Thesis for the degree of Doctor in Medicine.

Observations on Pemphigus.

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Pemphigus, including all its forms, is a comparatively rare disease. Hebra records that during an experience of twenty years, of ten thousand cases of illness, only one was Pemphigus.

Sir Erasmus Wilson states that of ten thousand cases of skin disease, seen by him, nineteen were of Pemphigus. I find the proportion of Pemphigus to other skin diseases is as one to four hundred.

Fatal cases of Pemphigus are extremely rare. Hebra and Willan deny the existence of acute Pemphigus. Cases have however been recorded in recent years.

Of this disease - Pemphigus - I have lately met with two cases. One case ran a chronic course for some months and then assumed an acute form from which he died. The other was a case of acute Pemphigus complicated with Purpura.
## Case 1.

<table>
<thead>
<tr>
<th>Name</th>
<th>David Bryan.</th>
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<tbody>
<tr>
<td>Age</td>
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<tr>
<td>Occupation</td>
<td>tailor.</td>
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<td>Birthplace</td>
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<tr>
<td>Place of Residence</td>
<td>Onslow, York.</td>
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<td>Date of Examination</td>
<td>June 18, 1890.</td>
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<tr>
<td>Complaint</td>
<td>Feeling of weakness.</td>
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<tr>
<td></td>
<td>Cyanosis, dilatation of chest &amp; pleur, spots on the skin.</td>
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<tr>
<td>Duration of illness</td>
<td>About Six months.</td>
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### History

**Hereditary Tendencies.**

Patient's parents are both dead. The mother died when he was two years of age, he believes in child bed. The father died seven or eight years ago, aged seventy; apparently from suicide. Patient is one of a family of four, a brother about forty years of age is fairly strong, but is believed to suffer from weak action.
The sister died at the age of twenty-one from consumption, another from cancer of the lung. Patient has three children, two of whom are living. One died from bronchitis when between six and eight years of age. Her was always delicate. The eldest is a girl eighteen years of age and suffers at times from a bad throat, enlarged tonsils. The other two are boys aged fourteen and thirteen years respectively, both are healthy and strong. Her wife is fairly strong and active. She has not had any miscarriages. There is nothing of importance in the health history of this more remote ancestor.

Habits as to food and drink:

Takes largely of butcher's meat, often two or three times daily. He however always little plenty of fresh vegetables. Takes very freely of milk to each meal, quite covering his bread with it. Has not taken alcohol at all of late years and never much. Drinks milk, tea and water.
General Surroundings at Home & at Work.

The house is situated in a healthy locality in a rural district. It is large & well ventilated. The workshop is attached to the house, is spacious & also well ventilated. One of the house drains, about a year ago, was very offensive.

Previous Illnesses & Accidents.

In later years he has been subject to chronic colds & cough which were difficult to get rid of. The has never had any fever or other serious illness & indeed has always been in health as strong as a horse. He has suffered from simple joint for two or three years. In November 1890 patient suffered from slight bronchitis (for which he consulted me) & was then quite free from any skin affection (AR). He has had no accidents.

Time & mode of origin & course of present illness.
About six or seven months ago began

to suffer from a feeling of general
weakness, cough, inability to work
peculiar sensation in head, soreness of
throat. He could not assign
any probable cause for these symptoms
unless it be "from sleeping in a
damp bed."

About the end of December
small red spots appeared on his
back, shoulders & chest upon which
in the course of a few hours, small
blisters formed which were very
irritable. The blisters grew larger
& broke & were replaced by scabs.
In a short time others appeared on
the chest. He was seen by Dr. Nelson
P. Anderson who saw him some weeks
before & told him to wash with ESF-soap.
Within a week or two spots came on
his mouth & throat. After this until
the middle of April he did not
consult anyone, but had heard
from friends who told him
that they had cured many such.
case with it. However the spots
spread very rapidly covering the
greater part of his chest and back.
Sometimes the eruption appeared
as blebs without any preceding red
spots. Some blebs were as small as
a pea, others the size of a bean.
They were quite separate from each
other. He noticed that after the blebs
had formed they soon began to dry
and to form scales which he often picked
off. Others detached off in great
numbers. He had thought he had
scabies. The blebs as they appeared
caused him no actual pain but
merely itching. The scales also, were all
flakes, very irritating.
He was seen by Dr. Gilling for life
insurance about the middle of April.
He refused however to be examined then
on account of his condition & wished
him to proceed.
About this time his chest was thickly
covered with blebs & his throat was
sore. He was attended by Dr. Gilling
for about three weeks from when he received medicine & gargles. The eruption & the condition of his throat improved somewhat, although he states that he did not feel greatly benefited. For six weeks afterwards he did not consult anyone. During that time the blisters began to reappear rapidly on his back & chest. His throat became worse & feeling anything he came to consult me on June 18th, 1890.

Commentary on History

Patient is a healthy man in the prime of life, with a good hereditary history. He has always lived a regular life, has not been addicted to the excessive use of alcohol & has been generally temperate. There is no history of syphilis or any other constitutional disorder. His occupation did not prevent him taking open-air exercise & has always existed under healthy conditions. A peculiarity in this which may
Names on Perambulations

A salubratory hour

Sweeping the history of a well
observed house case

It may have one there.

[Signature]
has been harmful to the taking
of a large quantity of tea daily.

By December 1890 patient felt
that he was in his usual good
health. Towards the end of this
month, without any apparent cause,
a red papular eruption appeared
over part of the back and was quickly
followed by formation of bullae.

At any one time there were both papules
and bullae in various stages of development.
During the continuous process the
temperature was never observed to
be raised above the normal. About
this time his throat became sore.
He then, for the first time, consulted
the resident medical man of the
neighbourhood - Dr. Kelso & Dr. Gilis.
I was since seen Dr. Kelso & Dr. Gilis
\& have ascertained the opinion each
formed of the case. Dr. Kelso hardly
considered the rash as it was
not well defined, but he thought
it was not syphilis, neither does
I remember what other words he

prescribed. He had known patient for many years & known him to be steady, strong & healthy.

Dr. Gilling said he examined patient in April, who was then suffering from a copious rash on the chest & an ulcerated throat. In his opinion patient was suffering from Syphilis & Psoriasis.

There was a history he said of a swelling in the throat having burst down which he believed had been a gumma. There was a well defined ulcer left, it was not deep, but had punched out edges & was situated he thought between the anterior & posterior pillar of the fauces. The rash was most perfect on the chest & he thinks there were spots on the cheeks & aspects of the upper limbs. He gave the following mixture

Alb. ac. 8. 3. VIII.
Sp. hr. Nux V. Three daily after food.
Photograph of patient taken a year before present illness.
Under this treatment Dr. Girling said patient greatly improved & after three
years did not again present himself.
With regard to the lumps in the
throat, a history of which Dr. Girling
elicited, it was probably a blot which
had broken. The improvement which
followed Dr. Girling's treatment probably
resulted from the arsenic which
the medicine contained & not from
the other antiscorbutic ingredients.

Present Condition—June 18, 1890.

General Facts.
Patient is about five feet seven inches in
height & fourteen stone in weight. He is
of a robust healthy appearance. Large
amount of dark hair on face & body
generally. There is a slight tendency
to baldness over the front of the scalp.
He is well developed & muscular.
(See recent photograph on opposite page)
His expression is slight. Amorous.
His attitude natural. Temperature
Normal.

Integumentary System.
Scattered irregularly on the front of the thorax & extending over the abdomen to the umbilicus were to be seen numerous crusts, varying from the size of a threepenny piece to that of a shilling, of a light brown colour. Many of which were easily removed leaving a purplish brown disfigurement. Some were hardly discoloured at all & left no pigmentation. Some of the crusts were adherent & on removal caused slight pain. Repeated a raw surface from which oozed a little blood, there was no defined ulcer left.

Amongst these crusts were here & there patches, not nearly so numerous as the crusts & varying in size from a pin's head to a sixpence, a few being larger than the latter. The intervening skin was of a healthy appearance.

The blister were mostly oval, some were circular. They arose directly from the skin having no zone of hyperaemia surrounding them. They were filled with a watery-looking fluid. Some were tense,
others somewhat flaccid. None contained pus or blood. From some the fluid had escaped & on removing the loosened epidermis there was a moist & vascular core exposed.

Over an area an inch or two in circumference around each nODULE there were no blebs or crusts. On the back extending from the spine of the scapula to about the middle of the lumbar region were numerous crusts & blebs. The blebs were here in excess of the crusts & were similar in size & appearance to those already described. None of the blebs had coalesced. The nails were well formed & quite natural. There were a few burras scattered on both arms.

Alimentary System

The lips are healthy. The teeth sound & well formed, gums slightly spongy with a tendency to bleed, tongue fairly clean & not red. On various parts of the buccal mucous membrane collapsed bulbae are seen with the epithelium
closely attached. Some are on the gum under the upper lip. A raw surface oval in shape about the size of a shilling is seen on the soft palate at the base of the uvula, with ill defined edges which are not punched out. The tonsils are not enlarged & there are no ulcers upon them. His appetite is good, but he is afraid to eat, especially solids on account of the pain felt on swallowing.
His bowels are regular. Motions natural. Defecation is good & the alimentary system generally is healthy.

**Hemopoietic System**

The lymphatic glands are apparently natural. The thyroid gland is considerably enlarged but it does not cause any difficulty in breathing.

**Circulatory System**

The pulse beats seventy-five times per minute. It is strong, regular both as to time & force, & of good tension. The arteries are well filled between the beats. The arterial coats are not
Heart. There is nothing abnormal found in the heart.

Respiratory System.
His nose had during the last few weeks been rather sore, so that patient had to use his handkerchief frequently. The discharge was occasionally tinged with blood, but was not offensive. He had no cough. In every respect his respiratory system is healthy.

Urinary System.
He has not been passing more than an ordinary amount of urine. It was not examined until a few days later.

Reproductive System.
There is nothing to be found abnormal.

Nervous System.
The nervous system is practically healthy. He complained of slighty disturbed sleep owing to the itching.

Locomotor System.
Natural.

To summarise the main facts:
(a) The general body surface.
(1) Mucous membranes.
(2) Lg mouth.
(3) Lg nose.
(4) Gastro-intestinal track unaffected.
(5) Urinary system unaffected.

Diagnosis

The appearance seemed to resemble in some respects a syphilitic eruption but having known the man personally for many years & being unable to elicit any history of syphilis I was uncertain as to the nature of the disease.

Treatment

(a) Medicinal

The administration of Arsenic, in the form of Fowler's Solution, was the chief medicinal treatment. It was given thrice daily after food in doses of five minims along with a small quantity of wine.

A weak solution of Permanganate of potash was given as a gargle.

(b) Dietetic

He was directed to take largely of
Milk & soda water, beef tea, soups, eggs beaten up in milk, light puddings & fish.

[Italics]General Directions.[/Italics]

He was ordered to take exercise, short & salt in the open air, to work as little as possible & not to have less than eight hours sleep nightly.

[Italics]Further Reports.[/Italics]

Patient presented himself again in five days time - on June 23 - when there was very little change to be seen in his condition, the scars were very irritable.

He was ordered an application of roast from & vaseline to be applied frequently. I noticed some half dozen fresh blots about the site of a shilling on the skin covering the upper border of the right clavicle. They contained a quantity of watery looking fluid, one however had collapsed & on removing part of the epidermis I exposed an
Succeedingly, red & painful sore from which was boozing a quantity of clear serous fluid. His throat was more painful.

June 25th. Several of the larger blisters above the clavicle had run together. The epidermis having become detached there was left an ugly & painful sore, which was dressed with the tincture. There were a few smaller blisters on the abdomen & some scattered over the arms.

The urine was normal & J. F. about 1015. No albumen, no sugar, slightly acid. The arsenic was increased to eight minims three daily.

June 30th. There were no fresh blisters visible. Many had dried, forming crusts. A good number of these had fallen off leaving as before a purplish & somewhat pitted & surface. I detached a number of crusts, exposing in some cases a moist surface, which however in a few days became recrusted.
The crusts were light & feathery & mostly of a pale brown colour. Some however were darker & some were silvery.

July 3rd. Decided improvement. No fresh bullae. Mouth very sore & the place above the clavicle showed no signs of healing. The urine was again normal, the bowels were slightly constipated. The arsenic was continued, but I substituted Cascara sagrada for the aloes & added eight grains of Cnidaria & Potassium Jodide three times daily, in the chance of their being a syphilitic cause. Borax & hyssop were prescribed for the throat.

This treatment was continued until the 10th when there was still more marked improvement. As regards the eruption, the place above the clavicle was still painful & from it there still oozed a good deal of serous secretion. The throat was no better & the nose was rather
painful - I prescribed an ointment of Bismuth, Cresylic & Calamine to be applied on man to the painful part.

There was hardly a blister to be seen & very few crusts. Patient felt much better.

July 12th. Very sore & discharging.

Slight headache & one or two small blebs on the upper lip.

The Bichloride of Potassium was discontinued.

On the 14th there was marked improvement in every way. Glycérine of Tannin was prescribed for the throat. I decided to stop the Arsenic & observe the results.

I had mixed a mixture of Sulphate of Magnesia, Carbonate of Magnesia & Peppermint Water to act on the bowels.

From the 14th until the 19th patient continued to improve & on the latter date a few fresh blebs appeared on the back.
On the 21st a large number of bullae were seen scattered irregularly on the back & chest. Of the same appearance as before. The Arsenic was again prescribed, increasing the dose to ten minims thrice daily, also a grain of grey powder night & morning.

About this time I noticed a peculiar mode of formation of some of the bullae. They did not appear as either red spots or blisters but the epidermis in certain parts became coarsened, giving the appearance of collapsed bullae. By using a little pressure with the finger the epidermis could be removed & under it was seen an inflamed area. In a few hours these became fully formed bullae containing a quantity of fluid. These coarsened patches corresponded in size to the fully formed bullae & the blisters thus formed were similar in character to the former ones.
On the 26th I added small doses of Perchloride of Iron to the mixture of Arsenic as he seemed slightly anaemic.

29th A few blisters were still forming others were rapidly crustuling over.

On the 1st of August the bowels were very obstinate. The tongue coaled & there was loss of appetite. Mouth very sore. The grain surface on the neck showed no signs of healing. Discontinued the iron.

August 5th. Few fresh blisters but on the whole decided improvement. Urine was again examined & contained no trace of albumen.

August 7th. On this date J[ohn] W[illiam] G[ladstone] of the Edinburgh University saw the case with me & we went fully into the history & could find no trace either in the symptoms or in the history to indicate Syphilis.

The Arsenic was continued in the minimum doses in an infusion of J[ulian] J[ohn] S[ir] in three times daily.
after food. He was prescribed a
glass of Tincture of Myrrh & Chloral
of Potash & the affected parts to be
washed every night with Anna's
over-fatty potash soap.
9. Great comfort from the use
of the soap; there were no fresh
bullae. There was general
improvement, excepting the throat,
which was still painful.
12. The place over the clavicle was
nearly healed. The throat was a
little better.
On the following day the 13th August
Dr. Walter of Huddersfield of the Bath Hospital was the case
with me. From this date I left
the patient in charge of Dr. Goudie, who
was my locum tenens, but after the
15th patient did not present himself.
I did not see him again until the
8th of September, an interval of
nearly a month.
I now felt practically sure patient
was suffering from Chronic Pemphigus
Commentary on the treatment & progress.

Under Arsenie patient undoubtedly improved. The lodige of Potassium caused a speedy Coryza, which was accompanied by the production of fresh bullae on the outer surface of the upper lip. On giving up Arsenie blisters began to reappear & although the dose was increased they were more difficult to get rid of. The second time. Iron in the form of Salts did not agree with him. The lodige & Vaseline relieved the itching, the application of Bismuth, Tartar Emetic & Vaseline soothed the sores.

There was little or no evacuation, no Constitutional disturbance, no cachexia. Urine examined was always normal. There was no pyrexia & always a good pulse. Patient was cheerful but anxious.

History of Patient from August 15th to September 15th (during which time...
I did not see him.

Patient stated he had been advised to see an herbalist and after my departure had done so. He was told "the doctors" had been treating him wrongly, in fact were killing him, by keeping the discharge in, when it ought to come out.

He was given various medicines, gargles, ointments, which patient said had brought out the discharge splendidly after about a week's treatment. He had walked to the herbalist's house a distance of two miles several times, but during the last ten days or so was unable to do so. The herbalist had once seen him at patient's own house, about a week ago, but not since.

On my return, believing the patient to be better, or attended by another medical man, naturally I did not seek to see him, then hearing he was dangerously ill and that it was supposed I had been treating him...
writely, I felt it my duty to call at the Parkes, when the nurse gave me the above information.
Being asked to treat them again (although having been accused for not bringing the discharge out) I agreed to do so on condition that we immediately had a consultation of Dr. North of York. Dr. Byrd saw the case twice with me.
At the time I saw him, he was sitting in a chair shivering and in an exhausted state, with a blanket thrown loosely over him. His condition may be judged of from the photograph (although taken two days before his death) since an almost exact representation of his condition, his eyes and face, head only differing.

**Description of Patient's condition to the time of death. Fourteen days (Sept 9th - 22)**

**Integumentary System.**
The skin covering each clavicle along
Photograph of patient taken two days before death.

Observe large clot at the outer angle of the left eye. The white areas are all due to adherent tissue' protein. The intervening surface of the chest is necrotized.
its entire length and about an inch wide, was in its normal state (see photo). Bulles of variable size encircled for an inch or two each nipple. Almost the whole of the trunk from the clavicles to within an inch or so of the umbilicus presented an appearance similar to that of a Severe Scald.

The epidermis in parts was entirely removed leaving a raw surface, from which there was oozing a serious discharge at points bleeding. The remainder of the epidermis with the exception of a few small points of normal skin could be removed at will.

The greater part of the upper posterior including the skin over the shoulder blades was in a similar condition. In the axillary line of each side there was an area of skin stretching from the level of the base of the axilla down to the level of the costal margin, which varied in
Width from one to three inches, which was not recrined as the skin of the back and front, but merely showed scattered bullae. These bullae varied in size from that of a split pea to that of a half a crown. Some were comparatively tense, containing a large amount of serous fluid, others flaccid. None contained pus or blood.

Scattered irregularly over the abdomen were numerous bullae, none however being larger than a split pea, a few were also present posteriorly on the lumbar region. Over each shoulder joint anteriorly were a few larger and numerous smaller bullae. The beard, lips, also of nose, also were our glutinous mass of crust and secretion.

There was a large bull about the size of a half crown on the front of the left wrist, under the whole of the joint was encircled.
There were a few smaller ones on front of the right wrist. The neck anteriorly and posteriorly was in a similar condition of eruption to the thorax. The part next affected was the face by a few small blebs appearing over the malar bones and a few on the bridge of the nose, then on the forehead, especially above the eye brow, then over the whole scalp. The summit particularly being well covered, the largest were the size of a small bean.

There was one on the upper margin of the left ear, later larger ones at the inner angles of the eyelids, then the other. An especially large one was situated at the outer angle of the left eye. A large one appeared on the flexor aspect of each elbow joint, a few smaller ones scattered on both aspects of the upper arm. Those at the elbows rapidly spread until they encircled the whole of the joint.
Photograph taken two days before death.

Observe bullae about the middle of the front of the left thigh.
(This photograph shows only fairly well the appearance of the ulcer.)
About this time Harper blebs the 
size of a six shilling piece, which 
speedily collapsed, appeared on the 
plains, serutum & tourists. The whole 
8 of these parts shortly before death 
was literally a mass of snot. 
Blebs about the size of a half crown 
were seen on each post, first between 
the first and second lots, then 
between the third and fourth on 
the dorsal aspect. Later, a large 
one on each external malloclus 
and a few small ones on the anterior 
surface of each pre arm. Nervs over 
the sacculum spreading to the arms. 
The buttocks were quite free. 
The right leg from the buttock was 
entirely free to the external malloclus 
also the left leg with the exception of 
one or two on the front of the thigh 
(see photograph). The feet were painful 
and had no blebs on them. The sides 
of the feet and the knees were free. 
The last parts of the body affected 
were the hands and conjuncitivas.
On the hands the bullae appeared on the dorsal aspect, between the adjacent fingers, as previously stated between the toes. Then they appeared on the palmar aspect between the digits and later on the palmar surface of each interphalangeal joint. Then on the palmar surface of the thumb and ultimately, the web of the palm became moistened. Collapsed bullae were seen on the inner surface of the eyelids two days before death.

The large blebs were noticed to collapse much earlier than the smaller ones. With the exception of those on the head the bullae did not last longer than two or three days. Those on the head remained unaltered the whole time. None of the blebs showed signs of crusting over except those on the chin and face. The majority of the blebs were oval, some circular and others irregular in form.
There was no red areola round any of them. Each one was preceded by a sensation of burning and some patient great pain as though he had been scalded. The removal of large areas of epidermis caused the greatest agony he often said "God only knows the pain I suffer." The odour given off by the secretions was especially during the first week, most foul and until death it was disagreeable. At death almost the entire trunk was devoid of epidermis. There was no edema in any part of the body neither was there at any time any oedema.

The first few days after I saw patient, the secretion was much profuse, quite soaking through the bed clothing, which had to be changed twice daily.

It was an interesting fact that there was little or no emaciation until two or three days before his
Death.

Alimentary System.
The lips were sore and covered with ulcers, teeth covered with nodules. The gums spongy and bleeding. The tongue at first thickly coated, later, hard and dry, the epithelial covering coming away in shreds leaving the red raw, as also the walls of the buccal cavity. The tongue was only protruded with great difficulty.

His appetite was good throughout, but he experienced great pain during deglutition. The thirst was less, especially towards the fatal termination.

He frequently complained of his throat burning, from right to left, and was sure 'Everything was red raw.' After this he complained of pain after food, then of a burning sensation in his bowels, which then markedly worsened, and was accompanied later with diarrhoea.

The motions were very offensive and contained a large quantity of
Hood and Mucus - There was neither mucus nor vomiting. There was a slight amount of flatus and distention.

**Hemopoietic System.**
The Thyroid gland had returned to its normal size. The spleen was not examined.

**Circulatory System.**
The pulse averaged from one hundred and thirty-five to one hundred and fifty beats per minute. It was regular and well filled, but weak.

**Respiratory System.**
The breathing varied from thirty to forty times per minute the whole time. During the last few days there was a troublesome cough with no secretion. The voice was husky and towards the end he could only whisper.

**Urinary System.**
He passed between fifty and sixty ounces of urine every day, highly albuminous and strongly alkaline. S.R. from 1020 to 1030. Urine contained large amount of urates, no sugar but a trace of albumin. The Cash...
<table>
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<th>Age</th>
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two or three days. He always passed his urine voluntarily.

Locomotory System:

There was no swelling or pain in the joints and little or no wasting of the muscles.

Nervous System:

Pupils slightly dilated. Taste and smell absent. Intelligence and memory natural. Restless and uneasy the whole time. Could not sleep at all during the last few days. Delirious all nights. Better.

Notes on Temperature:

For the last fourteen days the temperature remained persistently above 101°F.

There was an evening rise.

On the evening of the seventeenth inst. it reached its highest point 9 104°F.

The temperature curve was irregular throughout. It sank somewhat towards death. I append the chart on the opposite page.
General Treatment

I am indebted to Dr. North for valuable suggestions.

Good nursing was insisted upon and carried out by a nurse from the Home.

Patient was in a large well-ventilated room, lying on his back and upon a water bed for the first twelve days.

Daily treatment:

September the 9th. To procure sleep fifteen grains of sulphonal were administered in the evening, to be followed by other fifteen grains six hours later if necessary. Sugar Arsenicale (Foster’s Solution) in five minims doses was prescribed three times daily after food, also Cascara Sagrada.

Externally oxide of lime ointment was applied on lid to the greater part of the thorax, back and joints, also an ointment of galls and opium to the more painful
park. These to be removed night and morning.

His diet was chiefly milk and soda water, beef tea, chicken broth, Brand's Essence and tea.

Sept. 10th. Patient felt somewhat refreshed. He had taken thirty grains of Sulphonal and although restless had had a few hours sleep. Large quantities of loosened epidermis had come away at the time the flint was changed leaving an exceedingly raw and painful surface. He had derived great benefit from the opium and gall which was used freely. The secretion from the evacuated areas was enormous.

Sulphonal again repeated.

On the 11th. Dr. North saw patient with me. The arsenie was increased to ten minims and along with it arachin doses of the compound mixture of cinchona with ten minims of Spirit of Chloroform.
The effect of Goulard lotion applied on fluid to the exposed surfaces was tried. We were anxious to see whether the internal or lotion gave the more relief. Patient continued to take this good excellently. The secretion continued to be very successible.

On the 13th, Dr. North again saw patient with me, as he was becoming weak and exhausted. I had ordered him previously five minims doses of the tincture of Stephania to be taken when feeling exhausted. A tablespoonful of brandy in soda water every few hours. Patient had derived much comfort from the Goulard lotion. It was therefore decided that wherever it was possible we should apply the lotion on fluid keeping it constantly saturated. The sulphonal was now replaced by thirty minute doses of Tincture of opium in a
little glycerine and water as the
suspension seemed to be losing its
effect. The Glycerite of Bora was
applied frequently to the mouth
and throat and with it a little
solution of opium and this gave
temporary relief. The greatest
comfort was obtained from sucking
ice. This treatment was continued
until the seventeenth.
On the 17th the Goulard lotion
apparently losing its beneficial
effect was replaced by the Goulard
of Tincture ointment. The raw surfaces
were now not secreting so much.
The eyes being one were bathed
with Goulard lotion but the greatest
relief was got from bathing them
with milk.
On the 18th signs of healing were
seen. There was dryness of the
raw surface and a tendency to
formation of fine scales.
We used as much as a pound
of fine ointment daily.
In Somehne there was slight looseness of the bowels with a sensation of burning in the abdomen. I ordered lime water in place of soda water, also arrowroot and Ginger's powder. If these he took freely. The draught at night gave ease so that he obtained sleep, although not feeling much refreshed by it.

19th. Feeling of burning continued in the abdomen accompanied by pain and diarrhoea. There was considerable delirium at night. Brandy was ordered to be given freely. He had an anxious and distressed appearance on the face. I prescribed the following:

Tincture of opium, Spirit of chloroform and Tincture of Ginger, 8 each ten minims to be given every three hours in peppermint water from this he derived great comfort but was still delirious at night.

20th. He was decidedly worse,
There was rapid wasting of the face and body, with a distressed appearance. Diarrhoea persisted with large quantities of blood and mucus in the motions, which were very offensive. He still took food well, especially arrowroot. There was more delirium at night. On the 21st, he was in a similar condition and on the 22nd at 11 a.m. there was sudden collapse and death.

Commentary on Progress:

Towards the end the symptoms indicated that the disease had involved the whole of the gastro-intestinal canal, attacking firstly the mouth, then the throat, larynx, oesophagus and stomach and lastly the intestines. It is unfortunate that this could not have been verified by a post mortem examination but that was impossible.

The dry cough seemed to indicate that prior to death the bronchial tubes were affected.
It is rather curious that the sores distinctly improved during the course of the disease probably resulting from the use of Arsenic. During the latter acute stage of the disease, the Arsenic which was given in large doses had apparently no beneficial effect on the skin affection. The peculiar formation of some of the bullae, as previously mentioned in describing the chronic stage, was observed in the acute stage, viz. a loosening of the epidermis before the accumulation of serum.

**Differential Diagnosis**

1. The presence of bullae sufficiently distinguished the disease from superficial skin inflammations as psoriasis, eczema.
2. It is inconceivable that at any time the bullae could have been caused by the external application of any irritant—as of campharides, tar, or by the
irritation & scabies.

(3) Off bullous Eruptions in Resembled
Herpes Zoster in so far that it
followed here and there the course
of nerve trunks, notably the Supra
Orbital and Median. But in
this case the blisters were larger than
those of Herpes and there was no
marked aches. The bullae on the
trunk were not arranged in a
regular manner and there was
no neuralgic pain.

(4) As to Pusitis - there was no
history of Syphilis - The bullae were
more numerous and not so flat
The crusts were not conical and
there was no actual ulcer or cicatrix
left.

(5) The disease was distinguished
from Erysipelas in that the bullae
did not contain a purulent liquid
and the crusts were neither black
nor thick.

(6) It was easily differentiated from
Erysipelas by the regular outline
of the bullae, and by their being more raised. There was no edema and the intervening skin was not inflamed, but healthy.

7. The crusts were quite different from the thick yellow brittle crusts of Impetigo.

8. Herpes with its characteristic position on the extremities and the concentric arrangement of Erythema or Helle was readily distinguishable from this disease.

9. It resembled somewhat the description of Hydroa the result of the administration of Iodide of Potassium, as described by Mr. Jonathan Hutchinson (Clin. Soc. Trans. Vol. VIII. 1875). When the Helle first appeared patient was not as far as I know taking any medicine. Later also when I was given Iodide of Potassium along with Arsenic by Dr. Gilling the affection of the skin improved in spite of the Iodide of Potassium. Also
during its administration by myself there was no increase in the rate of formation of the bullae; accepting that bullae were undoubtedly caused to appear on the upper lip by the irritation produced by the Coryza.

Having arrived at the conclusion that it was undoubtedly a case of Pemphigus, the question naturally arises of what form was it. The duration of the case - over eight months - forbids me putting it into the category of the simply acute forms. There were two striking features of the disease, viz., that for the earlier and greater part it followed a chronic form, whilst for the last three or four weeks it was of the acute character. Its features during the chronic stage were such as to prevent me from comparing it with any one described type.

It is most probable that Pemphigus
has been known since the time of Hippocrates and Galen and yet one cannot say with certainty what name these writers gave to it. It was Sauvages who first gave the name of Pemphigus to this disease, describing four forms of it. From this time to that of the Hebra authors differ greatly in the classification and nature of Pemphigus.

It is somewhat strange that some of the most distinguished authors of the seventeenth and eighteenth centuries, viz. Laurie, Boerhaave, Mercurialis do not even mention the disease and later such men as Plumber, Erasmus Wilson, Gilburne, Fox give us little or no information, these being content with subdividing and rearranging the species described previously. These latter men divide Pemphigus into three forms: Pemphigus Acute, Pemphigus Chronicus, and Pemphigus
Pemphigus.
Hebra divides Pemphigus into two forms: (a) Pemphigus Vulgaris, which he further subdivides into Pemphigus Vulgaris Benignus and (b) Pemphigus Vulgaris Malignus (Pemphigus Foliaceus of Willan, Pemphigus Permanens et Continuing of the French, Pemphigus Cachecticus of Schiller).

(2) Pemphigus Foliaceus (Cajewski) Hebra further states (Vol. II, page 372, 1868) "that he has no intention of implying that these are entirely distinct from each other and that in intermediate cases transitional stages are sometimes met with."

The dermatologists of the present day are mostly agreed in dividing Pemphigus into acute and chronic. They subdivide the acute into (1) Pemphigus Solitarius, (2) Acute General Pemphigus, (3) Pemphigus Neonatorum. The chronic form may lead on to a rare and serious form called Pemphigus
Foliaceous.
I will discuss firstly the earlier or chronic period of the disease in my case. In this stage it had undoubted transitional characters following closely in some respects the disease which Hebra has described as Pemphigus Vulgaris Benignus (Vol. II, page 370, 1868) whilst in other respects it appears in close relationship with Pemphigus Foliaceous.

It will be noticed that in the present case the blisters were small, fairly tense and that they began on the trunk and in the mouth. The blisters were accompanied by a good deal of itching and irritation. Sturges (Med. Times 1879 Page 5) says "that the continuous outbreak of small itching blisters extending over a long period of time is always the precursory condition in the almost universal fatal variety of Pemphigus Foliaceus." From this
Description one would be suspicious of it being Pemphigus Foliaceus but Hebra, page 369 says "that Pemphigus Foliaceus always begins towards the periphery", but here it began on the trunk. Hebra also says Vol. II. page 372, the "Hebs first formed from centres round which others exactly the same keep forming, these coalesce with those that precede them". This was not so, with the exception of a few above the clavicle.

We find Pemphigus Foliaceus attacking mostly old women. Such a case is given Med. Lines 1877 page 42. But in the same number, page 61, a case is reported by Fox of a female thirty-eight years who died of Pemphigus Foliaceus. In this latter case the first appearance of a Hebr was formed on the ankle as large as a hen's egg, here although the position agrees with that described by
Hebra yet the age is such that it would not prevent the present case from being excluded as Pemphigus Foliaceus. This latter case too, as described by Fox, towards its fatal termination closely resembles mine, in the acute stage.

In Pemphigus Vulgaris Benignus we find that the previously healthy and strong are usually attacked as in this case.

During this chronic stage there was no constitutional disturbance such as fever, thirst, sleeplessness, anaemia. This appears to be so in both Pemphigus Vulgaris Benignus and Pemphigus Foliaceus.

In Pemphigus Foliaceus the succession of bullae is accompanied by slight febrishness for a day or so. Sansater does not mention this in his description. However this may be in Pemphigus Foliaceus, it is
Not the case in Pemphigus Vulgaris Benignus.

In the case which I have described the blisters were continuous, appearing irregularly and with absolutely no feverishness, whether this was due to the treatment with Arsenic or not I cannot say. At the time Mr. Girling saw the patient there were no blisters but quantities of crusts. This would appear as though the blisters had not been continuous but periodical outbreaks, whether accompanied by fever or not is unknown.

A point in favour of Pemphigus Vulgaris Benignus is that treatment during this period did good, where as in Pemphigus Foliaceus all treatment is said to be of no avail. The contents of the blisters certainly favour the description of Pemphigus Vulgaris Benignus, they were mostly clear and without colour, whereas in Pemphigus Foliaceus they are
yellower and soon become purule
t or have a reddish tint. The
injected blood vessels of the base
are visible through the fluid
(Hebra Vol. II. page 372). This was not
so in this case or in Pemphigus
Vulgaris Benignus. The crusts
themselves very closely resemble
those described in Pemphigus
Foliaceus being of a lightish brown
colour, some almost white and
silvery, easily removed and having
somewhat the appearance of Pemphigus
although the scales were not so thick,
being light and feathery. On
removal some exposed a moist
surface, whilst others a dry one.
In some, the moist ones, the
scales would reappear, in others,
the dry ones, they would not.
The duration of the disease
Corresponds equally with both
varieties.
The duration of the blisters varied
from three or four days to a
went before ending over. This appears to be rather long for
Pemphigus Foliaceus.
The skin during this part of
the disease was not flacid.
I will discuss secondly the acute
stage and fatal termination.
In none of the Authors which I
have been able to consult can I
find a detailed description of
a chronic case of Pemphigus
assuming an acute form resembling
that from which the patient
died. Sangster (Med. Times. page 5
1879) quotes the case of a tailor
aged sixty-eight who died within
three weeks after the beginning of
the attack. The following description
he gives to, in part, almost
identical with my case, he says
"The small bullae became confluent
in many places and gave rise
to large map-like flattened
flaccid bullae, filled with milky
serum and most purulent
Contents, where the blisters had been
ruptured especially on the back.
Whole regions were contoured
the surface being moist with
secretion and covered with streaks
of sodden epidermis as if the part
had been scalded. There were also
found and oval shaped patches
of yellowish skin not raised, and
differing but slightly in appearance
from the surrounding normal
surface, on sliding the finger over
them, the epidermis which had
lost organic continuity with structure,
below, readily became detached
disclosing the moist base.
This case differed from mine in
that the blisters contained pus and
that the disease was complicated
secondary with vesicular and
bullous Erysipelas - Sangster's case
agreed with mine in the fact
that bullae were larger as the
disease advanced, which is not
usually the case in Acute cases.
and in Pemphigus Foliaceous.
The loosened patches of skin observed in my patient were also noted in
Sampeter's case. The only author
that has further noted this fact
is Rayner (Diseases of the Skin, page
210, 1836). Neither Sampeter nor
Rayner speak of these loosened
patches eventually becoming blebs
nor do they speak of them occurring
in any of the Acute cases.
In my case the loosened patches
came blebs and they were seen in both the Acute and Chronic
stages. In some parts of Sampeter's
case the bullae were small and
congregated together, with inflamed
margins, thus resembling an
aggravated form of Herpes. In
patients' case very small bullae were
observed over the left sternal side joint
and above each eyebrow. They had
not red margins and did not
resemble Herpes. Sampeter's case
further differed from mine in
The urine containing a large quantity of albumin, and in several parts of the body being oedematous.

Other cases resembling this are quoted by Dr. Sir Dyce Duckworth (St. Barth. Hosp. Rpts. Vol. XX. 1884).

"Case of Acute Pemphigus Fatal on the Ninth Day."

The patient was a healthy man to within six months of his fatal illness. He was sixty-four years of age. He had had Chronic Tubular Nephritis. Albumen in Urine. Eruption appeared first on the wrist as pimples then blisters.

The temperature at first was 101.4°F and just before death rose to 103°F. The eruption late in the course of the disease assumed a form like this, which was looked upon as a connecting link between Erythema and Pemphigus.

(2) Dr. Southey a case of supposed
Acute Pemphigus (Clin. Soc. Trans. Vol. VIII, 1875). Patient was a girl nineteen years of age. The rash was universal, could not place a half crown piece on the body without touching a blister. The first blister was on the side of the hand, three weeks later had pyrexia and loss of appetite and then succession crops of eruption for twenty one days. This case is believed to have been cured by hot baths as recommended by Hebra.

(3) Dr. Payne. Two cases of Acute Pemphigus with rise of temperature (St. Thos. Hosp. Rapt. Vol. 12. New Series 1882) The first case is that of a male child three and a half years of age, showed characteristic blisters on various parts of the body, those on the face and elbows being the largest. The nails were also affected. This case remained under treatment for three years.
and although arsenic was given in increased doses yet there were severe relapses and the blisters were hardly ever absent. A peculiar feature was that whenever there was a blow inflicted a blister was produced.
The second case is that of a man aged seventy years. It is worthy of note on account of the severity of the eruption and the gravity of the Constitutional Symptoms. The improvement and apparent recovery was undoubtedly due to arsenic.

From these cases Dr. Payne we find that one was cured by arsenic, whilst on the other, arsenic had little or no effect on the eruption. References are to be found of other interesting cases.

By Horand (Lancet, Vol. II. 1873, page 453)
By Cottle (Lancet Vol. I. 1874, p. 528, p. 597)
By Coulpland (Med. Times. Vol. II. 1877, p. 109)
By Bonnier (Med. Times. Vol. II. 1874, p. 642)
Most authors agree that bullae may in some cases, especially in chronic ones, be found on the mucous tract. Charles (Traité Elémentaire des Mal. de la Pear. p. 95. 1853) demonstrated this fact. Albert and Chastel were of opinion that there was a true intestinal pemphigus (idiosynchratic) M. Chastel (Bulletin de la Soc. Canad. Vol. VI. p. 205) exhibited to the Anatomical Society of Paris the intestine of a patient who had died of pemphigus and who had taken bismuth. At different points of the mucous membrane of the small intestine, founded
Surfaces were perceived at the level of which were found aggregations of pus. And M. Chalot believed these were the remains of bullae. Pleyer (page 212. 1835) speaks of an old patient who died of pneumonia, and in whom he was unable to check the inflammation which spread to the peritoneum, the bladder, and bronchiae.

In my own case I believe the disease extended to the bronchial tubes and involved the whole of the gastro-intestinal tract.

Case II

The following notes are from the case of a patient who was treated in the York County Hospital in October and November of 1890 for a bullous eruption, complicated with a purpuric rash on the legs.
The patient was not seen by me until the bullae had disappeared. The history of the case I obtained from the mother of the patient and there were still traces of the purpura when I saw her.

Alice Cooper, aged nine years, the daughter of a labourer, residing at 22, Mansfield Place, York, was admitted to the Hospital on October 25th, 1890, complaining of painful inflammation of the legs and of having suffered from a "slow fever" for the previous week.

There is nothing of importance in the hereditary history. The mother had had no miscarriages and there was no history to be obtained of tubercular disease or of rheumatism. There was no history of any previous illness or accident.

The general surroundings at the home of the patient were distinctly
unhealthy. She lives in a small ill-ventilated house. Had the ordinary ample diet of peasant life.

The present illness began on the 18th of October 1890, with what patient’s mother described as a ‘slow fever’.

She was feverish with burning skin, nausea and vomiting and severe headaches. She suffered from diarrhoea but the motions were natural in colour.

On the third day, the twenty-first little black spots appeared on the front of the face and the same day in the evening they were observed over groups of them. These black spots at first small, rapidly grew larger until some of them were equal in size to that of a hen’s egg and were filled with a clear watery retching fluid. They were preceded by inflammatory redness and were exceedingly...
painful. The redness was confined to those parts which formed blisters and the rest of the skin was apparently healthy. The mother attempted to keep down the inflammation by means of flour.

The pain and the appearance of the legs corresponded to that of a scald, so much so that patient said she felt as though she had been burned or scalded.

The pain at times was so severe as to make her cry.

On the 23rd. One of the blisters, a large one, had broken and had left a raw surface which was exceedingly red but under this red patch could be seen several little black spots.

Patient's mother further states that these little black spots were easily seen through the other blisters.

On the 26th patient was taken to the hospital and admitted.

There was on that day, Counted
Case II.

Pemphigus complicated with Purpura.
In the mother seven boils, four on one leg and three on the other. They varied in size from that of a pigeon's egg to that of a hen's egg. She was very flushed and hot at the time. She was admitted under the care of Dr. Turner, one of the Honorary Physicians. A few days after admittance the boils were photographed by Dr. Eddleston, one of the House Surgeons, by whose courtesy I produced the photograph (see opposite page). It will be noticed from it that bullae are mostly collapsing.

Dr. Turner told me that he believed the case to be one of Pemphigus Complicated with Purpura. He said that the boils at the time of admittance were exceedingly large, being protruded at a distance from the skin equal to their width. They were very tense and several broke open. Dr. Turner further
Slate. Confirming the mother's description that the purpuric spots could very distinctly be seen beneath and similarly under the red surface when the heel had broken. The heel continued to form simply for a day or two and soon detached.

A group of small blisters (see photo) was noticed on one leg and each little heel surmounted a purpuric spot. Round these smaller heels there was no redness whatever but encircling some of the larger heels was a zone of redness.

The temperature was raised at the time of admittance but as the heels disappeared it fell almost to normal. She was dismissed, apparently cured on the 15th of November 1890. When in the hospital she was treated with cod liver oil and iron tonic with light diet.
Remarks on Case.

This seems to have been a case of pemphigus solitarius but it differs in that it occurred in a child whereas pemphigus solitarius is usually found in old persons.

In this case more than a single bullae was seen at any one time. A most curious phenomenon was the aggregation of small bullae each of which covered a purpuric spot. On the other hand under each of the larger bullae were several purpuric spots. I have been unable to find a record of any corresponding case in the literature at my command.

Aetiology of Cases.

(1) Supported Causes.

The causes of pemphigus are unknown. Those usually assigned to it are: excess in diet, bad or insufficient food, mental affections.
Irritability of the system, lifelong exposure to cold and moisture, anxiety, fatigue - sudden arrest of menstruation.

Possible causes in these cases:

(a) Bacteria. I do not know that any special organism has been found in Pneumonia. Personally I have been unable to make any examination for such.

(b) Neurosis. On the supposition that the cause lies in the nervous system, papers have been written by Rulst (Med. Jour. Vol. II. 1864, p. 464) Bejarme (Med. Chir. Rev. Vol 2. 1874, page 479). Von Barreterung in 1861 (Fagge Vol. II. page 1028) suggests that the starting point of Herpes Zoster is associated with a series of changes in the ganglia of the posterior nerve roots and his opinion is verified by Charcot and Cotard.

(3) Probable causes in these cases - My own opinion is that the cause
to a neurosis.

Reasons.
The explanation of Von Bahr's theory seems to me to be hardly sound and I cannot see that it throws any light upon etiology in these cases. To account for the phenomena the nerve lesion, if any, would be not in the sensory path, but in the vas motor nerve path, if not of the trophic nerve system. I think that a lesion in the region of the posterior nerve roots cannot explain the formation of hives or purpuric spots, although it is quite sufficient to account for any irritation or other painful sensation on the principle of referred impressions.

In Bullous Urticaria it seems to me you have an inflammatory action of a limited area with more or less solid effusion. From this Semi Solid to Edema you
have the liquid part effusing and forcing up the cuticle from the cuticula forming a blister, but in blisters (and similarly in a scald) you have the impression of the skin impaired & you have the effusion forcing up the cuticle from the cuticula without inflammatory action.

I think the case complicated with Purpura and the loosened patches of skin, soften & in my first case, tend to support this view strongly.

5) Remarks (light thrown on nature of Purpura)

Case II seems to throw some light on the essential nature of Purpura - a weakening of the vessel walls due to vaso motor nerve derangement.

6) Similarities

Similar peripheral lesions, such as Urticaria, Herpes Zoster and Acute Subcutaneous Adenitis suggest similar nerve causes.

Allyn Raines