Sheets on Phlebitis & Pyænia

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[Handwritten notes:]

Impartial... but well informed.

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In writing essays, there are always two great difficulties which a student has to contend with.

The first is upon a subject, and the second is the absence of original research, which few have taken the pains or the means to make. As regards the first difficulty, there are such a vast number of subjects open for selection, each of which looks equally attractive and about which one's knowledge may be equally extensive, that it is very difficult to choose. At last when the subject is determined upon, having to trust almost entirely to books and having to glean from them what appears to be the right practice, places the writer in a good train among the greatest difficulties which a student has to encounter.

I have chosen Phthisis & Pyaemia taken from that wide field of inflammation from whence so many of the most severe diseases arise, and about which the treatment & Pathology of which, there has been and still is such.
great controversy. Syphxia is one of the most fatal diseases, but yet until quite recent times it was not recognized as a distinct disease. This dreadful malady often comes on after operations, particularly where performed in crowded or ill ventilated hospitals, so that the surgeon who had hoped by means of this operation to relieve his patient from suffering, sees with dismay, that those means which were intended to have only hastened death, and rendered the last moments of the patient more miserable than if the operation had never been performed. I will now proceed with the more immediate subject of my thesis.

Inflammation of the uterus is frequently attacks males, females, and chiefly occurs between the ages of 15 and 50. The cause are various and may be either a grave surgical operation or the slightest abortion, it is often caused by a puncture with a blunt instrument, such as a nail. Phlegm is generally found in crowded hospitals or in any social situation where there is little care.
Phlebitis is often caused by organic lesions of internal organs, such as abscesses of the liver, brain or kidney. The inflammation is far more commonly acute than chronic, it may be either the primary affection which it generally is, or the secondary, when some poison in the blood may irritate the internal coat of the vein or to cause it to inflame. The disease may be confined to one vein or even to a part of a vein or may extend to several. John Hunter in 1784 was the first to describe and point out the various changes and phenomena of phlebitis, and to whom we are indebted for the first precise knowledge upon the subject.

Phlebitis may be divided into two distinct stages, the Feliscent and Suppurative, and it may be either idiopathic or...
Inflammation. I will first consider the subsequent stage of the disease, this is the minor form and goes no farther than the deposition of fibrin. The symptoms are of two kinds.

1. The local signs and 2. The general or constitutional, which indicate the controlation of the blood. The local signs are:

Suddenness of the pain with acute pain which is increased by pressure. There is a hard, knobbly, cordlike swelling along the course of the vein, and the extremity appears red and inflamed; when the vein is deep seated there is great tension which is accompanied by engorgement of the venous capillaries of the skin and edema on account of the arrest of the circulation through the vein. The general symptoms are inflammatory fever, with quickness of the pulse, loss of appetite, heat of the skin, and alteration of the general functions of the body. When the inflammation has arrived at this stage, the internal coat of the vein is thickened and coagulated at this point; if its course is arrested here, and does not come on to the deeper parts,
force, either one or other of these things takes place. The coagula may be dissolved, the inflammation of the coats of the vein may subside, and the circulation be re-established, thereby getting rid of the edema and engorgement of the capillaries. 2nd: the coagula may be so firm as not to dissolve, the vein firmly remaining obliterated, ultimately disappearing close to a mere thread. The danger of obliteration of a vein depends upon its size, and the rapidity with which it has been closed. There are cases on record where even the superior and inferior vena cavae have been slowly but completely closed, a collateral circulation having been established, chiefly through the mammmary and epigastric veins, which might be seen full and tortuous on the surface of the thorax and abdomen. As examples of this there are two cases reported by Dr. Watson of London, in the first of which, the superior vena cava was completely obliterated by the pressure of a large aeurysm of the arch of the aorta, the circulation being...
carried on by means of the epigastrium and mammary veins. The second case was that of a woman whose inferior vena cava was completely closed, on account of the pressure upon it of the liver, which contained a large quantity of typhoid, the circulation being carried on as in the former case. After a vein has become completely obliterated, the blood sometimes bore through the capsule, thus stopping the circulation. This has been often observed to take place when a vein has been closed for the labia major and minor, thus defeating the good effects of the operation. The treatment of the phleboma stage of phlebitis consists in rest, expectoration, and all the other antiphlogistics. The leeches at the same time being carefully regulated; if leeches are required they should not be applied exactly over the vein, particularly if the skin be red and inflamed, because if they were applied here, the extraction would be so much increased that erysipelas might supervene. Having considered the first step,
I will now proceed to the second or superficial variety, which may be divided into two parts 1st. That in which the fluid is enclosed in a false membrane as in the gangula or 2nd. That in which the fluid is not confined but diffuses freely with the blood. First, to consider the limited variety as being the most simple and therefore only the precursor of the second or diffuse form of the disease. In this stage the coats of the vein are thickened, and the circulation is arrested as in the fibrinous variety, fluid is forced out and the integuments become red and swollen as an ordinary acute abscess and must be treated in precisely the same manner. The constitutional symptoms being of the acute inflammatory type. If the abscess be not soon opened and the fluid evacuated, it may force its way through the gangula and get into the circulation, thus constituting the second or diffuse stage which is far more serious. Suppurative septicemia is the same disease as erysipelas only they have different
origins, the first following inflammation of the vein, whereas the second, the jan may be admitted into the vein in three separate ways. 1. by gaping extremities of veins or after operations. 2. during the progress of an unhealthy ulceration where the vein may be ulcerated through and through by the lymphatics influencing and absorbing. Pyaemia is chiefly caused by bad ventilation, loss of blood, unwholesome food, anxiety of mind, diarrhoea or the distention of the discharge of a wound. It is always accompanied by inflammation of an acute character. It has been mistaken for intermittent fevers, remittent fever, remittent or intermittent fever. The various symptoms are: 1. Pains which alternate last from trace fifteen minutes, and recur at intervals of from five to twenty-four hours, 2. Hot skin with desquamation and great anxiety, 3. Tongue dry or encrusted, trembling imperfectly intubed, 4. Countenance cheery and livid or of a yellow colour, the Speech...
is difficult, the eyes hollow and all the features contracted. A very peculiar
dose of the breath. The pulse small
and rapid, the respiration quick and
shallow, sometimes stertorous with con-
trary and constipation, or toward the
end diarrhoea with very offensive stool,
and the urine is foetid and acrid sceptical. The tongue also becomes dull and
altered from various facts, particularly
the muscles of the calf. The joints also
become the seat of pain, and especially
particularly the knee and shoulder.
Lastly one of the most important
symptoms is the appearance of the wound
itself, in which the second breakdown
the granulations become firm and
fibrous forming out an offensive
discharge, or becoming quite dry, or
sometimes the wound becomes of a
black colour. These symptoms are to
cure not necessarily all patients.
are of magnitude. The state of the sys-
tem differs little from that of the
enest forms of consumption. Above
always join in the lungs and liver and sometimes through more rarely in the brain and serous surfaces. In the lungs tuberculosis, tubers may be heard, and the collections of pus are generally found on the surfaces edges of the lower lobes surrounded by detached lung substance.

In some instances supposed that abscesses were more frequently found in the lungs and liver because the capillaries of these parts were so small as to admit the fine corpuscles, so that when the fine was in these veins that joined the central portal or after operations for hernia, fistula in anus & abscesses were formed in the livers, and when the fine was in the other vein it formed abscesses in the lungs. But this theory can not be supported, for fine corpuscles are small enough to pass through the most minute capillaries being only 1/5000 of an inch in diameter. Dr. Stedman thinks that when the pus is carried to the lungs or liver it acts as...
A ferment or foreign body, lighting up inflammation of the part, as the only means for its elimination. The prognosis is generally bad, but will greatly depend upon the age and strength of the patient. For this stage of this disease treatment can be of very little use, the only thing being to support the system with warm nourishing food, & Early Frebance. The fluid may be eliminated from the circulation, before the constitution is worn out and ulcerous; if the patient is very weak, large Frebance may be given. The patient generally dies from the fourth to the eighth day by asydm the patient being extremely emaciated. There is also another form of inflammation of the veins, which is seen in women or by percutaneous force brought on by absorption of the dangerous discharge from the mouth after Varicellectomia. M. Pichas in 1816 first showed that the seeds were the
parts affected. This form of the disease is very contagious and may be carried from one female to another by a third person, and by this means our acquaintance may communicate a large number of women from one single patient; unless great care be taken, such as washing the hands in some disinfecting liquid and changing the clothes. This disease may also be produced if the accoucheur incautiously touch his patient after touching one labouring under erysipelas, or after attending any post-maternal examination where he has touched the lady. This fact was clearly proved in Vienna, where the student went directly from the drainage room to the typhus wards. A great number of the women thus attended had the disease, and when the practice was stopped the numbers instantly fell. The disease, which comes on after inflammation called phlegmatia obliterans is due to the obliteracion and inflammation
Of the general view. Some as Sebians in 1838 have supposed that suppuration was quite a separate disease from phlegm, but many concurred in an aggregation which may be mentioned. Louis Vidal held that it is only an aggravated form of the suppurative stage of mast disease. Professor Wilcke of Berlin has lately brought forward a view which if established will change the whole pathology of the disease now under consideration. He says that the white corpuscles of the blood are so similar to firm cells, that it is perfectly impossible to distinguish between the two even with the aid of the most powerful microscope. According to his theory, in the limited variety of suppurative phlegmics, it is not firm that is contained between two walls of corpuscles, but that it is one solid mass of conflated firm, which contains white blood corpuscles. Hyaline authors have always been against this view by saying that one a more
of the small veins become filled up with a coagulum, which gradually increases until it protrudes from the end of the vessel, causing a throbbing pain. A piece of this protrusion is then broken off and is carried along by the circulation till it arrives at the small arteries or capillaries through which it is not able to pass, and it is these clots which afterwards break down into the days a puriform but not a pusulent fluid" which have been mistaken for true abscesses. Sometimes these thrombi pass into one of the vessels of the brain causing atrophy or into one of the vessels of the eye, causing blindness, constituting the disease called Encholida. There is a case recorded in the British and Foreign Associate journal of a man where there were all the signs of prostration, with abscesses of the lungs, liver, and joints without the slightest wound to account for it: in cases such as this
Professor Verhoeff's theory would explain the whole difficulty.
I will now give one or two cases which occurred at the Manchester Royal Infirmary or elsewhere.

Hamilton Innwood, Oct 17.

This patient sometimes since fell upon his hip and was admitted into the Surgeon Ward with disease of the hip joint.

After being under treatment for some time he was suddenly lifted with effort, vomiting occurred and was brought to the medical side of the house (the idea being that he had lymphoid fever). This was on the 14th February 1860. On the 15th he had a dry hard fistulated tongue, gentle fever & dry skin. He was then ordered:

Potass Bicarb. Bij
Inf Scott C. 5x4

Doves POWders at bed time and one grain of beef tea to be taken during the day.

15th Patient had had more dyspnoea passed a bad night, tongue dry.
marked redness over the ankle joint.
20. Has had no sleep, tongue dry, vision
impaired, frequent sneezing, had a
bad cough, redness & swelling over
the ankle increased.
with beef tea 07
22. Slept a little during the day. 
Sneezing and cough still continue.
Tongue dry, brown & fissured, indolent
general, and weak. Was ordered to take
Milk & 2 drachms Wine 3 1/2 with beef tea.
23. Purgings much increased. The tongue
has now become very aphthous, the
ulcers at the ankle had become so
much enlarged that it was feared
Cough increased with considerable
edema & expectoration.
24. Diffuse redness on the metacarpal
and phalangeal joints also over the
elbow on the right side with swelling
and redness of the knee joint. Purgins
and cough still continue. Ordered
beef tea, wine, and tonics.
25. Cough worse with decided appearance.
A tumourous spot, dulness on percussion over the right side. Large
healed sore over the left hip; fores
pressed into his bed quite unconsci-
ously, eyelids not closed during sleep.
Ordered to take brandy and eggs.
24. Patient died this morning.
At the post mortem examination
the following appearances presented
themselves. Las in large quantities
the diseased hip joint and also in the
knee and wrist joints and in the
pericardium. The lower lobe of the
right lung was quite consolidated.
The necropsy is a case where very few teeth
were taken.
William Longworth, a middle aged
man, had his nose severely crushed
which rendered expectoration necessary.
Soon after he became feverish, his
tongue dry, leucous and fissured;
after a few deeps collections of mucus
formed in the calves of the legs and
in the muscles of the arm, these
diuretases were freely opened, the
Strength of the patient being supported with as much wine & beef tea as he would take. After the evacuation of the pus the patient gradually began to improve, so that after a long and tedious illness, he eventually recovered.

Case No. 3: Edward Russell, Oct 15th employed in a machine shop, and living in a small but dry house, was admitted into the Manchester Royal Infirmary on July 11th 1859.

For the following symptoms, without any known cause, the patient felt pain in the right leg on the 7th. The next day he had fits and was insensible; he complained of pain in the loins on the 9th. On the third day of his illness he had rapid pulse dry tongue &c. and on the fourth buccal inflation appeared over the trunk.

On admission there was swelling in the right groin, stiffness in the right hip, a swelling over the left patella and over the external popliteal.
July 25. Cough. T Bacillus sounds heard over the cardiac region. 
30. PULSE was today 132. Declines on percussion over the inferior pole on the right side with a crackling friction sound. A bed sore formed over the sacrum Aug 5th. No complaint but a crackling of the left hip and knee during movement. Tongue nearly healed.
6th. PATIENT feels stronger. PULSE 102.
The right temporals mandibular articulation is weaker. This afterward entirely disappeared.
13th. Indistinct fluctuation under the right gluteal region, coughing causes pain under the right trochanter. The knee joint crackles. Declines with imperfect respiration on the left side which is our worst morbid
circumference than the right.

15. One abscess has formed above the left internal malleolus.


left side. Patient has a hearty appetite and complains of no pain except when the right limb is moved. The left side of the face is universally dull.

21.4 Right hip and knee very juctified. Urine slightly alkaline with a few granules of succussion. Ordered that the long splint.

22. The long splint gave such pain that it was removed. Cough troublesome.

24. Purging commenced this morning having had four stools. Ordered chalk mixture.

26. Diarrhoea stopped by the chalk mixture.

27. To refrain on bed roset Eight.

28. "No appetite can move the right hip.

15. very restless and only sleeps when
get's morphia, which he had had in doses of 1/2 grains.

Nov 12. Patient is very much weaker
than in last note and evidently resting
21st. Died this morning after using
the last dose; he had complained of no
pain for some days past.

On the post mortem examination
being made, the right hip joint was
black, disarticulated and bathed in
purulent fluids. The perineum was also largely
distended with the same matter. No
other abscesses found.

I will now mention some of the chief
causes of this disease which I intend to
join as part of this paper. Phlebitis is at
all times a rare disease, and when it
does occur, is chiefly caused by one or
other of the three following. 1. Inflammation
of a ligature. 2. By too severe or long con-
tinued pressure or 3. From wounds
which do not heal by the fluid secretion.
As regards the first cause, the vein inflamed
when ligatured, because all the contents
so intimately connected, were the internal.
ones do not suffer when crushed to get to as is the case with arteries, and it
is this crushing that renders the vein so much more liable to inflammation
than the arteries; the disease has a
great tendency to spread, which it does
generally in the course of the circulation
by direct pressure. This may occur
in operations, as when the vein is close
to the artery and requires to be separated
from it by the fingers or fingers of the
operator.
Yet from wounds not healing by the
first intention; when a wound does
not heal by the 1st putrefaction, it heals
by granulation, and to effect this
an inflammatory process must
be lighted up; and this process which
in any other part is only a method
of cure, here causes the whole disease
after death the coats of the vein are
much thickened, so that when cut
the orifices remain patent as those of
arteries, except where first has been
formed where the coats are much
Finer than normal. Although a local cause may be necessary to induce the disease yet most of the cases have occurred in constitutions at the line disordered or when epidemics of a somewhat secular nature were present. Thus it was very fatal in this city at one period when erysipelis prevailed as did cellular inflammation from fractures received in disbocation, one well marked case which proved fatal on the 9th day is reported in the Edinburgh Medical Transactions for the year 1826. Septicaemia and preseptical fever prevailed at this date.

Cases are on record where death took place from inflammation of the vein, on account of its being separated from its attachments in lying the femoral artery. Dr. Scovill in his Military Surgery records similar cases from inflammation of the vein following amputation after the Battle of Waterloo. Very often after death, with all the signs of inflammation, nodose lesions have been visible on a post mortem examination being
made, but it must be remembered that the very smallest veins need particular attention. The veins of the thorax are liable to this disease, so that no one however carefully he may have examined a body, can say that the veins have not been involved. From whatever cause induced a more complete knowledge of the Pathology and Treatment of this but too frequently fatal disease is of paramount importance to both the Physician and Surgeon.