Clinical study and analysis of 1,000 cases of psoriasis / by L. Duncan Bulkley.

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Clinical Study and Analysis of 1,000 Cases of Psoriasis.

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Physician to the New York Skin and Cancer Hospital, etc.

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CLINICAL STUDY AND ANALYSIS OF 1,000 CASES OF PSORIASIS.

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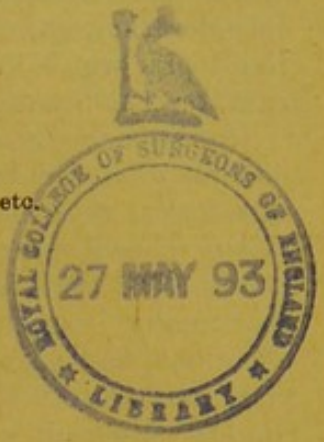

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The persistency and rebelliousness to treatment of psoriasis are so well recognized, and so very little is actually known in regard to its etiology and nature, that all contributions to its natural history and all records of clinical experience with it are of more or less practical and general interest and value. It has occurred to me, therefore, that a review and report of twenty years observation and treatment of the disease may not be without interest, and, it is hoped, some little profit. While the study and analysis of the thousand cases, which have been observed in private and public practice, may not yield any startling or brilliant results, or disclose any very new facts regarding the disease, or its treatment, they will at least exhibit certain data taken in part from cases among the more intelligent and wealthier classes in the community, and will present the natural history of the disease in a manner not heretofore attempted.

Psoriasis is now described as a chronic affection of the skin, exhibiting dry, red, slightly elevated patches or spots, of varying size and shape, generally circular, covered with a greater or less quantity of dry, white, silvery scales, heaped together, the lesions tending to develop chiefly on the extensor surfaces.

Psoriasis is a well defined disease, quite distinct from all other affections of

the skin, and, as far as is known, always produced by the same cause, although little or nothing is known accurately in regard to the nature of the cause. It should never be confounded with a scaly stage of eczema as one frequently observes to be the case in practice; this may occur if one follows the teaching of Wilson,* who applies the term psoriasis to "a mitigated or chronic form of psora or eczema," "when the skin is red, coarse, thickened, wrinkled or smooth, brittle, dry, itchy, desquamating, and disposed to become moist on being rubbed." Although, as will appear later, in a certain small number of cases psoriasis and eczema sometimes seem to intermingle or interchange, or alternate, they are distinct and separate affections, although at times exhibiting somewhat similar symptoms. Wilson recognized well the separate character of the disease under consideration, but describes it under the title of alphos, using also the designation lepra, which latter term is now applied exclusively to Elephantiasis Græcorum, or true leprosy.

Psoriasis should also be well separated from syphilis, with which it has no connection whatever: for, although McCall Anderson† in his excellent monograph on this disease says that "there is a non-syphilitic and a syphilitic form," all more recent writers agree in confining the name psoriasis to the disease under consideration, and never apply it to the scaly papular syphilide. We will find, therefore, that many cases which might by some be classed as psoriasis are quite other affections, and quite a share of the instances of so-called psoriasis palmaris and plantaris are only lesions of syphilis, or chronic forms of eczema or tylosis, affecting the palms and soles; we shall find later that true psoriasis attacks the palms and soles exceedingly rarely, and then only when it has already manifested itself, often to a great extent, on other portions of the surface.

In like manner the term psosiasis has sometimes been applied to an affection of the tongue which has no connection with, nor relation whatever to the disease under consideration; indeed, among many hundred cases of psoriasis, seen in public and private practice, I have yet to satisfy myself that psoriasis ever attacks that organ. The so-called psoriasis linguæ or ichthyosis linguæ will often be found to be syphilitic in origin, or that curious affection now known by the name of leukoplakia. Such cases, therefore, should be excluded from our study.

Turning now to a consideration of the statistics of psoriasis which are to form the basis of this study, I find that the records of these thousand cases of this affection occur among 25,443 cases of miscellaneous skin diseases in my private and public practice; it, therefore, forms nearly 4.2 per cent. of all cases. Of these, 322 cases occurred in private practice, among 7,076 cases of general skin disease, giving a percentage of 4.55, and 678 cases in public practice, among 18,367 miscellaneous skin cases, with a proportion of 3.69 per cent. It may be interesting to note that among the private cases eczema stands first, with 2,350 cases, forming one third of all cases; acne comes second with 1,547 cases, or over 20 per cent.; syphilis ranks third with 6½ per cent.; and psoriasis fourth on the list; next to psoriasis comes the forms of alopecia with 3½ per cent.; then the varieties of tinea in almost the same proportion; and so on through the eighty odd different skin affections presented in the cases analyzed.

In the larger statistics compiled during the past eleven years by members of the American Dermatological Association‡ psoriasis is found to form but 3.32 per cent. of the 138,226 cases collected, there being a total of 4,548 cases of psoriasis recorded. In examining the separate reports from different cities

*Wilson, On Diseases of the Skin, 6th edition, London 1867, p. 172.
†Anderson, On Psoriasis and Lepra, London, 1865, page 1.
‡Transactions of the American Dermatological Association, 12th meeting, 1888, p. 81.

which compose this total it is interesting to note that the percentage of psoriasis cases varied very considerably, not only between the individual districts but also in different years. Thus, the percentage from the several cities stand as follows: New York, 4.11; Chicago, 3.3; Philadelphia, 3.2; Boston, 3.06; St. Louis, 2.6; and Baltimore 1.8 per centum. In one year's report the percentage in New York stood at 5.7, while the same year that in Baltimore was only .06 of 1 per cent.

A possible etiological deduction may be made from these figures, namely, that the disease seems more prevalent in New York and Boston, where the climate is subject to great and trying changes of temperature, with much moisture, and is prevalent also in Chicago, where the same is true with the substitution of lake moisture instead of that from the sea. In a small series of returns from Toronto, Canada, for five years, psoriasis is reported to form 6.4 per cent. of miscellaneous skin cases; the atmospheric conditions here are also much the same as in Chicago. On the other hand, in the warmer climate of Baltimore and St. Louis the disease is found to be much less prevalent; indeed, that of Baltimore, 1.8, stands in striking contrast to the 4.1 per cent. observed in New York.

It is also not a little striking, in view of a claimed malarial origin of psoriasis that it should be found relatively seldom in St. Louis, where this element is so widely diffused and manifests itself so actively.

Psoriasis appears to occur in varying frequency in different countries. Thus Wilson§ found it to form 6.28 per cent. of 10,000 general skin cases in private practice in London, and Anderson‖ reports 7.5 per cent. in Glasgow, and even over 10 per cent. in private practice. On the other hand, in Belfast,¶ it formed only 2. 4 per cent. in hospital practice, and Neumann* reports 2.8 per cent. in the General Hospital in Vienna.

The following table presents the ages of one thousand patients with psoriasis at the time of applying for treatment:

TABLE I.—AGES OF ONE THOUSAND PATIENTS WITH PSORIASIS.

Ages.	Private Practice.			Public Practice.			Total.
	Male.	Female.	Total.	Male.	Female.	Total.	
5 yrs. and under,	0	1	1	2	1	3	4
5 to 10 yrs.	2	5	7	4	22	26	33
10 " 15 "	5	6	11	24	27	51	62
15 " 20 "	17	24	41	38	38	76	117
20 " 25 "	25	24	49	52	36	88	137
25 " 30 "	29	22	51	63	56	119	170
30 " 35 "	33	15	48	52	32	84	132
35 " 40 "	29	10	39	23	29	52	91
40 " 45 "	24	2	26	21	36	57	83
45 " 50 "	13	6	19	14	13	27	46
50 " 55 "	7	4	11	13	11	24	35
55 " 60 "	3	3	6	5	5	10	16
60 " 65 "	6	2	8	3	8	11	19
65 " 70 "	2	1	3	1	3	4	7
70 " 75 "	2	0	2	0	1	1	3
Age unknown,				19	26	45	45
Total,	197	125	322	334	344	678	1000

§Journal of Cutaneous Medicine, Vol. III, London 1869, p. 258.
‖Anderson, Analysis of 11,000 Cases of Skin Diseases, London 1872, pp. 7, 9.
¶Journal of Cutaneous Medicine, Vol. III, London, 1869, p. 276.
*Neumann, Lehrbuch der Hautk., Wien. 1873, p. 259.

By this table it appears that males are more often affected with psoriasis than females, they here forming 53.1 per cent. of the entire number, and the females forming 46.9 per cent.; this corresponds somewhat to the proportion observed by others, Neumann making the proportion of females 65 per cent.

The youngest patient seen with the disease was a female about two years of age, the oldest a male just seventy-five years of age. It will be seen that the largest number of cases applied for treatment between the ages of 25 and 30, when there were 170 cases out of the thousand. Between 20 and 25 years of age there were 137 cases, and between 30 and 35 years of age 132 cases. Relatively few cases were seen during the very early years of life. In but 4 instances the patients were five years or less of age; in the next five years there occurred 33 cases; of these 27 were females and 6 males. It will be observed also that relatively few cases are met with in advanced life, but 80 cases in the entire thousand in patients over fifty years of age; the disease was seen in 439 patients between the ages of 20 and 35 years of age.

It is impossible, however, to draw from this table any exact conclusion with regard to the age or period of life at which psoriasis is most likely to manifest itself, for by reference to the next table it will be seen that the eruption commonly first appears at a much earlier age than will be inferred from the preceding table.

TABLE II.—AGES OF 481 PATIENTS WITH PSORIASIS AT THE FIRST APPEARANCE OF THE ERUPTION.

Ages.	Private Patients.			Public Patients.			Total.
	Male.	Female.	Total.	Male.	Female.	Total.	
1 to 2 years,	1	1	2	1	1	2	4
2 " 3 "	1	1	2	1	0	1	3
3 " 5 "	7	5	12	0	0	0	12
5 " 10 "	11	11	22	1	9	10	32
10 " 15 "	22	33	55	10	10	20	75
15 " 20 "	37	24	61	9	12	21	82
20 " 25 "	34	13	47	26	15	41	88
25 " 30 "	19	9	28	27	9	36	64
30 " 35 "	17	1	18	14	10	24	42
35 " 40 "	12	5	17	6	3	9	26
40 " 45 "	8	0	8	4	6	10	18
45 " 50 "	7	3	10	4	2	6	16
50 " 55 "	2	2	4	4	1	5	9
55 " 60 "	1	1	2	2	2	4	6
60 " 65 "	1	1	2	0	0	0	2
65 " 70 "	0	0	0	0	2	2	2
Total,	180	110	290	109	82	191	481

Comparing this table with the preceding one it will be seen that the largest number of cases in any period of five years was that observed between the ages of 20 and 25 years, where there were 88 cases, the largest number in the preceding table being between the ages of 25 and 30. There is also seen to be a large number between the ages of 10 and 20 years, which gave 157 cases, or nearly 33 per cent. of the entire number. It will be also noted that in 19 instances it was recorded that the eruption had begun by or before five years of age, and in nearly half the cases the eruption had begun by or before 20 years of age. It will also

be seen, however, that in a certain number of instances the eruption may first develop even at an advanced period of life, two cases being recorded as first appearing between 65 and 70 years of age and two cases between 60 and 65 years of age. The total number, however, first developing after the age of 50 years is very small, hardly 4 per cent. of the entire number.

It is a litle curious to note that while in the period between 10 and 15 years of age the females are considerably in the preponderance, during the next five years the males are greatly in excess, and during the period between 20 and 25 years of age there were 60 males to 28 females; a possible suggestion might be drawn from this in regard to the effect of the later development of the sexual functions in males than in females. Taking the decades of life, we find that in 51 instances the eruptions first developed during the first decade, in 157 instances in the second decade, 152 in the third decade, 68 in the fourth decade, 34 in the fifth decade, 15 in the sixth decade, and 4 in the seventh decade. These facts appear quite opposed to the statement of Neumann†, who asserts that the eruption generally first appears about the sixth year of life.

The earliest period at which the disease manifested itself was in a male, in the case of a young gentleman 17 years of age, in whom the eruption had existed since he was weaned, before he was two years old. The youngest female was a girl 5¼ years old, in whom the eruption had developed first when three years of age. Wilson‡ states that he has observed the disease at the age of three months, his next youngest patient being 2½ years of age. He states also that he has known psoriasis to make its first appearance at 85 years of age, and also in another patient at 73 years of age. Kaposi§ has seen an eight months old child with psoriasis, the father also having the same disease severely.

The natural history and termination of psoriasis is a subject of very considerable interest and one upon which as yet very little light has been thrown. We have already seen from the preceding table that it may begin at any period of life, although in almost one half the cases the eruption was found to begin before the age of twenty years. Having once begun, the disease shows itself to be one of the most rebellious of all affections of the skin, tending to remain indefinitely, with little if any inclination to spontaneous recovery. Beginning early in life, it may persist even in spite of active and prolonged treatment, etc., to advanced age, although after middle life it often becomes less pronounced and in certain cases may become confined to a few lesions, giving little annoyance. In a certain small proportion of cases it will seem to disappear even without treatment and to remain absent for varying periods, perhaps entirely. Such cases, however, are extremely rare, and even seem to depend on some radical change in the mode of life or on a change of abode. A prolonged residence in a warm climate will sometimes suffice to completely arrest the disease, but it may again develop when the patient returns to a colder or more changeable climate. There does not seem to be any favorable influence exerted on the disease by puberty, the eruption manifesting itself quite as severely during and after that period as before; indeed, in some instances the disease seems to be aggravated thereby.

Little can be stated in regard to the antecedent condition leading to and causes of the disease, it making its appearance most unexpectedly under the most diverse conditions of life and under the greatest possible variations of circumstances; not only will it appear after exhaustive diseases and in those debilitated by various excesses, but it comes equally in subjects who are apparently in the very

†Neumann, Lehrbuch der Hautkrankheiten, Wein., 1873, page 259.
‡Wilson, Lectures on Dermatology, 1871-3, London, 1873, page 276.
§Kaposi, Pathol. und Therap. der Hautkr. Wein., 1883, page 394.

best of health and enjoying all the surroundings of a healthy, proper life. A study of the histories of the cases here analyzed fails to discover any single cause or element or even combination of causes or elements to which the disease may be attributed, although, as will be mentioned later, several distinct types of the eruption may be made, out as found in those exhibiting the scrofulous, gouty and rheumatic diatheses.

The eruption of psoriasis is seen clinically to develop in various manners, and with quite different degrees of severity; in some very young subjects, even, it appeared as quite a sudden outburst, affecting simultaneously or in rapid succession the various parts of the body and extremities, in other instances a few spots appeared here and there and developed but slowly, taking very considerable time before a large surface was affected; in some instances the eruption remained confined to a particular locality, as the scalp, or back, or chest, for some considerable period, often for years, and then, from unknown causes, more or less suddenly developed so as to involve very much of the surface.

However or whenever the eruption began, the analysis of these cases show it to have been most chronic and rebellious, lasting in many instances even during the entire life of the patient in varying degrees of severity.

The following table exhibits the condition of the disease before the patient came under treatment:

TABLE III.—DURATION OF PSORIASIS IN 414 CASES AT THE TIME OF APPLYING FOR TREATMENT.

Duration.	Private Patients.			Public Patients.			Total.
	Male.	Female.	Total.	Male.	Female.	Total.	
1 mo. to 3 mos.	8	3	11	5	4	9	20
3 " to 6 "	7	8	15	8	9	17	32
6 " to 1 yr.	13	7	20	7	2	9	29
1 yr. to 2 yrs.	10	10	20	7	5	12	32
2 " to 3 "	9	5	14	4	3	7	21
3 " to 4 "	12	8	20	4	3	7	27
4 " to 5 "	10	6	16	4	2	6	22
5 " to 10 "	30	24	54	20	13	33	87
10 " to 15 "	25	17	42	6	11	17	59
15 " to 20 "	17	12	29	4	5	9	38
20 " to 25 "	14	2	16	8	1	9	25
25 " to 30 "	5	0	5	0	3	3	8
30 " to 40 "	8	2	10	0	0	0	10
40 " to 50 "	3	1	4	0	0	0	4
Total	171	105	276	77	61	138	414

We see from this table that the natural history of psoriasis is reckoned by years rather than by months or days. Thus, out of 414 cases in which reliable data were preserved it is found that in 231, or 57 per cent., the eruption had existed for a period of over five years, and in four instances it is recorded that the eruption had been present between 40 and 50 years before the patient came under treatment.

Comparatively few cases were observed at or soon after the beginning of the disease, only 20 in whom it had lasted less than three months. It will be seen later that this is a fact of no little importance in connection with the proper treatment of the disease.

It will be interesting to know more definitely the exact duration of the disease in those patients who have become free from the eruption and who have remained without any manifestations; but unfortunately such statistics are extremely difficult to obtain in an office practice and among out-patients, who are seen only during the actual existence of the eruption or who seek advice only as long as they may desire; moreover, a large number of such cases are seen once or twice, generally in consultation. Something more, however, can be learned of the obstinancy of the complaint by a consideration of the length of time during which some of the patients were under observation, either for a continued existence of the eruption or for recurrences of the same. This is exhibited in the following table:

TABLE IV.—DURATION OF OBSERVATION OF 296 PATIENTS WITH PSORIASIS.

Duration.	Private Patients.			Public Patients.			Total.
	Male.	Female.	Total.	Male.	Female.	Total.	
1 mo. to 3 mos.	44	24	68	20	27	47	115
3 " to 6 "	16	12	28	5	3	8	36
6 " to 1 yr.	26	15	41	3	1	4	45
1 yr. to 2 yrs.	14	2	16	3	5	8	24
2 " to 3 "	12	6	18	1	1	2	20
3 " to 4 "	8	6	14	2	0	2	16
4 " to 5 "	3	2	5	0	0	0	5
5 " to 10 "	9	11	20	0	0	0	20
10 " to 15 "	9	4	13	0	0	0	13
15 " to 20 "	2	0	2	0	0	0	2
Total,	143	82	225	34	37	71	296

It is seen here that in a large number of cases, over one half were seen for comparatively short periods of time, less than six months, and in looking at the notes of these cases we find that quite a proportion of them yielded to treatment and were apparently cured, while of course a large number were lost sight of before any conclusions could be drawn as to the ultimate results of treatment; the remaining half of the cases were seen for varying periods of time, more commonly, however, not in consecutive months or years, but often after a lapse of a greater or less length of time. In studying the records of these cases we find that as we advance in the length of time during which the patients had previously had the disease and also that during which they were under treatment, we discover a smaller proportion of the mreceiving permanent benefit, until in many cases which have been for some years under observation and treatment the question of therapeutics has narrowed itself down to removing recurrent eruptions or preventing their appearance on exposed regions. In some instances, however, careful and continuous treatment has held the eruption almost entirely in abeyance, even for a great number of years, as in the following case:

This case, which has been for the longest period of all the cases under observation and treatment, is that of a clergyman now 50 years of age, who was first seen about twenty years ago. The eruption had begun about eight years previous to his first visit, when he was 22 years of age, it appearing first in the scalp. The disease progressed very slowly and did not become very general until four years later. He has spent much time at different mineral springs with varying results; at times the eruption improved greatly but always relapsed into a worse condition. He was also under various medical treatment until the time of his first visit in 1869. He then had a very general psoriasis, and on account of

this and a throat difficulty he was unable to pursue his calling as a clergyman for some years.

He was put upon Fowler's solution, with the occasional use of other remedies, the local treatment consisting mainly of tarry applications, with the effect of keeping him practically free from his eruption which, however, would return with any great neglect of treatment. He has taken as high as nearly eight ounces of pure Fowler's solution in the course of a single year, and, as he calculated it several years ago, he had taken over half a gallon of pure Fowler's solution in the course of fourteen years.

The case next longest under observation is that of a gentleman also now 50 years old, who was first seen in 1869, twenty years ago, and at intervals up to the present time. The eruption first appeared on him also at about twenty years of age, ten years before his first visit. During this interval of thirty years he has been at times under the care of many physicians in this country and abroad, and has tried many mineral springs, but when last seen, quite recently, he returned for treatment in about the worst condition that he had ever been. The disease then covered large areas, forming great patches many inches in diameter, resembling the surface of pityriasis rubra,and at times causing him great suffering. He is a very gouty subject.

Another case which has been under observation and treatment off and on for seventeen years is that of a gentlemsn who, curiously enough, is now also just fifty years of age, in whom the eruption first showed itself when he was twenty-five years old, eight years before his first vist. During this period the eruption has varied greatly in intensity, at times disappearing almost entirely when he relaxed from work, especially during the summer vacations. Of late years the disease has become quiescent, giving but little annoyance, but still lingering in certain localities, as the scalp, and increasing when he is taxed with overwork. Numbers of cases could be cited where the disease had been watched and treated with varying success during periods of from ten to fifteen years, with the history that with each neglect of treatment a recurrence or an increase of the disease has more or less quickly followed.

II.

In very many instances it appears to be quite clear that the obstinacy of psoriasis depends largely upon the irregular and imperfect manner in which the patient has carried out the treatment, and to the interruption of the same just when it promised success; for with an eruption of this nature which gives comparatively little personal discomfort, especially when it has been largely removed, it is exceedingly difficult to secure a faithful and persistent carrying out of the remedial measures suggested. So many patients fondly suppose that when the eruption is improving the gain will be continuous and constant, that they to a greater or less degree relax their efforts and become more or less careless in their treatment, until finally a fresh crop of eruption warns them of the necessity of resuming the active fight.

There can be no greater error than this on the part of the physician or patient, for the natural history of the disease shows conclusively that it has almost no tendency to a self limitation, but that having once begun it is exceedingly likely to continue during all of the patient's life, unless checked by medical means or by other agencies relating to diet, hygiene or climate, of which we know but little.

Although it has just been remarked that in a considerable share of cases the rebelliousness of psoriasis is largely chargeable to the patient's carelessness and want of persistency in treatment, it is doubtless true that in a certain proportion of instances, which I believe to be relatively small, the disease really seems to be incurable, however faithfully and intelligently the treatment may have been prescribed or carried out. This is exemplified in the case of a young lady who was under observation and treatment for twelve years; the eruption had begun in her twenty years, before she was first seen, when she was but ten years old, and it persisted in spite of much and varied treatment, which it is believed was faithfully carried out. A certain amount of benefit could always be obtained, but it would only be transitory; remedies would soon lose their effect and disagree with the patient and the course of the case was often most disheartening. The face was a prominent point of attack and the eruption very often caused her much distress, both mental, and at times physical. When last seen, at about 42 years of age, the eruption was still present to a very troublesome degree.

From the well-known rebelliousness of the disease the question is often asked whether it is really curable or whether it must not be reckoned as an incurable affection. To this I commonly reply that the disease is indeed one of the most rebellious of all those appearing upon the skin, but that in a certain proportion of cases it is undoubtedly curable under proper conditions. The relative curability of psoriasis appears to depend very largely upon several conditions, such as the age at which the eruption first appeared, the period in the disease at which treatment is commenced, the character of the treatment employed and the faithfulness with which the same is persisted in.

In regard to the age at which the eruption appears, psoriasis is certainly most easily controlled in children if taken hold of vigorously and if treatment is persisted in faithfully. I therefore urge patients most earnestly to sacrifice everything in the attempt to free their children from the disease in their earliest years, for if neglected or improperly treated psoriasis is not only far more likely to persist many years naturally, but will probably become more and more rebellious to treatment. Cases of psoriasis first developing between the ages of 20 and 25 years are apt to be exceedingly rebellious, although I have known such instances to be cured; those in which the eruption appears much later in life will often yield very

readily, especially if they occur in gouty subjects, where this element can be modified by diet or treatment.

This brings us to the second point, viz.: that the prognosis of psoriasis depends considerably upon the date in the disease at which the treatment is commenced. When the eruption has existed for a long time and the psoriatic habit has become, as it were, thoroughly pronounced, it often seems exceedingly difficult to do more than to give temporary relief, very little being accomplished in the way of preventing relapses or eradicating the real disease.

The third element having to do with the prognosis of psoriasis is the character of the treatment employed. I am well aware that there are not a few who, regarding psoriasis as a local disease of the skin with no constitutional relations, will not at all agree with me in reference to the matters about to be stated. Time does not permit of a full discussion of this most important subject of the constitutional relations of psoriasis, and as this is a clinical paper I will only briefiy state my own position and belief in the matter as it has been developed from extended study and observation.

In my judgment, it is not sufficient to regard cases of psoriasis solely from the standpoint of removing the eruption which happens to be present at the time of consultation. I believe that more ought to be accomplished than this, and I believe also that with due diligence aud proper care more can be accomplished. While we cannot at present speak of the cure of psoriasis, that is, its permanent cure, with any amount of certainty or satisfaction, in individual cases, it is undoubtedly true that in a certain proportion of instances such changes in the habits and condition of patients can be affected by prolonged and skillful medical care, that the disease, or its skin manifestation, will remain absent.

While we must agree with Robinson* and Jamieson† that "the first step in the diseased process is taken by the cells rete Malpigii, which lie next to the derma, and not by the papillæ, and that psoriasis can not be regarded as primarily an inflammatory disease or affection of the upper layer of the cutis," we must still hold to the belief that psoriasis is not a local disease of the skin, as are the parasitic affections epithelioma, verruca, etc., but in some way depends upon an unknown constitutional condition more or less akin to rheumatism and gout, and that unless this condition is altered the eruption will recur at different periods and with varying severity. To be successful, therefore, the treatment of psoriasis must include diet, hygiene and proper medical measures, including both internal and external medication.

The nature and character of the measures necessary to affect this will be considered later under the head of the treatment of the disease.

The *heredity* of psoriasis is a subject of some little interest and one which deserves more attention than has hitherto been paid to it. The impression is very general that the disease is very commonly acquired by inheritance; indeed, this is about the only etiological element which is recognized with any certainty by most writers upon the disease. It is a little difficult to obtain reliable data in regard to this matter and but little value can be placed upon the statements obtained from the mass of patients commonly seen in public practice. In the more intelligent class of patients seen in office practice, however, we can generally obtain the necessary facts with a little care, and this has been done in a large share of the cases here analyzed, in private practice, patients being interrogated both as to

*Robinson, New York Medical Journal, July, 1878.
†Jamieson, Medico-Chirurgical Society of Edinburg, November 8th, 1878.

the positive and negative aspects of the question, and the results obtained in the 322 cases are exhibited in the table V:

TABLE V.—HEREDITY.

	Male.	Female.	Total.
Cases with anterior heredity,	14	19	33
Cases with posterior heredity,	6	1	7
Cases with no heredity,	74	62	136
Unknown or unrecorded,	137	72	209
	231	154	385
Cases with parents affected,	12	15	27
Cases with grandparents affected,	3	3	6
Cases with children affected,	15	1	16
Cases with brothers and sisters affected,	27	17	44
Cases with collateral relatives affected,	4	7	11

Here we see that in but 33 cases was there any anterior heredity recorded; of these, 27 reported the disease as having existed in one or the other of their parents, and 6 patients reported a grandparent affected. In the records are found notes regarding 143 children of psoriatic parents. Of these, but 15 are recorded as having the disease, that is, only a trifle over ten per cent. Out of 291 brothers and sisters of psoriatic patients, only 41 are recorded as affected, while 250 escaped, a ratio of only 14 per cent.; of collateral relatives there were only 11 instances in whom psoriasis was reported, upon inquiry, to have existed. It would seem, therefore, from a study of these cases at least, that heredity bears but a small share in the production of psoriasis, the proportion of instances exhibiting this certainly being not as great as could readily be found among cases of eczema, acne, urticaria, and perhaps other skin affections.

The *location* of the lesions of psoriasis is not a little interesting, although but little practical value can be derived from the data concerning them

TABLE VI.—LOCATION OF PSORIASIS.

Location.	Males.	Females.	Total.
General,	123	90	213
Head,	92	65	157
Body,	90	49	139
Upper extremities,	97	87	184
Lower extremities,	84	57	141
Genitals,	14	4	18
Palms and soles,	9	4	13

The figures in regard to this feature are recorded, the various locations being noted where the disease either existed exclusively or appeared. Thus it was found to be diffused in all parts of the body in 213 instances; the head was affected in 157, the body in 139, the upper extremities in 184, etc. Psoriasis very rarely affects the palms and soles, but 13 instances having been noticed among the cases here analyzed.

The *complications* of psoriasis are often very interesting and at times very important; appearing, as it does, at all ages and often lasting during many years, it naturally often co-exists with many other affections and conditions of the body.

As is well known, during certain general or exhaustive diseases psoriasis will

often disappear spontaneously and rapidly, only to reappear with renewed activity when the acute disease has passed off. The eruption is not at all infrequently seen to co-exist with others upon the same patient, the one more or less masking and complicating the other; thus, among the private cases psoriasis was recorded to have co-existed in different individuals with no less than eighteen other well recognized skin affections; in many other instances such co-existence may have happened without particular note having been made of the matter. First among these stands eczema, which was noted in 20 individuals with psoriasis; acne also existed in about the same number in a degree to call for record and treatment: syphilis occurred in 12 psoriatic patients, while the rest of the skin affections were exhibited in one or more patients with psoriasis. Syphilis stands first perhaps in importance in this connection and will often so complicate and mask psoriasis that it is exceedingly difficult to determine with certainty exactly the share which the two diseases bear in the eruption present. When syphilitic infection takes place in psoriatic patients, the earliest lesions will often be found to more or less represent the disease under consideration. Indeed, the spots of psoriasis will often undergo a modification and so resemble the new syphilitic papules scattered among them that they are hardly distinguishable one from the other; the lesions of psoriasis become more succulent, more raised, of a darker red, and covered with more adherent, firmer, thicker, more yellow and less shiny scales. As the syphilitic poison yields to vigorous treatment the psoriasis again resumes its more indolent character, the lesions become paler and flatter, the scales more transparent and shiny; occasionally it will be seen that the psoriasis will yield in a remarkable manner and largely disappear under the effect of an active treatment given for the syphilis. But this gain is not permanent, and the psoriasis, if not properly treated, relapses speedily.

The most interesting complications or relations of psoriasis are those with rheumatism, gout and the so-called scrofulous habit. The true causative relations between these blood conditions and psoriasis have not been as yet determined, and it is very difficult to establish them with any degree of certainty; but clinical experience shows them to co-exist with the disease and the symptoms of the one to vary with the symptoms of the other to such a degree and in such a manner that there can be little doubt but that some causal relation exists between them. This is a subject which has been already considerably dwelt upon by many writers, and the French school especially have long recognized the arthritic relations. Bourdillon‡ has recently elaborated the subject very fully in regard to joint changes which take place in connection with aggravated cases of the disease and has collected a considerable number of illustrative cases. That there is any question that these psoriatic and arthritic symptoms depend upon the same systematic change or poison there can be little doubt by one who has at all carefully studied the subject and followed such cases clinically for any period of time.

While it is difficult to determine and demonstrate any accurate relation between the *strumous state* and psoriasis, clinically it is very easy to distinguish cases which may be placed under the scrofulous type of the disease from those which belong to the gouty class. While the eruption in this latter condition is characterized by a considerable amount of congestion of surface, frequently much irritation of the skin, either with pain or itching, the abundant production of thin white scales, easily shed and frequently renewed, the strumous form of psoriasis is characterized by its more indolent nature, a duller red of the patches, a greater accumulation of more yellow, thicker and more adherent scales, and the total absence of any irritation on the skin. The treatment of the two classes of erup-

‡Bourdillon, Psoriasis et Arthropathies, Paris, 1888.

tion is also quite different, and the internal remedies of value in the strumous variety prove prejudicial to the eruption in arthritic patients. No statistics have been prepared to exhibit these features, but from a rough estimate I should judge that fully one half of the patients with psoriasis exhibited to a greater or less degree the arthritic element calling for treatment, while in about one half of the remainder the strumous nature of the disease should be recognized; and in the other quarter an accurate determination with regard to these features could hardly be made.

In the large majority of cases of psoriasis the disease maintains its proper characteristics to the end, often during a long period of years; as it recurs after a greater or less subsidence, it may appear as a punctate, guttate, nummular orbicular, or gyrate eruption, but it can always be recognized as psoriasis. In certain instances, however, it will more or less change its character and approach to a greater or less degree those of eczema and pityriasis rubra, occasionally being quite transformed into one or the other of these affections. As already mentioned, in no less than 20 instances among the private cases, or 6 per cent., eczema was noted as present to a greater or less degree; I have always regarded any tendency in psoriasis to assume an eczematous aspect as a favorable symptom, and in proportion as this is exhibited in patients can the disease be more readily managed. Far more rarely does psoriasis develop into pityriasis rubra, but I have seen this to occur in two, or perhaps three, instances; in the case of a gentleman recently seen, now some 50 years of age, the disease had so extended itself during many years existence that now a large share of the lower extremities and also the trunk is affected with extensive, often red, surfaces, marked by superficial lines, these covering large areas and exactly resembling the tissue seen in pityriasis rubra. The heat and burning in this is sometimes intense. This patient is also a great sufferer from rheumatism. Bourdillon§ has cited a number of cases illustrative of this.

The *treatment* of psoriasis is a subject upon which very much has been writen and yet one which is by no means clearly settled; indeed, it is one about which there is still the greatest diversity of opinion and, further, is one which, it may be said, is in a very unsatisfactory state.

To those who believe it to be incurable as a disease, and who only attempt the benefitting or removal of the eruption present, the task is relatively light, for a number of agents are known which generally succeed in affecting a great improvement or causing the eruption to disappear in varying lengths of time. But all agree that their effect is at most but local and temporary, and we find that those who argue most for local treatment speak most expectantly of the probable return of the eruption with the coming change of season. But patients with the eruption naturally seek for more than this, and are very properly desirous that they should be freed from the disease in such a manner that they will not be subjected to the continual annoyance of its recurrence. In a certain small percentage of cases it is true that when once removed by local means alone the eruption sometimes remains absent even for a period of years, but this is so much the exception that it is hardly ever counted upon or expected by localists. It has already been mentioned that in order to secure a more permanent removal of the eruption treatment must include diet, hygiene and both internal and external medication.

To one who has closely studied diseases of the skin in private practice there

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§Bourdillon, Loc. cit pp. 8, 57, etc.

can be little doubt but that diet has more or less to do both with the production of skin diseases and with their cure. In some eruptions the relations exhibited between dietary elements and skin lesions are very striking and unmistakable; in many others they are more obscure, while in certain instances with our present light it seems very difficult to obtain much data of value with regard to the matter. In gouty and rheumatic subjects of psoriasis, the effect of a full and stimulating diet is often most markedly exhibited in the rapid increase of the eruption, in its congested and irritable character and in the freer production of scales, while a light and unstimulating diet without the use of stimulants will often be followed by a marked improvement in the eruption. Everything contributing to the production of an acid state in these subjects also tends to increase the skin difficulty; and every indulgence in sweets, pastry, fermented wines and beers will often precipitate an attack and will always aggravate the existing eruption.

Excessive meat eating will also increase the disease, which will frequently yield with much greater rapidity, under the same treatment as before, when the amount of meat taken is lessened or when it is entirely cut off; on the other hand, oils and fatty matter, if properly-digested, aid in removing the diseased state.

Under hygiene should be included proper attention to the clothing worn and to the mode of life, in order to avoid all check of perspiration or the chilling of the surfaces at any time; this latter I have repeatedly seen followed by the original outbreak of the disease, and also by returns of the eruption. I believe that only pure wool should be worn next to the skin by these patients, both summer and winter. A warm and equable climate undoubtedly conduces to the cure of the disease, and I have known patients to remain quite free from the eruption while in the tropics.

Internal medication has very considerable effect on psoriasis in a large share of the cases and should never be omitted. In rheumatic and gouty subjects a pretty free and full alkaline treatment very commonly will control the disease to a very great extent; acetate of potassium is about the best remedy, and may be given with a free hand, combined with nux vomica and a bitter infusion, to which colchicum may often be added with advantage. Citrate of potassium and the liquor potassæ are also often of great service, the latter being given even up to 20 to 30 drops or more three times a day, freely diluted. In strumous cases the most brilliant results will sometimes be obtained by cod liver oil and hypophosphites or other suitable medication. In quite a proportion of cases the eruption will seem to be induced and largely kept up by simple debility, and a good iron tonic with liquor potassæ and a little arsenic will cause the greatest improvement in the eruption, even without any local treatment. This is also often required in gouty and rheumatic cases after the congestive element has been removed by free alkaline remedies. Attention should always be paid to the condition of the bowels, the digestive system, and urine of psoriatic cases, for if these elements are faulty other medication is often valueless.

Arsenic long ago established its reputation and has fairly maintained it in the treatment of psoriasis, and singly and alone is perhaps the one remedy of greatest value internally in this disease. But its value has been more or less over-rated by many, and everyone who has had much experience with this disease must have witnessed its failure many times. That it can powerfully affect the eruption and even cause its disappearance in many instances and effect a cure of the disease in certain cases when used freely and persistently, no one doubts. As it is a more or less safe remedy it should be given, when employed, in doses sufficient

to effect the purpose desired, or until some of its physiological actions become so pronounced that the drug can no longer be borne. Individual cases vary greatly in regard to the amount of arsenic which they can stand, and in each case it must be pushed fearlessly and faithfully in the directions indicated. I do not believe there is any deleterious effect to the system from the prolonged use of the drug; it is well to remember that it passes off rapidly with the urine and no traces of arsenic are found in the body a short time after its use has been discontinued, even although much had been previously taken. It matters little in what form arsenic is given, as it is believed that the mineral itself is the active agent and it seems to operate about the same in whatever combination or form it is given.

Mineral springs are often thought to be of great value in the treatment of psoriasis, but after very considerable experience in their use and after reviewing a recorded experience of very many patients at a great variety of mineral springs, I must confess that they have disappointed me greatly. The sulphur springs are in the main, as is well known, those which yield the best results, but even these I have rarely seen to effect a permanent cure of the disease. Faithful treatment at them will very frequently be followed by the removal of the eruption present, but it has sometimes seemed that it burst out again with even greater vigor subsequently, on account of the treatment there taken; so that I cannot to-day recommend a patient with psoriasis to go to any particular mineral spring with any definite hope or expectation that great or permanent benefit will be derived therefrom.

The local treatment of psoriasis covers a large ground and has been so frequently and ably discussed that it is hardly worth while to enter upon the subject here. My experience certainly shows that the effect of local treatment is but local and temporary, and although when applied early and fairly it may prevent, to a large degree, the development of the eruption, it quite frequently fails to effect this.

Chrysarobin undoubtedly still holds the first place as a powerful agent in removing the eruption present, but on account of the many well-known objections to its use I employ it comparatively rarely in private practice and then mainly in a compound with salicylic acid and collodion; pyrogallic acid and anthrarobin are of more or less value, but second in active powers to chrysarobin. I use, more than anything else, white precipitate in an ointment with bismuth and carbolic acid. In acutely developing psoriasis a soothing and astringent lotion of calamine and oxide of zinc, with carbolic acid, will often, when combined with proper internal treatment, check the development of the eruption very satisfactorily. Alkaline baths have proved to be of the greatest service in my cases of psoriasis, and I make very free use of them in their treatment. Oil of cade, as is well known, is one of the most efficient remedies in the removal of the eruption of psoriasis, and I have found a special value in the combination, suggested, I believe, by M. Vidal, composed of oil of cade 50. sapo viridis 25. and glyceriti amyli 130., well rubbed into the surface at night and washed off in the morning.

In concluding this study of the cases of psoriasis which have been under my personal care, I wish again to impress the view which experience has developed more and more in me that psoriasis is not a local disease of the skin, but is most certainly a manifestation of some underlying constitutional condition. Of this constitutional state or condition we as yet know but little except that there is behind it a process of sub-oxidation and acidity, often exhibiting itself in rheumatic and gouty symptoms. That these symptoms are not marked in the larger proportion of cases does not argue against the blood state or constitutional con-

dition underlying both. Unfortunately the microscope has not revealed to us any one essential in regard to the true nature or etiology of psoriasis, although several suggestions in regard to a parasitic or microbic origin have been put forth; I imagine there are few, if any, who give credence to such accounts. What the future will develop, if anything, in regard to the etiology of the disease no one can predict, but it is believed that our knowledge of the disease will be advanced by closer clinical observation and study of large numbers of cases, and it is in this belief that I have ventured upon the present analysis and study of the disease.