Thesis.

Psoriasis,
with special reference to treatment.

by

Robert McKenzie Johnston,
M. B., C. M.
of the University of Edinburgh.

April 30, 1883.
Psoriasis

with Special Reference to Treatment

Introduction

When an author launches a book into the world, he generally, in his Preface, to offer his readers an explicit apology for the appearance of his work. He intends it to fill "a wide spread want" or he hopes that "it will remove many of the difficulties felt" in the study of some particular subject.

In presenting, for the consideration of the Faculty of Medicine of the University of Edinburgh, a Graduation Thesis, it is fortunately unnecessary to formulate any such apologies but it seems reasonable, that the writer should give some slight explanation of how he overcame his first great difficulty.
difficulty—namely, that of selecting a subject and, also, what guided him in his decision. The selection of a subject to be discussed in a treatise, intended to occupy a reasonable compass, is by no means easy. Medicine, surgery, and Gynaecology, are so intricately interwoven that it seems difficult to isolate any one subject of moderate scope.

In choosing Periopharyngitis and its treatment as my subject, I have endeavoured to keep clear of the subjects which may seem hackneyed as these subjects, and I have also been aided in my selection by the fact that during the past year, I have taken a special interest in this disease—though at the time with no idea of utilizing it for my thesis—and have been watching the results of various forms of treatment but especially, that of a new form of treatment, by Pilocarpine, about which I shall say more hereafter. In addition to this I feel how important in both hospital and private practice is the successful treatment of cutaneous diseases.
The dermatologist feels most keenly the loss of confidence or appreciates, the increase of faith in him, which his patient exhibits according as he may be unsuccessful or successful in his treatment of him. There is no class of diseases which causes its subjects so much real annoyance, worry and discomfort, while accompanied with so little real danger to life as does cutaneous disease. From these reasons as well as from their comparative frequency, they are diseases of the greatest consequence to physician and patient alike. 

Psoriasis is comparatively speaking a common complaint. In the Vienna Hospital it occurs once in every 500 cases of general disease and, among skin cases, it is reckoned as occurring in the proportion of 1 to 16. The experience of different observers, however, varies considerably as to its frequency, possibly from different local causes. Thus, Sabra gave 1 case of Psoriasis in every 60 cases of skin diseases coming to hospital; Devergie as
many as 1 in 7; Dr. James Gordon 1 in 14; Dr. Call Anderson 1 in 10 in his hospital and about 1 in 10 in his private practice. English observers find the sexes nearly equally affected while Krebs found in 60 cases only 17 females.

In discussing this subject in the following pages, it has been my endeavour to place, in as concise and readerable a form as possible, the views held by the various authorities consulted while drawing such conclusions as may seem necessary between opposing views.

Classification and Nomenclature.

Nearly every writer on dermatology has thought it necessary either to adopt some form of classification or, at least, to modify some existing form, and, from this cause, as well as from the different nomenclature used by the older writers, considerable confusion has arisen. Very briefly, let me sketch the development of the classifications generally accepted.
in the present day, after which, I shall refer to the nomenclature of the diseases we are now considering.

As usual we turn for our earliest information to that great physician and philosopher Hippocrates (B.C. 480) who established an etiological classification by dividing skin affections into (1) local and (2) constitutional diseases. This system was afterwards adopted and modified by Lomy (Paris 1777). It is one of the most scientific systems that has been suggested but unfortunately the etiology of cutaneous disease is not founded on a sufficiently certain basis, to enable us to make full use of it.

Galen (A.D. 131) attempted a topographical classification taking the region of the body affected as his ground work. Thus he divided these diseases into those affecting (1) the head and (2) those affecting the body. This system was made use of by Alibert in his first classification.

In the early part of the 17th century, Riolanus (1610) arranged skin diseases according to their appearances and his crude...
Scheme was developed by various writers into the Classification of the present day.

Planch (Vienna 1776) was the first who adopted this system, out of which he formed 14 classes according to the morbid appearances found to be present; but he fell into the serious mistake of classing stages of the same affection as separate diseases. This system, much modified, became the basis of the celebrated classification of Bellan.

Bellan's Book, which appeared in 1808 and was completed a few years afterwards by Dr. Bateman, is undoubtedly the greatest work of his time on cutaneous Medicine. To him we owe, not only, the classification which bears his name but, also, the simplification of cutaneous nomenclature and, what is most important, an exact description and definition of the individual diseases. He divided all skin diseases into 8 orders, classifying them according to their external appearances. There are many objections open to this scheme for example we find that he assembles together in the same...
order the most dissimilar diseases, such as, Purpura with scarlatina, and Erysipelas with Pemphigus, while the separation of variola from rubella is equally objectionable. His 8 orders are:

1. Papulæ
2. Squamæ
3. Erythematæ
4. Bullæ
5. Vesiculæ
6. Pustulæ
7. Tuberculæ
8. Draculæ.

and into the second of these he places, Pemiasis.

Abert (1810) in what he calls his natural classification divides "skins" into 11 groups according to their natural affinities. Into the 8th of these, Dermoatozoa, Distemper, and Tuberculo, he placed Pemiasis and Erysipelas. He has found but few followers and in this country none of note that I am aware of.

Presume Abert while adopting Willan's nomenclature has produced a natural classification on anatomical-physiological grounds. He makes four primary divisions into which he places all diseases of the skin. These are:

1. The Diseases affecting the Cutis.
2. The Diseases affecting the sudoriferous glands
3. The Diseases affecting the sebaceous glands
4. The Diseases affecting the hair and hair follicles

Many other schemes have been proposed by various writers but too numerous to consider in detail. Sebra, Helmann, Buchanan, and others have adopted classifications of their own based on anatomical or pathological principles, and with a nomenclature that differs little from that of Oilman and each of them presenting certain distinctive points and possessing more or less advantage.

From the works of the older writers, we have abundant evidence to show, that Boiasis was well known to the Greek, Roman, and Arabian Physicians although, considerable and confusion has been caused by the different terms used to represent this disease and the different diseases called by its name. Among the Greeks and Romans diseases described as Sebra, Alphos, Leces, Lichen and Psoa; and among the Arabian diseases described under the names of Tumorloca, Albarac and impetigo were
very frequently recognizable by their descriptions as the affection which, we are now considering. The term Periakiasis was used by the ancients, although in a different sense to the meaning attached to it now, for we find Hippocrates and Galen using it to denote a pearly eruption situated on the face and genitals and Poera has often been used to indicate scabies. Hippocrates makes a subtle distinction in using the term lepra holding that, it should be classed among external blemishes rather than as a disease; he also thought that it affected some internal surfaces, as the bladder.

Paulus Aeginata, in contrasting lepra and Poera, says "Both these disorders are characterized by a roughness of the skin..... from a melancholic humor. But lepra affects the skin deeply, in circular patches, and throws off scales like large fishes. Whereas Poera is more superficial, and variously figured and throws off brown-like substances."*

Much confusion was caused by the Arabian in the earliest writings who, erroneously af-

* William's cutaneous diseases.
plied the term Leprosy to the true Leprosy.
So Billan is due, the credit of first having accurately defined and described this disease but he arbitrarily divided it into two diseases, Lepra and Psoriasis. So this Leprosy especially, as well as many other writers, strong objects and I cannot myself pin his reason for maintaining this separation into two diseases of what is evidently one depending, as it does, only on a slight difference in form. Erasmus Wilson continues to describe these two diseases separately although he is compelled to acknowledge that they are "almost identical." The distinction which he draws between them are stated in his book thus:—
Lepra—"hype trophy of the skin greatest; patches circular in form, most elevated above the surface, healing from the center, never attaining a large size; scales thick regular in structure; most amenable to treatment." Psoriasis—"hype trophy of the skin less, patches irregular in form, not elevated, healing irregularly, always attaining a

large
large size, and often involving the
greater part of a limb; scales thinner,
irregular in structure; less amenable to
treatment.*

This subdivision I hold to be an unnecessary refinement in diagnosis and, as most physicians in the present day do, I intend to use the term Psoriasis in its widest sense.

Appearances. The disease known as Psoriasis is characterized by the formation of a more or less thick aggregation of layers of shiny, pearly scales, situated on a thickened, somewhat raised, red base. The scales are easily separated, leaving behind a surface which often bleeds from innumerable little points. These pearly masses vary, being most abundant at the commencement of the attack and diminishing as the irritation becomes unperceived in the skin. The scales leave no cicatrices, do not tend to ulceration or suppuration, and cause no pain, further than a slight itching sensation.

* Sixth Book of Diseases of the Skin
  E. E. Wilson
When the disease is first breaking out we see a number of papules (foot-terms punctata) which rapidly increase until they resemble in size as well as appearance "drops of molten" (po. punctata), but these two stages are generally found to coexist on different parts of the same skin. If the above forms increase in size the rings coalesce and a large tract of skin may become covered with scale, but the scales are not nearly so numerous in the centre and often almost disappear leaving a ring-like appearance (ft. hum. miliaris, punctata, diffusa et invertebrata).

It should be understood that the names mentioned above in brackets do not refer to different varieties; they are but stages in the same disease. The affection may stop short at any stage or, it may go on through them all, gradually spreading over the greater part of the skin. So such a use of these terms, I see no objection, provided the generic name is always maintained but, to the tendency which does exist of multiplying terms unnecessarily. 
describing the same disease under separate headings according to its situation on the body. I do emphatically protest. In this way E. Wilson describes separately no less than 16 varieties of psoriasis, such as, psoriasis ptyalica, ps. labialis infraorbitalis, ps. vulnorum, etc. There are no constitutional symptoms in this disease and little or no pain unless the skin is universally affected and then, over the joints, becomes tense and cracks. There is never any exudation like what we always see in Eczema. Here is almost no part of the body that is safe from this disease but it generally first attacks the external surfaces of the elbows and knee joints; in fact, so usually is this region affected that it is looked on as a diagnostic sign. It seems to have a preference for the lip and arm but is often found on the trunk, face and head but never on the surfaces of mucous membranes. It seems to avoid the surfaces most commonly the skin of Eczema, such as the axilla. The palmar of the hands and soles of the feet are
almost never affected in simple psoriasis.

If, they are affected, along with the facial surfaces generally, it may confidently be looked on as a case of syphilitic psoriasis. The nails are also sometimes affected.

Very rarely, nearly the whole surface of the skin may become affected or it may be restricted to smaller areas, as, below the patella or on the elbows where it may exist for years almost unnoticed and causing no discomfort. A typical case of this disease is seldom difficult to recognize but still it may in some points bear resemblances to other diseases such as, Pityriasis rubra, Ichthyosis, Sezema, Squamous, Leborrhoea, etc., but a careful examination into the history, pathology, and external appearance will generally enable us to diagnose the disease.

Etiology: Of the causation of Psoriasis I must acknowledge that we know very little and, the many writers on this subject have managed to produce a formidable
list of causes, without throwing much light on the subject. The number and variety and opposition of the supposed causes should at once put us on our guard, for though it is possible that some of them may act as exciting causes yet, it is scarcely credible that the most opposite conditions and occupations should unite in producing this one disease. In order that we may appreciate the extraordinary onedness of assumed causes, I will mention a few of them. They are: climatic changes, flatulency, fainting, Rheumatism, dyspepsia, syphilis, Cholera, the irritation of dust, dirt and some silicious materials, mental emotion, certain articles of diet, drinking cold water when overheated, &c. &c. The variety of opinions held is, possibly, due to the anxiety which both patient and physician exhibit to lay hold of some definite cause for every disease that comes under their notice, and the eagerness with which they seize upon any prominent fact, as proof of their opinion. A patient suffers from pericardia and at the same time he works at some dirty occupation or, he is brought into hospital suffering
from acute alcoholism. At once, the occupation on the one hand or, the intemperate habit on the other hand is made, be a few leading questions, to appear as the undisputed cause of the disease.

Oliver (than whom few men are entitled to speak with more authority on skin diseases) speaking, with his usual decision, denies the possibility of any of the before-mentioned causes producing psoriasis. Instead of the men who work in dust and dirt, he says, rather that he notices that waiters, butchers, who require constant ablutions, are more liable to this disease.

Freemen Wilson looks on this disease as caused by a specific poison which may be transmitted through several generations. He also believes that hereditary syphilis is a prevalent cause and he even gravely suggests "mental emotion" as having produced this disease.

Many good observers have asserted that there is a close relationship between psoriasis and joint and rheumatic diseases and Jackson lays great weight on...
this and the former, in his text book, describes the "Gouty" as a variety having special characteristics. Galen also held the same opinion. Gaskell believes that Psoriasis is very often associated with Asthma but whether the disease is caused by deficient performance of the respiratory or circulatory processes, he is unable to state.

The majority of dermatologists, however, agree in one point and that is, that Psoriasis is hereditary. In a large majority of cases careful questioning will elucidate this, even where from family pride there is a tendency to conceal this information. Besides this, although I do not believe that the Gout and Rheumatic diathesis are actually causes of the disease, yet there seems good reason to allow that they modify the disease in some way and may act as exciting causes when the Psoriatic tendency already exists. Further than that the disease is hereditary, we know nothing with certainty and we must rest content with Silbury Fox's judicial punning up of "causes unknown".

There is little doubt that Syphilis is not a
cause of Lepra Vulpae or Psoriasis for patients suffering from this disease, are often marked by health and robustness. Here is a variety, called Psoriasis Lyphilitica, and not an uncommon one, but it can be recognised by its special characteristics. Psoriasis is not contagious as was at one time supposed.

Proprosis. This disease, if left untreated, may run a long course for months or even years but, under proper treatment, it may generally be made to disappear, though it is true, in the majority of cases, only to return at a later period. Relapses generally do occur in every case and they may do so every year, at some particular season, or after an interval varying from 1 to 10 years. Anderson records a case in which the eruption always reappeared whenever treatment was discontinued. It is a very rare thing to find no recurrence of the disease after a first attack has been cured. It is a disease most commonly seen in adult life, but it may be found at any
any age but it seldom appears before the sixth year.

Psoriasis, uncomplicated by other disease, is very rarely fatal and, then, only in the diffuse variety, where the greater part of the skin is affected and the patient becomes worn out by pain and exhaustion. The disease, when general over the body, is much the obstinate under treatment.

It is impossible to predict how long an attack will last or how long will intervene before the eruption reappears. If, however, we remember that psoriasis guttata and punctata are early stages and psoriasis gyrate etc. are more advanced stages, we may infer that the former case will last for some time while the latter may already be subsiding.

Although psoriasis may exist along with almost any other disease yet, it is noticeable that those affected by it are very generally robust and otherwise healthy people. In fact, cases of psoriasis ought to be much sought after by Life Offices if Herba is right as his statement that is
In no single case of leprosy has he met with a patient suffering from disease of the lungs, heart, liver, spleen or any other internal organ.

McCall Anderson, however, asserts that he has noticed a hereditary tendency to phthisis in patients suffering from this complaint, an observation which I cannot find out has been confirmed by any one else, unless it be by Gachouin.

When leprosy is hereditary in a family, like gout, it often passes over a generation and Gachouin says, a father with leprosy may beget a child who will have eczema.

A damp climate seems to aggravate this affection and to render its treatment more protracted, and patients we learn, have relief from this disease after residence in hot climates. Dr. Billie tells us that along the coast of Cornwall the disease was so prevalent and so troublesome that at one time numerous hospitals were built for the reception of its subjects. This seems likely to have been a mistake, on his part, due to the confusion existing between lepra.
and true leprosy. In short then, the disease is a tedious one, difficult to treat and liable to return but not dangerous to life or health.

Pathology. Since the time when Hebra said that he could find no change either with or without the microscope in the papillae or other dermal structures of the parts affected with Psoariasis, during life, much attention has been paid to the Pathology of this disease. With improved apparatus and new methods of observation, much new information has been acquired and Hebra, having repeated the experiments of Heumann and others, has gladly acquiesced in their results. Among those who have done most to advance this subject, I may mention, Gort two, Heumann Rindfleisch, Dr. Robinson of New York, an old Edinburgh graduate, Dr. George Kii, Allan Jamieson and others. There is no great difference of opinion, in the present day, as to the morbid anatomy of the disease but very little is known as to how this morbid change is produced.

Hebra
Hebra states, in his work on skin diseases, that the change in Poriasis consists in an unusual development of the rete mucosum, infiltration of the connective tissue of the papillae with cells, more especially, around the vessels, and person effusion into the interstitial spaces. These views were found on the investigation of Petri and Henneberg and confirmed afterwards by Hebra and his son-in-law Kaposi.

Kaposi excised portions of affected skin and, by microscopic examination, found the papillae enlarged to 12 or 15 times their normal size and further, found their vessels distended and tortuous and, from this enlargement and distension, he argues that the circulation in these structures is impeded, (communication before the Society of Phys.), and thus is produced the sharp contour seen in patches of Poriasis.

Gustav Lieber presupposes a condition of chronic inflammation which is the cause of the excessive formation of scales, in that, the newly formed epidermis is continually separated from the corium beneath by
the accumulating exudation beneath.

Robinson's paper on the Pathology of Psoriasis is the most complete and valuable production on this subject yet published, found that the earliest change was a growth downwards into the edges of the interpapillary epidermic projections. The dilatation of the blood vessels, transudation of serum and the exudation of white cells, making up the main total of the pathological condition present in the papillae, he looks upon as a secondary change. He lays stress on the fact, that, in his observations, he never found in the abnormal tissue, the papillae approaching closer to the corneous layer than they do in the normal structure. At this point Dr. George Ship entirely disagrees with him for he found that though the interpapillary projections of the peta unicum were several times deeper than in healthy skin yet, the parts covering the papillae were much thinner than normal. This is well shown in the accompanying drawings taken from Ship's paper on the Pathology of Psoriasis.

(a) New York Medical Journal 1878
(b) British Medical Journal 1881
Figure I represents a magnified section through a psoriatic patch, while figure II shows a similar section taken through the healthy skin next to the psoriatic patch. By referring to this drawing, it will be seen that therete mucosum, m., is much thinner in figure I than in the healthy skin, and the horny layer h., is much thicker in the diseased than in the healthy skin. This will be readily understood from this why, on the forcible removal of scales, bleeding so frequently follows. This has endeavored to ascertain whether the hyperkeratosis is the cause of the affection of the epidemics or whether a primary affection of the epidemics is the cause of the inflammation. After a careful examination of the question he has come to the conclusion that the epidemics is first in fault. Robinson, however, with demurrage, looks upon the hyperkeratosis as the essence...
of the disease and as the healthy pête mucousum disappears, in its place, there is a rapid formation of cells that lose their vitality but do not undergo ordinary horny metamorphosis. He says "the disease is local at the commencement, always remains local and never affects the general system." Dr. Allan Jamieson of this city has also paid much attention to this subject but his experiments have been in the same line as Robinson's and have lead him to the same conclusions.

I was unaware until yesterday when I happened to take up a new work on skin disease by Professor Nythe of Chicago that an attempt had been made to prove the parasitic origin of psoriasis; but such is the case. Lang of Limespruck has succeeded in finding a fungus of low organism. This he has called a dermatophyton but the nature of the organism, if it really exists, must still remain sub judice. It seems to me quite possible that any low organism might find in the dead scales a suitable habitat but it does not follow that it should

*Diseases of the Skin by Professor Nythe of Chicago*
be the cause of the disease.

Dr. J. Lebure Fox (before the Med. Soc. of London 1878) said that psoriasis was a reverted overgrowth of the pectoral cuticular cells, not due to inflammatory hyperemia but that it was a true tissue disease in which the trophic nerves probably play the chief part; at the same time qualitative blood states as in gout and struma undoubtedly greatly modify and influence this disease.

We can pretty accurately see the nature of the pathological changes but how or why they are produced we are in complete ignorance.

Before turning to the treatment of this disease it may not be out of place to notice very briefly one or two points about the functions of the skin.

The proper performance of these functions has an important bearing on the health of the individual and we may presume that they are more or less interfered with by many of the diseases of the skin. Any interference with the proper action of the skin may produce serious arrangement of
Some internal organ and Fourcault has even shown that an animal can die if its skin be varnished over.

The duties which the skin has to perform are five in number; First to act as a protecting covering, second, as a sensory organ, third, as a secretory organ, fourth, as an absorbing agent and fifth, as a regulator of the temperature of the body.

The secretory and excretory function seems to be the one of greatest vital importance. The perspiration consists mainly of water with only 1.8% of solids which are found on analysis to consist of:

1. Sodium Chloride and traces of other salts
2. Fatty Acids, such as formic and acetic
3. Neutral fats and cholesterol
4. Ammonia (urea) and possibly other nitrogenous bodies

Many attempts have been made to find what amount by weight is lost from the skin in a given time and Dr. William Good has performed some elaborate experiments to ascertain this. He estimated the average cutaneous surface in man to be 23.04 sq. in.

*The Structure and Functions of the Skin by William Good M.D. 1832
and the loss by weight from such a surface to amount to 4 lbs. Per. This is much in excess of the results obtained by Seguin, Lavoirier, and Abbevieve when making similar experiments.

I have noticed that in Psoriasis, the diseased skin does not perspire or only with difficulty, so, if a large surface be affected it may cause the patient some discomfort and I have seen in Chronic Eczema and in a case of Pemphigus foliaceus, affecting the whole body, great relief from pain and general discomfort by diaphoresis procured by pilocarpin.

The question whether local remedies act merely locally or constitutionally turns also upon one of the functions of the skin. Prof. Waller did not believe that the unbroken skin was an absorbant and made many experiments in support of his opinion. He pointed out that the urine of people who inhale oil of turpentine smells strongly of violets while this does not occur after its external use. Against this, we can place many facts, such as, that causticides applied to an unbroken skin
skin occasionally produces strangury and, again, Westrum (Journal hebdomadaire No. 7) detected ferrocyanide of potassium in the urine of a man who had taken a bath in which salt was in solution. The body also increases in weight by long immersion in fluids. The absorbing power of the skin when the cuticle is unbroken is very small but there is no reason to suppose that drugs applied may not act on the constitutional as well as produce their local effects.

Treatment.—Few diseases, if any, have been more variously treated than Poriacs. It seems as if at one time or another the whole British Pharmacopoeia had been brought to bear on it, and the numerous drugs and methods of treatment advocated by various authorities, have all been credited with greater or less curative results. Nevertheless, it is necessary to confess that this disease is often very intractable and a bona fide cure is difficult to obtain. Many of the vaunted successes credited to various forms of treatment may possibly
be accounted for by the tendency which the eruption exhibits of disappearing periodically but it is equally certain that a return of the disease after it is apparently cured is the rule rather than the exception.

In early times, all kinds of treatment were based on the theory that the disease was due to "an impure humour" existing in the blood. This had to be removed and most energetically. The older physicians endeavoured to get rid of it by the haemato-cathartic method of treatment. Local applications were long centuries looked upon with fear. It tended to be removed, to drive the disease backwards or to produce a metastasis to some internal organ. Even in comparatively recent times, it was not thought right to make use of local treatment until after a patient had gone through a course of bleeding and purging.

The Greek physicians always commenced their treatment in this way, but they depended after this on such external applications as alum, pellion, drug of goats
or foxes, human urine &c.

Galen, we are told, had great faith in the flesh of Vipers; Harrius in Cucumbers; Man- cells in a plant called Britannica, the Hellebores &c.

Oribasius tells us that "Vipers flesh is of a dry, if not moderately heating and powerfully resolving quality; it operates more especially on the skin, through which it expels precremental substances from the body." (billias)

Billias found great benefit from baths whether pimple or mineral and had great faith in the sulphur waters of Harrogate, Guisford and elsewhere. In this Dr. Billias disagreed with him.

The exhibition of Mercury has had a long and extensive trial from the earliest time and it is terrible to think with what consequences to the constitutions of the unfortunate patients brought under its influence. It is impossible to do more than name some of the drugs which have been used for this disease. For, to mention them individually would take up more space than is at my disposal.
disposal without any corresponding advantage. I will, therefore, only mention a few of them and then turn at once to the consideration of the treatment of the present day. These are: Solanum nigrae, Heladaea leaves, Pulmatilla, Tobacco juice, Quina, Cautic acid, Eau bich, Conium Maculatum, Sarsaparilla, Sarsaparilla, Antimony, Binoxide of Thoracence, Graphite, Barium Chloride, Mercury salts, Antirrino-Kali (a solution of calomel in caustic potash) &c. and which may all be said to be equally efficacious but not equally harmless. Diuretics, such as Juniper, Uva arus, Digitalis &c. were often used. Treatment by a prolonged course of purgation must of necessity undermine the patient’s constitution and go with many of the depressing drugs used.

In more recent days, treatment, though still empirical, has made great advances. Great faith is placed in local treatment, without any fear of bad results, while constitutional treatment is not forgotten.

General treatment. Arsenic seems to be our sheet anchor in cutaneous medicine...
and, not less so, in Perivas. Many physicians adopt this as their only treatment but most combine it with other internal or local treatment. The preparation of arsenic used is not of great importance; Fowler's solution, Pearson's or Donovan's may be prescribed in the usual way or the Asiatic pill (arsenic and pepper) or a pill of arsenic and opium which Sibra strongly recommends, where there is any intolerance to the drug. As far as my own experience goes, I think the curative effects of arsenic alone have been overestimated and if it is to show good results, it must be long continued and given in very large doses.

Siff of Gras has obtained good results by the hypodermic injection of 1/6 grain of arsenic daily. Allan Eganieson has tried to show the rationality of the action of arsenic basing his remarks on the observations of Quan, Ringer and Murrell in the journal of Physiology, Vol. I, 1878. He says, it (arsenic) attacks the columnar cells near the derma and probably stimulates the cells of the epidermis to exhaustion so that destruction ensues.
Cod liver oil has been recommended especially by those who believe in the septiculent relationship to this disease. Among these are Serafin and Living but Serafin says it is powerless against herpetic.

Carbolic Acid was first used internally in the disease by Demain and with considerable success. Humeur considers that it is useful in an early stage but quite useless when the disease has become chronic, as it has no action on the thickened tissues. By experiment with frogs he has determined its action, when given in a small dose, to be, acceleration of capillary circulation. In using it we must keep in view the possibility of inducing fatty and granular changes of the hepatic and renal epithelial cells.

McCall anderson has published some excellent results with this drug but mentions chronic cases as especially suited by it. Living thinks that it is most useful in the non-specific variety of the disease.

Copraiba - In the journal of cutaneous med. society Dr Purdon of Belfast records a large number of successfully treated cases by copraiba
I have no experience of this treatment and
am not aware that it has been tried else-
where, to any extent.
Colchicum, Quinaeum and Sodicum of Potassium
are all of value in combination with other drugs
in the Gouty or Rheumatic forms, but by them-
selves they are quite unable to cope with the
disease.
The ancient diet has received considerable at-
tention for in early times, it was customary
to deprive the patient of meat and to re-
strict him to vegetable or milk diet. More
recently Passavant of Frankfort asserts that
he has cured the disease by an exclusive
diet of meat.

How wonderful, how with such defective ap-
pliances at hand, the ancients seem to have
had such an accurate knowledge of disease
and its treatment, and how often we find
that a newly adopted line of treatment was
in use centuries ago. Thus arsenic was used
long ago and Galen and others used tar
and tar water, a method of treatment,
re-instituted in several of the more elegant
preparations of the tar derivatives.
Dr. Rapier recommends strongly the use of Cuprophanic Acid internally in about 1/2 grain doses with which he has had excellent results in Glasgow. He argues that it has a constitutional as well as a local action and he says that much less is required by using it in this way and we also get rid of one of the great objections to its use, namely, the staining which produces skin, nails and even the hair and the under clothing.

Sulphuric of Cauterization has received a fair trial but it is never likely to come into general use for, as Hebra pertinently remarks, if it does no harm to the psoriasis, it does to the patient as he has seen albumenuria and haematuria follow its administration in this disease.

Pilocarpine. I have mentioned that formerly purgation and diuretics was the method of treatment adopted but I wish now to mention a form of treatment by diaphoresis which I have had the opportunity of trying.

I have often noticed that patches of psoriasis will only disappear with very great difficulty and in addition to that we have a

* The Lancet 1882

Clinical
clinical fact recorded by Lacassini, that residence in hot climates often benefits this complaint while a return to temperate climates will often cause the reappearance of the eruption. Further, in many cases, the eruption disappears in the summer and returns in the autumn and winter when the activity of the skin is at its lowest point.

I have mentioned that Berkim looks on the patches as produced by impeded circulation and there can be little doubt that trunculation of oxygen and hyperaemia are always present. Now this is a condition which I believe is likely to be relieved by powerful diaphoresis and by using use of pilocarpine for this purpose. I have tried to decide this question. Besides relieving the condition of hyperaemia, I believe that the pilocarpine has a local stimulating effect and encourages a free tissue change. Before making use of pilocarpine myself, I had heard that Dr. George Balfour had used it in a case of scabies with excellent results so, I determined to try it out, with this exception, I am not aware
that any one else has made trial of this drug for this disease.
The method of administration which I first adopted was to give a hydromonic injection at bed time of the following solution:

R. Pilocarpini & nitricis, gr. 8
Chlorali. Hydatis, gr. 20
R. dest. ZVA. et s.

Sig. 10 m = 1/3 of a grain.
The patient was dressed in a blanket and from 1/6 to 1/3 of a grain injected and when sweating had ceased his clothes were changed and he was pulled dry.

Some patients objected to the use of the needle and sometimes great pain followed at the point of puncture; so I felt both the trouble and inconvenience of such a plan. I therefore determined to make trial of the drug internally. After trying various combinations I adopted the following method as the most simple and causing the patient least discomfort:

R. Pilocarpini & nitricis, gr. vi
Extracti foetidiae, feii
at first pil. mass. Divide in pil. xii
Sig. one pill at bedtime.
at first I was a little anxious as to the result of so large a dose of what we are told is a very depressing drug, and I anticipated considerable trouble from vomiting. This I found not to be the case for I found in several cases that tolerance was established in 2 or 3 days, the patient not vomiting, feeling little discomfort but generally falling asleep while a copious diaphoresis went on.

I have tried this treatment in eight cases with excellent results in four, in two there was marked improvement but the disease was still present when I lost sight of the patient. In two other cases I saw no improvement. One of them, a girl of 25, a cook, with paroxysms of both arms and legs of rather an acute type seemed better to have a slight out break of the eruption in fresh places under this treatment but her curiously scarred the stilbamidine, even when given hypodermically, failed to produce any visible perspiration. The other case was that of a strenuous looking boy of 13 and here again the patient did not seem to perspire under the action of stilbamidine.
I have not tried this treatment on a sufficiently extensive scale to be able to speak definitely of its results but I am satisfied that it is worth a more extended trial. One of my patients, I may mention, who had undergone a long course of arsenic without benefit, was so satisfied with the pilocarpinic treatment that he implored one to give him "to needle" when I refused discontinuing it.

Local treatment is now looked upon as of the highest importance and of the preparations most recommended I will mention a few of the best. There are:

1. Cryptophanic Acid
2. Pyrocallie Acid
3. Tar and Laxy preparations
4. Henton's Soap methods
5. Alkaline warm baths
6. The Linerneum dressing.

Cryptophanic Acid was first brought into action by Dr. Spurz and is undoubtedly an external remedy of the highest value. It is generally used of about the strength of ten grains to 31 to the 31/8.
simple ointment or vaseline. This is of special value in the chronic cases for if there is any acute inflammation about the part it may be too irritating and rather make the eruption worse than better. It is besides a very dirty application so much so that many patients refuse to use it. It gives the evisceration of a deep purple and may similarly affect the skin, nails, and even the hair. D. Adams quotes a case (Edin. med. Journal, 1878) where the hair originally white rapidly assumed a bright canary color, ending in a fine purple.

Pyrogalluric acid is one of the recent additions to our treatment of this disease and it has found a warm advocate in this country in D. Hui.* He says it was first used by Janisch but Kaposi and several other continental dermatologists have used it since. Hui used the acid as an ointment of a strength of 1 to 10 and came to the conclusion that it was a remedy of great power but one to be used with caution and not over a large surface at a time. This caution is evidently not uncalled for. Kaposi has

* The Lancet 1881
been alarming appearances of strangury and
erosion of olive green urine, with symptoms of
prostration. Preisser had a fatal case under this
administration, but in all these cases the ointment
was used over an extensive surface. Prof.
Hyde of Chicago admits its value as a remedy,
but looks on it as inferior to Cuprophane Acid.

The tarry preparations stand well in favour
and efficacy as external applications. The
simple pitch ointment was formerly much
in vogue but from its dirty appearance it
has given place to some more elegant
preparations.

McCall Anderson, who has given careful
consideration to the treatment of skin diseases,
instead of the pitch liquidae, prefers Jupeti's
solution of tar, or liquor carbonis detere
t. The oil of Cade (Juniper) long em-
ployed by veterinary surgeons has come
into extensive use of late; and the
oleum Ruscii (white brisk) is also rated
worth of trial.

Tar and Ammonia have been said to be
capable of curing any case of poisonos...
and undoubtedly they in great measure form up the treatment of this disease. Nebran has largely used the immersion of an alkaline soap, with friction. The patient is rolled in a blanket after having the soap rubbed into the back with considerable force. This is continued day after day until the skin bleeds and the scales are removed and during all this time he is not allowed a bath or to get out of his soapy blanket. I have never seen this treatment carried out but it seems to me to be so cruel and painful a plan that the patient would rather choose the disease than the remedy.

Warm baths whether pure or medicated do certainly soften the cutis and add much to the patient’s comfort. By themselves I do not believe they are capable of effecting a cure but they naturally and reasonably form an excellent addition to more rigid treatment. Sulphur baths and some of the natural springs have acquired a considerable reputation in treating this disease but as they are generally composed...
with some additional treatment it is difficult to estimate their share in any result. Sulfur internally and locally has been much used, but Hebra is strongly against it, for he says, that it generally increases the eruption. This we may readily believe for it is not an uncommon thing to find eczema produced as a result of a too energetic application of sulfur ointment for scabies.

The lime-water dressing has been used with much success by Hardy at the St. Louis Hospital just as it has been applied with great advantage in Eczema. Hebra has given this a trial but thinks that the sulfur contained in the India-rubber has some share in the good results. Anderson has found this treatment of special advantage in Psoriasis palmaris.

I think that by a combination of internal and external or local treatment we ought to make an impression on most cases of psoriasis but we must
not be discouraged but persevere and in conclusion let one point out that all these remedies do not act alike; one remedy will act best in one case, and another succeed where perhaps our usual remedies have failed. It is a great mistake to pin one faith entirely to one remedy in any disease. The man who never acknowledges himself as beaten, who has never reached the end of his resources, is the man who will succeed in Medicine.

List of Works Consulted

Robert Willan on Cutaneous Diseases.
Professor Hebra on Diseases of the Skin, vol II. (Sydenham Society).
McCall Anderson, on Diseases of the Skin.
Erasmus Wilson, on Diseases of the Skin.
Tilbury Fox, on Skin Diseases.
Leidor Rennumae, Text Book on Diseases
of the skin, translated by Dr. Pullar.
Thomas Bateman, Practical Synopsis of
 cutaneous Diseases
William Booth, M.D., on the structure and
 function of the skin.
John Paget, M.D., an essay on the classifi-
cation of skin diseases
Professor By the (Chicago) on Diseases of the
 skin.
George Shea, M.D. on the Pathology of
Allan Jamieson, on the Pathology of
Psoriasis, Edin. Med. Journal 1878
M. Rayner, Traité Théorique ... de la peau.
George Yackin, on Psoriasis or Lepra
R. Living, M.D. Handbook on Skin
diseases.
George Shea, M.D. on treatment of Psoriasis
by pyrogallic acid (Lancet 1881)
Alexander Kaphier, M.D. on the internal
use of Chrysophanic Acid (Lancet 1882)
Malcolm Princis, Manual of the diseases
of the skin.
M. Albert, Monographie des dermatoses.