A Clinical Study of "Pityriasis Rubra"

James Murray M.A. M.B. B.Ch. M.R.C.S.
Surgeon to Northern Infirmary, Montreal.
I have had under my own observation during the last twelve months, such a well marked example of an interesting but obscure skin disease, which has been rarely seen even by skilled Dermatologists such as Helbra, Tilburg Fox, Freams, Wilson, Jonathan Hutchinson and others, that I have resolved to make it the subject of this Thesis, which I respectfully submit to the Medical Faculty for approval. I shall endeavour to show that, though it has many resemblances to a few other skin diseases which appear to be allied to it, yet, at the same time it possesses a character of its own, which gives it a clinical individuality and marks it out as a skin disorder different from those which are usually met with in other
in hospital or private practice.

The term *Psoriasis* (πτύφωνας Ἀρπαν), when afflicted to a skin melalcy points, generally speaking, to superficial congestion of the skin, accompanied with a furfuraceous or brown desquamation. In their monograph, we find it afflicted by

author to 3 distinct diseases, viz:

1. *Psoriasis Versicolor*: a favorite affection when fine brown scales can be rubbed off the skin - a rare variety of this affection described by Willan, in *Psoriasis Nigra*, which he had seen on the skin of young children coming home from India.

2. *Psoriasis Grisles*: a common skin affection, which is a sign of nutritive debility - in the hair it constitutes one of the varieties of "Dandruff".

3. *Psoriasis Rubra* -

The last mentioned variety which is the one
I am about to describe a subject first mentioned by Bateman in his work on "Epidemiology," but the reader will allow me to state that it is not an attempt to eliminate it from many skin disorders which appear to resemble it, such as general Osoreas, general Pomegranate (rubrum and spumoso), and Lieber Ruber.

Devergie in his "Traité pratique de maladies de la peau" gives a good account of the peculiarities of this disease; and does his best to assert its independence, but he attributes character to it, which have not been noticed by subsequent observers such as the illustrious Debra, Fox, and others.

It will be as well, before discussing the nature of the disease, and its relation to allied skin disorders, to give a clinical description of it as seen by myself, and of those seen by others.

The following are the details of my case:
Margaret M—, aged 40, lady's maid, enjoyed the best of health till October of 1879, when she noticed for the first time, a red eruption on the skin, covering the face, neck, and hands. In a few weeks, the whole surface of the body, save the space between the axillary fold and the crest of the ilium, was covered with an eruption, deep red in colour, smooth to the touch, slightly depressed by pressure, accompanied by profuse desquamation, but no moist exudation. While this general congestion, or hyperaemic state of the skin, was settling over the body, the patient complained of pain in the back, as well as languor and weakness in both upper and lower limbs. During the night, the burning heat of the skin kept her from sleeping, and brought on nervous hysterical attacks, such as she had not previously been subject to. There was no disturbance of the intestinal, nor of the gastro-intestine,
Tract. Her appetite was good and the catamenia regular.

The desquamation showed various types, according to the locality of skin attacked. On the face and among the hair it was 'Scabby' or brown, on the neck and chest, while thick scales or flakes could be seen arranged in an imbricated fashion. On the arm, it was brown; on the buttocks, thighs, and legs, the desquamation resembled that seen on the neck and chest, but the flakes were larger and more yellow in colour. The flakes were piled one above the other, like the leaves of a book. The shedding of the scales was excessive; they lay about the bedclothes and on the floor around the bed in large quantity.

During November and December, the skin became more deeply congested. The skin on the legs was of a dark blue-violet tint, and it was oedematous. The face became so much
swollen, as to almost close the eyelids. The disc was doubled for days or two.
from limited portion of the skin leaving it smooth to the feel, natural in colour, and free
from irritation with an absence of any deposit or thickening. Such a leprous spot of another
generally proved of short duration.
During the spring months, the infection was slightly
improved by treatment, but the pain in the
lumber region of the spine, and the weakness
of the limbs increased; so that the patient
became almost prostrate. She was unable to
d-climb a stair, and dragged her legs after
her, when she attempted to walk.
Said the patient confiding herself, on taking
carriage, exposure to a cold west wind, which
increased the congestion of the skin in fact;
inflamed it, so that, on some places, a scab
the ears and face, the infection assumed an
eczematous aspect. The skin on the neck became very red, seedy and corrugated, but quite dry.

I was enabled by the treatment which I shall afterwards describe, to keep down the profound depression, and alleviate the burning irritation of the skin, but quite well. To check the intractable habit which the skin had contracted of having recurring attacks of hyperemia, followed by shedding of scales. During the Summer and Autumn of 1850, the disease presented nearly the same appearance as I have already described. The patient became much more languid, and weaker. At least, she failed to lose the power of her limbs, and was confined to a couch for bed. During this stage the congestion might disappear from certain portions of the skin, but toward night fall, she generally began to complain of burning irritation, and next morning, the
Hutchinson's Lecture on Clinical Surgery Vol.1
"On certain rare diseases of the skin"
Page 243
The said portion was seen to be again hyperemic.

Sometime, I found her febrile, with pinch fade, and slightly elevated temperature.

During this winter, the hyperemia and irritability of skin has elevated considerably, but the constitutional symptoms, such as fever, in the back, and general florescence, are as pronounced as ever.

Her skin, once healthy, is a dirty yellow appearance; her effloresce is overseen, and the thirst is excessive.

Mr. Jonathan Hutchinson's lecture on Clinical Surgery on "various diseases of the skin," gives an account of a well marked case closely

I shall then insert the details of this case:

Mr. Wellman, aged 77, of fair complexion and in general health enjoyed fair health during her lifetime. Her skin has always been remarkable

for its alabaster-like clearness.
Her skin was usually dry, and did not perspire easily. She, and all her family, were very nervous. In September 1863, the skin disease began, she had been feeling quite well until suddenly she observed her hands and arms unusually red, and she had intolerable itching on her neck, between the shoulders, and over the loin, and buttocks. In the course of two or three days, the eruption was out over the entire surface of the body. The trunk and limbs, with the exception of the hands and feet, were everywhere red, and covered with the brown flakes of epidemicia. This was an accumulation of scabs, whatever; when the epidemicia had healed, there was not the slightest moist exudation, but the skin remained red and dry. On the arms, there was very little desquamation, but the skin was red and brown. On the buttocks, the epidemicia accumulation was thicker, but still, pink, dry.
This was no tendency to form patches.
Her hands and feet presented great peculiarities on the sole and palms, the dry epidermis had accumulated in successive layers of exfoliation, until a mass, an inch in thickness, was formed. The scales in this mass were arranged like the leaves of a book. Beneath the nails, was thick epidermis accumulation, which lifted them from their bed.

Her scalp was covered with dry crust, until the hair nestled amongst them. Her was not the slightest tendency to smoothness, or smell.
Her nails grew long, and clear like crystal.

The quantity of epidermis lost daily was very large, she said "a dustpan fell". It fell off at every step. Large patches formed an inch or two across, might be felt, from any part of the legs, or arms.

Her tongue was clear, and affable, moderate.
See Plate XXX of New Speller's Society's Atlas.
Under treatment, the congestion and irritation improved slightly. This patient without end made a good recovery. Her skin and nails returned to their original condition and she enjoyed excellent health for several years. Her recovery was not attributable to any plan of treatment; and occurred indeed, after all special measures had been abandoned.

Mr. Nelson's case furnished the original for the portrait of Pityriasis Rubra in Plate XXX of the new Sydenham's Society's Atlas of skin diseases.

From it we see that the skin is universally invaded by an intense congestion—flakes of epidermic exfoliation are seen on the legs. Beneath the toes and finger nails, are seen thick scales. Although the skin in theBLACK looks only red, and devoid of scales, it was not in this condition all through the disease.
following description of the disease as seen by
him in 3 cases.
In Erysipelas Rubra there is nothing more than
an intense redness, diffused over a large part
of the skin, or even universal, disfiguring
beneath the从前 of the finger (when it gives
place to a yellowish escharosis) and accompanied
by the presence of fine white bloodless adherent
scale, which result from the constant shedding
of the most superficial layer of the cuticle.

There is no considerable infiltration
of skin, no pustule or vesicle in form, no
scraping is found from the surface.
The itching is slight, and lastly, particular
region of the body are rarely affected;
the whole surface of the skin being generally
affected. On its course it is slow - the
'colour of the eruption on the lower limbs,
was of a bluish red, and soon venous-like.
than that on the upper limbs.

Towards the end of life, the skin gradually became pale, and ultimately of a dirty yellow tint. The progress is a gloomy one. Little by little, the patient loses flesh and strength, till at last they die of exhaustion.

According to Helbr's experience, such cases had invariably a fatal termination.

Helbr's account of the disease fits in very much with the description of Margaret H.'s case. Moreover, however, the itching and irritability were not slight, but severe.

In Mr. Nellham's case, the general health was good, and the patient made a good recovery, though not in any way owing to the treatment she had undergone. Helbr's gloomy prognostics will not apply to her case.

A marked feature in Margaret H.'s case, was the evidence of the nervous system being out of order.
Tilburg fox "On skin diseases"
Third edition
Page 254
She had pain in the back, and weakness of the limbs, before the eruption broke out, and they persisted all through her illness. She was also subject to hysterical turns and very easily excited.

William Fox states, that he has not observed the extreme nervousness and death, described by Hebra, resulting in English people. In the case of Margaret M., there certainly is a gradual emaciation going on, and Dr. Brough has a gloomy one.

When well-marked examples of Phthisis Pulmonalis come before us, such as I have described, none can have little difficulty in detecting the disease. It is, otherwise, when minor forms, or examples of imperfect development, come under our observation.

C. Hutchison remarks, "It is impossible, of course, in the highest degree, that Phthisis Pulmonalis
should be a special affection of the skin without
cells, a disease 'qui generis'. The probability
is that we shall find it; as we have done so many
others, shading off into other disorders, showing
their peculiarity, and losing its own, until con-
cerning some example of it, debate may breach
rancor, whether or not they ought to be called
by its name."

The other skin disorders with which Pilgrims
Rubor may be confounded, are General Psoriasis,
or Psoriasis diffusa, general Eczema in the stage
of melora, or squamosum, Lichen nitidus, and
Pemphigus foliaceus. As Hébreu Raphaël,
"the distinction between Pilgrims Rubor, and these
diseases, must be made rather by negative, than
positive characters."

1. Eczema — This is essentially a continued
inflammation of the skin, and goes through the
stages of Pruritus, efflorescence, vesication, and
scurvy, it generally attacks people out of health. It is seldom universal. It is influenced by treatment. Eczema rubrum may have superficial resemblance to the hyperaemia of Pityriasis Rubra, but the skin is moist instead of dry. Eczema Squamosum may resemble Pityriasis Rubra, so much so, that Heber (Page 91) uses E. Squamosum as a synonym for Pityriasis Rubra. The history will guide us in distinguishing the two maladies. The skin is infiltrated with inflammatory product in E. Squamosum, not so in P. Rubra, where the skin is firmly hyperaemic and followed by desquamation. There is no inflammation of the skin and there may not be any change in the Connective Tissue. Of the hyperaemia itself, very persistently, the skin of eczema may get the best.

2. Pityriasis — Ecz. P. Rubra, the disease occurs in persons who, to deal of attack, have
of. et f. 255
enjoyed good health, but the health is not
injured by the invasion of the disease. It is
amenable to treatment. To push from Thibury
Fox: "In Psoriasis, the disorder is not so general,
while P. Rubra is universal, Psoriasis much
more gradually spreads over the body, and does
not entirely cover it. The scales are greasy in
Psoriasis, red, yellow and flaky; and if removed,
small bleeding points become visible, from the
fact that the capillary vessels in the superficial
layer are torn open. In P. Rubra, the
hyperemia explains all the changes; not so in
Psoriasis, in which disease the amount of cell
growth is by no means in direct ratio to the
degree of hyperemia, or vice versa. It is
perfectly true, that in all standing chronic P.
Rubra, a certain amount of thickening from
hypertrichoem growth ensues. It is.

3. Lichen Ruber. In this disease, the
eruption consists of distinct red papules, which are covered with a few minute scales. They are not scattered over the whole surface of the body, but are confined to certain parts of the skin, especially that covering the limbs. The skin is infiltrated with inflammatory products. In some cases, the skin is seen to be universally reddened, and covered with numerous thin scales, so as to closely resemble Pityriasis Rubra; but on careful examination, papules will be seen forming on some portion of the skin. This disease is not quite obstruct to treatment, some cases having been cured by Arsenic.

4. Pemphigus foliaceus— resembles P. Rubra, on account of the large yellow flakes that are sometimes thrown off on the site of the bullae. However, the presence of the bullae on other portions of the skin will at once
determine its nature.

Cause — We can only speculate as regards the cause of Pitipeci Rubra.

Theoretically speaking, we look in skin disease, for the seat of the primary mischief in the blood, the tissues (cell and fiber) and in the nervous system.

There is no evidence in Pitipeci Rubra of there being any alteration in the blood, as there is little or no disturbance of the nervous tract, and of the temperature of the body, such as we observe in accompanying the rash of Syphilis, the Exanthemata, and in that resulting from the administration of certain medicinal drugs.

If the seat of the mischief lay in the tissue, we would expect to find the skin thickened and upon microscopic examination, to observe enlargement of the papillae, with florid red
cell growth going on around the vessel of the pericardium, such as is well seen in Pericarditis. Dr. Pithures in Rhazes, there is nothing more than a hyperaemia of the offer layer of the caviar, which lead to hypertrophy of the caviar. This hypertrophy slips off in the form of scale, or flakes. If the bone were to get rid of the hyperaemia, it would be natural to the colour, and to the feel. Tilburgson says, that in these cases in which a Post-mortem has been made, no change has been found in the skin.

We can with more facility search for the 'foulest orgo meal' in disorder of the Nervous system. In the case of Elizabeth M., nervous symptoms, such as weakness in the limbs, Hysteria, and pain in the back, success in the eruption, and these symptoms increased as the disease progressed. The gradual
emotion that is going on, may be accounted for by the fact, that the function of such an important organ as the skin, has been interfered with for so long a time.

Hutchinson remarks: "It may be noted, as of interest, that in several of the cases, I have procured joint from very fresh at first, and in one, the patient was almost comatose for a time and that in several, intolerable itching in the middle of the backs united with the eruption.

Physiology tells us what an important role the Nervous system play, in regulating the tone of the blood vessels, either by dilating or contracting them. The vasomotor nerves which govern the blood vessels are in connection by their fibres, with both the Sympathetic Nervous System, and the Spinal Cord, so that any disturbance of one or other of them
nervous track, might lead to a dilatation of the ephyparic, and consequent hyperaemia. Seeing that in some cases, of P.Raven, such nervous symptoms are observed, as would lead to a suspicion of disorder of the spinal cord, I am inclined to think, that the function of this central organ are so interfered with, that its power, through the sympathetic and spinal nerves, of regulating the color of the blood vessels is lost. The cutaneous ephyparic, los their tone, they become dilated and give rise, to a general hyperaemia of the skin.

TREATMENT: The treatment which was adoptively one in the case of Margaret M, was as follows: For the first few months, she was treated with Ascomic given internally, and tar ointment rubbed over the whole body,
of. c. h. f. 256.
as recommended by Mr. Jonathan Hutchinson. The tar diminished the shedding of the scales, but rather increased the "burning heat," which the patient complained of, so much, and which gave rise to such restless nights. It had no effect on the congestion of skin, if anything it made it worse. The Arsenic, after a long trial, had no effect on the disease.

Tillburg Fox in writing on the treatment of the disease states, "Taking the view that the disease was essentially a hyperaemia dependent upon disturbance of the Sympathetic nervous system, and feeling that I had to do with a sensitive surface deprived of its natural protective layer of epithelium, I adopted a plan of soothing and protecting the hyperaemic skin, and to my astonishment obtained remarkably good results."

Acting on Fox's advice I went in for the
sooting plan of treatment

Emollient baths, composed of Bismuth of Soda, Brim and Sulfur, were taken three a week before going to bed. The patient, on emerging from the bath, was thoroughly dried, and then had her whole skin anointed with olive oil. The skin was kept constantly soaked in the oil both night and day.

Nothing proved more serviceable than the olive oil in keeping down the desquamation, softening the skin, and, above all, allaying the troublesome burning irritation, which the patient complained of during the night. 9 times, by way of experiment, he got rid of the hyperemia by administering hypodermic injections of Emetic (D 3 grains) twice a week; this was unsuccessful.

The mineral bath (Sulfur) at Strathpeffer Spa was also tried, but without effect.
Dietetics, such as Digitalis and Quicks of Potash, were given to relieve the skin of work, and they found very serviceable. Tonics and nourishing food were given to improve the general health. My experience, and that of others, who have written about the disease, is, that it is quite impossible to cure it by the agency of drugs. In the majority of cases, the disease proves to be incurable. Some cases, after lasting for a considerable time, may suddenly get well; but this happy result can in no way be attributed to the treatment which may have been adopted.

In conclusion, the tendency of the dreadful skin malady—

1. To attack persons, who up to the date of attacks have enjoyed good health.
2. To become universal
3. To resist treatment
4. To produce exudation, and gradual
   fellation, mark it out distinctly from
   all other skin diseases, which might
   effect to resemble it on superficial
   observation.