defined, and the infiltration soon invades all the soft tissues of the

affected part. In 1884, when we first examined the patient (see fig. i. in the plate, at the upper part on the left side), the dorsum of the nose exhibited a general infiltration with very ill-defined borders, with marked thickening (Model 992), and only treatment by deep linear scarifications could be employed over the entire surface, without, from the very first, producing undesirable destruction of tissue. Two years afterwards, in 1886, the changes had spread in all directions, always causing considerable swelling, and had involved the whole of the tip of the organ (Model 1150), and extended to the adjacent parts of the cheeks (see fig. ii. in the plate, above and on the right side).

In 1889 the alæ nasi were invaded (Model 1429), and small fungating ulcers, mixed with irregular cicatrices, were observed for the first time (see fig. iii. in the plate, below and to the left).

Finally, in 1895 (Model 1821 and fig. iv. in plate), the onward march of the changes having continued, had accomplished the total destruction of the tip of the nose, while the livid lupus infiltration spread over the two cheeks, especially on the right side. The phenomena succeeded each other slowly for years, but always were identical—indolent lividity without algidity ; thickening with elevation ; multiple, small, separate, apparently superficial ulcers, but soft and fungating, which cicatrised imperfectly and irregularly, and resulted in the destruction of the soft parts invaded.

III.

The treatment of asphyxial lupus is laborious, especially its local treatment, as is the case with all forms of tuberculosis which have as their essential basis the superficial and deep vascular networks, the limits of which are indefinite in all directions. But general medication possesses an importance and value which are incontestable if one attacks the disease in its earliest phases, leaving aside those much rarer cases which are extreme and rebellious.

During cold weather cod-liver oil may be given, in doses

according to tolerance; in warm weather, iodine, creosote, or carbonate of guaiacol; at all times food should be superabundant. Oxygenation in every form must be recommended; oxygen inhalations under pressure in compressed-air bells must be perseveringly administered; aëration, exercise, with sulphur and warm saline baths, are also means which certainly exert a favourable influence when applied at the proper time under the direction of the physician. Sulphur and ichthyol internally are specially indicated in individual cases, and every form of sulphurous water may be of real benefit. *Locally* we have obtained remarkable results with systematic massage of the infiltrated tissues, using either "vaseline oxygenée iodée" or cod-liver oil, either pure or mixed with a little creosote.

Prolonged and persevering spraying with solutions of carbolic acid, coal-tar, or iodo-iodides, is also a useful form of local treatment.

If the lesions have arrived at the necrotic stage, and if cauterisations with pure lactic acid are unsatisfactory, the best treatment, when the localisation of the disease permits it (as, for instance, on the ears), is galvano-cauterisation, such as we employed for this case, carefully managing the subsequent cicatrisation. An examination of the models placed by us in the Saint Louis Hospital yields abundant evidence of the value of this method of treatment.

On the face, where cauterisation to a sufficient degree is inapplicable, galvano-puncture, electrolysis, linear scarifications, perseveringly employed and graduated, or associated according to the special indications of each particular case, allow us to limit, and in some cases to destroy, the lupus tissue if the general medication is followed out at the same time with the necessary energy. Here, as in other cases, these methods are of diverse value according to the care with which they are employed.

ERNEST BESNIER.

PLATE XXXVI.

GUMMATOUS TUBERCULOUS LYMPHANGITIS SECONDARY TO TUBERCULOUS DACTYLITIS.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1765, made in the year 1894, from a patient under the care of Mons. THIBIERGE, in the absence of Mons. ERNEST BESNIER.

THE lesions represented in the photo-lithochrome, of tuberculous origin and nature, give rise to interesting pathological considerations both by their character and by their association on one limb; one of them is also of considerable practical importance on account of its frequency, and of the difficulties in diagnosis which less typical cases may present.

The patient was a man aged thirty-two years, by trade a saddler, whom I saw at Saint Louis while acting for Mons. Besnier. He was the subject of advanced tuberculosis of both lungs, and had noticed the development on the ring finger of the left hand of a lesion which was at first taken for a whitlow, but which developed slowly and led to the partial destruction of the nail. Subsequently to this pseudo-whitlow, rounded fluctuating swellings, the evolution of which was equally slow, appeared on the posterior surface of the forearm.

Each of the two forms of lesion should be studied by itself.

I.

As the photo-lithochrome shows, the affected finger was uniformly increased in size and sausage-shaped, from the middle of the first phalanx to the tip; it was of a red, slightly livid colour. At no point was there any fluctuation, nor anything revealing a localised lesion of the subcutaneous or deeper parts.

The terminal phalanx presented important changes on its dorsal aspect; the nail was only represented by its terminal third, remaining attached to the internal portion of the nail-bed. The proximal part of the nail was red, oozing and granulating, but had preserved its shape; part of the internal lateral curved margin was thinned and flattened out and adherent. On the outer side the nail-bed was continuous with the adjacent part of the phalanx, which showed superficial ulceration. The external curved margin was replaced by a rather deep excavated ulcer with thick borders, slightly undermined; its base was torpid and showed but few granulations, its outline irregular, measuring a little less than a centimetre in breadth.

To this description may be added some little pustules scattered over the finger, results of a common pus inoculation, which merely merits mention here.

Such lesions, even in the grade here represented, are apt to be confounded with ordinary pus infection confined to the finger, that is to say, with common, classical *whitlow*. But for the antecedents and course of these lesions one might almost believe that the finger was the seat of a peri-ungueal whitlow nearly in its last stage; but on this point the persistence of the adherent nail should raise some doubts as to the diagnosis. The knowledge of the history of the case is of greater importance; whitlow is essentially an infection with rapid evolution; now in this patient the finger had been swollen for several months—during which it was scarcely at all painful—before the ulcer at the base of the nail made its appearance. This ulcer contrasted markedly with the opening of a purulent abscess cavity due to common pus infection, by the callous appearance of its base and by its slow and progressive spread.

On the other hand, this slow march, torpidity and atony are the characteristics of tuberculous lesions of the skin. In truth, the diagnosis could not rest upon the exact determination of typical elements, such as lupus nodules or tuberculous granulations, which characterise the two clearly differentiated forms of skin tuberculosis, *viz.*, lupus and tuberculous ulceration.

Classical descriptions of tuberculosis do not mention ba-

cillary lesions offering similar clinical appearances. What is generally known as tuberculosis of the finger is tuberculosis of the phalanges, a real tuberculous osteomyelitis, which constitutes a disease known as *spina ventosa*, the appearance and localisation of which are totally different. Simple inspection suffices to establish that there can be here no question of either lupus of the fingers with a tendency to ulceration, or of verrucose tuberculosis, the changes in which are confined to a limited portion of the finger or of the integuments.

The peri-ungueal ulceration by its localisation recalls scrofulous paronichia, but in this disease the ulceration is still more sluggish, the margins are livid, the tissues swollen and puffy, and the lesions attack several fingers at a time. Here, the predominating feature is not ulceration, but swelling *en masse* of the finger, which seems to attack the different tissues simultaneously, invaded by a single morbid process which, in all probability, started as a peri-ungueal ulcer; it is neither an exclusively cutaneous nor an exclusively osseous lesion; it is a massive, total affection of the finger—a *dactylitis*.

And this dactylitis can and must be considered clinically as *tuberculous*. Clinical observation furnishes no direct proof of its tuberculous nature, for at no point does the disease exhibit a definitely tuberculous element. It has not, as far as we are aware, been precisely described as a tuberculosis, but only indirect proofs have been adduced, *e.g.*, (1) its development on a special soil in a person phthisical for a prolonged period, and (2) its results,—the lesions on the forearms,—the tuberculous nature of which we are about to justify.

An anatomical examination of the finger, or experimentation would alone have permitted us to make a direct diagnosis; these we were unable to obtain, as the patient was operated upon in a surgical ward, and the amputated finger was mislaid.

The possibility of its being a glanders lesion might be raised, and to a certain extent justifiably. The patient was a saddler, and, as such, liable to handle harness which had been on glandered horses. Besides, glanders includes among its so various manifestations, diffuse infiltrations with a tendency to ulcerate, and multiple suppurative foci, similar, to some extent,

to those on our patient's forearm. But these latter developed much more slowly than the abscesses of farcy, and (more cogent argument still) experimental inoculation showed that they had no connection with that disease.

II.

On the inner side of the posterior aspect of the hand and forearm, arranged in a linear series in the axis of the ulna, were several slightly projecting, rounded swellings of somewhat purplish red colour. (The purplish tint is not given its due importance either in the model or in the photo-lithochrome made from it.) These swellings, which ranged in size from a pea to a hazel-nut, were isolated or united in larger groups, some as large as a two-franc piece. They were at some points the seat of ulcers as large as lentils, corresponding to fistulous openings from which a small quantity of sero-pus oozed. Over each of these swellings obvious fluctuation could be determined, and this was best marked where the boundary wall of the cavity was thin. An incision into these swellings gave issue to thin fluid pus, the inoculation of which into a guinea-pig caused general tuberculosis.

The lesions, the tuberculous nature of which was thus experimentally demonstrated, were nothing else than tuberculous gummata.

The striking analogy of certain scrofulo-tuberculous manifestations with the form of syphilitic lesion known for a long time by the name of gummata, has led to their being called scrofulous gummata, a term which Mons. E. Besnier has supplanted by that of scrofulo-tuberculous gummata, since clinical experience and pathological anatomy have demonstrated their tuberculous nature, which had been ultimately indisputably settled by experimentation and bacteriological research.

Like their homologues in syphilitic disease, scrofulo-tuberculous gummata occupy either the skin or the subcutaneous cellular tissue, and consist of rounded or oval tumours of varying volume. They are at first hard; subsequently they

soften and tend to ulcerate, discharging a slightly stringy fluid.

But in addition to these characters, common to both classes of gummata, there are others special to scrofulo-tuberculous gummata. First, they tend to soften more rapidly than syphilitic gummata, so that they are seldom observed in their early indurated stage; for the same reason it is not rare to observe softened tuberculous gummata unaccompanied by any change in colour of the skin.

Secondly, the skin is generally livid over tuberculous gummata instead of presenting the more or less bright red or brownish tint of skin over syphilitic gummata. This characteristic is even more marked during the ulcerative period in the zone of skin surrounding the loss of substance. When a syphilitic gumma bursts it gives issue to a colourless or yellow, sticky and distinctly stringy fluid.

The contents of a scrofulo-tuberculous gumma are generally purulent at the time of rupture; the pus is sometimes serous and somewhat stringy, or simply opaline, but it is nevertheless pus, often mixed with cheesy, grumous matter like the pus of cold abscesses, and, indeed, "scrofulo-tuberculous gumma" and "cold abscess of the integument" are synonymous expressions.

The ulcers which result from the rupture of gummata present very different characters in the case of syphilitic and tuberculous gummata. The former give rise to large losses of substance, comprising almost the entire extent of the gummatous neoplasm, to rounded ulcers with regular margins, not undermined, with smooth base, granulating moderately. Scrofulo-tuberculous gummata, on the other hand, "seem as if they only ulcerated with regret," to get rid of their fluid contents; the greater part of the gummatous neoplasm persists intact, but ploughed up by suppuration, riddled with fistulous passages; a stylette introduced into one ulcer may come out at another after passing underneath thin bridges of skin. These ulcers, with their thinned and undermined edges, are essentially sluggish, covered with big, irregular, flabby granulations.

There is little difference in situation between gummata of syphilitic and scrofulo-tuberculous origin; at the most one might say that the face is more often the seat of scrofulo-tuberculous gummata, and the lower limbs of syphilitic gummata.

Their arrangement in any given region is of more importance, and this leads us to the consideration of a very remarkable feature in the case represented. Gummata, both syphilitic and scrofulo-tuberculous, are often present in a given region in more or less considerable numbers, but they group and "discipline" themselves in a different manner, according to their nature. Like all manifestations of the same disease, syphilitic gummata tend to form groups of rounded shape; but when two or several of these groups develop in the same region, their relative situation is not determined or dominated by any known anatomical disposition of the part.

On the contrary, when scrofulo-tuberculous gummata are present in a limited region, they have a very marked tendency to group themselves in systematic fashion; they generally are arranged in lines parallel to the long axis of the limb, and this arrangement, which is—so to speak—geometrically apparent in our photo-lithochrome, is not, and cannot be, the effect of chance. It reveals by its very existence the process of production and multiplication of gummata; it graphically indicates, indeed, the course of the lymphatic vessels.

Instances of tuberculous gummata following the course of lymphatic vessels are common, Merklen, Lejars, and others having reported remarkable cases. The model in the accompanying woodcut (fig. 1), which was made from a patient of Bazin's, represents a very well-marked case.

Relying upon these facts, one might describe a special form of nodular or gummatous tuberculous lymphangitis. Ought one to conclude that the spread of tuberculous gummata takes place through the lymphatics, and that the gummata are evidence of a general dissemination of bacilli by the lymphatic system? Perhaps this conclusion applied to the majority of scrofulo-tuberculous gummata would be exaggerated; but, nevertheless, a certain number of facts which I

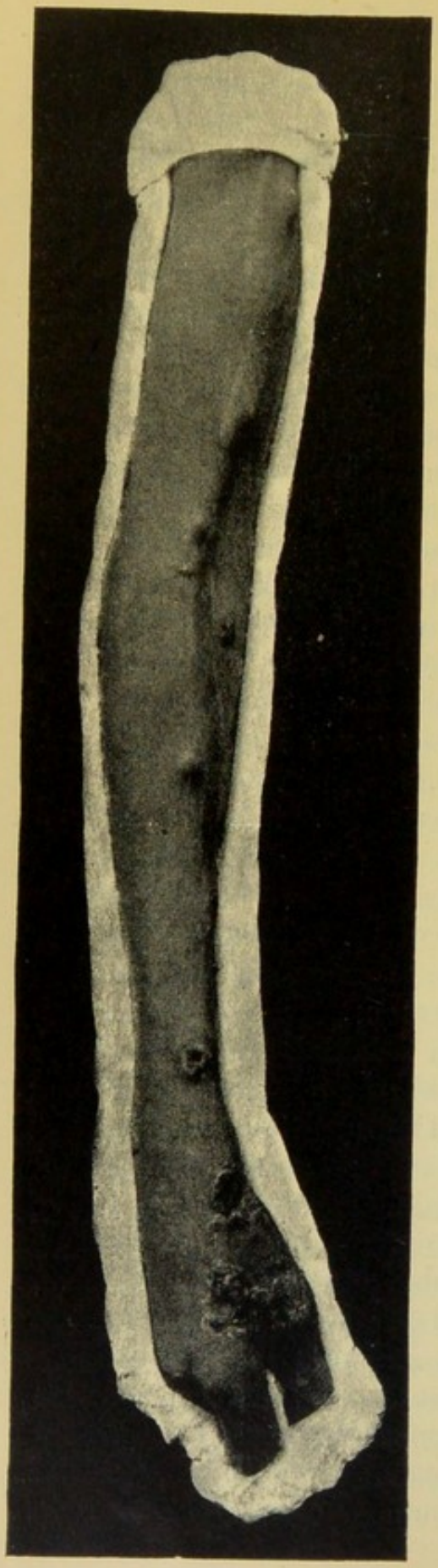


FIG. 1.

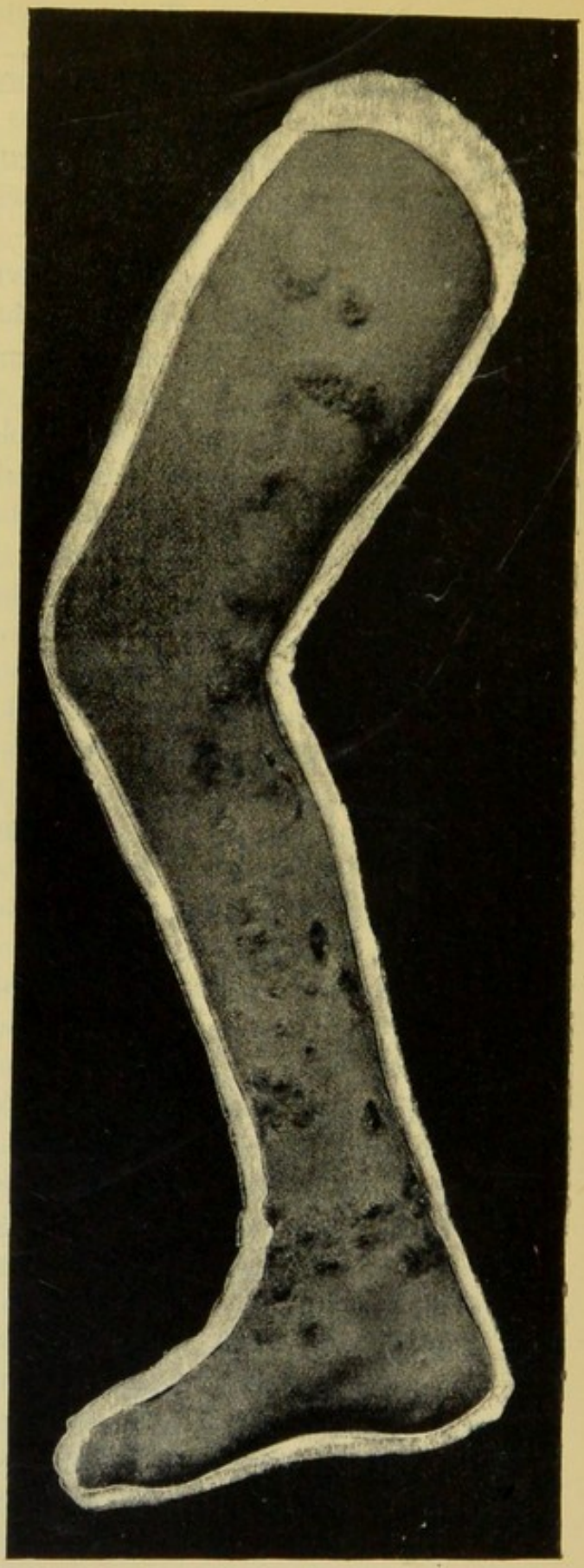


FIG. 2.

have observed lead me to think with Lejars that this process is capable of explaining the development of gummata, whether isolated or in series. To continue the parallel with syphilitic gummata, which have the blood-vessels as their histologically demonstrated origin, and, as their supposed determining cause, the action of syphilitic toxins on these vessels, it may be said that scrofulo-tuberculous gummata are the result of bacillary lesions of the lymphatic vessels.

The lymphatic origin of scrofulo-tuberculous gummata does not only regulate their distribution, but also causes and explains a somewhat unexpected result of them. We refer to a particular form of lymphangiectasis, generally situated on the lower limbs, characterised by more or less extensive swelling of violaceous tint, and by isolated projections arranged in more or less numerous linear series, united by a hard, moniliform cord. These projections, which are about the size of a pea, are rounded, softish, or fluctuating, and may discharge by a narrow, rounded, fistulous opening a serous liquid which coagulates, having all the physical, chemical and histological characters of lymph.

These lesions, generally secondary to pre-existing disease of bone, have been observed by Bazin, Lailler (fig. 2 illustrates one of the cases observed by this sagacious observer), and by Mons. Besnier, and have been definitely referred to their real origin—tuberculosis—as the result of the histological researches of MM. Hallopeau and Jeanselme. Like lymphatic varices with lymphorrhagia developing in hot countries under the influence of filariæ, they owe their origin to obliteration of lymphatic vessels, but the obliteration in this case is due to the development of tuberculous gummata in the walls of the vessels.

Scrofulo-tuberculous gummata, whether situated in the skin, subcutaneous cellular tissue, or lymphatic glands, can only be cured by external treatment, consisting essentially of an incision, followed by scraping or cauterisation, and appropriate dressings. The incision, according to the case, may be made with a bistoury or with the galvano- or thermo-cautery, but it is only the first step in the treatment. Scraping with

the curette to remove all the tissue invaded by tuberculosis, or, preferably, cauterisation with Canquoin's paste (as recommended by Lailler), or, in the case of a limited lesion, energetic use of the actual cautery, must then be resorted to, simple antiseptic applications being almost always insufficient to bring about cicatrisation by themselves.

It is unnecessary to add that general hygiene and medication suitable for combating or preventing tuberculous infection ought to be associated with local treatment.

III.

The association in this case of a tuberculous dactylitis with gummatous tuberculous lymphangitis, is only a particular instance of the tendency of the cutaneous manifestations of tuberculosis to invade the lymphatic system. According to the more or less vigorous assistance and co-operation of the agents of secondary infection, with more or less facility, frequency, rapidity and gravity, do the dermato-tuberculoses of lupous, papillomatous, ulcerative, or gummatous type act upon the vessels and lymphatic glands, and thus bring about general tuberculous infection.

Here the relation is obvious, the mechanism apparent, the mode of progression indisputable. In other circumstances they are less well-defined, but exist none the less surely; hence the necessity for destroying all foci of skin tuberculosis as vigorously, rapidly and radically as possible.

In the patient here represented the lesion on the finger was only one link in a long tuberculous chain; if it was the cause of the tuberculous infection of the lymphatics of the forearm, it was also the immediate result of the pulmonary tuberculosis by auto-inoculation of the finger with the expectoration.

The fact of the reinfection of tuberculous subjects through the skin is now perfectly recognised. In contrast to syphilis, tuberculosis can be reinoculated an indefinite number of times; and, again in contrast with that disease, the local lesions at the point of reinoculation are clinically very variable. On

mucous membranes it assumes the aspect of tuberculous ulcers with miliary granulations; on the fingers and hands it generally assumes the warty form; on various points of the cutaneous surface it may assume the form of lupus. In our case the lesion at the point of reinoculation assumed a very special appearance; it has none the less value from the point of view of the interpretation of successive stages of the tuberculosis in the economy; this shows that in their own interest, as well as in that of others, all tuberculous persons expelling bacilli should be subjected to rigorous prophylactic measures.

GEORGES THIBIERGE.

[The only case of "Tuberculous Lymphangitis" recognised as such and published in the English language—as far as I know—is to be found in the *British Journal of Dermatology*, 1895, vol. vii., No. 1. It is accompanied by a coloured drawing. The patient was under the care of Mr. John Cahill, and the remarks on the case are by the writer. The paper by Messrs. Hallopeau and Jeanselme, which indisputably decides the nature of these cases, is published in the *Annales de Dermat. et Syphilig.* for 1890, p. 957 *et seq.*, and in the *Bulletin de la Soc. de Dermat.* for 1890, pp. 175, 205, 207, and for 1891, p. 89.

Canquoin's paste is an old-fashioned remedy, compounded of chloride of zinc and flour, in various proportions, with the addition of a sufficiency of water to make it of workable consistence.—J. J. P.]

PLATE XXXVII.

POLYMORPHOUS SYPHILIDES.

With Predominance of Lichenoid and Miliary Forms.

Model by Baretta, in the Museum of the Saint Louis Hospital, No. 1737, made in the year 1893, from a patient under the care of Professor Fournier.

This photo-lithochrome illustrates a type of polymorphous eruption which often occurs in secondary syphilis.

If a careful analysis of the eruptive elements is made, several orders and suborders of them will be recognised, *viz.* :—

(1) Small *papules* of the type termed *lichenoid;* some—and these the more numerous—are prominent, convex, hemispherical; and others—less numerous—are, on the contrary, plane and flattened, thus resembling the papule said to be pathognomonic of lichen planus, as well as by their shiny aspect. Again, some are intact on the surface and retain their epidermis; others are desquamating, while some are even covered with little crusts, etc.

(2) *Papulo-vesicles* or *miliary papules*, some of which are still recent, and a minute accumulation of clear serous fluid can be seen at their tip by transparence; others of older date are forming crusts, while others are completely covered with a brownish or bloody scab, which resembles fairly accurately the bloody scab of prurigo. Here and there are some intact vesicles of bright red tint—vesicles which are literally hæmorrhagic, and have doubtless become so by accidental, traumatic exudation of a minute quantity of blood, as the effect of rubbing or other forms of injury. The somewhat complicated dermatological picture reproduced by our plate is thus made up of the associa-

tion of a small papular syphilide (generally called the *papulo-granular* or *lichenoid syphilide*) and of a miliary syphilide (also termed the *herpetiform syphilide*).

Both of these syphilides are only varieties or derivatives of the great papular type, which constitutes, as is well known, the great majority of the cutaneous determinations of syphilis in the secondary stage. In their purest form and in the most general terms, their objective characters may be described as follows :—

I. THE PAPULO-GRANULAR OR LICHENOID SYPHILIDE is distinguished from commoner types of papular syphilide by three points, *viz.* :—

(*a*) The *smaller size of the papules.*

(*b*) The *convex* and, sometimes, *acuminate form of the papules.*

(*c*) The very marked *confluence of the elementary lesions.*

(*a*) In its commonest forms the papular syphilide is constituted by eruptive elements, the smallest dimension of which is that of a lentil, and which are pretty often comparable, as regards their extent, to a 20-centime piece, or sometimes to a 50-centime piece. On the contrary, the lichenoid syphilide is represented by papules of much smaller size, which are scarcely larger than the head of a pin, and sometimes even smaller than that. This is the *papular, punctate* form, to which we shall return by-and-by.

(*b*) In the commoner forms of papular syphilide the papules appear as cutaneous prominences in plateaux—*i.e.*, they constitute a discoid elevation, flat on the top. Inversely, in the type of lesion which we are studying, the papules are more grouped together, and are convex, or sometimes acuminate. They are generally globular, granular. They cannot be better described than as resembling a pin's head or millet seed, one half of which is set in the skin while the other half projects from its surface.

(*c*) Lastly, this form is always remarkable on account of the multiplicity of the eruptive elements. The eruption is confluent, and very often so to a high degree. Thus, in one figure several hundred minute papules may be counted.

These three characters—the minuteness, granular relief, and multiplicity of the papules—imprint upon the papulo-granular syphilide quite a special physiognomy, which differentiates it from the commoner types of papular syphilodermata. On the other hand, they bring it into close connection with a well-recognised dermatological type—*viz.*, *lichen*—especially by the rough and nutmeg-grater-like condition which the skin presents when it is thickly studded with these small prominent granulations. Hence the name of *lichenoid syphilide*, which is often assigned to this variety of syphilitic skin eruption.

The lichenoid syphilide includes a rare sub-variety, in which the papules are reduced to the dimensions of an extemely minute punctiform projection. The "dwarf" papules constitute an eruption of quite special aspect, which has not been hitherto sufficiently studied, and for which I propose the name of *punctate-papular syphilide.*

This syphilide commends itself to our attention by the two following characters:—

(1) As I have just said, the eruptive elements are extremely reduced in size, and consist of really punctate papules, which recall very exactly the tiny granular prominences of "goose-skin," or of the variety of keratosis pilaris so common on the backs of the hands. These papules are generally surmounted by a minute white or greyish scale, or by a tiny brownish crust.

(2) The extreme tendency to confluence of these dwarf papules is notable. It may be said that the eruption tends to compensate for the fineness of its eruptive elements by their extraordinary multiplicity. The skin is sometimes riddled with these rudimentary papules, ten to fifteen of which may be counted on a square centimetre, and which, therefore, must amount to thousands over a large surface such as the back.

This papular punctate syphilide affects certain seats of predilection; especially the back, then the flanks, buttocks, loins and limbs. I have never met with it on the face. It seldom occurs alone. Generally, it is associated with other forms of small papular syphilides. The case in question is an example of this.

II. THE MILIARY SYPHILIDE (also called *papulo-miliary syphilide* or more frequently *herpetiform syphilide*) is only differentiated from the preceding forms by the addition, to the always minute papule, of a *vesicular* element. It is a papulo-granular syphilide, capped at its summit by a small ampulla or vesicle, which contains a minute drop of clear and liquid serosity.

This vesicle is always of more or less short duration, and thus its importance in the morbid process is small. It ruptures in a few days, either spontaneously or as the result of rubbing, and very soon the only results that can be observed, once the vesicle has disappeared, are one or other of the following conditions: either a reddish papular pimple, abraded at the top and bordered by a greyish collarette of epidermis, or a granular papule capped with a dry, adherent, brownish, or sometimes bright red crust, caused by its mixture with a little blood. This little crust persists a certain time as such, then falls off, leaving a slightly scurfy surface.

So much for their objective characters; but there are two characters more important than these dermatological details (which often pass unperceived or unappreciated), and which cannot fail to strike the eye and attract attention; they confer a special aspect upon the herpetiform syphilide and are:—

(1) The remarkable *fineness of the eruptive elements.*

(2) The excessive *tendency to confluence of these elements.*

Thus (1) the herpetiform syphilide is made up of extremely small elementary lesions, the size of a pin's head, or at most of a millet seed. This recalls herpes in so far as the elementary lesions remain almost always discrete, isolated, independent; while the vesicles which compose the herpes "clusters" have a marked tendency to coalescence, agmination, and fusion. It also recalls miliaria; hence the name of *miliary syphilide* given to it by some syphilographers.

(2) Furthermore, the eruptive elements are generally extremely numerous; when they occupy any region they are

thickly scattered over it, and may be counted by hundreds. They are also distributed indiscriminately over the skin, without any definite grouping or methodical configuration.

Their seats of predilection are the limbs and the trunk; I have never seen them on the face, or on the hands or feet.

The herpetiform syphilide is pretty frequently scattered over several regions of the skin; at other times it is limited to one part, over a more or less limited area, but this is rare.

As regards their *subjective phenomena*, both the forms of syphilide which we have described partake of the common characters of secondary syphilitic manifestations, that is to say, they are neither inflammatory nor painful. They are also generally unaccompanied by itching. Sometimes, however, they are attended by a certain amount of itching, but it is intermittent, and only occurs for short periods, especially under the influence of warmth, and in nervous subjects; and, moreover, the itching is always slight and incomparably less severe than that which accompanies true lichenoid diseases or scabies.

There is nothing astonishing in the simultaneous association of different varieties of the syphilodermic family, and this association existed in the case of our patient. The elements of the lichenoid, punctate-papular, and herpetiform syphilide were all present in the most remarkable manner, and with all their classical characteristics.

But let there be no misconception! For the ultra-minute analysis of these cases of complex syphilides (*i.e.*, with diverse eruptive elements) offers an interest of only secondary importance, and one that is purely dermatological. One ought, of course, in presence of a complex type of eruption to determine what it offers for our observation. That is perfectly proper, but one must not exaggerate the importance of such a dissection (if the word may be permitted) of the type of eruption, nor the practical results which it may yield. For practical purposes it is almost a matter of indifference (not to put it more strongly) whether a syphilide be of lichenoid, or herpetiform, or punctate-papular, or of mixed type, or made up of these different varieties; for from

such delicate distinctions no therapeutic indications arise. The essential point is the determination of the syphilitic "specificity" or of the "non-specificity" of the eruption. All treatment depends on that consideration alone.

I will further add that these objective minutiæ are but seldom at our disposal for diagnostic purposes. For diagnosis does not depend upon *objective signs*—always to be accepted with caution—such as the size, form, configuration and colour of the eruptive elements, but rather upon certain signs of another order, such as the *rational signs*, *e.g.*, pruritus or its absence, localisation of the eruption, and especially, above all things, the knowledge of specific antecedents, the presence or absence of concomitant syphilitic manifestations, etc. In the case under discussion our diagnosis was based upon considerations of this kind, and the rapid cure of the patient under the influence of mercurial-treatment confirmed the specific nature of the eruption.

The two varieties of syphiloderma we have discussed occur in the secondary period. But, with certain exceptions, they are almost all manifestations of the middle or latter part of that period. In other words they occur in the second or third year after infection.

Mercurial treatment alone is suitable for them. As auxiliary means we may recommend simple or starch baths, repeated twice a week; for pruritus, fatty inunctions, oxide of zinc ointment, dusting with starch powder, etc., may be used.

ALFRED FOURNIER.

PLATE XXXVIII.

PAGET'S DISEASE.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1160, made in the year 1886, from a patient under the care of Mons. VIDAL.

PAGET'S disease is comparatively rare in France; at most, eight or ten cases have been observed at the Saint Louis Hospital in the last twelve years. Models of four of them are preserved in the Museum, and that reproduced in our photo-lithochrome is certainly the most instructive of them.

Rare though it be, the disease is, nevertheless, of considerable interest. It is of *practical* interest, for the physician who recognises it in its earliest manifestations will be able to predict its later stages, to point out the serious risks which his patient incurs, and to prevent them. It is of *theoretical* interest, because the disease represents one of the best-defined types of the growth of pre-cancerous diseases, and as such, constitutes an object of study of the greatest importance with regard to the still much-discussed question, the pathogeny of cancer.

Of course, the following remarks will bear principally upon the former of these points.

I.

The model was taken from the first case of Paget's disease, diagnosed as such in France, and represents the right breast of a woman who consulted Mons. Vidal at Saint Louis Hospital on 26th April, 1886.

I shall begin by giving a description of the lesion, followed by clinical information as to the patient gleaned from the thesis of Dr. Louis Wickham.

DESCRIPTION OF THE MODEL.—Right in the centre of the breast, the nipple and its areola having disappeared, a large patch of bright red colour is to be seen, its centre ulcerated and fungating; it occupies an oval area with its long diameter transverse, measuring ten centimetres in length, and six centimetres in breadth.

This lesion presents for study a margin, an enclosed area, and a central ulceration.

The *margin* is extremely well defined; the healthy skin, of normal tint, comes up to the red and excoriated area without any transition, and without the slightest erythematous halo. This margin is slightly elevated, and forms a raised pad, projecting very slightly above the surrounding skin, and on the same level as the diseased surface. At certain points, especially to the right, delicate networks of dilated capillaries are visible. At other parts, especially to the left and below, this margin is covered with a thin scale a few millimetres broad, which forms a sort of very fine collarette. (These details, to be seen in the model, are only very imperfectly reproduced in the photo-lithochrome.) The margin with these characteristic features shows a polycyclical contour, with large segments of circles; at the upper part it describes festoons in smaller segments of circles, with a radius of one or two centimetres.

The *area* of the lesion, or portion intervening between the border and the ulceration, presents slight mammillary projections, and a finely granular condition, which gives it a velvety appearance. As a whole, it is of vivid red colour, but on closer inspection different shades can be made out which correspond to various degrees of the epidermic lesion, as I was the first to point out in an observation personal to myself (see Wickham's Thesis, case v). The surface, of bright red colour, and finely granular, corresponds to the *first degree*, or that of superficial ulceration, the epidermis being deprived of its horny layer. At some points, less extensive and indefinitely demarcated, the colour is of deeper red, the surface more irregular, and oozing is distinctly more abundant; this is the *second degree*, in which the derma is almost exposed, and the least irritation causes the papillæ to bleed.

Larger surfaces, irregularly delimitated, are present and paler in colour, pink rather than red, smoother and more shiny; these are *epidermic islets* and are dryer,—less vulnerable,—while the epidermic layers over them are in process of repair; by transparence some dilated blood-vessels may be seen.

The *central ulceration* occupies the seat of the nipple, which has entirely disappeared, as well as of its areola, the limits of which it distinctly transgresses. It is very irregular in form, trilobate, and measures four centimetres and a half transversely and two centimetres in breadth. It is very accurately limited by an abruptly cut margin, hollowed out to a depth of two or three millimetres. Its surface, which is very irregular, is covered with pus and greyish false membrane; elsewhere, and especially in the central lobe of the ulcer, it is made up of pink, smoother fungosities. At one point a granulation is visible, prominent and of deep red colour—which makes it very apparent in the plate; this is evidently only one of those fungosities into which some hæmorrhage has occurred.

I must add that on the right side of the plate, surrounded by perfectly healthy skin, there is a small, white, circular prominence, either the cicatrix of a traumatism or of an old pustule, or a nævus of molluscous nature.

History of the Patient.—Miss X., aged thirty-five, a shopkeeper, was born in Dinan. The only points evoked about her previous health were, that she had suffered from rheumatic pains in the muscles and joints, more especially in the knees and feet; that her periods, which had always been abundant, ceased five years previously; and that she had in 1875 an induration the size of a pigeon's egg in the left breast above the nipple, which disappeared in four or five years, leaving no trace of its existence. The patient was of strong constitution and robust appearance.

The disease of the right breast began four years previously, in March, 1882, by retraction of, and some discharge about the nipple, but without pain or change of colour. This state of affairs lasted more than a year; then the nipple became red and oozing, covered with scabs and excoriated; the lesions spread towards the areola and gradually occupied a rounded surface, with progressive extension at the periphery, ulcerated, red, discharging, bleeding easily, and with sharply defined borders. The progress had been rapid in the last year. There was no real itching, but only stabbing and pricking, as if

from pins. On several occasions she had intercostal pain. The treatment had always been that of eczema, and, despite the most various measures employed, there had been no perceptible improvement.

The preceding information was given by Dr. Barbé-Guillard, who attended the patient before she came to Saint Louis Hospital. It is probable that when the patient first saw Mons. Vidal the disease was, as usual—in part at least—covered with crusts formed of horny epidermis of dried discharge, and of the remains of various powders, and that these crusts had all been removed by moist dressings before the model was made.

The notes state that the lesion was oozing and bled easily. There was slight superficial induration to touch over the excoriated area, over which the induration was about two centimetres in depth and four centimetres in width. On examination, Mons. Vidal provoked pretty severe pain on pressure along the fourth and fifth right intercostal nerves. Very careful examination of the right axilla revealed no glandular enlargements. The left breast appeared quite normal, no trace of the tumour said to have been present in 1874 being found, while the nipple was healthy in every respect.

On 7th May, 1874, Mons. Vidal scraped the whole of the lesion with a sharp curette. The portions removed, when examined microscopically by Mons. Vidal and Wickham, showed epitheliomatous tissue in the centre and, round the outside, the characteristic changes which I shall describe later on. The wound was dressed with powdered chlorate of potash every fourth day after cocaine anæsthesia, and with a saturated solution of chlorate of potash on the intervening days. Cicatrisation was almost complete at the end of a month, but some small ulcers persisted which showed a tendency to spread. On 7th September Mons. Vidal scraped it a second time. Four months afterwards there remained a red and friable cicatrix, which ulcerated easily. While certain ulcers cicatrised, others formed.

Dr. Barbé-Guillard subsequently observed the patient, who refused further operative interference, and applied all sorts of dressings, from anodynes to the most energetic

caustics such as the "Frère Côme's paste" and Canquoin's paste. He accomplished the destruction and cicatrisation of the central ulceration, but the superficial lesion persisted, oozing and spreading. The patient died from an unexpected cerebral hæmorrhage in June, 1889, maintaining up to the end the appearances of perfect health. During the whole duration of the disease, *i.e.*, for seven years, the axillary glands, watched with the greatest care, never showed any enlargement.

II.

HISTORY.—The disease, of which our case is an absolutely typical example, has a comparatively brief history. In 1874 Sir James Paget drew attention to a chronic disease of the skin of the nipple and areola, to which scirrhus of the mammary gland is frequently consecutive; he had seen fifteen cases of it. The merit of his having recognised that the disease is from the beginning a special one, and not a simple inflammation of the skin of eczematous nature, accidentally complicated with cancer, may be contested.

But, in any case, this idea evolved itself gradually from the numerous English publications on the subject which appeared subsequent to Paget's memoir. Duhring and Wile were able to assert the nosological individuality of Paget's disease of the nipple in 1884, maintaining that the initial surface lesion is no more an ordinary eczema than the subsequent malignant tumour is an ordinary cancer.

In France Paget's disease was made the subject of a critical analysis by Brocq, and was recognised and studied by Vidal, Hallopeau and myself, and I had the opportunity of reconsidering its histology, already worked at by Butlin, Thin, Duhring and Wile. Louis Wickham* made it the subject of numerous articles, and especially of a noteworthy thesis, which is a complete monograph on the subject.

ÆTIOLOGY.—This is very obscure. We know that Paget's disease is rarely observed before the age of thirty, and gener-

* Wickham: "Maladie de la Peau dite Maladie de Paget".—*Thèse de Paris*, 1890.

ally after the age of forty-five years. It is confined almost exclusively to the female sex, and affects the breast—rather more frequently the right—without apparent cause. The majority of patients have nursed infants at the breast, but this condition is far from being exclusive, as our observation demonstrates. Heredity and contagion appear to play no part in the ætiology.

Three cases of Paget's disease are asserted to have occurred in men; it is a curious fact that in two of these the scrotum and perinæum were the parts affected.

By reason of my histological observations, which were completely confirmed as such, I was led to maintain that the disease is of parasitic origin, and due to the presence in the epidermis of specific coccidia, a theory which is now vigorously combated. I have never been able to determine the origin of the supposed parasites.

SYMPTOMS.—The details I have given in describing our case permit me to shorten this paragraph considerably.

The *onset* of Paget's disease of the nipple always occurs on the nipple, either at its tip or at its base, which shows small horny concretions or crusts, rather firmly adherent and constantly reforming. The nipple becomes rapidly retracted and later on completely obliterated; often it gives rise to a little serous oozing even long after the formation of crust. After a variable time, ranging from months to years, a fissure, or erythematous area, with a very superficial erosion, appears under the crusts; this persists and enlarges at the same time as itching, pricking pains and sensations of burning manifest themselves.

From this point the disease is established and gradually invades the whole areola, then the surrounding skin, without any of the ordinary methods of treatment applied to it having any action upon it. It is almost always unilateral, and the two breasts have never been known to be attacked simultaneously; sometimes the retraction of the nipple on the opposite side, or the presence on its surface of some crusts, has been noted.

In this stage of superficial *pseudo-eczematous* lesion the appearance is absolutely and invariably exactly what I have described in the present case. I shall, therefore, confine myself to indicating the essential features of the affection, which are as follows :—

(1) An eroded patch, or sheet, of bright red colour, finely granular, oozing or crusted (first degree); studded with still redder spots, bleeding easily, secreting pus and ulcerated (second degree); and with pink islets, dryer and with constant fine lamellar desquamation (surfaces covered with epidermis).

(2) The margin is characterised by its perfect definiteness, and its slight pad-like prominence, its scaly collarette and its dilated blood-vessels.

(3) The lesion is polycyclical, usually with large festoons.

(4) Induration is superficial like vellum or thin pasteboard.

(5) The nipple is retracted or completely obliterated.

(6) The axillary glands are intact.

(7) The duration of the disease is long, and its slow spread is absolutely rebellious to all common forms of treatment.

(8) Lastly, the disease is unilateral.

After a variable time—from two to six years in most cases observed—the disease passes to the *cancerous stage*. A malignant tumour has been seen to appear a few months after the start of the disease. In a case of my own its appearance was delayed till the twelfth year, and in a case reported by Jamieson no tumour had developed at the end of twenty years after the evolution of the disease.

Despite this exceptional fact, it may be said that the formation of an epitheliomatous neoplasm in the breast forms part of the regular course of the disease.

It is almost always in the seat of the retracted nipple, which remains palpable to touch in the form of a resistant mass under the eroded surface, that the tumour first forms by an increase in size of this indurated nodule, at first barely perceptible, then incontestable. It ulcerates pretty rapidly at the seat of the nipple, becomes irregularly hollowed out, or gives rise to vegetating granulations of very variable size. From this moment the neoplasm increases rapidly in size, and, apart

from the surface lesion, which persists, the disease spreads as in common epithelioma of the breast, starting from the mammary ducts.

In some cases palpation reveals the presence of a hard nodule in the depth of the gland at some point or another, which subsequently grows and gains the surface or invades the whole breast unless an operation be performed in time.

Whatever may be said, there are no really specific characters about the cancerous growths in Paget's disease; they are really those of common cancer of the breast, and only a few symptomatic "nuances" may be pointed out, *viz.*:—

(1) Their remarkable slowness of development, especially at first.

(2) Their low degree of malignity in the earlier stages; incomplete operations, *e.g.*, by scraping or cauterisation, as in this case, are not necessarily followed by reformation and generalisation of the disease in a short time.

(3) The implication of axillary glands is absent for a long time, is always slow, and only occurs in the very last stages of the disease.

The *end* of the disease, unless an operation be performed at a proper time, is that of cancer of the breast; death occurs from marasmus or from general dissemination of the cancer.

Paget's disease of the skin of other regions of the body has only been observed in two cases, by Radcliffe-Crocker, and by Darier and Couilland.*

In the former case it began on the scrotum and spread to the penis; in the latter, starting from the edge of the anus, it involved both buttocks, the perinæum, and the scrotum.

In these cases the characters described were present without any important differences, *viz.*: the appearance of an erythemato-squamous or crusted surface; the formation of a red sheet, eroded, oozing, and with areas covered with epidermis; the typical, well-defined, polycyclical border; itching or burning; absence of glandular implication. In both cases there was no development of an epitheliomatous tumour; the first

* *Bulletin de la Soc. de Dermatol.*, 1893, p. 25.

case was cured by an operation, the second succumbed to senile cachexia.

PATHOLOGICAL ANATOMY.—I shall only dwell upon the most important points here. In sections of the diseased skin, lesions of the epidermis and of the derma are to be noted. At the pad-like raised border, and over the squamous portions, the epidermis is thickened, the horny layer is lamellated, the granular layer normal, but the *rete malpighii* contains, scattered throughout it, elements which immediately attract attention. These are cells more voluminous than the others, often round, sometimes having a membrane with double contour, with clear protoplasm, retractile, not filamentous, and with a nucleus often irregularly nodular. Sometimes a single membrane surrounds several corpuscles. These bodies may be found at various depths in the epidermis, and in the horny layers where the cells become flattened.

By reason of the great difference in appearance of these cells from that of the cells of the *rete malpighii*, in the midst of which they are scattered, I thought myself justified in considering these bodies as parasites, as coccidia. This opinion, also maintained by Wickham and others, has not received general acceptance.

Over the seats of ulceration the epidermis is upturned by the great abundance of these ambiguous elements and, in great part, detached. The glandular and follicular prolongations of the epidermis also contain them.

The derma shows elongation and widening of the papillæ (*malignant papillary dermatitis* of Thin), and beneath them an abundant continuous layer of cellular infiltration, which explains the induration; the cells which compose it are exclusively "plasma cells" (Unna). At the ulcerative points the papillæ have disappeared.

The epithelioma of Paget's disease has as its starting-point either the glandular ducts of the nipple or the superficial epidermis. There is nothing special about its structure; "pseudo-coccidia" are found in varying quantities in the epitheliomatous lobes, greatly resembling those in the super-

ficial epidermis, but also comparable to those elements of the same sides which, truth to tell, are contained in every epithelioma of the skin.

NATURE OF THE DISEASE.—It is absolutely beyond doubt nowadays that the initial pseudo-eczematous lesion has nothing in common, either clinically or histologically, with eczema, psoriasis, etc. The changes present are quite special, and to such a degree characteristic that the histological examination of a single section permits of their being recognised with absolute certainty.

The secondary cancer, on the other hand, is not so special, and presents itself in one of the forms commonly met with in the mammary gland.

The opinion which any one will arrive at as to the nature of the disease is, so to speak, bound up with the interpretation placed upon the "pseudo-coccidian" bodies. If they are considered as sporozoarial parasites, as I have suggested,* and Wickham as well as others have maintained, the disease is then a *psorospermosis* of the superficial epidermis, invading the glands and causing cancer. If they are considered to be only cellular metaplasiæ, the whole process will be regarded as a surface epitheliomatosis extending finally in depth, or as a pre-cancerous affection upon which carcinoma may or may not, according to the case, engraft itself.

At all events, it is important to note that the disease has a distinct and indubitable specificity, and constitutes a definite nosological type.

DIAGNOSIS.—The presence in a woman, especially of advanced age, of persistent horny concretions on the nipple is in itself suspicious, especially if associated with oozing and retraction of the nipple.

During the period of existence of a red, rounded, clearly demarcated ulcer, with slightly indurated base, the objective appearances may approach those of a syphilitic chancre, but the absence of glandular implication, and especially the old

* Société de Biologie, 19th April, 1889.

date of the lesion, will easily enable one to avoid that error in diagnosis. The typical eroded patch, as I have described it above, with its chief characteristics, can leave no doubt in the mind, and generally the diagnosis is made at first sight and even at a distance by any one who knows Paget's disease.

Tuberculous or erythematous lupus, syphilides, psoriasis, etc., can hardly be any cause of confusion.

There are, indeed, only two affections which justify any serious hesitation in diagnosis, viz. :—

(1) *Eczema of the areola.*—There is a classical idea that this form of eczema is in relation either to scabies or to pregnancy, or that it may be the remains of a more extensive eruption. Eczema always is, or has been, vesicular, at least in places; its margins are usually irregular, broken up, its base is œdematous rather than indurated; it is subject to extensive outbreaks followed by regressions, and generally is surrounded by an erythematous zone; finally, eczema of the breast is often bilateral.

But all these differential points may be so ill-defined, more especially a patch of eczema may have such well-defined borders, that the diagnosis becomes clinically almost impossible, especially if there is retraction of the nipple, as I have observed.

(2) There is a variety of *superficial epithelioma* which, as far as I know, has not been observed on the breast, but which might pass for Paget's disease in other regions. I have had the opportunity of seeing six or seven cases, two of which were in the service of my master, Mons. Ernest Besnier. The condition consists of red patches, the size of the palm of the hand or bigger, spreading excentrically, very accurately demarcated by a polycyclical, slightly raised margin, which may at some part present an ulcer with vegetating margins, or fungating vegetations on an indurated base. Doubtless their surface is dryer, less eroded, and oozes less than in Paget's disease; nevertheless, the clinical diagnosis is even more difficult to establish than in the case of localised eczema of the breast.

In face of the two difficulties I have mentioned, and,

perhaps, in other analogous cases, it is of the extremest importance to have a means of investigation which is not deceptive, and this means we possess in the *microscopic examination of the scales*, or in a *biopsy*.

Let some of the epidermic scales covering the dubious lesion be lifted off with forceps, and placed under the microscope in a 40 per cent. solution of caustic potash. If the case is one of Paget's disease, and in this event only, numerous round bodies will be seen along with horny lamellated cells, of variable sizes, but generally larger than the epidermic cells, possessing a membrane with double contour, and containing a shrunken, protoplasmic mass. The examination is easier and more conclusive if the scales are deprived of their fat by alcohol and ether, or if they have been allowed to remain for a few days in a 2 per cent. solution of bichromate of potash.

And if, for any reason, doubt still remains, it will suffice to excise a small portion of the lesion, preferably at the margin, and to make a regular histological examination of sections of it. This examination will demonstrate, or not, the pathogenic lesions I have indicated above.

When a cancerous tumour of the breast, either ulcerated or not, is superadded to the superficial "pseudo-eczematous" lesion the diagnosis is evident.

A word of warning, however, against the error of regarding as examples of Paget's disease cases of *malignant tumours of the breast in which the skin is altered, excoriated, or eczematous* as the result of irritating dressings or from any other cause. In such a case the tumour has preceded the lesion of the skin, which, indeed, presents none of the distinctive characters I have insisted upon.

TREATMENT.—In this respect a line of distinction must be drawn between cases of Paget's disease which are suspected, confirmed, or already have attained the cancerous stage.

If there is any doubt, that doubt must be changed into certainty in one direction or another; only an affection, the diagnosis of which is established, can be properly treated.

Paget's disease being once recognised, experience has demonstrated beyond doubt that no good can result from dressings termed soothing or emollient, nor from poultices, compresses soaked in antiseptic or other liquids, from isolating or drying powders, from occlusive or resorbent plasters, any more than from irritants or alterative agents. They comfort and please the patients by giving rise to an apparent improvement, but in spite of them all the disease progresses.

Must recourse be had then to major surgical procedures, —to *removal* of the breast? This certainly is demanded, and is the only rational procedure *when a cancerous tumour* is present.

But in the stage of superficial lesion, especially at the onset, the disease is certainly curable by less extreme measures. Our case also shows that these means, if they unfortunately fail to cure, do not aggravate the situation, and recourse may still be had to the radical operation.

Therefore, if no cancer yet exists we advise scraping with the sharp curette, carried out very completely and energetically, under a local or general anæsthetic, of course. Scraping may be followed by dressings either of solution of chlorate of potash, or with powdered chlorate of potash either pure or, better still, combined with three parts of dermatol. In the event of partial relapse the treatment may be repeated or caustics employed. If scraping is repeated or if, for any other reason, one does not wish to resort to it, caustics may suffice. An arsenical paste, or a chloride of zinc paste may be used with prudence, their action being graduated according to the depth of the slough to be produced. Dressing with solutions of chloride of zinc ($\frac{1}{3}$ strength) formerly yielded me encouraging results, but demand frequent application, and are borne with difficulty on account of the pain they cause.

In short the results of our experience is that the only effectual treatment of Paget's disease consists in its destruction by actual cautery or other caustics in the earlier stages, and by amputation of the whole organ when cancer is present.

J. DARIER.

TREATMENT OF PAGET'S DISEASE.

Various forms of light treatment are now applied with more or less success to all forms of malignant disease of the skin. If the diagnosis of Paget's disease is made in an early stage there seems every reason to believe that it will be amenable to X-rays, although I am unaware of any well-substantiated case of cure. In the later stages no such favourable result can, at present, be anticipated, although the rays appear to allay pain.

J. J. P.

PLATE XXXIX.

TROPHIC ULCERS OF THE HAND AND FOREARM.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1721, made in the year 1893, from a patient under the care of M. QUINQUAUD.

LESIONS of this sort are certainly rare; but as they are still more imperfectly known their rarity is, perhaps, more apparent than real. It is therefore of the greatest importance to render them familiar, especially as important ideas on the functions of the peripheral nervous system—still so obscure—may be evolved from their careful study.

I.

The patient in question was the subject of a communication by Mons. Quinquaud to the Société de Dermatologie in 1893, and the history is taken from it.

"On 11th March, 1892, the tube of a copper steam engine exploded; splinters and steam struck a workman on the palm of the hand, and on the middle and ring fingers, causing a number of longitudinal wounds with some degree of crushing. The wounds were dressed by a chemist, but soon became infective, suppurated, and exhaled a disagreeable smell. The man then went to the Hospital Lariboisière, where the mortified parts were removed. The last phalanx of the index finger fell off. The wounds took about four months to cicatrise, and a marked degree of retraction of the flexors already existed in November, 1892.

"For two months nothing special was noted, except some pains in the fingers and wrist, but in the end of January these became more intense and shooting, occurring in attacks lasting

a quarter of an hour during the day, but especially at night; they affected the entire length of the arm as high as the shoulder.

"In the beginning of February the first ulcers made their appearance on the palmar surface of the wrist. A few days afterwards others appeared on the dorsal surface of the hand and wrist. They began as a red spot, in the centre of which a white flat blister could be seen.

"When the patient came into M. Quinquaud's ward on 16th February, 1893, his hand was 'clawed,' all the fingers flexed, especially those which had been injured, where the cicatrices were still visible. It was impossible to straighten the fingers, and the attempt was very painful. The last phalanx of the index finger had fallen, the disfigured end of the finger remaining adherent to the skin.

"Rounded irregular ulcers were present over the dorsal aspect of the middle finger and of the hand above the wrist, and of the lower third of the forearm. The largest were the size of a fifty-centime piece and presented a yellowish surface like dead skin, while others were typically gangrenous and surrounded with a slightly prominent ring. According to the patient they had no tendency towards cicatrisation; that of oldest standing was on the wrist, the second on the middle finger.

"There was almost complete *anæsthesia* of every form to pain, contact and heat over the whole of the last four fingers, the dorsal surface of the hand, the palm, the hypothenar region, the wrist, the forearm for some centimetres above the uppermost ulceration on the dorsal side, and a little less extensively on the palmar side (sixteen centimetres above the wrist joint), and over this area the point of a dynamometric æsthesiometer was not felt with a pressure of 200 grammes. Deep sensibility seemed to be preserved; firm pressure or a knock were perceived.

"The upper third and outer side of the right forearm, the thenar region, and the thumb were, on the contrary, almost entirely unaffected.

"The movements of the fingers were nearly abolished,

excepting the thumb; the hand was cold, slightly cyanosed, its temperature 0·8 (Centigrade) below that of the healthy side. On 18th February there was some lymphangitis round the patches, and the axillary glands were painful, but two days afterwards these signs had disappeared.

"On the following days the gangrenous appearance increased, and pain was severe. It was noted, however, that many of the ulcers showed a tendency to heal under treatment with losophan and cotton-wool occlusive dressings, while they increased in size after the cessation of this treatment.

"On 15th March a new eruption appeared; in twenty-four hours it presented the following appearance: over a red surface about the size of a centimetre and a half there was a flat bulla, depressed in the centre with a small amount of purulent liquid under the epidermis; a greyish slough had already begun to form."

II.

The histological appearances were reported by M. Nicolle to be as follows: "Sections, including both the ulcerated portion and the adjacent healthy skin, showed the following appearances: The epidermis is somewhat hypertrophied, and its horny layer, which is manifestly thicker than normal, is abruptly interrupted at the seat of the loss of substance, where it offers the vascular condition found in vesicular and bullous affections, although to a very limited degree. Beneath it the papillæ show a little leucocytic infiltration. The derma, where exposed, has a thin layer of white corpuscles and some fibrinous exudation on its surface.

"Throughout the section the middle layer of the derma is practically normal, while its deeper portion is infiltrated with numerous leucocytes, and exhibits abnormally hypertrophied connective tissue elements. These latter evidently existed previous to the formation of bullæ; they are also present, as we have said, in regions where the epidermis is intact.

"No nerve twigs were met with in our preparations. The blood-vessels presented nothing of moment except the capilla-

ries, many of which, in the deeper layers of the derma, were diseased. Finally, staining for microbes revealed nothing of any interest."

III.

To sum up: a phlegmon, which suppurated and then healed, occurred as the result of an injury to the fingers and palm. But during cicatrisation contraction of the fingers, pain and anæsthesia set in, and finally, after the long period of eleven months, the peculiar lesions developed which have been described. All that is easy of observation, but difficult of interpretation. Quinquaud pointed out the limitation of the lesions to the band of anæsthesia—*i.e.*, in the distribution of the ulnar and median nerves, while the area of distribution of the radial nerve was free from both eruption and anæsthesia, excepting only the index and outer side of the middle finger. He then discussed the possibility of the lesions being due to leprosy or to syringomyelia in an early stage. He discarded the former idea on the ground of the absence of bacilli and of changes in the ulnar nerve, and the latter on the absence of "sensory dissociation"; he decided in favour of the existence of an *ascending neuritis with consecutive trophic troubles.* "These lesions," he added, "heal rapidly under losophan dressings and when occluded, but reappear and become intensified on the discontinuance of the dressing; I believe that the soil is prepared for invasion by micrococci by the nervous lesions, and that the vascular troubles fully explain the sloughing which takes place where the circulation is difficult or altered, at least in the skin and subdermic region. Something analogous occurs in what happens to the cornea in Magendie's experiment."

Lucien Jacquet.

PLATE XL.

SYPHILITIC CHANCRE OF THE FACE.

SYPHILITIC CHANCRE OF THE BREAST (*Common Form*).
SYPHILITIC CHANCRE OF THE BREAST (*Ulcerative Form*).

Models by BARETTA, Nos. 1626, 108, and 223, from patients under the care of Mons. FOURNIER.

I.

FIGURE 1 is a beautiful example of the ulcerative form of chancre of the face.

Chancres of the face form one of the most interesting groups of extra-genital chancres, and on three grounds: (1) their ætiology, for quite special causes of contamination come into play, such as infection by razors; (2) their extremely various clinical types; (3) the diagnostic errors to which they may give rise. These various points cannot be discussed here, but I have devoted much study to them in my recent work on *Extra-genital Chancres* (Paris, 1897, Rueff et Cie). I shall therefore content myself with some considerations upon the most common clinical forms of chancre in this curious locality.

Clinical forms.—Being cutaneous chancres, they assume the objective characters appertaining to chancres of the skin, wherever situate. They may be subdivided as usual into two large groups, (1) chancres which are scabbed over, or (2) have their surface exposed.

According to diverse conditions they may present themselves as one or other of these two types, or even alternately. Left untreated, they are scabbed chancres; when dressed, they are chancres *à vif*. It is not rare for the same chancre

to assume these two different objective forms at different times.

1. *The Scabbed Chancre.**—In this form the facial chancre is nothing but a scab on the face, with no special characters of its own; it is generally brownish and of a more or less deep brown tint, but sometimes yellowish; it is rather thick, firm, compact and always a little raised.

At first sight, then, it is merely like an ecthyma, an impetigo, a herpes or even a dried-up boil. Nevertheless the following characters may awaken suspicion, *viz.*:—

(1) It constitutes a circumscribed lesion, *accurately defined* and delimitated, and not a diffuse lesion, not a lesion with uncertain, ill-defined, irregular, wavy outlines such as the scabs of an impetigo or an eczema present.

(2) It is usually of *rounded form*, sometimes mathematically circular or nearly so.

(3) It is of *medium extent*, varying from the size of a fifty-centime piece to a franc; its extent therefore is very different from that usual to the scabby lesions caused by tertiary syphilis or tuberculosis.

(4) And most specially, *it rests on a resistant, indurated base* which is nothing else than the specific induration of the chancre. This latter character, without speaking of the accompanying glandular affection, is almost always calculated, not only to awaken suspicion, but to determine the diagnosis in favour of a chancre.

2. *Chancre with its surface exposed.*—Facial chancre of this second type presents itself with the habitual, classical characteristics either of the *erosive* or of the *ulcerative* variety.

(*a*) In the former there is merely a simple *erosive* lesion of the skin of the face, a lesion which merely touches without actually invading the derma; sometimes it is flat, absolutely flat, and on a level with the surrounding skin, but more frequently it is very slightly raised so as to form a plateau,

* See Models 246 and 265 in my private collection in the Saint Louis Hospital Museum.

almost on the same plane as the healthy surrounding tissues, *i.e.*, is bounded by a frontier line which does not project, is without break or irregularities, in one word, which has no real border. Its surface is smooth, flat, uniform, sometimes even looks varnished ; its colour is generally red, sometimes bright red or almost carmine, and reminiscent in the highest degree of the flesh tint of dissected muscle.

From the latter point of view we may pay special attention to a fact frequently observed clinically, *viz.* : that certain chancres on the face declare themselves immediately and at the first glance as chancres by their beautiful carmine or " muscle-flesh " colour, which is quite special and significant in a number of cases. To convince oneself of this it will suffice to pass through the gallery of syphilitic chancres in our Museum, when it will be readily admitted that my statement is no exaggeration.

(*b*) In the *ulcerative* variety,* what is observed consists, on the contrary, of an *encroachment* upon the true skin, which is more or less hollowed out according to the case ; generally it involves only part of the derma, but sometimes it is distinctly hollowed out, two, three or four millimetres in depth, and seems to involve the entire skin or even more than the skin, although this appearance in reality only depends upon the thickness of the pathological neoplasm. Its base is red, but sometimes it is yellow or even bright yellow as in Model No. 857, but this is very rare ; it is sometimes also polychromatic.

From the point of view of shape of the ulcer there are two varieties, *viz.* : (1) *the cupuliform*, in which the base of the chancre is constituted by a more or less hollow loss of substance of the skin which slopes down gently from the periphery to the centre, thus recalling the aspect of a cup. In this type there is no notable elevation of the margin, no pad-like periphery like a crown projecting above the ulcer.

(2) The *lamp-like*, in which in addition to the cup-like shape there is elevation of the margin resulting in the formation

* See Models numbered 198, 711, 413, 857 in the General Collection of the Saint Louis Hospital Museum.

of a raised pad or prominent crown round the margin of the ulcer, so that the lesion in its entirety resembles the well-known old lamps used at public festivals.

Characters common to the two forms.—Both erosive and ulcerative chancres of the face are distinguished by certain common characters, *viz.* :—

(1) They are circumscribed and sharply delimitated.

(2) They have a distinct tendency to assume a circinate, orbicular or oval form.

(3) More especially, they have an indurated base. Induration is not only a common and constant attribute of chancres on the face ; it is generally a very marked characteristic of them. Situate on any portion of the face (chin, cheeks, nose, forehead, etc.) a syphilitic chancre almost invariably presents a base which is resistant, distinct, can easily be pressed between the fingers, is visible owing to its exuberance and carries accusation with it.

Cases are rare,—nay, very rare,—in which the induration is reduced to its superficial or rudimentary form, which is called "foliaceous" or "papery".

On the contrary it is generally of the "parchment-like" type, forming under the chancrous erosion or ulceration a more or less thick disc which gives to the finger the sensation known as that of a *carte de visite*.

Often it assumes a still more marked type on account of the existence beneath the chancre of an exuberant, neoplastic, nodular, globular base, in some cases of considerable size, so as to constitute a sort of sub-chancrous tumour of cancroid, cartilaginous, almost wooden, consistence.

So, on the whole, we may say that of all regions of the body the face is certainly one of those where specific induration of chancres is most pronounced and is of the greatest significance clinically. It is not necessary to say more on the diagnostic importance of such a symptom.

II.

Photo-lithochrome No. 2 illustrates the usual, common type of chancre of the mamma, and No. 3 one of the rather common varieties of this form of chancre, *viz.*, the ulcerative.

In the same way as chancre of the face, chancre of the mamma, as a cutaneous chancre, may present itself in two forms, *scabbed* or *with its surface exposed*. But these two forms occur in very different degrees of frequency.

(1) The former is quite rare and seldom occurs more than once or twice in twenty cases. For how could a chancre in contact with the mouth of a child and constantly in a habitual state of moisture remain crusted? The latter type only occurs independently of suckling.

It appears, like every scabbed chancre, as a markedly circumscribed lesion, rounded or oval, capped with a scab more or less thick, adherent, brownish, yellowish-brown or dark grey in colour (see Model No. 163 in my private collection at the hospital).

(2) But far more frequently, that is to say eighteen or nineteen times out of twenty, chancre of the breast is a lesion with its surface exposed, and in the great majority of cases it offers the classical appearances of cutaneous chancre, the principal characteristics of which it will suffice for me to enumerate.

It is first an accurately bounded lesion, circumscribed, and without inflammatory reaction round about it; in form it is round or oval; it is of small area and may be compared to a fifty-centime piece or an almond.

The following five characteristics are of fundamental importance:—

(1) It is a purely *erosive* lesion, affecting the skin superficially without causing ulceration.

(2) It has neither a prominent ridge nor a depression at the circumference. On the contrary, it is on the same level as the surrounding tissue, or sometimes it is slightly raised in the form of a crown and its margins gradually slope down to the level of the healthy skin.

(3) The surface is smooth, flat, uniform to such a degree as to appear almost varnished (*vide* No. 108 in my private collection).

(4) Its colour is red, often a beautiful "muscle-flesh" colour. Sometimes, however, while red at the periphery its centre is greyish or sepia brown.

(5) The lesion rests on a firm resistant indurated base. The induration is always easily perceptible and manifest. The breast, as many syphilographers have observed, "is one of the regions of the body in which specific induration is most marked". In the great majority of cases the induration is of the lamellar, "parchment-like" type. Less frequently it assumes the nodular, deep type. Very exceptionally it is reduced to its abortive, or so-called "foliaceous" type.

Add to these points (1) that the lesion secretes but little, and that merely a turbid, puriform, serous fluid oozing from it—rather than true pus in the clinical sense of the term—and (2) that it is remarkably indolent even when palpated, and remains free from secondary irritation. Such is a chancre of the mamma in the great majority of cases.

Varieties.—Of these there are numerous and very interesting types, of which some are common, others exceptional, and others extremely rare. I shall begin with the first, which for facility of exposition and recollection may be arranged under four headings as follows :—

I. *Varieties in objective form.*—Sometimes the mammary chancre instead of assuming the erosive type already described presents one or other of the following types :—

(*a*) *The papular chancre*, which is simply the erosive chancre with some slight elevation of surface, of from one to three millimetres. In this form it closely resembles a chocolate lozenge both in size and form.

(*b*) *The exulcerative chancre*, which only differs from the erosive chancre in one point, *viz.*, that it slightly involves the derma, instead of stopping short at it.

(*c*) *The true ulcerous chancre*, which has a more accentuated individuality and causes ulceration. It is hollowed out

to the depth of one or two millimetres, seldom more. Its base is then notably below the level of the healthy parts, to which it is joined by a very gently sloping peripherical zone.

This chancre also differs in colour from the preceding types. Sometimes it is of a red and "flesh-muscle" colour, but generally it is many-coloured, "bacony" in places, yellowish, greyish or reddish in others.

II. *Varieties in configuration.*—The mammary chancre, as I have said, is usually round or oval, but sometimes it assumes other forms, of which the following are the chief.

(*a*) The variety termed "horse-shoe shaped" or, more simply, the *semilunar chancre;* it is common at the base of the nipple and on the areola. It gives rise to certain chancres which surround the nipple without doing so completely and assumes certain shapes which are described as chancres in the form of a C, a crescent, horse-shoe, half-moon, etc. Model No. 156 in my private collection represents two beautiful specimens of these semilunar chancres.

(*b*) The variety called "*fissured*". This, which is common and important from the diagnostic point of view, is one of the chancres which have the base of the nipple as their seat of election. A chancre there often assumes a special tapered form; developing chiefly in its long diameter, it surrounds the nipple for a distance varying from one to three centimetres, but without increasing proportionally in width. So that at the base of the nipple a long band is formed, either erosive, partially ulcerative or distinctly so, like a semilunar trench (*rigole*), extending round a third, a half or even two-thirds of its circumference.

Of this form there are two possible modifications, *viz.*:—

(*a*) *The benign form*, in which the lesion remains absolutely superficial, as a long narrow tapering erosion which is on a level with the skin and does not really involve the derma. This is the form of chancre which most especially simulates simple fissures, the *crevasses* of the breast which are so common in women nursing children.

(*b*) *The ulcerative form*, where the chancre deeply pene-

trates the base of the nipple, forming a sort of ulcerous ravine. At first sight only a linear lesion is perceived; but if the nipple is lightly compressed laterally this groove opens up and discloses a deep ulcer with two segments separate like the halves of a V. This is one of the numerous varieties of chancre described formerly as "chancres like the leaves of a book," but which nowadays are more appropriately termed "V-like," or "compass-like" chancres.

III. *Varieties in extent and importance.*—A mammary chancre is usually about the size of a fifty-centime piece or an almond. But there are a certain number of cases in which the chancre is smaller, and others, more rare, in which it is larger.

There are *small* mammary chancres not larger than a twenty-centime piece or the nail of the little finger. I have seen some which were not more than four or five millimetres in diameter. In exceptional cases they may be still smaller.

On the other hand there are *large* mammary chancres. There are two illustrative cases in our Museum; one, which radiates round the nipple as a centre, is as large as a franc, and another is certainly as large as a five-franc piece.

IV. *Varieties in number.*—In the majority of cases chancres of the mamma are single; much less frequently they are multiple. My personal statistics on the point are as follows:—

Single chancre of the breast	61 cases in 100.
Multiple „ „	39 „ „ 100.

But when chancres are multiple to what degree are they so? Almost always—if the phraseology may be permitted—they are "discretely" multiple. (1) In the great majority of cases there are two or three chancres, either on one breast or on both; (2) more rarely there are four; (3) still more seldom there may be five, and (4) very exceptionally, six or more.

These multiple chancres are observed almost solely in women infected while suckling, and doubtless their multiplicity depends upon repeated and prolonged contact.

On the other hand, chancre of the mamma is almost always single when infection is conveyed by a kiss. I have nevertheless recorded one case where four chancres were contracted in this way.

To terminate the subject I shall say some words about two other varieties incomparably rarer:—

I. *The confluent variety, or multiple herpetiform mammary chancres.*—In this form there is a veritable "pleiade" of primary sores, the chancres becoming really confluent. Keyes has reported the case of a woman who had *twelve* chancres on the breasts—four on the left and eight on the right side.

I showed at the Société Médicale des Hôpitaux a woman who had *twenty-three* chancres distributed as follows: seven on the areola of the left breast and sixteen on the right breast (see Model No. 275 in my private collection at Saint Louis Hospital).

My eminent colleague and friend Dr. de Beurmann has observed at the Lourcine a nurse with twenty-five chancres on the breasts.

These cases are interesting on two grounds:—

First, the most extraordinary exception which they constitute to the law of the unicity of the syphilitic chancre.

Secondly, the abnormal form and unusual appearance of these extraordinarily numerous chancres. And indeed they are not like ordinary mammary chancres. They differ from the common type in a number of different points—more especially in the three following:—

(1) *Their diminutive size;* for they are always small, or even "dwarf".

(2) *Their superficiality;* for they are almost always simple erosive chancres not involving the derma, and tending soon to become little scabby areæ, exactly resembling dried up herpetic lesions.

(3) *Their benignity;* their size, the condition of their surface and their general physiognomy render them of a type *inferior* to the chancre, if one may say so. They might be taken for mucous patches or crops of herpes rather

than for chancres, and it is only against the grain—so to speak—that one is forced to consider them as the initial lesions of syphilis. Indeed the truth is only arrived at by reasoning, ætiology, accompanying glandular manifestations, etc., etc. One word, in short, resumes the idea they convey, they are *chancres in miniature.*

II. *The phagedænic variety.*—It is not rare to see a mammary chancre enlarge and become more or less hollowed out and thus be converted into a large and ulcerous chancre. But it is very rare to see them pass beyond certain limits and merit the denomination of phagedænic. This may occur, however, and in two forms, *viz.:* superficial phagedæna, and deep phagedæna.

(1) *Superficial phagedænic form.*—Here the chancre spreads excentrically so as to attain considerable proportions, but remains superficial without seriously involving the deeper parts.

A beautiful example is afforded by a model placed in the Museum by the late Mons. Quinquaud which represents an enormous but very superficial mammary chancre radiating around the nipple, almost accurately circular, and measuring five to six centimetres in diameter.

(2) *Deep phagedænic form*, in which the morbid process extends in depth, excavating the tissues and causing the production of a hollow, "boring" chancre. Model No. 156 in my private collection illustrates a beautiful example of this in one of our patients, who contracted a chancre on each breast from suckling a syphilitic child. The two chancres rapidly extended and assumed a grave character. In a fortnight they attained the size and appearance reproduced in the model.

Both were semicircular, horse-shoe shaped, and surrounded three-quarters of the nipple. The smaller one, on the right side, measured ten centimetres transversely and two centimetres vertically. That on the left side formed an almost circular band round the nipple involving all the areola, and its circumference measured nine or ten centimetres. When

they had attained the dimensions reproduced in the model they continued to spread in depth, so that at one time that on the right side would have easily contained a bean, while that on the left measured from one to two centimetres in depth.

Were it only for their excavation these lesions fully merited the name of phagedænic chancres; but equally justificative of the term were their sharply cut margins raised in circular ridges; their irregular, packed up, pallid bases, covered with putrescent, pultaceous *débris* and islets of black gangrenous matter; their surrounding extensive pseudo-erysipelatous areola; the putty-like engorgement which formed a framework and a base to them; and, lastly, their evil aspect and veritably threatening physiognomy.

ALFRED FOURNIER.

PLATE XLI.

HYDROIC ERYTHEMA OF THE HANDS AND LIPS.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1739, made in the year 1893, from a patient under the care of M. DU CASTEL.

THE patient, whose lesions are represented in this plate, was similarly attacked on two occasions within two months. He was a young man of twenty-seven, of robust constitution, without any noteworthy hereditary antecedents, and who had never had syphilis.

The lesions on the back of the hand present, in the most perfect manner, the characteristics of Bazin's Hydroa vesiculosum—the Erythema multiforme of M. Besnier—Erythema iris or *en cocarde*—the Herpes iris of Bateman. A well-marked erythematous zone at the periphery forms a complete annular boundary to the lesion. Within this erythematous ring there is a concentric greyish circle caused by the elevation of the epidermis by a small quantity of serum. These two circles represent the two processes characteristic of the affection, *viz.*, œdema and erythema. The œdema is represented by the inner greyish circle where the slight elevation of the epidermis by a small quantity of serum constitutes an imperfectly developed bulla; the outer red circle is caused by congestion, by an intensely inflammatory erythema. This erythematous zone constitutes the principal pathological lesion, for, when an opportunity is afforded of following the successive development of the lesions, an erythematous patch is seen to precede all other changes in the skin. The œdematous elevation of the epidermis which gives rise to the greyish circle, occurs in the centre of

this erythematous patch; or in some places the eruption may be arrested after the appearance of the erythematous patch and the central œdematous zone may be absent. The eruption then remains erythematous, and does not become erythemato vesicular or bullous.

The scabs in the centre of the patches are the result of the commencing drying up of the blebs.

The most interesting changes are certainly those on the lips, which are covered by blackish crusts, rounded and heaped up, between which diseased, greyish, oozing mucous membrane may be seen, the appearance resembling, to a remarkable degree, that of lips covered with abundant syphilitic mucous patches. The analogy is so great that the difficulty would be often extreme if lesions on the skin and mucous membrane in other situations were not present to clear up the diagnosis. Our patient in his first attack had been treated as a case of syphilis. When I showed him at the Société de Dermatologie et de Syphiligraphie, M. Baudouin and Prof. Fournier both cited cases of patients suffering from Hydroa of mucous membrane in which the same error had been made, and in whom the lesions in the mouth had been regarded as syphilitic until the appearance of erythemato-bullous lesions on the skin revealed the true nature of the disease on the lips.

In our patient the lesions are typical in their very *localisation*,—the backs of the hands—the seat of predilection for the manifestations of multiform Erythema; typical too in its *aspect*, for the concentric arrangement of the different factors is well seen; in the centre the scab, outside it an œdematous ring, remains of a bulla; and again outside it the erythematous zone which gives to the whole its "cockade-like" or "iris" appearance.

Even the mucous membrane of the mouth is not spared, and this invasion of mucous membrane is a common, almost a usual, feature. There was a small erosion on the tip of the tongue covered with a diphtheroid false membrane. There were superficial rounded erosions of bright red colour and obviously caused by loss of epithelium on the hard and soft palate; while at other parts more extensive areas of disease

were present with polycyclical borders evidently produced by the coalescence of several bullæ, or of rounded patches, desquamating and analogous to the others. All these lesions corresponded with bullæ, some not ruptured and others desquamating, hence the diphtheroid appearance of the former and the erythematous look of the latter.

Despite the great resemblance offered by the lesions of the lips to syphilis and the confusion constantly made between them, it is, nevertheless, possible to point out certain differences. The scabs are absolutely similar, but the appearance of the mucosa and of the cutaneous portion of the lips between the scabs is slightly different, when very closely examined. There the lesions are dryer and secrete less in erythema bullosum, giving the notion of an elevation of epidermis rather than of an oozing and vegetating surface. In secondary syphilis, on the contrary, one has to deal with a more secreting surface, resting on an infiltrated, raised base; there is a feeling of an inflammatory infiltration of the derma, of a papule with a slight diphtheroid coating, rather than of a simple epidermic elevation.

The lesions on the lips and in the mouth, with their diphtheroid coating or their smooth, desquamating surface, might convey the impression of a herpes. But in herpes it is rare not to observe, at least at some points, the very fine polycyclical arrangement of the borders, the ulcerations and the scabs and the presence of a few isolated vesicles, which declare the exact nature of the disease. In our case the lesions represented circles more extensive than the vesicles of herpes; where the extensive eroded areas presented polycyclical margins the indentations were deep and the festoons large like the bullæ to which they were consecutive, not the shallow and small indentations which result from a herpes.

The mode of evolution of these lesions is also quite different for them and for those of syphilis. In Hydroa the eruption appears in a few hours, and recovery takes place in a few days, provided the disease is not aggravated and kept up by irritating applications. Our patient says his first attack recovered in five days; his second recovered in ten days. Syphilitic lesions behave quite otherwise; they develop more slowly;

left to themselves they last for weeks; even appropriate treatment does not always bring about their rapid cure.

We were unable to discover the influences under which the disease in our patient was caused and recurred. No alimentary or medicinal intoxication could be discovered; no disturbance of the nervous system, no change or functional derangement of any organ was detected; we were unable to establish any pathogenic hypothesis on any plausible basis.

R. DU CASTEL.

PLATE XLII.

PIGMENTARY SYPHILIDE.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1149, made in the year 1886, from a patient under the care of Prof. FOURNIER.

AMONG the various cutaneous manifestations of syphilis in its secondary stage there is one so distinct from all others as regards its objective characters and its evolution as to demand special description ; it is the *pigmentary* or *freckled syphilide.*

Monneret in his *Compendium of Medicine* and afterwards Hardy in his *Clinical Lectures* had drawn attention to this lesion which they called the *granular syphilide*, when Pillon in his Thesis on the syphilitic exanthemata (in 1857) described it under the name which it has since borne.

This form of syphilide, of which the accompanying photolithochrome shows us a good example, localised upon the neck, as it most frequently is, consists of an increased and circumscribed pigmentation of the skin, the pathognomonic characters of which have been accurately determined by the authors who have already studied it.

(1) It consists of an agglomeration of spots or marblings, the tint of which varies from yellow ochre to more or less dark bistre, sometimes however slightly greyish. The spots are closely aggregated and have no regular outline of determinate type. They touch or merge into one another here and there, thus circumscribing islets of normal skin. As the result of this arrangement on the neck for instance—where it is commonest—a sort of "network or lacework with large meshes" results, to use Prof. Fournier's expression ; he also compares the appearance to that of a dirty neck.

(2) The macules of the pigmentary syphilide do not project

above the surface of the skin, do not desquamate, and do not itch. Thus they often remain unknown to the physician and unconsidered by the patient, who naturally cares little for a condition which gives him no inconvenience. Often it escapes observation if not looked for, as it by no means always presents the intensity of colour of the case which served as model for our photo-lithochrome. The model was made in 1886 in Prof. Fournier's clinic, from a patient about whom there was only one point which seems to be of special interest. The woman, aged fifty-six years, had the trunk studded with whitish patches which almost gave the impression of cicatrices, and consisted of interstitial atrophy of the skin consecutive to simple papular syphilides. These lesions, which are reproduced in model No. 1,145 of the collection, appear to us to express a tendency on the part of the subject to exaggerate all morbid actions, at least on the part of her skin; and this would explain to our mind the intensity of pigmentation of the macules on the patient's neck.

Generally speaking, spots of pigmentary syphilide have neither fixed dimensions nor determinate contour; in size they vary from a lentil to a franc piece or beyond it; their ill-defined margins merge insensibly into the surrounding skin, and nevertheless they offer a very well-marked contrast with it and especially with those portions of the skin that they circumscribe in their meshes; so that the pale portions of the skin appear whiter than normal, as if they were completely deprived of pigment. This appearance has led certain authors to think that there is a loss of pigment over the pale patches and increase of pigment over the others. As to the dark patches, it is indubitable that they are the result of exaggerated pigmentation of the cells of the malpighian layer, and this hyper-pigmentation affects all its elements. But Tanturri, whose researches show that the parts apparently devoid of pigment contain it in normal quantity, has done away with the theory of loss of pigmentation. It seems that the illusion is only due to the contrast of shades, an illusion easily dissipated by the following simple experiment recommended by Prof. Fournier. If a sheet of paper with a

hole in it some millimetres in diameter is applied to the affected part so that the hole corresponds to one of the pale patches, the latter will appear absolutely identical in colour with the normal skin; then if the sheet of paper is removed the patch will resume its blanched appearance by contrast.

(3) The pigmentary syphilide presents characters of importance as regards its localisation, configuration and extent. In the great majority of cases it is confined to the neck, sometimes confined to more or less restricted parts on its sides, but sometimes surrounding it completely like a collar several centimetres in depth, and spreading down to the supraclavicular regions. Almost always its distribution is very symmetrical, and this character holds good when localised elsewhere; for sometimes this syphilide may occupy other regions, such as the abdomen, thorax or limbs. It may even be almost universal, a beautiful example of which was shown to the Société de Dermatologie by Mons. Hudelo on 11th February, 1892.

(4) This manifestation, from the chronological point of view, belongs to the secondary period, as we already mentioned in the earlier part of this article. Generally it appears in the middle of that period, that is to say towards the end of the first year or in the course of the second year. This is, however, by no means a hard and fast rule, for it has been observed, even in its most extensive forms, in the second month of syphilis (Hudelo's case). Dr. Maieff, who has worked at the question in the clinic of Prof. Tarnovsky at St. Petersburg, draws similar conclusions from his numerous observations (Dermat. Congress, Paris 1889). According to Dr. Fiveisky's statistics the pigmentary syphilide has been observed in 40 per cent. of cases in the third month of the disease; in 20 per cent. in the fourth and fifth month; and in 20 per cent. in the second half of the first year. It must not be forgotten, as Mons. A. Renault points out (Soc. de Dermat., 1891), that these pigmentary changes develop unknown to the patients and that they often exist for a long time before they are discovered. Despite this frequent early occurrence, the pigmentary syphilide lasts a particularly long time, "infinitely

longer than all other syphilides and than the majority of the diathetic manifestations. It always lasts for at least a year or two, and often longer" (A. Fournier).

According to some writers it may even last an indefinite period,—an assertion difficult to control. It is, however, certain that it is sometimes observed along with tertiary accidents in women who no longer show any trace of chancre, and in whom the chronology of the different stages of the affection from its start cannot be established even by the most careful investigation.

The pigmentary syphilide is the least common of the manifestations of the secondary period. It is very unequally divided among the two sexes and is seen chiefly in females. Rare in males, or even exceptionally so in the eyes of some authors, it seems to affect preferably those of fair complexion and delicate skin. The cause of the inequality of occurrence of this curious condition in the two sexes, and its pathogeny, are entirely unknown to us. According to some authors it is a trophic disturbance of pigmentation of nervous origin. The nervous system in the earlier stages of syphilis, especially in women, is often severely affected, and, on the other hand, Mons. Vidal found the sensibility over the pigmented patches notably diminished, when tested by Weber's æsthesiometer. A good number of authors attribute these pigmentary troubles to the general failure of nutrition and chloro-anæmia which accompany the secondary stage of syphilis. These are mere hypotheses not yet demonstrated.

The diagnosis of the pigmentary syphilide never presents any difficulty. Its different objective characters and the mesh-work arrangement of the spots enclosing areæ of healthy skin suffice to differentiate it from cachectic or tubercular pigmentations, from Addison's disease, or from common freckles. The same points, in addition to the history, will serve to establish the diagnosis from macules consecutive to specific eruptions.

According to Prof. Fournier only *pityriasis versicolor* could give rise to confusion. But it will be distinguished, (1) by its localisation, generally quite different; (2) by itching, which almost always is absent in the syphilide; (3) by the characters

of its patches which are of a deeper yellow colour, "café au lait," and of their surface which is covered with branny desquamation; (4) by the presence among the scales of pityriasis of a special fungus, the *microsporon furfur*, which is very familiar and easily detected.

The pigmentary syphilide affords no indication of the actual intensity of the disease, nor of its subsequent prognosis. Locally it is of no serious import; it is an annoyance for the patients, but that is all—and this is lucky, as it resists all therapeutic measures. Even mercurial treatment, in contrast to its effect upon other specific manifestations, does not seem to modify it, or, if it does, it is with despairing slowness. The same may be said of iodide of potassium and of the numerous topical remedies tried for it.

GEORGES BAUDOUIN.

[The diagnostic importance of the "dappled" pigmentary syphilide is not generally recognised in Great Britain, nor its existence very extensively known. An excellent and exhaustive article on the subject by Dr. Taylor of New York, with a good chromo-lithograph and copious bibliography, appeared in the *American Journal of Cutaneous and Venereal Diseases*, vol. iii., p. 97. My personal observation convinces me that there also exists a true *syphilitic leucoderma* independent of any pre-existing erythema, or other eruption.—J. J. P.]

PLATE XLIII.

MOLLUSCUM CONTAGIOSUM.

(Acne Varioliformis of Bazin, Ecdermoptosis of Huguier, Elevure Folliculeuse of Rayer, Acne Tuberculoide of Devergie, Molluscum Epitheliale of Virchow, Molluscum Sebaceum of Hebra, Molluscum Verrucosum of Kaposi, Epithelioma Contagiosum of Neisser, *etc.*)

Model by Baretta, in the Museum of the Saint Louis Hospital, No. 1271, made in the year 1887, from a patient under the care of Professor Fournier.

Under the name of *Molluscum Contagiosum* given to it by Bateman, a cutaneous affection is now generally known, the interpretations of which have been curiously varied, as the above long list of different names attached to it fully testifies.

In the simplest cases, which are those most frequently seen, the disease manifests itself in the form of small, partially translucent tumours, rounded or slightly flattened, lobulated at their deepest part, and comparable in shape to a purse the strings of which are tightened up (Renaut).

The degree to which they project from the skin is naturally proportional to their size, and this varies from a small bead to a pea. At their summit is an umbilicated depression which corresponds to an orifice communicating with the centre of the tumour. Very often this orifice is blocked by a small yellowish-white plug, the size of a pin's head or larger, the pale tint of which contrasts markedly with the more pink or even vivid red tint of the surrounding skin, especially when the lesions are somewhat inflamed. From this there results an appearance comparable in its entirety to that of acne pustules. The little yellow plug is part of a semi-solid mass or *Molluscum body*, which is easily expressed

by the nails through the orifice. When the central plug is thus expelled a small shallow cavity is left, the surface of which bleeds pretty freely.

This eruption, which appears in both sexes, and perhaps most frequently in infancy and childhood, is generally localised upon the face, neck or external genitals. Generally it is discrete and composed of isolated elements, the intermediate skin showing no inflammatory reaction. Sometimes, however, the tumours multiply so as to invade almost the whole cutaneous surface, or they group themselves, become confluent, project, elongate or become modified in form by reciprocal pressure. In certain cases, they may attain the size of a walnut or even of an orange. In the Museum of the Saint Louis Hospital there is a remarkable collection in which the most various types of the disease may be studied, from those in which it consists of small, scattered, almost miliary, bodies disseminated over one region (*e.g.* the penis or eyelids), to those in which the most extraordinary proportions are attained. Thus, one of the models shows a face riddled with numerous molluscoid tumours, in some parts grouped, in others confluent so as to form huge masses as large as, or even larger than, a big orange. The skin over them has, in most instances, maintained its normal appearance, and the orifice which is present in mollusca of medium size is not to be found. In another model, on the contrary, the enormous tumour formed by the fusion of numerous mollusca is larger than the fist, and its inflamed surface, covered with oozing ulcerations, contrasts singularly with the appearance presented by most of the other models. In the patient whose lesions are reproduced in our photo-lithochrome, and who was under the care of Prof. Fournier in 1887, the molluscum contagiosum was confined to the perivulvar region and consisted of some elements of medium size, none of which were larger than peas. There were also some secondary syphilides present on the vulva.

The evolution of these lesions is not accompanied by any pain ; left to themselves they may remain stationary for an indefinite period. They are, however, capable of spontaneous

cure, either by absorption after the discharge of their contents, or as the result of an inflammatory attack accompanied by suppuration. In the latter case the tumours disappear leaving a small superficial scar, generally of short duration.

The *pathological anatomy* and *ætiology* of the disease have given rise to numerous researches which, despite the great authority of the various investigators, still leave both parts of the problem undecided.

According to Prof. Renaut of Lyons* the anatomico-pathological process is localised in the sebaceous glands. "*The gland-cells, that is to say those which ought to undergo fatty evolution, cease to undergo that evolution and form a mass of imperfect horny matter.* This mass has neither the exact reactions of colloid matter nor of normal horn, but it more nearly approaches horn than any other substance by its consistence, its translucency, its manner of behaviour in presence of picric acid, etc. With certain reagents some cell-nests of lobular epithelioma behave in similar fashion to cells of 'acne varioliformis' (*i.e.*, molluscum contagiosum), from which however they differ in being composed of several, instead of single, cells."

According to the same authority the bodies which Angelucci considered to be schizomycetes in molluscum are only the granules of eleïdine discovered by himself. Thus, Mons. Renaud considers the affection as an evolutional lesion of sebaceous glands, the lobules of which multiply under the influence of a proliferative excitant, the exact nature of which has yet to be discovered; the cells of the corpus mucosum thus produced, which ought to have become glandular, instead of undergoing fatty metamorphosis and fulfilling their normal function, undergo a special evolution which more closely resembles that of horny, than of any other, tissue.

According to Vidal and Leloir† the normal sebaceous production of the glands is replaced by two changes which progress in parallel fashion; the one is probably due to an

* See French edition of Kaposi, *Pathol. et Trait. des Maladies de la Peau*, Paris, 1891, p. 316 *et seq.*, note by the Translators.

† Vidal and Leloir, *Traité descriptif des Maladies de la Peau*, 1889.

invasion by parasites of the order of *gregarinæ*, which affect a number of the cells of the lobules at their deepest parts; the other begins more superficially and is due to the horny metamorphosis of some of the cells of the lobules.

According to Professor Neisser * one is forced, on studying the development of molluscum, to admit its parasitic origin. From the anatomical point of view it is at once an epithelioma and a retention tumour, because it is made up of an abnormal proliferation of epithelium, by "horny masses retained and surrounded by cells with parasites or molluscum corpuscles". According to this author the parasite belongs to the class of sporozoa of the family of the *coccidia*.

Mons. Quinquaud † also attributes the development of molluscum contagiosum to sporozoa.

Mons. Darier, without being as affirmative as the two preceding authors, is inclined to accept the same view. He says: "despite some points, the interpretation of which is still enveloped in obscurity, the most probable hypothesis, and that which has the greatest number of facts in its support, is that the molluscum bodies are not the result of degeneration of epithelial cells, but that they are parasites of the class of sporozoa and probably coccidia". "As the tumours of molluscum contain no other parasites and are contagious and inoculable, it is evident that the sporozoa must be the pathogenic agents and the cause of the transmissibility of the disease."

In a more recent work Dr. Cornel Beck, ‡ of Buda-Pesth, localises the anatomical process in molluscum in the pigmentary cells of the rete malpighii. According to him, disorders of evolution of pigment play a most important part in the production of molluscum, and the author, whilst admitting that these troubles are brought about by a parasite, concludes that there is a retrogressive metamorphosis in the interior of the cells, terminating in the histological formations which constitute the lesions.

* Neisser, *Viertejahr. f. Dermat. u. Syph.*, 1888, p. 553.
† Quinquaud, *Tribune Médicale*, 1889.
‡ Cornel Beck, *Archiv f. Dermatol. u. Syph.*, 1896.

Finally, in 1896, T. C. Gilchrist,* after comparing the lesions of molluscum with specimens of lesions produced by protozoa in the human skin, arrives at the following conclusions :—

(1) The development of protozoa takes place in successive stages which are not observed in that of the molluscum bodies.

(2) In the neighbourhood of a molluscum no inflammatory reaction is produced, whereas protozoa always cause an acute inflammation as well as a chronic change.

(3) The corpuscles are observed only in the epidermis and never in the corium, whereas protozoa not only attack both layers, but are also found in great numbers in the subcutaneous tissue and neighbouring lymphatic glands.

(4) Inoculation experiments with molluscum, although sometimes crowned with success, have very often yielded negative results.

(5) Molluscum bodies are perfectly homogeneous and a large number of very competent observers have followed their development after degenerative changes in the cells of the rete mucosum. The changes due to protozoa are not degenerative.

(6) Under the microscope there is only slight or no resemblance at all between protozoa and molluscum bodies.

The conclusion to be drawn from these divergent opinions is that "the question still remains one for study," as the translators of Kaposi's work have well said. The only point definitely settled and confirmed by clinical experience is the contagiousness of the malady; this fact was observed by Bateman in the case which formed the subject of his excellent description. His patient, a wet nurse, was infected by an infant whose two brothers also suffered from the disease, which they contracted from another nurse. This idea, which has since been rarely contested, seems now legitimately accepted, and Mons. Barthélémy, struck with the frequency of the disease among the patients at Saint Lazare, recently proposed to classify it among the venereal diseases.

The conditions which influence the transmission of the

* T. C. Gilchrist, *Johns Hopkins Hospital Reports*, p. 328.

disease from one person to another are still quite unknown ; it is nevertheless rational to suppose that inoculation is favoured by cutaneous erosions and all solutions of continuity of the integument. According to Neumann the frequency of molluscum contagiosum in patients suffering from pediculosis is thus explained.

As Bateman's molluscum is contagious, it is the duty of the physician to isolate persons affected with it as a prophylactic measure, and to veto their admission into hospitals and schools.

The curative treatment varies according to the intensity of the lesions. If these consist of very small, isolated, discrete tumours, painting with tincture of iodine, the application of mercurial ointments or of salicylic plasters may, in subjects with delicate skins, suffice to provoke an exfoliation of epidermis carrying with it the small molluscous elements (Thibierge). If they are of very small size and in extremely large numbers successive exfoliations with soft potash soap may be had recourse to, taking the precaution of only attacking limited areas at a time, as Mons. Besnier advises. When the tumours have attained medium size their mechanical destruction is indicated. The treatment is very simple indeed and consists of enucleating each by simple pressure between the thumb-nails, or, as is preferable, of excising them with scissors if pediculated or of removing them with Mons. Besnier's sharp curette. This procedure, which ought to be done at one sitting, is followed by some bleeding easily stopped by a compress of cotton wool or by slight cauterisation. The little wound which results, if covered with a small piece of sticking plaster, soon heals up without leaving any mark ; this makes the theory of the follicular seat of the lesion very improbable and removes it clinically from the acne group (Besnier).

When the tumours are very numerous and extensively distributed they must be enucleated in successive lots, and in as many sittings as may be necessary. The extirpation of conglomerate tumours which are voluminous assumes the proportions of a small surgical operation which must be carried out on antiseptic principles.

GEORGES BAUDOUIN.

PLATE XLIV.

VASCULAR NÆVUS VERRUCOSUS OF THE LEG.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1772, made in 1894, from a patient under the care of Mons. GAUCHER at the Saint Antoine Hospital.

THE case of vascular nævus reproduced in this photo-lithochrome presents the two following special points of interest :—

(1) The vascular new growth is accompanied by wartiness, *i.e.*, by papillary hypertrophy and keratosis.

(2) The lesions consist of a series of angiomata of various sizes distributed in lines one above the other and, in their entirety, assuming a band-like arrangement.

Vascular warty nævus is a rare form of nævus which may be situate on any part of the body. In this case the neoplasm is extensive, in the form of separate angiomatous patches over the whole of the inner aspect of the right leg, and is made up of several distinct nævi.

Warty nævi are generally multiple. They have the aspect of small prominent warty masses, hard and rugose, covered with a thick horny layer and less vivid in tint than simple vascular nævi. Their colour is neither frankly red nor blue ; it is dark, violaceous, sometimes greyish or brownish. The abnormal appearance is due to the presence of stratified layers of epidermis on the top of the angiomatous lesions. The red or bluish tint characteristic of angiomata is often perceptible only at the margin of the tumours, outside the keratosic masses, or over the smallest nævi, the epidermic covering of which is not so thick.

The vascular warty prominences are at variable distances from one another ; between them fine telangiectic vessels may be seen.

Warty nævi, like all nævi, are congenital growths, but they often assume greater proportions after birth and gradually increase in size.

They are painless and do not affect the general health, being simple disfigurements; but they may cause a certain amount of inconvenience by their size and prominence. In the present case some of the growths had been sufficiently annoying, owing to their size and situation, to necessitate surgical removal.

The pathological anatomy of warty nævi is the same as that of ordinary nævi with the addition of the keratosic lesions. The growth is composed of a mass of dilated and tortuous vessels, old or of recent formation, situated in the papillary layer and upper part of the derma. The papillæ are also hypertrophied and covered with a hypertrophied and thickened horny layer. The lesions are similar to those of angio-keratoma, which is nothing else than an acquired vascular nævus verrucosus.

The general cause of nævi is a vice of development, and warty vascular nævi form no exception. Their production has been ascribed to nervous action exercised during the developmental period of the skin. The nature of this nervous intra-uterine trouble is unknown, but the band-like arrangement manifest in this case seems to indicate the preponderating part played by the nervous system in the development of the lesions. The angiomatous growth, indeed, occupies the whole length of the right lower limb along the course of the internal saphenous nerve. We know that the nervous system and skin are both derived from the outer layer of the blastoderm, and this common origin may help to explain the relations of the nervous system with faults of development of the skin.

However that may be, I think it will be useful to follow up these general considerations with a detailed clinical account of the patient, and with the results of the histological examination of one of the vascular growths.

G., a male, aged forty years, was on two separate occasions in my wards in the Saint Antoine Hospital

from 6th February, 1894, to 13th April, 1895, when he died.

He first was admitted for nephritis with albuminuria. He subsequently became tuberculous, and his pulmonary tuberculosis along with his old renal lesions caused his death. The skin affection, which alone concerns us, occupied the internal aspect of the right leg and thigh.

On the inner side of the leg there were eight warty vascular patches, prominent, bossy and of different sizes, of very dark violet colour and irregular in shape, along with some small lenticular nævi scattered over the intervening skin. In the photo-lithochrome may also be seen two large scars resulting from the surgical removal of two angiomatous and tuberous masses. These scars were covered with bright red vascular plexuses which formed a large telangiectic spot on each, and appeared secondarily, some time after the operation. These relapse telangiectases, however, remained quite flat and never assumed the warty appearance of the original nævi.

A few small prominent nævi, also warty, were grouped about the internal condyle of the tibia. Finally another nævus, less prominent than those described and crescentic in shape, was present on the inner side of the lower third of the thigh. On interrogating the patient we learnt that all these nævi existed since earliest childhood. But at first they were less voluminous and less prominent; they had gradually increased in size and had become tuberous and warty. They had become so large as to cause constant annoyance from rubbing by the trousers, so that the patient decided to have the largest growths removed, and this was done by Mons. Berger at La Charité in 1882.

During the time that G. was under my observation the nævi remained stationary. The nephritis, for which he was admitted to hospital, became complicated with pulmonary tuberculosis and the two diseases developed according to their wont, becoming worse and worse till death ensued.

The autopsy revealed generalised tuberculous infiltration of both lungs with cavities in the apices and a mixed nephritis, without tubercles visible to the naked eye; the kidneys were

small and white. The nephritis, doubtless interstitial at first, had become secondarily tubular, and at the end the epithelial lesions predominated over the interstitial lesions. The heart was not hypertrophied and showed no valvular changes. The pericardium and vascular system appeared to be healthy. There were no lesions of liver or spleen.

The histological examination of one of the nævi on the leg, carried out by my Resident Physician, Dr. Sergent, yielded the following results. All the sections were made at right angles to the surface of the nævus.

I.—EXAMINATION UNDER A LOW POWER.

(*a*) *Derma.*—There is considerable thickening of the derma causing a bossy prominence, the surface of which is thickly covered with hypertrophied and elongated papillæ. Almost the entire derma is represented by lacunar tissue with meshes, more or less broad, circumscribing areolæ which are pretty uniformly round or oval, the majority being full of blood and others empty. These angiomatous areas extend through the whole thickness of the derma from its deepest part to the surface of the papillæ. The meshes are, as a rule, wider in the middle portion. They do not form a continuous layer, but are divided into compartments separated from one another by strands of dermic tissue perpendicular to the surface. These strands terminate towards the surface in the neighbourhood of the elongated depressions which represent the orifices of the sweat glands and, in the deeper parts, in the neighbourhood of the subdermic gland coils. This appearance, however, varies in different sections and can only be established by the examination of numerous successive serial sections.

(*b*) *Epidermis.*—This shows profound changes, varying according to the different sections. In those sections in which the angiomatous changes most nearly approach the surface the malpighian layer is reduced to a linear band covered with thickened horny matter. Where the angioma does not reach the surface the malpighian layer is thick and by its deep invaginations indicates the outline of the numerous papillæ.

(*c*) *Glands.*—Deeply, immediately below the derma enormous glandular coils may be seen which represent abnormally developed sweat glands. By examining several successive sections, it is possible to follow the excretory canal of these glands along the perpendicular strands of the derma which separate the angiomatous areæ, and to see these ducts terminate at large depressions of epidermis, like fingers of a glove turned inside out, and almost entirely blocked by a plug of horny substance.

The sebaceous glands also attain a considerable development, and even under a low power it is easy to recognise with the help of staining reagents that their cells, instead of terminating in the production of sebaceous matter, evolve in the direction of the horny type.

(*d*) *Hypoderma.*—The hypodermic blood-vessels do not appear to be larger than normal and no angiomatous condition exists there.

Thus, this preliminary examination already allows us to recognise that this vascular warty nævus is the anatomical resultant of an angiomatous and papillomatous tumour of the derma, but the nature of the hypertrophy of the sweat glands remains to be determined.

The examination of the sections with a higher power will enable us to arrive at its solution and at the same time will furnish a more detailed description of the different changes which have been indicated.

II.—EXAMINATION UNDER A HIGH POWER.

(*a*) *Derma.*—The dermic tissue offers its usual structure: it is nevertheless obviously more fibrous than normally. The vessels are also very numerous and voluminous everywhere, even where there is no angioma.

Angiomatous areæ.—In every angiomatous area the artery and vein of the papilla are transformed into an angioma and consequently greatly increased in size. These vessels are large and form, as it were, the centre round which vascular lacunæ radiate, obviously derived from the capillaries. These lacunæ, which are oval or round, and more or less

voluminous, exist in infinite numbers; they are filled with absolutely healthy blood corpuscles, which shows that the circulation within them was free. They occupy the entire thickness of the derma, but are chiefly on the epidermic side of it. The most superficial are flattened out parallel to the malpighian layer and form a sort of linear sheet, separated from it by a single layer of embryonic tissue. All these blood spaces are separated by bands of fibrous tissue of greater or less breadth, infiltrated with embryonic cells.

Papillæ.—At the parts where the derma is not occupied by angiomata properly so called, the papillæ are considerably enlarged and always traversed by enormous vessels, the capillaries of which form a very close and complicated network which represents a capillary angioma in miniature.

(*b*) *Epidermis.*—At the points where the angioma is very superficial the malpighian layer is a mere line; but this appearance, instead of indicating the disappearance of the papillæ, is evidence, on the contrary, of their hypertrophy; where the epidermis is reduced to a mere line there is an enormous papilla occupied by an extensive angiomatous area. At these points the malpighian layer is not only linear, as it is over every papilla, but it is greatly thinned and very narrow. The other layers—stratum lucidum and granulosum—are indistinct and merge into the stratum corneum, which is very thick and composed of stratified layers, the deepest of which are at first infiltrated with numerous pigmented and refractive granules.

Where the angioma does not reach the surface the papillæ are very large, very numerous, very bossy, very vascular and capped by a greatly developed layer of epidermis of much activity and all the layers of which are distinct and hypertrophic, especially the stratum corneum.

(*c*) *Glands.*—The sebaceous glands are sparse, but this is the result of the part of the body affected. Those which are present are enormous and remarkable for the evolution of their cells towards the horny type. Their orifices are completely blocked by veritable plugs of horny matter, so that on section they look to a certain extent like acne varioliformis.

In the neighbourhood of one of them the section of an arrector pili muscle may be seen, but no trace of the hair can be perceived, unless it has been transformed into horny matter and enters into the formation of the horny plug which blocks the orifice of the glandular utricle.

The sweat glands at their termination show the same characteristic ; their openings, represented by a deep depression like the finger of a glove, are filled with horny substance ; their excretory canal may be followed in serial sections along the interangiomatous dermic bands and leads to a large space immediately below the derma where there are several glandular tubules in immediate juxtaposition. Obviously this appearance represents a section of a gland coil ; but the tubules are much too numerous, and much too tightly crammed with cells to be considered normal. The appearance gives the impression of a veritable adenoma, and there may, indeed, be some doubt on the subject.

The nuclei of the cells take up stains very actively. The cells are very bulky, very numerous, and along with the tubes which are empty there are large canals quite crammed full of cells with deeply stained nuclei, indicating with certainty glandular hypergenesis.

Between the glandular coils and around the sebaceous glands there are numerous capillary vessels, engorged with blood, which converge in the neighbourhood of the angiomatous regions of the papillæ, running along the excretory canals.

Such are the appearances which an examination of serial sections permits of recognition. The first impression gathered from examination under a low power is fully confirmed by that under a high power.

From these histological details we may conclude that a *nævus vascularis verrucosus* is a complex tumour, both dermic and epidermic, constituted by an angioma complicated by papilloma. This is accompanied not only by an atypical development of epidermis towards the horny type, but is combined, at least in the case before us, with an adenoma of the sweat glands.

ERNEST GAUCHER.

PLATE XLV.

PEDICULOSIS VESTIMENTORUM

With Pigmentation.

Model by Baretta, in the Museum of the Saint Louis Hospital, No. 633, made in the year 1897, from a patient under the care of Mons. Ernest Besnier.

The existence in the clothes of one of the varieties of louse (*Pediculus vestimentorum*) almost invariably results in the lesions of the skin. The accompanying photo-lithochrome is an extremely characteristic example of them in their intensest form, or nearly so.

I.

The following is a brief summary, after Kaposi, of the parasite. Lice are apterous insects, undergoing no metamorphoses, with simple eyes and a mouth armed with mandibles. According to Erichsen, G. Simon and Landais, lice first bite with their mandibles, then plunge their rostrum into the wound.

The *Pediculus vestimentorum* is only one of the species of the natural order which also includes the head-louse (*Pediculus capitis*) and the crab-louse (*Pediculus pubis*).

Pediculus vestimentorum, which alone concerns us here, inhabits only the underclothing and those portions of the clothes in contact with the skin, and deposits its eggs in the form of chaplets in their folds. This is an extremely important point which dominates all the treatment of the disorder, for, in treating it, we must deal with the coverings of the skin, not with the skin itself.

Only rarely is pediculus vestimentorum found on the scalp;

it attacks the trunk almost exclusively, and there it only remains sufficiently long to obtain nourishment. Hence the fact, which seems paradoxical if the habits of the parasite are not familiar, *viz.*: that a person suffering severely from pediculosis may be undressed and searched without any pediculi being discovered. Sometimes, however, when the undressing has been rapidly performed, some lice may be discovered in the act of suction; these have been surprised and have not had time to take refuge in the folds of the clothes, their usual habitat.

In the same way, when an individual affected with more or less recent pediculosis has lately put on fresh linen and clean clothes, all search for the parasite may be fruitless and without these fundamental ideas the origin and nature of a well-marked case may be misinterpreted.

II.

The effects of lice on the skin are identical with those of other epizoa and, *a fortiori*, are common to the three varieties of the family. There is a *bite*, and consequently a small localised hæmorrhage, some slight serous exudation, or an urticarial lesion, more or less marked according to the state of the epidermis, of the vessels or of the nervous susceptibility of the subject. So might matters rest were it not for *pruritus* and its inseparable result—*scratching*—which cause modifications and complications of the original lesions, at first of a mechanical nature, and then by favouring secondary infection. Hence excoriations, scabs, papulo-vesicular dermatitis, pustules, ecthyma, boils, abscesses, scars and finally pigmentation.

All these changes are common to the three varieties of louse, and the picture varies in different cases only because their habitat is different and the characters of the skin vary in different regions. It must be added that as the pediculus vestimentorum is the largest of the three varieties it also causes the severest local lesions and the deepest excoriations.

III.

Our plate indicates these excoriations very clearly. They are seen to radiate from the nape of the neck, which appears as their centre; they are linear and parallel, or, more exactly, slightly divergent. They are caused by the energetic use of the nails and present some characters worthy of remark; thus, the nails penetrate most deeply at the points injured by the mandibles of the pediculi. The bloody tract thus produced sometimes attains several centimetres in length, and has in its course one point at which the wound and the superimposed scab are deeper and wider than elsewhere; this may be verified in the plate.

Matters do not remain, however, in this simple state. Secondary inoculation occurs, especially *ecthyma* either at isolated spots independent of the scratch marks, or in their course, especially at their maximum or starting point. In this case, the non-infected part of the scratch soon heals after a short scabby phase, while the point of attack persists longer as an ecthymatous pustule apparently isolated and simple. A certain number of ecthymatous points in the plate originated in this manner.

The lesions may go farther, and the appearances before us may be greatly exaggerated. In old-standing cases of pediculosis Kaposi have seen excoriations complicated with inflammation, suppuration, rupia, lymphangitis, and diffuse dermatitis accompanied by fever, large boils, abscesses, anthrax with gangrene of the skin, followed by fistulæ, simple or vegetating ulcers, *etc.* But this is a very darkly painted picture; let me add as a corrective, as E. Besnier has done, that cases of pediculosis of this extreme severity have very rarely, or never, been seen at Saint Louis Hospital.

However this may be, I repeat that the parasite and its nits must be sought for in the clothes, especially where they are in folds, *i.e.*, in the parts corresponding to the nape of the neck, the wrists, the waist, and about the buttocks and outer sides of the thighs, in which localities the lesions attain their maximum.

IV.

This prolonged or repeated combination of bites, exudations, scratch marks, secondary inoculations, *etc.*, produces in the long run quite a characteristic appearance, *viz.*, parasitic melanodermia. In the plate this curious change is very manifest: over the nape an almost confluent greyish-violet zone may be seen, studded with scabby lines and points, and, as if starting from this central point, a number of rounded, oval or irregular islets of similar tint, sometimes with an ecthymatous or scabbed area in the centre, are scattered over the upper part of the trunk.

This pigmentation, which is most marked over the nape of the neck and loins in most cases, may involve almost the whole skin in inveterate cases, and certainly this curious appearance is not wholly explained by saying it is the result of the local lesions described. It must be added that alcoholism, malaria, and the concatenation of bad hygienic conditions involved in a vagabond existence contribute a certain, but as yet unknown, part of the characteristic *ensemble* of symptoms of the disease, thus justifying the name sometimes given to it of "morbus erronum".

It must not be thought, however, that pediculosis often occurs in so marked a degree. It may cause only very rare or very slight scratch marks, localised to its seats of predilection. This is especially observed in the upper classes, in which pediculosis is by no means so rare as is generally thought, and this is very important to know in private practice, in which diagnosis is sometimes very difficult and therefore demands special attention. In this connection I would mention that according to Mons. Tenneson all scratched lesions, accompanying an eczema of the scapular or pelvic girdles, positively indicate the diagnosis of pediculosis.

V.

Treatment is simple and certain. It consists of (1) removing the clothes of the patient; cleansing him thoroughly in a bath with soap; changing his linen and bedding daily to get

rid of lice which may have remained in them; (2) covering all ecthymatous lesions carefully with small circular pieces of Vigo's plaster; (3) restoring the condition of the skin by baths and emollient ointments.

No parasiticide is necessary; it suffices to withdraw the patient from the attacks of the lice and to prevent him from incurring fresh auto-inoculations by covering all pyogenic lesions with care till they are healed.

Cure is thus much simplified and especially greatly hastened. The most efficacious and inoffensive means of disinfecting clothes and bedding is a stove at the temperature of 100° Centigrade.

LUCIEN JACQUET.

PLATE XLVI.

SYPHILITIC CHANCRE OF THE NOSTRIL.

(HYPERTROPHIC FORM.)

SYPHILITIC CHANCRE OF THE TONSIL.

(DIPHTHEROID FORM.)

Models by BARETTA and JUMELIN, in the Museum of the Saint Louis Hospital, Nos. 1,372 and 306, made in the year 1888, from patients under the care of Professor FOURNIER.

I.

PLATE XLVI. represents an hypertrophic syphilitic chancre at the entrance to the left nostril.

Although this is certainly one of the rarest situations for the primary lesion of syphilis, there are nevertheless a certain number of cases recorded in which the specific infection has been conveyed to the nasal mucous membrane or even to the pituitary membrane.

Despite the most searching inquiries, the ætiology of nasal chancres, wherever localised, often remains mysterious and unexplained. Probably then, in most cases, the contagion is a mere accident, defying all rational investigation.

Sometimes, however, the mechanism of such cases may be discovered, or at least surmised. In a certain number of carefully observed cases they have been traced to three sources, *viz.:* direct contact, conveyance of the contagium by the fingers, and contagion by some intermediary.

I.—*Direct contagion* generally results from a kiss or lingual caress; sometimes also in men from genito-facial contact. In a case recorded by Spencer Watson a chancre was the result of a syphilitic child sucking his wet-nurse's nose.

In another case it was the result of a bite.

A medical friend assures me that he contracted a chancre of the pituitary membrane from the saliva of a patient being projected into his nose while he was cauterising mucous patches in the throat.

II.—Sometimes infection has reached the nasal fossæ by the fingers carrying the specific contagium. For instance: a married man one evening yielded to the allurements of a *puella publica*. Suddenly seized with the fear of contracting disease he confined his actions to a few *attouchements* of the vulva. Six weeks afterwards he came to consult me for "a lump in the nose," which turned out to be a chancre of the septum. More than twenty times he has since repeated to me: "I am certain I contracted syphilis on the occasion I told you of, for I had not exposed myself to any risk for a very long time; and I am not the less certain that I caught it *by my fingers*, for the two following reasons: (1) I neglected to wash my hands after leaving the woman, and (2) I had at the time a little erosion in the nostril which I was constantly picking, and I assuredly inoculated myself with my finger".

A medical colleague very probably inoculated himself in the same manner "by scratching a small acne pimple which he had in the nostril, after having handled syphilitic wounds".

Dr. Jullien relates a case which may be epitomised as follows:—

A carter got several blows on the nose. These had not healed up when he spent the night with a woman upon whom, independently of coitus, he practised prolonged *attouchements*. Three weeks afterwards he presented three chancres, one on the penis, the other two on the nose, exactly on the seats of the injuries.

Apart from these facts and from others which I shall adduce, two more points indicate the possibility of the conveyance of the contagium to the nasal mucosa by the fingers.

First—the nasal chancre is almost always a lesion on the very threshold of the nasal fossæ, *i.e.*, implanted at a point which can be touched and inoculated by the fingers.

Secondly—very frequently it is preceded by some of the

little "pimples" which are so common in the nostril and its vestibule, including folliculitis, acne, pustules without any more definite name (doubtless due to staphylococci), erosions, fissures, *etc.* The common, instinctive and irresistible habit of scratching or "picking" the nose is well known in persons affected with these trifling but annoying affections. If the fingers are soiled by specific contagium, naturally (and almost of necessity) they carry it to the nose.

III.—Sometimes intermediaries have conveyed the syphilitic poison to or inside the nose; such are handkerchiefs, dirty linen, serviettes, sponges, canulæ, *etc.*

Clinical forms.—At its beginning and for some time afterwards the intranasal chancre is always unnoticed by the medical man, because it arouses no alarm and is not calculated to do so.

According to the patient's statement it only is a little abrasion or crack on the mucous membrane, or a small granular pimple which soon becomes scabbed. At all events, it is a very minute, insignificant, painless thing, only tender to touch and when scratched.

Afterwards, when fully developed, the chancre presents itself in three forms which may be described under the following names: (1) erosive, (2) neoplastic, (3) scabbed or impetiginous.

(1) *Erosive form.*—This exactly corresponds to the classical type of erosive chancre, of the genitals for instance.

If the chancre is at the very entrance to the nostril it is easily seen. But when it is higher up on the septum a nasal speculum is necessary to discover and examine it in detail.

It consists of:—an erosive surface, sometimes very superficial; its dimensions vary from a lentil to a finger nail; it is rounded, or more often oval; it is flat, without a raised margin; in colour it is carmine red, either uniform or studded with greyish points, or, on the contrary, greyish and studded with red points; its base naturally cannot be seen. The lesion is indolent or causes slight burning sensations when it is cleaned, and especially when irritated by scratching. Sometimes it oozes slightly, never spontaneously, but always as the result of scratching. It is the most mild form of

nasal chancre, and patients do not complain of it, so that it has every chance of passing unperceived.

(2) *Neoplastic form.*—This is very different in its objective characters from the first form described, and is constituted by a projecting chancre forming a granulating prominence upon the mucous membrane, or sometimes even a distinct neoplastic growth. According to its dimensions two forms may be distinguished:—

(*a*) The *papular chancre*, which may be compared to a common lozenge in shape and size. It is like a red lozenge stuck on the septum. Its surface is eroded and convex, sometimes flat in the centre; its centre projects two or three millimetres, and is uniformly red or dotted over with greyish points; it is elastic and rather hard to touch.

(*b*) The *papulo-tubercular chancre*—an example of which is shown in the photo-lithochrome—differs from the last form only in the volume of the neoplasm, which may attain the size of the third part or half of a hazel nut, or in certain rare cases (*e.g.*, Dr. Marfan's) may be as large as a hazel nut. Implanted upon the mucous membrane this morbid growth represents a real tumour, irregularly hemispherical or semi-ovoid in form; it measures one or two centimetres in diameter and projects to the extent of from five to six millimetres; it has been said to somewhat resemble "the head of a small mushroom".

Red on the surface, eroded or really ulcerated, and sometimes even fungous in appearance, it may convey the impression of a malignant growth. To the finger introduced into the nasal fossæ it always yields a sensation of elasticity, is firm and dry, sometimes of cartilaginous hardness. It may, owing to its size when fully developed, partially or completely obliterate the corresponding nostril. It has even been seen to project from the nostril like a polypus.

(3) *The scabbed impetiginous chancre.*—This form is always localised near the orifice of the nostril and is extremely difficult of diagnosis. Objectively, it only consists of a crust or scab covering and masking a subjacent chancrous erosion. When this is separated, a chancre of the erosive or papular form is exposed.

It may be observed, as a detail, that this scab, instead of being regular, laminated and "all of a piece" as in cutaneous chancres, is somewhat different in aspect. From being constantly picked and torn by the fingers it is irregular and made up of scabby strata of different ages, rather than a homogeneous incrustation. As it is always of comparatively recent date the scab never becomes very thick.

For the same reason it varies in tint; most frequently it is brown, but sometimes yellowish, or almost impetiginous in colour; sometimes it is nearly black as the result of the addition of a certain quantity of blood from scratching.

At all events, when situated at the margin of the nostril it invariably recalls those scabby lesions which are so common there, especially in young, lymphatic or scrofulous subjects.

II.

The second plate represents a syphilitic chancre of the tonsil of the diphtheroid form.

The tonsillar chancre may assume various forms referable to the three following types: (1) *erosive*, (2) *ulcerative*, (3) *anginous*. There are two other varieties, (4) *diphtheroid*, (5) *gangrenous*.

The diphtheroid variety is characterised by the presence of a *pseudo-membranous exudation* in addition to the characteristics of the other forms, and this exudation modifies the appearance of the chancre in a very special manner, by forming what is called in general medicine a *false membrane*.

The membrane covers the chancre either partially or entirely. It is rather thick, firm, tenacious, and forms a sort of membrane or pellicle, which when seized with forceps breaks up into shreds. It is of ashy greyish colour, or dirty white with yellowish reflections, or is even greenish-grey, as in a curious case recorded by Legendre.*

This membrane, clinically so similar to the false membrane of diphtheria, cannot be distinguished from it histo-

* *Archiv. Gén. de Méd.*, 1884.

logically, according to MM. Cornil and Ranvier. At all events it presents no specific characters; "it is made up chiefly of lymphatic cells, of epithelial cells transformed into thin lamellæ, and of crenulated malpighian cells scattered throughout a fibrillar substance analogous to fibrine, and like it, swelling and becoming pale with acetic acid".

When the tonsillar chancre presents this appearance it is impossible not to conceive the idea that one is dealing with either a common membranous sore throat or with diphtheria, and this statement is admitted by all who have seen such cases.

And not only does the tonsillar chancre resemble membranous sore throat in its objective characters, but, also in the two following respects:—

(1) In the *adenopathy*, which shows itself pretty frequently as one or several large doughy glands, slightly painful, such as are met with in infectious sore throats.

(2) In a certain series of *general phenomena;* although this appears very extraordinary, the pseudo-membranous tonsillar chancre has often been observed to be accompanied by general malaise, aching pains, lassitude, anorexia, furred tongue, rigors and febrile temperature (*e.g.*, pulse of 100 and temperature from 38° to 39° Centigrade), so that a chancre is often not suspected.

As we are here dealing with anomalies or rather with very exceptional occurrences, an example of this condition may not be superfluous.

Dr. Legendre, in his excellent Memoir of 1884, narrates the case of a patient in whom a diphtheritic sore throat was suspected for several days, when really a tonsillar chancre was present. His observation says: "When the man came to the hospital he looked extremely ill; his features were drawn, his complexion yellowish; he complained of extreme fatigue, of indefinable malaise; he could not stand up without feeling giddy and found great difficulty in dragging himself to the hospital. He had been in this condition for a fortnight, having entirely lost his appetite, and had severe attacks of shivering. His pulse was 100 and temperature 38° Centi-

grade. As he presented a severe sore throat with diphtheroid exudation and glandular enlargements over the entire neck an erroneous diagnosis was made at first." It was only on the appearance of secondary symptoms that the nature of the disease was determined.

How many cases of this sort must have passed unrecognised and been wrongly interpreted, being called diphtheritic sore throat with consecutive syphilis "of unknown origin".

Diagnosis.—A diagnosis must therefore be established between the syphilitic chancre and two diseases which it seems strange to place alongside of it, *viz.*, common membranous sore throat, and diphtheritic sore throat. I know of no more striking example of error than the following:—

A medical man, who had the misfortune to contract a tonsillar chancre, was at first completely deceived as to the nature of his complaint. He mistook it for a membranous sore throat for the following reasons: (1) because his throat lesion was in the first instance membranous; (2) because he had had several membranous sore throats in his private practice shortly before. But also he was intimately acquainted with an extremely distinguished syphilographer, who examined him several times with the greatest care and also diagnosed "pseudo-membranous sore throat".

The diagnosis can generally be made from the points indicated in the following table:—

COMMON MEMBRANOUS SORE-THROAT.	PSEUDO-MEMBRANOUS TONSILLAR CHANCRE.
(1) Invasion sudden, rapid and with marked phenomena. Occasionally, but rarely, an herpetic eruption with intact vesicles on the surface of the tonsils.	(1) Invasion slow, torpid, "only a little sore throat," with subsequent anginal symptoms and general reaction.
(2) Lesions frequently bilateral.	(2) Lesion unilateral except in very rare cases.
(3) Local symptoms acutely inflammatory; redness, tension, pain, burning, dysphagia, *etc.*	(3) Anginal symptoms moderate, and only severe in rare cases.
(4) General symptoms very marked.	(4) General symptoms, of moderate severity only, in most cases.

(5) (*a*) Sometimes, but rarely, festooned polycyclical outline of the false membrane, indicating initial herpetic eruption.	(5) Exceptionally, occurrence of herpes, *e.g.*, on the opposite tonsil.
(*b*) More frequently, occurrence of herpes at same time on the tongue, palate or lips, or on the skin.	
(6) Adenopathy absent or, at all events, slight and merely congestive.	(6) Adenopathy constant, and with the characters of a satellite bubo, indolent, hard and aphlegmasic.
(7) Rapid evolution, the disease "taking a turn" at end of four or five days.	(7) Slow evolution. Long persistence of the pseudo-membranous condition followed by erosion and ulceration.

II. *Diphtheritic Angina.*—As regards their objective characters, there is but little difference between membranous angina and diphtheritic angina, and so pseudo-membranous tonsillar chancre may be confounded with diphtheria. Legendre, for instance, relates a most curious case in which, he says, "the appearance of the tonsil, the facies of the patient, the glandular affection (more diffuse than it usually is in syphilis), are so many reasons in favour of the diagnosis of diphtheritic angina, or at least for the probability of this hypothesis"; but, nevertheless, the lesion in question was a chancre, as its subsequent course showed.*

Three signs (not to mention others of less importance) ought to determine the diagnosis.

(1) *Unilaterality*, and fixed localisation of the lesion, in the case of chancre.

On the contrary, the membranous lesions of diphtheria are bilateral; moreover, they spread rapidly and sometimes extend over the whole throat, then spread to the larynx, *etc.* This last characteristic is quite distinctive, but unfortunately is only an evolutionary sign, *i.e.*, one which cannot be utilised at first sight. For if the chancrous and the diphtheritic false mem-

* On this subject see also A. Robin: *On Tonsillar Syphilis of the Diphtheroid Form;* Lecture reported by V. Juhel Renoy, 1886. E. Jeanselme: *Gazette des Hôpitaux*, 25th January, 1890. Duncan Bulkley: *Trans. Med. Soc. of the State of New York*, 1893. P. Dieulafoy: *Semaine Médicale*, 3rd April, 1895.

brane can neither be distinguished by their objective characters nor by the microscope, there is on the other hand a difference between them as regards their clinical course which radically separates them. The one remains fixed, limited to the area of the chancre, and without any tendency to transgress its limits or spread to surrounding parts, whereas the other is essentially progressive, migratory, invasive, as we know only too well.

(2) *Mode of Origin.*—In the case of chancre, the diphtheroid-looking condition is preceded by sore throat of more or less recent date, perhaps of several weeks' duration, and the sore throat is non-inflammatory, apyretic, "cold". In diphtheria the false membrane is formed almost at the start and coincides with more or less general disturbance (fever, malaise, anorexia, pallor, *etc.*).

(3) *Bacteriological investigation* yields an absolute, definite result. Wherever the slightest doubt exists as to the nature of the affection, recourse must be had at once to cultivations which, within sixteen or eighteen hours, will reveal the presence of Löeffler's bacillus in the case of diphtheria.

Treatment.—We possess therapeutic measures of only very limited influence against tonsillar chancres, but fortunately they usually suffice to effect a cure even in the diphtheroid form.

To confine oneself only to local measures, the following may be prescribed :—

During the spread or persistence of the lesion, emollient gargles or preferably mouth-washes containing decoction of mallow, or mallow and poppy heads, glycerine and water, *etc.* To be at all efficacious these mouth-washes should be often repeated and used for several minutes. Tepid emollient sprays may also be recommended several times in twenty-four hours.

At a more advanced stage borax or chlorate of potash gargles, or painting with 10 grammes of borax in 30 grammes of glycerine may be used. Nothing special can be done for the false membrane, which must be left to separate spontaneously. When pain is great a small quantity of opium may be added to the gargles, or the parts may be painted with cocaine ; lozenges of hydrochlorate of cocaine are also of use. If some

modification of the surface of the lesion seems desirable, painting once or twice a day with tincture of iodine, or with the saturated alcoholic-ethereal or chloroform-ethereal tincture of iodoform may be practised; or the parts may be cauterised with a stick of nitrate of silver every three or four days. Similar cauterisations are also useful in the last stages, if cicatrisation is sluggish and unduly prolonged.

Of course, as in all chancres inside the mouth, food must be liquid or semi-liquid, demanding no effort of mastication or deglutition, and should include milk, soups, meat juice, finely minced meat, purées, creams, etc. In acute, painful inflammatory forms, milk is the only food tolerated for some time.

Alfred Fournier.

PLATE XLVII.

XERODERMA PIGMENTOSUM.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1,843, made in the year 1895, from a patient under the care of Mons. DU CASTEL.

KAPOSI has the credit of discovering and connoting the affection now known as *xeroderma pigmentosum.* Pick calls it *melanosis lenticularis progressiva;* Radcliffe-Crocker, *atrophoderma pigmentosum;** Taylor and Neisser, respectively, *angioma pigmentosum et atrophicum* and *liodermia essentialis cum telangiectasia et melanosi.*

It is a family disease and several examples of it are frequently met with in the same family. Generally it appears in the course of the second or third year of life. The disease affects the parts of the body which are uncovered and exposed to the light; the influence of sun rays appears to be its immediate provocative cause. The face, ears, neck, nape, shoulders and upper part of the chest, the backs of the hands and lower parts of the forearms, the backs of the feet and the legs (in patients who go about bare-legged) are the usual seats of the disease.

* In the second edition of his work on *Diseases of the Skin* (1893 Radcliffe-Crocker reverts to the original name of xeroderma pigmentosum proposed for the disease by Kaposi. He makes the following wise and considerate remark on the subject:—

"In the first edition of this work, I suggested *atrophoderma* instead of *xeroderma*, as more appropriate and less liable to lead to confusion with mild ichthyosis; but although every one disliked Kaposi's designation, it is in a fair way to be generally adopted and dermatology suffers too much from over-christening for me to hold out."

Hutchinson, who has written much round about, rather than on, the subject, invariably terms it "Kaposi's disease," which I venture to think open to unfavourable criticism on many grounds.—J. J. P.

At first, punctiform or linear vascular telangiectases are seen, causing the production of congestive patches which may not be permanent in the first instance, but increase, diminish or disappear temporarily, under seasonal influences.

Soon pigmentary spots like freckles show themselves. These are very numerous and may coalesce. Sometimes they spread to parts of the body which are not uncovered and descend over the trunk, but the lesions never assume great importance there.

The epidermis becomes thin and smooth, and separates in fine lamellæ; it is brittle, cracked, wrinkled and dried up, like parchment. The skin gets covered with superficial scars, of brilliant white colour, like small-pox cicatrices.

The derma loses its elasticity and the skin can be picked up only with difficulty. Having lost its suppleness it contracts and adheres to the subjacent tissues. This results in the narrowing of the natural orifices of the mouth and eyes, producing ectropion and xerosis of the cornea as well as smoothness of the backs of the hands. Secondary inflammatory lesions (eczema, fissures, cutaneous suppuration) are superadded, from time to time, to the lesions typical of the disease.

The affection is painless and accompanied by no special subjective sensation. The development of the various phenomena takes place slowly for several years and is generally more rapid in summer.

The general condition of children affected with xeroderma pigmentosum seems not to suffer. They develop normally. For those who are not aware of the course of the affection, it appears a disagreeable disfigurement rather than a grave disease. But at a given time malignant tumours develop at different points upon the integument, especially upon the face.

These growths are generally of epithelial nature, but carcinomata, sarcomata and angiomata have also been reported. The differences in their description probably involve simply differences in terminology,—the observations being made in different countries,—rather than real differences in nature.

In one case the growths were *cylindrical epitheliomata.*

The point of importance is that a skin affected with xero-

derma pigmentosum is a soil upon which malignant tumours develop easily and almost certainly, at a given time. The number of growths present is sometimes considerable; the face may be riddled with them.

A number of patients die about the age of ten or twelve years; cases have been seen to survive till the age of twenty-five years (Thibierge, Archambault), forty years or even sixty years Riehl). Dubois-Havenith has published the case of a patient who, after having undergone a large number of operations for recurrent epitheliomata, got sufficiently well to enable him to marry; his three children were free from the disease.

The gravity of the affection lies, as we have seen, in the inevitable development of epitheliomata upon the diseased parts, this constituting the crowning point or terminal period of the disease.

Sometimes the epithelial tumours are small, papillomatous, capable of falling off spontaneously without relapsing *in situ*; sometimes they are bulky, fungating, ulcerating and bleeding. In other cases the tumours are more ulcerative than vegetative, as in the little girl whose case is reproduced in our photo-lithochrome. Deep ulceration may be seen to take place, invading the subjacent tissues, attacking cartilages and bones, producing extensive destruction of tissue both in extent and depth, perhaps destroying the nose and penetrating the cavity of the mouth. General spread to the viscera has been reported.

In short, we recognise with Vidal, three stages of the disease: the first, characterised by the production of freckles and red spots; the second, during which the atrophy of the derma occurs; the third, signalised by the production of malignant tumours.

In our patient the prominent feature was the development of epithelioma on a skin but slightly changed; the congestive changes, the atrophy of the skin of the face and hands were in a very early stage when the epithelioma made its appearance. We were unable to gather any information regarding family antecedents, as the child was a foundling.

We know as yet of no efficacious treatment for xeroderma pigmentosum. The removal of the tumours is not generally followed by local relapse, but does not prevent the growth of neoplasms on other parts of the face.

R. DU CASTEL.

[The feminine substantive XERODERMIA is more accurate than the neuter XERODERMA, as conveying the idea of a *state* of dryness of the skin, rather than a mere dry skin. The same remark applies to the nomenclature of other skin affections—*e.g.*, Sclerodermia.

The characters of the disease as portrayed in the illustration are so exceptional as almost to be misleading. The small amount and faint colour of the lentiginous pigmentation, the complete absence of telangiectasis and the advanced degree of the cancerous ulceration in proportion to the other changes present, all constitute unusual features of a disease, almost all cases of which in an early stage present the most striking resemblance to one another.

The accompanying woodcut is made from a typical case of *Xerodermia pigmentosa* in an early stage at present under my care, a brief note of which appeared in the *British Journal of Dermatology* for April, 1897, p. 157. The patient is a girl three years of age.

An article in the same Journal for December, 1892, p. 371 *et seq.*, by Professor McCall Anderson, describes a case with autopsy, fatal at the age of thirteen years, and gives graphic illustrations of the ghastly disfigurement produced by the disease.

The first cases observed in England are recorded by RADCLIFFE-CROCKER in the *Medico-Chirurgical Transactions* for 1884, with coloured plates and a table of thirty-four cases.

Taylor (of New York) describes seven cases of his own and has collected forty cases in his article in the *Medical Record* for 10th March, 1888.

Archambault narrates sixty cases in his *Thèse de Bordeaux*, 1890.

Pollitzer supplements Brayton's clinical account of the thirteenth published American case in the *Journal of Cutaneous and Genito-Urinary Diseases* for April, 1892, by a good report of the histology of the disease.—J. J. P.]

PLATE XLVIII.

IMPETIGO CONTAGIOSA.

Model by BARETTA, in the Museum of the Saint Louis Hospital, No. 1,424, made in the year 1889, from a patient under the care of Mons. QUINQUAUD.

PHOTO-LITHOCHROME No. XLVIII. represents a typical case of *impetigo*, a common skin affection, albeit one which is still imperfectly understood and consequently difficult to define with precision.

To prove that this affection, common and classical though it be, is still one which must test the sagacity of inquirers, it will suffice to say that the case is one of those which Quinquaud utilised to replace in a position of honour the dermatological "entity" formerly created by Bazin under the name *Hydroa*.

I.—This effort proved futile; but perhaps it may not be useless to recall the principal reasons which the author invoked in its favour, as it will acquaint us with some details of the particular case reproduced in the photo-lithochrome.

The patient * was a little girl who showed over almost her entire body,—but principally upon the face, trunk and legs—the lesions of which the description follows.

On the face there was an accumulation of scabs varying in tint from whitish, chalky yellow to bright yellow; these scabs joined to form accumulations at first sight irregular in form, but in which, with a little care, figured elements could be made out, the coalescence of which had produced the larger accumulations. These elements were rounded, regular, for the most part deeply umbilicated in the centre and raised at

* *Réunions Cliniques de l'Hôpital Saint-Louis*, 1888-89, p. 56. *Trois Cas d'Hydroa*.

the margins. The size of the largest was about that of a big vaccinal pustule, but there were others, smaller, prominent and not umbilicated, as can be seen in the plate both among the former and disseminated or isolated on the cheek and ear.

Not all of these lesions were *scabby* in the absolute sense of the word. Some, especially of the smaller ones, were simple vesico-bullæ filled with yellowish white liquid, thick and rapidly drying up. The skin beneath was red but scarcely at all swollen, and not ulcerated. This can be seen in the plate on the side of the forehead, where there are two slightly erythematous discs, of pale pink colour, exposed by the separation of scabs.

On the trunk and left thigh, a model of which (No. 1,423) is also in the Museum, the appearance was not exactly the same, or at any rate was somewhat modified. The same elementary lesions as on the face were present in large numbers, but, in addition, there was a number of discs the size of a two-franc piece, or somewhat larger, the centre of which was pale pink, scattered over with finely divided crust, and the prominent periphery was covered with a scabby ring of the same colour and of the same thickness as the discoid lesions on the face.

In places these rings tended to run together at their margins and on the side of the trunk there was a large erythematous surface where more deeply coloured traces of nummular rings could be seen, which certainly were due to the coalescence and fusion of these discs. In that situation there were also smaller, purely vesicular or vesiculo-bullous lesions.

II.—The appearance already described is that of the fully established disease. The following are the characters of the lesions during their evolution, taken from Quinquaud's notes: The primary lesion was always a more or less bulky bulla; at no time, from the beginning of the affection a fortnight previously, had there been any other eruptive element, and, especially, no erythema. The eruption was, therefore, remarkably monomorphous. The chief outbreak occurred during the first week, since which only a few occasional lesions cropped

up. In places they assumed a circinate arrangement and real "crowns" of bullæ formed, while in the neighbouring parts the bullæ remained isolated. Around each of the bullous circles an erythematous zone developed; certain bullæ remained filled with limpid serous fluid, while others became scabbed.

At first the eruption was accompanied by itching, which rapidly disappeared. There was one single small vesicle upon the vault of the palate.

Quinquaud, after discussing impetigo, erythema and Duhring's disease, concluded, basing his opinion upon two other cases, that the disease was Bazin's *hydroa*, a relapsing but curable disease, of which he attempted to describe the principal distinctive characters in an article published soon afterwards.*

The following is a *résumé* of his views on the subject. Hydroa is a vesiculo-bullous disease, with a single type of lesion, *not polymorphous*, of rapid evolution, always benign, with rare relapses, usually seated upon the skin but sometimes also upon mucous membranes; after the appearance of a few preliminary vesicles accompanying some febrile disturbance, a veritable explosion of irregularly sized bullæ occurs, followed in a few days by secondary milder outbreaks, so that the average duration of the disease is from one to two months at the outside. Quinquaud declared that he had excellent results in the treatment of the disease from large doses of phosphate or bicarbonate of soda, to the exclusion of opium and iodide of potassium which provoke eruptive outbreaks in such cases.

III.—It must now be added that Quinquaud's ideas aroused strong opposition, the members of the society refusing to recognise in the case any definite pathological type. Vidal observed that the eruption was abundant in all the regions where rubbing can occur, *i.e.*, where accidental auto-inoculation may take place. The eruption appeared to him very similar to an impetigo contagiosa, and all the more so as it existed in the scalp. Quinquaud acknowledged that in point of fact auto-inoculation of the contents of the bullæ had given rise

* *Bulletin Médical*, 1888, p. 1,675, "De l'Hydroa".

to a small bulla in which he verified the existence of various microbes.

Besnier showed a model (No. 478) representing lesions more developed than those in Quinquaud's case; there were cakes of scab, mathematically circular and having the following evolution: at first small vesicles the size of a pin's head appeared, some of which rapidly broke and became covered with scabs, their development and rupture being extremely rapid. The case was certainly *impetigo contagiosa*, for recovery was rapid under purely external remedies, as was shown in Model No. 503 made a few days after the former.

Besnier remarked that hydroic erythema produces vesicles which are surrounded with a red zone, then an elevation of the epidermis at the periphery, but in no respect like the scabs and patches present in Quinquaud's case. Finally, he added that very remarkable forms of evolution exist in impetigo, and cited the curious case of two brothers affected with impetigo, one of whom rapidly recovered while the other, infected by the former, showed bullæ which came out in successive crops for nearly six months. This patient presented an extraordinary intolerance of all irritants, and a few centigrammes of iodide of potassium were sufficient to provoke erythemato-bullous outbreaks, thus illustrating a typical example of the differences which individual susceptibility may cause in the evolution of a disease.

IV.—In all probability then, Quinquaud's case was an example of *impetigo contagiosa*, as he himself readily admitted; for he labelled the model made a few days after the case was exhibited "generalised impetigo contagiosa," with "impetiginous hydroic disease" as a sub-title.

The treatment is extremely simple. During the first few days, when the inflammatory symptoms are marked, emollient applications ought to be used, such as: spraying with tepid water, either pure or containing boric acid; starch baths; poultices of starch or of linseed meal freed from its oil; muslin compresses, eight or ten ply, soaked in bran-water or in decoction of camomile with the addition of 1 per cent. of boric acid, covered with oiled silk or guttapercha or mackintosh.

In a few days the softened crusts separate spontaneously and a slightly antiseptic ointment may be used, such as vaseline containing 10 to 15 per cent. of boracic acid. The following is an excellent prescription which we owe to E. Vidal :—

Yellow oxide of mercury	50 centigr.—1 gramme.
Oil of cade	1 gramme—3 grammes.
Anhydrous cerate	20 grammes.

Vigo's plaster, or, if it prove too irritating, Vidal's "red plaster," are also excellent dressings after the softening and removal of the scabs. The formula of the latter is :—

Minium (oxide of lead)	2·50 gr.
Cinnabar (bisulphide of mercury)	1·50 gr.
Diachylon	26 grammes.

LUCIEN JACQUET.

PLATE XLIX.

URTICARIA PIGMENTOSA,

With Atrophic Spots Arranged in Transverse Bands.

Model by Baretta, in the Museum of the Saint Louis Hospital, No. 1,697, made in the year 1892, from a patient under the care of Mons. Hallopeau.

The child whose eruption is represented in this photo-lithochrome has been made the subject of three publications since 1885, when he entered the service of Professor Fournier at the age of seven months and a half. The first of these is by Mons. Paul Reymond, who, three years afterwards, related its complete history, from notes by Mons. Bruchet, in his admirable inaugural Thesis; the second is by Mons. Morel-Lavallée, and its special purpose was to point out certain changes wrought in the eruption by an intercurrent attack of measles and *vice versa;* the third is our own, and dates from the year 1892. The child was then seven years old; the eruption was modified in the manner we shall point out, and it was at this time that the second model of the case in the Museum was taken which is reproduced in this photo-litho-chrome.

The case is a typical one of the affection which was first observed in 1869 by Nettleship at the Blackfriars Hospital, London, and to which Sangster, in 1878, gave the somewhat unsatisfactory name by which it is known.

Since these works appeared, observations on the disease have increased in number; it is nevertheless rare, for we have only seen it twice in thirteen years among the numerous patients which have come under our notice.

In this child it began, as it usually does, in early infancy,

the first signs manifesting themselves when he was only six weeks old. Two months afterwards they had spread to the trunk and limbs.

Since then it has constantly reappeared in *acute outbreaks*. The child becomes suddenly depressed and agitated; his rest is disturbed; sometimes he vomits; then his face brightens and becomes scarlet under the influence of *fever*, generally moderate in degree; the temperature rises to 38° or 39° C.; the skin becomes congested over the whole body and especially over some more or less extensive area, such as the back or one of the legs; the old patches of eruption become swollen; some become complicated with bullous eruptions which may be seen in all their phases, from slight epidermic elevations to large and prominent blebs filled with serous fluid; sometimes as the result of excoriation the liquid dries up into more or less thick scabs.

These outbreaks were at first very frequent, occurring almost daily, and were of short duration; generally the itching and fever ceased after twelve or twenty-four hours. Then the attacks became less frequent but continued to show themselves. When the child was exhibited before the Société Française de Dermatologie on 12th May, 1892, recent prominent lesions could be seen.

The eruption was throughout confined to the external integument. There were no manifestations in the mucous membrane of the mouth, palate or pharynx, as in the cases reported by Elsenberg and Morrow.

The patches of urticaria pigmentosa in this case are very numerous; some are merely macular, others project above the general skin level. The case, therefore, is an example of Mons. Reymond's *mixed type*, being both nodular and macular.

Some of the patches are rounded, and vary in size from a lentil to a twenty centime piece; others are transversely elongated and from one to two centimetres in length, or longer.

As Mons. Reymond has well observed, the surface of the majority of the patches presents numerous transverse folds separated by little grooves. We admit with Mons. Reymond that the probable cause of this change is a distension of the

epidermis at the time of the eruptive outbreak and its shrinkage in lines when congestion diminishes.

The consistence of the skin is generally increased over the patches, and it appears thickened.

The colour of the patches, between the eruptive outbreaks, is yellowish; it is darker on the lower limbs, as is the rule in most skin affections. Either spontaneously or under the influence of mechanical excitation, the lesions may swell up and assume a more or less marked red colour, which may extend outside their limits; at the same time the patches become turgescent. The outbreaks last a few hours; they may or may not be accompanied by some fever, generally of slight degree; then the patches subside and gradually assume their customary appearance.

Mons. Morel-Lavallée has observed that, under the influence of fever, the lesions of urticaria pigmentosa become darker in tint.

A remarkable and very exceptional fact reproduced in this model is the presence of *atrophic macules representing true cicatrices*, in a large number of patches over the trunk and limbs.* About forty of these may be counted on the trunk alone; the smallest are about the size of a lentil, others form transverse patches four centimetres in length by one in breadth. The white colour of these macules contrasts with the chamois leather yellow tint of the patches; they are depressed or project slightly; their outline is sharply defined; some are surrounded by a raised margin.

The number of these atrophic spots and their constant relation to the urticarial patches force us to regard them, not as fortuitous lesions accidental to the malady, but as essential; they are most likely the result of the regressive involution of the lesions of this form of urticaria.

Did this regressive change take place spontaneously? Might the appearances not be caused by ulceration consequent upon a bullous eruption? This latter interpretation seems very improbable, for the cicatrices were not present when the child was observed in 1888 by MM. Bruchet and Reymond,

* *Vide* Hallopeau, *Bulletin de la Soc. Franç. de Derm. et de Syphil.*, 12th May, 1892.

nor in the following year when seen by Mons. Morel-Lavallée. Since then he has been persistently in the hospital, which involves appropriate treatment for any bullous eruptions which might appear. Besides, the bullous eruptions which have been observed, have never resulted in ulceration, so that it is at least very likely that these numerous cicatrices are the result of a retrograde involution which is part of the natural course of the disease.

Another point, illustrated in the plate, merits the greatest attention for it may serve to elucidate the nature of the disease ; I refer to the *arrangement of the eruption in traverse bands* on the trunk. I observed the same characteristic, much more marked, in a patient whom I brought before the Société Française de Dermatologie on 11th April, 1896 ; the eruption was made up of slightly projecting patches with geographical outlines, many being in bands ten centimetres in breadth ; they were especially noticeable in the dorsal region where they were symmetrically distributed, and extended from above downwards and from within outwards ; the highest were at the level of the third dorsal vertebra, the lowest corresponded to the base of the sacrum, the former being more oblique, the latter horizontal. The bands composed of these plaques were separated by tracts of healthy skin, as broad or broader than they ; the epidermis over the plaques was crinkled, as in the case represented in the photo-lithochrome, and superficial, scattered, irregularly rounded cicatrices were also observed upon the trunk. Here, then, are two cases of urticaria pigmentosa the elements of which were arranged in parallel bands recalling the distribution of zoster and accompanied by cicatrices. We shall draw our conclusions from these facts later on.

As regards *Subjective Sensations*, itching must specially be mentioned ; its intensity is very variable, and far from constant. In our little patient it was present only during the congestive attacks ; it has often been observed to be completely absent ; at other times, on the contrary, it is intense and leads to the production of secondary eruptions with the appearance of prurigo.

The *course* of the disease is essentially chronic ; the macules

following the congestive attacks persist indefinitely; the outbreaks themselves may occur for many years.

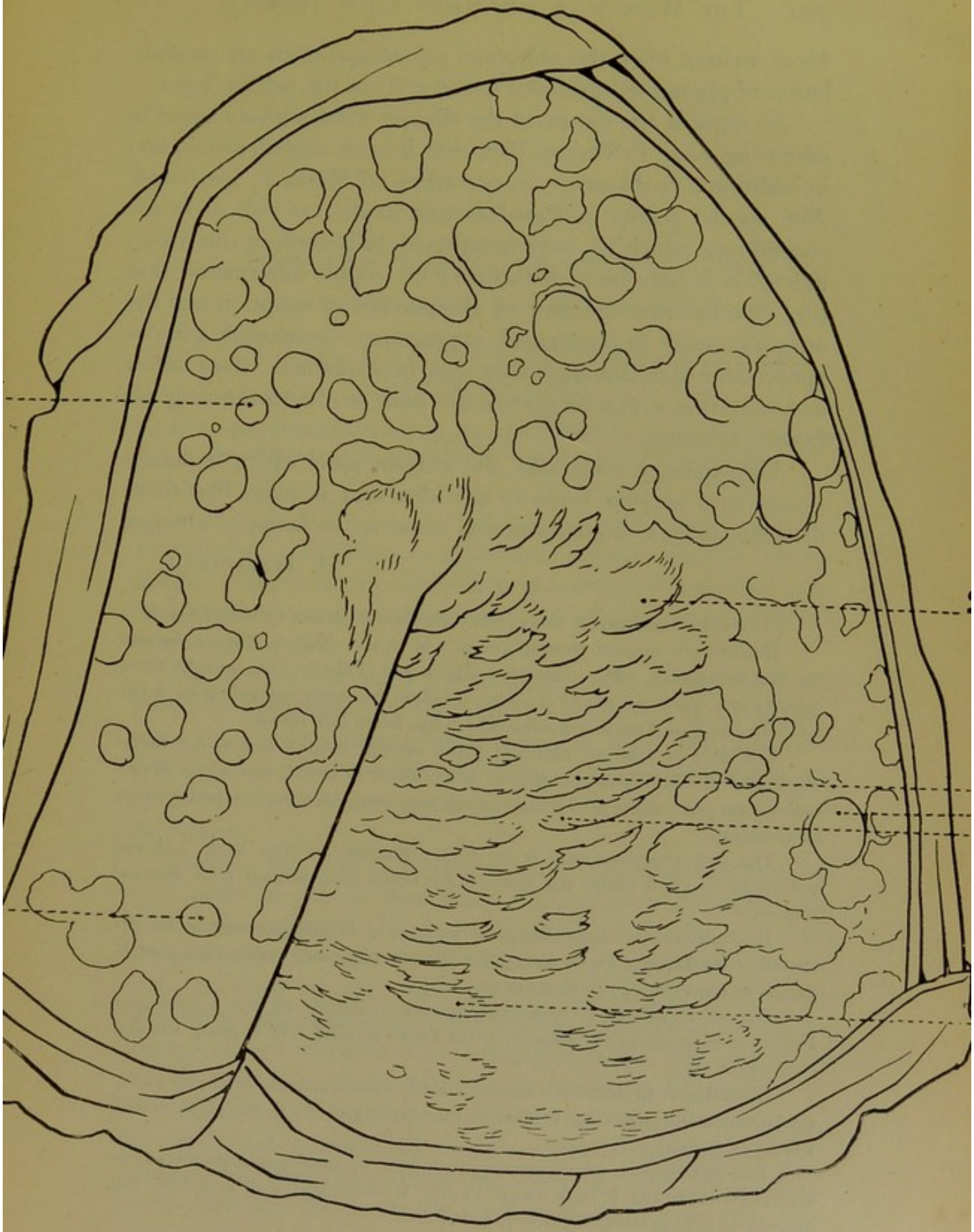
Apart from the ephemeral febrile symptoms which may accompany the eruptive outbreaks the disease usually has no deleterious effect on the general health.

The *diagnosis* of this disease can offer no serious difficulty to any physician who has had the opportunity of observing it. The prominence of the patches, the outbreaks of which they are the seat, and the maintenance of the general health prevent all confusion with *Xerodermia pigmentosa.*

The outbreaks and special aspect of the red or pigmented urticarial plaques distinguish it from all sorts of *Melanodermia.* The affection which might most easily give rise to error is one which we have described under the name of *persistent lichenoid Urticaria* in the *Semaine Médicale*, No. 17, 1894, page 129. It is made up of miliary nodules, arranged either in little irregularly rounded groups, or in linear series; the largest of them attain the size of a hemp seed; they have a punctiform depression in their centre; they are firm to the touch; their surface is lustrous, their colour is reddish, verging upon that of chamois leather in places; when scratched they become more prominent and larger while their colour becomes also more marked; there may be concurrent autographism (*i.e.*, factitious urticaria):—to sum up, the disease is a persistent form of urticaria, presenting some analogy to urticaria pigmentosa in its colour and in the fact that its lesions become more prominent under the influence of mechanical irritation, but differing from it in their small size and in the absence of consecutive pigmentary patches. Neither must urticaria pigmentosa be confounded with *persistent hæmorrhagic urticaria* in which the unusual colour is due only to extravasation of red blood corpuscles.

From the histological point of view this skin affection has one absolute characteristic according to Unna, which is the presence in large quantities of *mast-cells* many of which are cuboidal in form owing to their being closely crowded together in colonies under the influence of the *vis a tergo.**

* Bäumer, Archiv für Derm. und Syph., 1896, vol. xxxiv., p. 323.



Most writers refer the abnormal pigmentation to an accumulation of pigmented granules in the cells of the prickle layer.

As regards the nature of the disease most authors agree in admitting with Professor. Pick that it is an *angioneurosis*, and in addition a *trophoneurosis*, according to Mons. P. Reymond. The special points indicated in our model, as well as in the second case which we have mentioned, fully confirm this view; indeed it is only by a disturbance of trophic innervation that the zone-like arrangement of the patches of eruption and the atrophic areas of cicatricial appearance, developed without appreciable determining cause, can be explained; these allow us to say that *urticaria pigmentosa must be classified among the trophic neuroses.*

The analogy with zona and certain nævi which its localisation may present leads to the idea that it may, like these diseases, have as its determining cause a "*metameric*" change.

H. HALLOPEAU.

[The early literature of this curious affection is almost entirely English.

Nettleship's original description of it is in the *British Medical Journal* for 8th September, 1869. Morrant Baker and Tilbury Fox brought cases before the Clinical Society of London in 1875, the latter suggesting for it the uncouth name of *Xanthelasmoidea*, which has fallen into disuse.

Colcott Fox read an excellent paper on the subject before the Royal Medical and Chirurgical Society in 1883, which is in vol. lxvi. of its *Transactions*, p. 329; since which fairly numerous cases have been reported from all countries.

The first American case is by Albert Morrow, of New York, and was published in 1876 under the title of *Erythema tuberculatum with unusual features.*

The microscopic appearances of sections of uticaria pigmentosa are extremely remarkable. In no disease are "mast-cells" met with in such abunddance, whatever their signification may be.

For an excellent—if somewhat polemical—article on the subject see Unna's *Histo-pathology of Diseases of the Skin*—translated by Norman Walker, —p. 955 *et seq.*

In addition to Bäumer's article, already mentioned, an article by Fabry (of Dortmund) in the same volume of the *Archiv für Derm. und Syph.* is well worthy of perusal.

The disease occasionally occurs in adults when its diagnosis presents considerable difficulty; I have twice known it diagnosed as a syphilide, the amount of itching being slight.—J. J. P.]

PLATE L.

SYPHILITIC CHANCRE OF THE LIP.

(1) Scabbed Form. (2) Erosive Form.

SYPHILITIC CHANCRE OF THE TONGUE.

Ulcerative Form.

Model by Baretta and Jumelin, Nos. 1,411, 189 and 1,081, made in 1885 and 1888, from patients under the care of Professor Fournier.

I.

Figure No. 1 of Plate L. represents a good example of the *scabbed* chancre of the lip, which is worthy of attention both on account of its great frequency and of the errors to which it often gives rise.

Chancre of the lip very frequently affects the form and objective appearance of the scabbed chancre. It is, indeed, always a scabbed chancre when situated upon the cutaneous portion of the lip and when no dressing or other topical application has been made to it, so as to detach the scab from its surface.

It owes this scab to the fact that it is a *cutaneous* chancre. The proof of this is that when situated partly on the cutaneous and partly on the mucous portion of the lip, it is often divided into two halves of different aspect, one of which—corresponding to the skin—is covered with a scab, while the other—corresponding to the mucous membrane—is like an open wound. (See, in this connection, Model No. 285 of my private collection in the Saint Louis Hospital Museum.)

This form of chancre is small and circumscribed, rounded or oval, and covered by a scab which is of variable size, ranging in diameter from a fifty-centime piece to a franc. It is firm and adherent, and projects from one to two milli-

metres. Although of no fixed tint it is generally brownish or dark brown, but sometimes almost black.

The scab, of course, only masks the real lesion, which is the underlying chancrous erosion, but one can form no opinion about it as long as the scab persists, so it may be passed unnoticed for the present. The sum-total of the lesion then, as far as its appreciable clinical characters go, is a mere incrustation on the top, and nothing more.

The *rupial* chancre is a sub-variety of the preceding which merits special mention. Its characteristic feature is an exaggeration of the scab to twice, thrice or even four times its usual thickness. The scabbing, by its stratified appearance and by its marked prominence from the surrounding skin, absolutely resembles the enormous heaped-up masses on tuberculo-crusted tertiary syphilides, and more especially the scabs called "limpet-shell shaped," to which the term *rupia* was formerly applied.

In presence of this variety of labial chancre it is impossible not to gain the impression of a tertiary syphilide, and this impression can only be rectified by the facts on the other side which are gained by a reasoned-out diagnosis. A large number of chancres with thick, prominent scabs are thus constantly mistaken for tertiary lesions.

Diagnosis.—This latter form of chancre is, however, not the most misleading from the diagnostic point of view; for the observer generally looks upon them with misgiving and caution, on account of their size and peculiarity; in short, he puts himself at some trouble (if I may say so) to come to a diagnosis. Their nature is generally determined by the absence of syphilitic antecedents in the patient, by the accompanying glandular affection in the form of a satellite bubo, and sometimes also by the secondary manifestations which follow in their train when they have lasted a few weeks.

The usual source of error, then, in such cases lies elsewhere, *viz.*, in the scabbed chancre of *benign appearance*, with a small, thin, flat and even tiny scab, that is in the chancre termed *scaly*, which looks like a commonplace and trivial lesion.

Therein lies the trap! And how are we to avoid deception? What does the whole lesion present for our observation? Only a small crust, rounded or oval, not larger than the nail of the middle finger, flat, not raised, yellow or yellowish, of "eczematous" appearance, *i.e.*, like a scab on any wound which is drying up. So that a mere cursory examination is usually made and the diagnosis is arrived at of an herpes, a scabbed acne, an eczema or an impetigo, or of one of those "pimples" without a name which so frequently occur about the lips.

I may even add that the main difficulty for the physician is not to recognise the chancre *when he thinks of it*, but *to think of it*; that is to say, to bear the fact always in mind that the syphilitic chancre may present itself on the lips under the guise of a lesion essentially benign, trivial and insignificant in appearance. For, if a chancre is thought of, it will soon be recognised as such by the physician in the great majority of cases by two characteristic definite signs, *viz.*: the induration of the base and the accompanying adenopathy. The following points may always be noted :—

(1) Beneath the base of the scab there is an area of *induration*, more or less marked, not always—it is true— a deep, nodular induration like a pea, or half a hazel nut, but—at all events—a surface induration either "pergamentous" or "foliaceous".

(2) A less equivocal and more constant sign is well defined *glandular implication*, in the form of swellings, often multiple, indolent and hard, which present a special sort of induration "like that of the chancre transported to the glands," as Ricord described it. On the contrary, nothing similar is observed in herpes, eczema, impetigo or accidental erosions, *etc.*

With these two signs present, the diagnosis may almost always be made on a firm clinical basis.

Still, two causes of possible error may here be signalised. These are (1) *artificial induration* and (2) *consecutive glandular swellings which may simulate a bubo.*

(1) Common, non-specific lesions, accidentally complicated

by an inflammatory process may assume a certain induration at their base, more or less resembling that of a chancre. Thus herpes, staphylococcic pustules, scratches, eczematous or impetiginous patches, *etc.*, which have been irritated, inflamed or infected by the fingers or by topical applications or caustics, sometimes exhibit a certain degree of inflammatory engorgement at their base which is more or less resistant and might easily be mistaken for the induration of a chancre. This is the first possible cause of error and will be avoided by a careful inquiry into the history.

(2) Common lesions of this sort may coexist with glandular enlargements, either recent or of old date, which depend upon the lymphatic or scrofulous diathesis, or on a bad state of the gums, alveolar abscess, chronic stomatitis, *etc.*

As for example: A young man consulted me on account of a scabby, circular lesion on the lip, the size of a fifty-centime piece and absolutely "chancriform" in appearance. On the one hand its base was very hard; on the other, there were two rather firm, painless glandular swellings beneath the jaw, the size of olives. My first impression was, therefore, entirely in favour of a chancre of the lip. On interrogation, however, I learnt: that the two swollen glands were of old standing, and followed a severe stomatitis consequent upon the difficult eruption of a wisdom tooth; the lesion on the lip had been repeatedly cauterised, about eight or ten times. I therefore deferred my diagnosis and made it purely expectant. Nothing happened; three years have elapsed since then and I still am awaiting—or rather I do not await—secondary syphilitic manifestations. According to all the evidence, then, what I had at first taken for a chancre—and I think every one would have done the same—was not a chancre, but some common lesion artificially hardened by caustics, and accidentally accompanied by enlarged glands, in no real relation to it, which were there by mere chance and as the result of pre-existing diseased conditions.

II.

Figure II. shows an *erosive* chancre of the lower lip, divided into two almost equal halves by one of the median fissures so frequent there, especially in scrofulous and lymphatic subjects.

This form is not less common and insidious that the preceding, and it is especially common in chancres affecting the "semi-mucosa" of either lip.

Its objective appearance is simply that of an *erosion*, accurately circumscribed, generally about as big as the little finger nail, rounded or more often oval, absolutely *superficial*, on the same level as the surrounding tissue (therefore without a raised margin), with smooth uniform floor, generally remarkable for its beautiful red or reddish-brown colour, and sometimes of almost characteristic red "flesh-muscle" colour. Sometimes, however, there are greyish or whitish little points scattered over the red base, which are the remains of epithelium only partially separated.

This is all, so that this type of chancre is merely an erosion of the "mucous-derma" as far as its objective characters are concerned. It would be impossible to recognise such a chancre and to differentiate by those simple criteria from common lesions, such, for instance, as herpes. For the erosion which represents it is identical with any common erosion both at first sight and after full analysis. So that the erosive form of labial chancre has been many a time confounded with erosions of all sorts, especially with two insignificant lesions which merit especial mention, *viz.* : (1) *Herpes of the lip*, and (2) *cigarette burns*. How often have I not seen labial chancres which have been diagnosed as "herpes" and disdainfully treated as such till the secondary manifestations appeared! And how often, too, have I seen labial chancres mistaken for epithelial desquamation due to the misuse of tobacco!

Three signs should prevent such an error :—

(1) The *graphic contour* of the lesion. A chancre has always a border-line regular in contour, either circular or oval,

but not sinuous, not serrated, not dentate, not "geographical," to use the consecrated expression.

On the contrary a commonplace erosion resulting from an irritative or inflammatory process always shows a much more irregular outline, more capricious, more festooned, very different from the regular curve of a chancre.

A fortiori, the boundary-line will be all the more significant if one is dealing with a herpes; for the characteristic which I have long ago assigned to herpes is well known and, I am glad to say, has as yet found no disputant. This consists of the sinuous border-line of the lesion, studded here and there with segments of very small circles, which are the vestiges of vesicles lying outside the original herpetic group.

This *micro-cyclical outline*, as I have called it, is quite special to herpes, of which it is a pathognomonic sign. It ought, therefore, always to be sought for with care, and with the aid of a lens, which sometimes permits of its recognition when it would escape the naked eye. Unfortunately, it is absent in certain cases, or, at all events, is not sufficiently marked to be of use for diagnostic purposes. But when it exists, I affirm that it constitutes an absolutely distinctive sign, for a chancre never presents an outline thus particularised by small segments of circles.

It is, however, to be noted that the number of these peripheral circinate elements is only of secondary importance. If they are numerous, so much the better for ease and certainty of diagnosis. But only a small number of them, or only a single one, may be seen. Still a single one, well developed and clearly characterised, suffices to *exclude* a chancre. For such a configuration is not compatible with a chancre and cannot be met with in connection with one.

(2) The second sign is *induration of the base of the lesion.* There is always more or less induration of the base of a chancre. On the contrary, there is no induration with herpes or other simple erosions, except when they have been inflamed by various extraneous causes of irritation or artificially hardened by caustics. As for all other chancres, the indurated base is an excellent sign. But *the induration in the labial chancre of*

erosive type is always slight. One must not expect to meet with one of those indurations, easily perceptible to the fingers, as a nodular lump like a split pea or hazel-nut. First, it is the flattened, "lamellar" type of induration which is almost invariably present. Further, this lamellar type is not always very marked, for if it sometimes is of the "pergamentous" or parchment-like type and easily perceptible, it far oftener is confined to the attenuated, ill-defined, abortive type known as "foliaceous" or "papery" induration, which is very apt to be misunderstood. Now, in cases of this sort, the special induration will only be perceived if looked for with extreme care and in a methodical manner, which consists of seizing the chancre very exactly at its two poles and of slightly raising the mucous membrane, so as to ascertain its own proper resistance when isolated. Here it is especially necessary to have some special education to feel what less expert fingers will not appreciate.

(3) Third sign: *Implication of Glands.*—In the case of herpes or ordinary erosions there is either no adenopathy, as is usual (except in the event of superadded inflammatory irritation), or there is only a slight degree of glandular reaction, with slight amount of swelling and without the dry, resistant feeling characteristic of the bubo which is symptomatic of a chancre.

With a chancre, on the contrary, glandular involvement is constant and, moreover, is of the type which offers all the characteristics of the satellite bubo.

In most cases these three signs will suffice to determine the nature of the disease. But it is necessary to repeat once more, that the diagnosis is often delicate, difficult, or even impossible on the ground of the actual data present. Cases are pretty frequent in which the most expert clinician is forced, in presence of a labial chancre of the erosive type, to defer his diagnosis temporarily and await further developments.

III.

Chancres of the tongue occur in many and different forms, the two commonest of which are called *erosive* and *ulcerative.* The latter alone will occupy us here.

As its name indicates, it differs from the erosive form in invading a certain depth of the tongue or even its entirety (although that is rare), rather than simply destroying its mucous covering.

The ulcerative chancre is generally large. Usually it is about the size of the thumb-nail, but exceptionally it may be much larger. One of the models in the Saint Louis Hospital illustrates a chancre measuring three or four centimetres antero-posteriorly by one centimetre transversely.

Its shape is that of a cup or spoon, hence the names of *cupuliform* and *spoon-like* chancres. It represents a sort of ulcerative lesion, the margins of which, sometimes raised in a ridge, thence slope gently down to its floor without ever showing the abrupt, hacked-out appearance spoken of by every one and which has often been described in print.

The floor of this sort of chancre is smooth and generally of a well-marked red colour, but sometimes it is polychromatic; that is to say, it is studded with islets of greyish-yellow or dark brown colour.

It is always surrounded by marked induration, sometimes thick and deep, forming under the ulcer a veritable resistant "meniscus".

Diagnosis.—It is especially from the diagnostic point of view that the ulcerative form of lingual chancre presents interest of the highest order. For it is often difficult to distinguish it from other lesions of the tongue such as ulcerating (gummatous) syphilides, tubercular ulcers, glossitis from decayed teeth, chancroids, or epithelioma. Inversely, these diseased conditions are often confounded with syphilitic chancres.

The *tubercular ulcer*, in particular, offers the greatest objective similarity to the ulcerative chancre; I shall therefore devote myself more especially to those clinical signs upon which the differential diagnosis of the two morbid conditions rests.

Evidently it is not the chronic tubercular ulcer with which we are concerned. Its differential diagnosis is "ready made," as it is deduced from the very chronicity of the lesion and from the absence of syphilitic manifestations at a time when such

would have long been present, if they were to be present at all. The only condition at issue is the tubercular ulcer of recent date, of some weeks' duration, or even less. In such conditions an error is possible, and in both directions; *i.e.*, a tubercular ulcer may be mistaken for a chancre, or *vice versa*.

The means for deciding the question are numerous and of different orders, and may be divided into three groups, *presumptive*, *probable*, and *certain*.

FIRST GROUP.—A presumption—and one of importance—may be deduced from the personality of the patient, *i.e.*, from the presence of lesions or symptoms referable to tuberculosis. Thus, there would be a presumption in favour of a tubercular ulcer if the patient had phthisis and *a fortiori* if the disease were advanced; or even if the patient presented some actual tubercular lesion or some evidence of pre-existing tuberculosis in the lymphatic glands, skin, anus, testicle, bones, *etc.*

For, indeed, in the great majority of cases, tubercular ulceration of the tongue is only a manifestation consecutive to others of tuberculosis. Therefore, the determination of some tubercular antecedent, or even of a predisposition to tuberculosis, whether hereditary or acquired, will yield valuable information, capable of giving assistance in forming a diagnosis.

On the other hand, this sign is controlled by the two following considerations, *viz.*:—That in a certain number of cases (twelve out of thirty-five according to Orlow) a lingual ulcer may be the first manifestation of tuberculosis and may precede all other localisations of bacillary invasion; while, *per contra*, there is nothing to prevent a tubercular subject from contracting a syphilitic chancre. A difficulty of this description is only too possible and has often been encountered.

II.—Various other presumptive signs may be afforded by the seat, number, extent and depth of the lesions. Thus, in the following four conditions there will be every reason to suspect tubercular ulceration rather than a chancre.

(1) *If the lesion is situated on the under surface of the tongue*; for in this situation a tubercular ulcer is of pretty frequent occurrence, but a chancre is extremely rare.

(2) *If the lesions are multiple*; for tubercular ulcers are often multiple, while a chancre is generally single.*

(3) *If the lesion is of considerable extent*; for tubercular ulceration sometimes extends rapidly, involving large surfaces, while a chancre—with rare exceptions—never exceeds the moderate limits we have already specified.

(4) *If the lesion is hollowed out, penetrative, excavating*; for such is the tubercular ulcer, which sometimes exposes the muscular tissue of the tongue, while the chancre generally remains superficial and even in its ulcerative forms does not transgress the mucous membrane.

But all these are mere presumptions. Let us therefore seek for signs of another and better order.

SECOND GROUP.—*Probable* signs in favour of the tubercular ulcer, as against a chancre, are furnished by the five following points:—

(1) If the *outline* of the lesion is irregular and "cut up"; *a fortiori* if it is of no definite type as to form. For such is the outline of the tubercular ulcer in a large number of cases; whereas a chancre has always a definite, "methodical" outline, derivative of the geometrical curve, and is even sometimes accurately round or oval. Even when it varies from this type it always preserves a certain regularity of form which is not, if I may so express it, the "temperament" of the tubercular ulcer.

(2) It is in favour of the tubercular ulcer if the margins of the lesions are sharply cut, punched out, or, *a fortiori*, undermined and "floating". All these conditions are common in the tubercular ulcer, while a chancre never has its margins punched out in this way, and never has undermined borders dissected up from underneath. It has no real border properly so called, for either it is flat and continuous with the surrounding healthy parts, or, if it is hollowed out, its outer part slopes down gently to its central portion without any abrupt ridge around it.

(3) It is in favour of the tubercular ulcer if the lesion

* It will be noted that the case figured forms an exception to this rule.—J. J. P.

presents a *floor* which is, on the one hand, unequal, irregular, furrowed, and especially if it is *yellow in colour*,—a beautiful yellow, like that of the simple chancre. Indeed it may give rise to doubt as to diagnosis between a "simple" chancre and a tubercular ulcer.

These two characters are in striking contrast with the appearance of the syphilitic chancre, which has always a smooth, flat, uniform floor, to such an extent that it looks polished, or varnished, and, on the other hand, its usual tint is red, "muscle-flesh colour," or greyish, opaline, diphtheroid.

(4) It is in favour of the tubercular ulcer if the *base* is supple, soft and non-resistant.

If well marked, this establishes a fundamental distinction between the two morbid types we are comparing. There can be no possible confusion between a tubercular ulcer with a soft base, and a syphilitic ulcer the base of which is always indurated to a greater or less degree.

The condition of the base would, therefore, be absolutely distinctive of its type, did not the tubercular ulcer sometimes show itself with a resistant, firm base round about it, either spontaneously, primarily, or as the result of superadded complications.

Let me explain: The tubercular ulcer, more frequently than is said, rests upon a bed of infiltrated tissue which, without presenting the well-defined and dry hardness of a chancre, is nevertheless sufficiently firm to awaken some suspicion of it. Again, a tubercular ulcer may *become hard* even to a most misleading extent as the result of repeated, persistent irritation, *e.g.*, by cauterisation, or by a jagged, broken tooth or one covered with tartar, *etc.*

(5) A last probable sign in favour of the tubercular ulcer is founded on *symptomatic functional troubles*, and on this point there is sometimes the most marked difference between the two types we are studying.

The tubercular ulcer usually, if not always, is a *painful inflamed lesion*, accompanied by such symptoms as constant discomfort, continual tenderness of the tongue; acute pain accompanying all the movements of articulation, mastication

and deglutition; sensitiveness in contact with food, especially if hard or knotty, spiced or acid, and even more so with alcoholic drinks; finally, there is more or less marked hypersecretion of saliva.

On the other hand a chancre, if it sometimes manifests these symptoms, does so only to an infinitely less degree. Often it is almost completely painless; at all events, compared to a tubercular ulcer it may be called a lesion which is tolerated.

So that by a comparison of these characters the differential diagnosis between chancre and a tubercular ulcer may often, and before any examination, be established on the ground of the *subjective symptoms*, according as the patient suffers much or scarcely at all from his disease.

All these five points which I have just elaborated are important and sometimes excellent for the diagnosis which is occupying us. Unfortunately they bear upon signs which are accidental, contingent, and susceptible of existing in such slight degrees as to diminish their decisiveness, or they may even be absent. On the other hand, not one of these preceding signs is really of such a nature as to establish an absolute differentiation between the two conditions; none of them could be called pathognomonic. So that, at the best, they could only be classified as *probable* signs and nothing more.

Have we, then, nothing better? Yes, indeed, as follows:—

THIRD GROUP.—Three signs may be considered as *certain*, *viz.*:—

I.—An objective sign, founded on the presence of *Féréol's* "*nodules*" and *Trélat's* "*yellow points*". These are often confounded in clinical descriptions; but this is erroneous, for although they are identical in origin and nature, they are none the less very different in their objective characters.

Féréol's nodules consist of small tuberous *tumours*, in the neighbourhood of the tubercular ulcer. They are solid, spheroidal nodules, "let into" the mucosa, from the surface of which they stand out, forming mammillary projections.

One might call them lupous tubercles, and who knows if they are not the tubercles of lupus of the tongue? At all events they recall the nodules of the lupous skin affections. On the average, they are the size of a pin's head. They are elastic and hard to the touch. Covered by healthy mucous membrane, they are of a pink, reddish or purplish colour. They vary in number. There may be only one or two near the ulcer, or quite a collection of them;—five to eight, or even more. In a case described by Féréol * there was a goup of seven or eight on the side of the ulcer.

Trélat's "yellow points" are quite different and may be distinguished from them by the three following characteristics:—

(1) By their smaller size; for they are not tumours but merely tiny little spots, measuring at most from a half to one millimetre in diameter; sometimes, and indeed in a large number of cases, they are simply *punctiform*.

(2) By the absence of prominence or relief; for they are spots either absolutely flat or which only project to an indefinable degree.

(3) And, especially, by their yellowish or yellow tint; sometimes they are of a beautiful golden colour which contrasts vividly with the pink of the surrounding tissues.

Féréol's "nodules" and Trélat's "yellow points" are really pathognomonic signs, because they both are *tubercular* lesions. Their presence, then, in the neighbourhood of an ulcer is unequivocal testimony to its nature. It is tantamount to a "tubercular signature" round the margin of the lesion.

Unfortunately they are inconstant signs, or rather they are absent in most cases. The "yellow points" are only met with once in seven or eight cases, or in a series of my own in four cases out of twenty-five. And there is no doubt that Féréol's nodules are still rarer. So that these two excellent signs are but seldom available in practice.

Should they be absent two other diagnostic procedures are open to us, borrowed from bacteriology and experimentation on animals.

* *Comptes-Rendus de la Soc. Médicale de Paris*, 1872, tome xi., p. 188.

II.—The first of these appears at first sight quite simple and infallible. It consists of collecting the secretion of the ulcer, if necessary by scraping, and placing the organic matter thus obtained under the microscope. If the lesion is tubercular the microscope will reveal Koch's bacilli; should it not be so, the absence of bacilli will be demonstrated.

Nothing seems theoretically more clear, and in practice these theoretical hopes are sometimes realised. But it is not nearly always so, and this criterion is far from meriting the absolute confidence which is too easily accorded to it. For, indeed, according to the most trustworthy histologists and bacteriologists *the most indubitably tuberculous ulcer may yield none of Koch's bacilli.* "Some conditions tend towards yielding bacilli, others in the contrary direction. For instance, bacilli will almost certainly be found if the ulcer is fungating and vegetative, if its surface exudation is abundant and if its tissue is gangrenous or converted into a sort of core. In the opposite conditions, bacilli will not be found. In any case, the number of bacilli present is always small (two to four or ten in a preparation). Thus, as a general rule, we are not authorised to deny the tuberculous nature of a lesion on the ground of the absence of bacilli, except after a very large number of examinations which have invariably proved negative" (Sabouraud).

The conclusion as regards the practitioner is, therefore, that the search after Koch's bacilli should always be attempted, but only on the condition of deducing from their absence the limited signification which it bears. With this reserve the microscopic research in question ought to be undertaken in all doubtful cases; for at all events a decided, certain diagnosis is the result in the event of a positive result being attained. And the demonstration of the bacillus may be, so to speak, extemporaneous (*i.e.*, accomplished immediately), which confers an immense advantage on this procedure over that which now remains for discussion.

III.—Finally, a last assistance in diagnosis is offered by *experimentation.* If an animal is inoculated with the scrapings of the lesion in question, tubercular invasion of the animal

occurs if the lesion is tubercular, and *vice versâ*. Nevertheless, this procedure is seldom resorted to in practice, although it is more reliable and certain in its results than the former, and with good reason. For, in the first place, it is a laboratory procedure, demanding special facilities. Again, and more especially, it is a *slow* process, which necessitates a long time—six weeks on the average—before it can answer the question asked of it. But six weeks is a period equal to, or even greater than, that which syphilis requires to declare itself beyond doubt; for six weeks after seeing the condition which may be a chancre, we know what we are dealing with according as secondary symptoms manifest themselves or not. We thus gain as much knowledge by simple expectation as by experimentation on an animal.

The practical result is, that there is only very slight benefit to be derived from invoking inoculation in animals as a means of diagnosis.

In ordinary practice, then, we generally rely upon the *morbid evolution* of the disease as the final criterion on the question of differentiation between tubercular ulcer and chancre. In brief, we must *wait;* and after a short time the appearance, or not, of secondary symptoms will prove or disprove the chancrous nature of the lesion.

Such are the elements for a differential diagnosis between a tubercular ulcer and a lingual chancre, presented in dissociation and in analytical fashion. I shall now try to unite and condense them in tabular form.

DIFFERENTIAL DIAGNOSIS

Between Tubercular Ulcer and Ulcerating Syphilitic Chancre of the Tongue.

I.—PRESUMPTIVE SIGNS.

TUBERCULAR ULCER.	ULCERATING CHANCRE.
(1) Tubercular antecedents or lesions present (pulmonary, cutaneous, laryngeal, glandular, testicular, osseous, anal, *etc.*).	(1) No tubercular antecedents, except as a coincidence.
(2) Possible situation of lesion on the *lower surface* of the tongue.	(2) Chancre extremely rare on lower surface of the tongue.

TUBERCULAR ULCER.	ULCERATING CHANCRE.
(3) Possible *multiplicity* of the lesions.	(3) Chancre almost always single.
(4) Size of the lesion sometimes considerable.	(4) Area of ulceration almost always limited.
(5) Ulceration sometimes *hollowed out*, penetrative, even involving muscular tissue.	(5) Ulceration never spreading deeper than mucous membrane.

II.—PROBABLE SIGNS.

(1) *Outline* often irregular, wavy, atypical.	(1) Outline regular, often accurately circular or oval.
(2) *Borders* punched out, undermined.	(2) Borders never punched out, nor undermined.
(3) *Floor*—irregular, granular, yellowish or yellow.	(3) Floor—smooth, equal, uniform red or greyish.
(4) *Base* soft (generally).	(4) Base indurated.
(5) *Subjective symptoms* always more or less marked, constant aching, sharp pains in contact with food, salivation. Ulcer sensitive. Not "tolerated".	(5) Few or no subjective symptoms, ulcer "tolerated".

III.—CERTAIN SIGNS.

(1) *Trélat's yellow points* and more rarely *Féréol's nodules.*

(2) Scrapings contain, or may contain, *Koch's bacilli.*

(3) *Inoculation* in animals causes tubercular disease.

IV.—LAST RESORT.

Manifestation or absence of secondary symptoms.

ALFRED FOURNIER.

INDEX.

LIST OF SUBJECTS.

SUBJECT	PLATE	PAGE
Acute Ecthyma of Infancy	XX. ...	195
Alibert's Disease. Mycosis Fungoides ...	XIII. ...	126
Biskra Button	XXXII. ...	265
Bromide of Potassium Eruption	XXV. ...	223
Chilblain Lupus. Lupus Pernio	XVIII. ...	178
„ „ „ „	XXXV. ...	285
Conglomerative Trichophytic Folliculitis ...	XVII. ...	168
Dermatitis Herpetiformis	II. ...	14
„ „ in Concentric Circles	X. ...	101
Dermatitis Vacciniformis Infantilis	XX. ...	190
Disseminated Epithelioma of Face, of Sebaceous Origin	XII. ...	113
Eczema Squamosum	XXXIII. ...	270
Endemic Oriental Boil	XXXII. ...	265
Epithelioma developed upon Lupus	XXIX. ...	244
Erythema (Hydroic)	XLI. ...	337
„ Iris	XXX. ...	252
Hydroa Vésiculeux (Bazin)	XXX. ...	252
Hydroic Erythema	XXX. ...	252
„ „ of the Hands and Lips ...	XLI. ...	337
Hypertrophic Rosacea	VI. ...	53
Impetigo Contagiosa	XLVIII. ...	379
Keratodermic Eczema	XXXIII. ...	270
Kerion Celsi	XVII. ...	168
Leontiasis, Rosaceous	VI. ...	53
Leprosy (Woodcuts)	XV. ...	147
Lesions in a Habitual Cocaine and Morphine Consumer	XXI. ...	199
Lichen Planus	XXXI. ...	257
Lupus Erythematosus	V. ...	45
„ Pernio (Chilblain Lupus)	XVIII. ...	178

SUBJECT	PLATE	PAGE
Lupus Pernio (Disseminated)	XXXV.	285
„ Simple Tuberculous	I.	1
„ Vulgaris	I.	1
Molluscum Contagiosum	XLIII.	346
Mycosis Fungoides	XIII.	126
„ „ presenting Tumours from the first	XVI.	159
Nævus Verrucosus, Vascular, of Leg	XLIV.	352
Pachydermatosis, Acneiform Frontal	VI.	53
Paget's Disease of the Nipple	XXXVIII.	308
Partial Acne Sebacea (Cazenave)	XII.	113
Patchy Purpuric Erythema	IV.	39
Pediculosis Vestimentorum with Pigmentation	XLV.	359
Psoriasis	XIV.	137
„ Figurata	XXIV.	218
Purpura Hæmorrhagica	IV.	39
Ringworm of the Body	XXII.	204
„ „ Neck	XVII.	168
Rosacea Hypertrophica	VI.	53
Scabies, Pustular	XXXIV.	280
Scrofulous Dactylitis	XXXV.	285
Simple Tuberculous Lupus	I.	1
Squamous Eczema of Palm	XXXIII.	270
Syphilides, Circinate Papulo-squamous ...	VII.	64
„ Hypertrophic Papular	XXVI.	228
„ Papulo-tuberculous	XIX.	182
„ Pigmentary	XLII.	341
„ Polymorphous	XXXVII.	302
„ Rupioid	XXVII.	232
„ Tuberculo-gangrenous	XXVIII.	239
Syphilis, Chancre of Breast (Common) ...	XL.	326
„ „ „ (Ulcerating) ...	XL.	326
„ „ Face	XL.	326
„ „ Lip, Erosive Form ...	L.	391
„ „ „ Scabbed Form ...	L.	391
„ „ Nostril, Hypertrophic Form	XLVI.	364
„ „ Tongue, Ulcerative Form	L.	391
„ „ Tonsil, Diphtheroid Form	XLVI.	364
„ „ Vulva	III.	20
„ Gangrenous Gumma	XXVIII.	239
„ Syphilitic Gummata of Thigh ...	XI.	108

SUBJECT	PLATE	PAGE
Syphilis, Syphilitic Hyperkeratosis of Sole	XXIII.	213
„ Tertiary Syphilitic Ulceration of Tongue	IX.	87
Trichophytosis of Trunk (Ringworm of Body)	XXII.	204
Trophic Ulcers of the Hand and Forearm	XXXIX.	322
Tuberculated Leprosy	XV.	147
Tuberculous Dactylitis	XXXVI.	292
Tuberculous Lymphangitis	XXXVI.	292
Urticaria Pigmentosa	XLIX.	384
Vascular Nævus Verrucosus of the Leg	XLIV.	352
Xanthoma Planum et Tuberosum	VIII.	75
Xeroderma Pigmentosum	XLVII.	374

LIST OF PLATES.

PLATE	NAME	PAGE
I.	Lupus Vulgaris	1
II.	Dermatitis Herpetiformis	14
III.	Syphilitic Chancres of Vulva	20
IV.	Purpura Hæmorrhagica	39
V.	Lupus Erythematosus	45
VI.	Hypertrophic Rosacea	53
VII.	Circinate Papulo-squamous Syphilides	64
VIII.	Xanthoma Planum et Tuberosum	75
IX.	Syphilis of the Tongue (Tertiary Syphilitic Ulceration)	87
X.	Dermatitis Herpetiformis in Concentric Circles	101
XI.	Syphilitic Gummata of Thigh	108
XII.	Disseminated Epithelioma of Face, of Sebaceous Origin	113
XIII.	Mycosis Fungoides	126
XIV.	Psoriasis	137
XV.	Tuberculated Leprosy	147
XVI.	Mycosis Fungoides (presenting Tumours from the first)	159
XVII.	Conglomerative Trichophytic Folliculitis	168
XVIII.	Lupus Pernio (Chilblain Lupus)	178
XIX.	Papulo-tuberculous Syphilides	182
XX.	(*a*) Vacciniform Infantile Ecthyma	190
	(*b*) Simple Infantile Ecthyma	195
XXI.	Ulcer and Scars in a Habitual Cocaine Consumer	199
XXII.	Trichophytosis of Trunk (Ringworm of the Body)	204

PLATE	NAME	PAGE
XXIII.	... Syphilitic Hyperkeratosis of Sole	213
XXIV.	... Psoriasis Figurata	218
XXV.	... Bromide of Potassium Eruption	223
XXVI.	... Hypertrophic Papular Syphilides	228
XXVII.	... Rupioid Syphilides	232
XXVIII.	... (*a*) Gangrenous Tubercular Syphilides	239
	(*b*) Gangrenous Gumma	239
XXIX.	... Epithelioma developed upon Lupus	244
XXX.	... Erythema Iris	252
XXXI.	... Lichen Planus	257
XXXII.	... Biskra Button	265
XXXIII.	... Squamous Eczema of Palm	270
XXXIV.	... Pustular Scabies	280
XXXV.	... (*a*) Chilblain Lupus (Lupus Pernio)	285
	(*b*) Scrofulous Dactylitis	285
XXXVI.	... Tuberculous Lymphangitis	292
XXXVII.	... Miliary Syphilides. Polymorphous Syphilides	302
XXXVIII.	... Paget's Disease of the Nipple	308
XXXIX.	... Trophic Ulcers of the Hand and Forearm ...	322
XL.	... (*a*) Syphilitic Chancre of the Face	326
	(*b*) „ „ „ Breast (Common Type)	326
	(*c*) Syphilitic Chancre of the Breast (Ulcerating Type)	326
XLI.	... Hydroic Erythema of the Hands and Lips ...	337
XLII.	... Pigmentary Syphilide	341
XLIII.	... Molluscum Contagiosum	346
XLIV.	... Vascular Nævus Verrucosus of the Leg ...	352
XLV.	... Pediculosis with Pigmentation	359
XLVI.	... (*a*) Syphilitic Chancre of the Nostril (Hypertrophic Form)	364
	(*b*) Syphilitic Chancre of the Tonsil (Diphtheroid Form)	364
XLVII.	... Xeroderma Pigmentosum	374
XLVIII.	... Impetigo Contagiosa	379
XLIX.	... Urticaria Pigmentosa	384
L.	... (*a*) Syphilitic Chancre of the Lip—	
	(1) Scabbed Form	391
	(2) Erosive Form	391
	(*b*) Syphilitic Chancre of the Tongue (Ulcerative Form)	391

NAME	PLATE	PAGE
Biskra Button	XXXII. ...	265
Bromide of Potassium Eruption	XXV. ...	223
Chilblain Lupus	XVIII. ...	178
„ „	XXXV. ...	285
Circinate Papulo-squamous Syphilides	VII. ...	64
Conglomerative Trichophytic Folliculitis ...	XVII. ...	168
Dermatitis Herpetiformis	II. ...	14
„ „ in Concentric Circles ...	X. ...	101
Disseminated Epithelioma of Face, of Sebaceous Origin	XII. ...	113
Ecthyma, Simple Infantile	XX. ...	195
„ Vacciniform Infantile	XX. ...	190
Epithelioma developed upon Lupus	XXIX ...	244
Erythema Iris	XXX. ...	252
Gangrenous Gumma	XXVIII. ...	239
Gangrenous Tubercular Syphilides	XXVIII. ...	239
Hydroic Erythema of the Hands and Lips ...	XLI. ...	337
Hypertrophic Papular Syphilides	XXVI. ...	228
Hypertrophic Rosacea	VI. ...	53
Impetigo Contagiosa	XLVIII. ...	379
Lichen Planus	XXXI. ...	257
Lupus Erythematosus	V. ...	45
„ Pernio (Chilblain Lupus)	XVIII. ...	178
„ „ „	XXXV. ...	285
„ Vulgaris	I. ...	1
Miliary Syphilides (Polymorphous Syphilides)	XXXVII. ...	302
Molluscum Contagiosum	XLIII. ...	346
Mycosis Fungoides	XIII. ...	126
„ „ (presenting Tumours from the first)	XVI. ...	159
Paget's Disease of the Nipple	XXXVIII. ...	308
Papulo-tuberculous Syphilides	XIX. ...	182
Pediculosis with Pigmentation	XLV. ...	359
Pigmentary Syphilides	XLII. ...	341
Polymorphous Syphilides	XXXVII. ...	302
Psoriasis	XIV. ...	137
Psoriasis Figurata	XXIV. ...	218
Purpura Hæmorrhagica	IV. ...	39
Pustular Scabies	XXXIV. ...	280
Rupioid Syphilides	XXVII. ...	232
Scrofulous Dactylitis	XXXV. ...	285
Squamous Eczema of Palm	XXXIII. ...	270

NAME	PLATE	PAGE
Syphilis of the Tongue, Tertiary Syphilitic Ulceration	IX.	87
Syphilitic Chancre of Breast (Common Type)	XL.	326
„ „ „ (Ulcerating Type)	XL.	326
„ „ Face	XL.	326
„ „ Lip (Erosive Form) ...	L.	391
„ „ „ (Scabbed Form) ...	L.	391
„ „ Nostril (Hypertrophic Form)	XLVI.	364
„ „ Tongue	L.	391
„ „ Tonsil (Diphtheroid Form)	XLVI.	364
„ „ Vulva	III.	20
„ Gummata of Thigh	XI.	108
„ Hyperkeratosis of Sole	XXIII.	213
Trichophytosis of Trunk (Ringworm of the Body)	XXII.	204
Trophic Ulcers of the Hand and Forearm ...	XXXIX.	322
Tuberculated Leprosy	XV.	147
Tuberculous Lymphangitis	XXXVI.	292
Tuberculo-gangrenous Syphilides	XXVIII.	239
Ulcer and Scars in a Habitual Cocaine and Morphine Consumer	XXI.	199
Urticaria Pigmentosa	XLIX.	384
Vascular Nævus Verrucosus of the Leg ...	XLIV.	352
Xanthoma Planum et Tuberosum	VIII.	75
Xeroderma Pigmentosum	XLVII.	374

LIST OF AUTHORS.

	PLATE	PAGE
BAUDOUIN—		
Molluscum Contagiosum	XLIII.	346
Pigmentary Syphilide	XLII.	341
BESNIER—		
Disseminated Epithelioma of Face ...	XII.	113
Disseminated Lupus Pernio	XXXV.	285
Hypertrophic Rosacea of Forehead	VI.	53
Lupus Vulgaris	I.	1
Mycosis Fungoides	XIII.	126
Tuberculated Leprosy	XV.	147

	PLATE	PAGE
DARIER—		
Paget's Disease of the Nipple	XXXVIII.	308
Xanthoma Planum et Tuberosum	VIII.	75
DU CASTEL—		
Hydroic Erythema	XLI.	337
Xeroderma Pigmentosum	XLVII.	374
FEULARD—		
Erythema Iris	XXX.	252
Gangrenous Gumma	XXVIII.	239
Mycosis Fungoides	XVI.	159
Psoriasis	XIV.	137
Purpura Hæmorrhagica	IV.	39
Pustular Scabies	XXXIV.	280
Syphilitic Gummata of Thigh	XI.	108
Tuberculo-Gangrenous Syphilides	XXVIII.	239
FOURNIER—		
Miliary Syphilides. Polymorphous Syphilides	XXXVII.	302
Syphilitic Chancre of Breast (Common Type)	XL.	326
„ „ „ (Ulcerating Type)	XL.	326
„ „ Face	XL.	326
„ „ Lip	L.	391
„ „ Nostril	XLVI.	364
„ „ Tongue	L.	391
„ „ Tonsil	XLVI.	364
„ Chancres of Vulva	III.	20
Tertiary Syphilitic Ulceration of Tongue ...	IX.	87
GASTOU—		
Ulcer and Scars in a Habitual Cocaine and Morphine Consumer	XXI.	199
GAUCHER—		
Vascular Nævus Verrucosus of the Leg ...	XLIV.	352
HALLOPEAU—		
Dermatitis Herpetiformis in Concentric Circles	X.	101
Lichen Planus	XXXI.	257
Lupus Erythematosus	V.	45
Papulo-tuberculous Syphilides	XIX.	182
Rupioid Syphilides	XXVII.	232
Simple Infantile Ecthyma	XX.	195
Urticaria Pigmentosa	XLIX.	384
Vacciniform Infantile Ecthyma	XX.	190

	PLATE	PAGE
JACQUET—		
Biskra Button	XXXII.	... 265
Bromide of Potassium Eruption	XXV.	... 223
Epithelioma developed upon Lupus ...	XXIX.	... 244
Hypertrophic Papular Syphilides	XXVI.	... 228
Impetigo Contagiosa	XLVIII.	... 379
Pediculosis Vestimentorum	XLV.	... 359
Psoriasis Figurata	XXIV.	... 218
Squamous Eczema of Palm	XXXIII.	... 270
Syphilitic Hyperkeratosis of Sole	XXIII.	... 213
Trophic Ulcers	XXXIX.	... 322
PRINGLE (Annotations)—		
Acute Ecthyma of Infancy	XX.	... 195
Biskra Button	XXXII.	... 265
Conglomerative Trichophytic Folliculitis (Ringworm of the Neck)	XVII.	... 168
Dermatitis Herpetiformis in Concentric Circles	X.	... 101
Erythema Iris	XXX.	... 252
Lupus Erythematosus	V.	... 45
Lupus Pernio (Chilblain Lupus)	XVIII.	... 178
Mycosis Fungoides	XIII.	... 126
Pigmentary Syphilide	XLII.	... 341
Psoriasis (in its Relation to Seborrhœa) ...	XXIV.	... 218
Ringworm of the Body	XXII.	... 204
Tuberculous Lymphangitis	XXXVI.	... 292
Urticaria Pigmentosa	XLIX.	... 384
Xanthoma Planum et Tuberosum	VIII.	... 75
Xeroderma Pigmentosum	XLVII.	... 374
SABOURAUD—		
Conglomerative Trichophytic Folliculitis (Ringworm of the Neck)	XVII.	... 168
Trichophytosis of Trunk (Ringworm of the Body)	XXII.	... 204
TENNESON—		
Dermatitis Herpetiformis	II.	... 14
Lupus Pernio (Chilblain Lupus)	XVIII.	... 178
THIBIERGE—		
Circinate Papulo-squamous Syphilides ...	VII.	... 64
Gummatous Tuberculous Lymphangitis, secondary to Tuberculous Dactylitis ...	XXXVI.	... 292

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