Thesis submitted for the degree of Doctor of Medicine by

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Title of Thesis
"Some points in the management of the third stage of labour and the puerperal state."

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Some points in the management of the third stage of labour and the puerperal state.

The following suggestions are based upon the experience of upwards of 2000 cases of labour conducted by myself, the consultation with of over 2000 cases conducted by the midwife to the female infirmary lying-in society to which I have for the past ten years been the consulting accoucheur. I have been led by this experience to an ever increasing belief in the immense importance of the subject, and I am sure that, carelessness in many of the details of management in this particular matter is the source of life long suffering to the many women as well as to an increase of the mortality of children.

The proper management of the third stage of labour is most essential towards a safe puerperium, and the complete emptying of the uterus is of prime importance towards the avoidance of ascites. The retention of small pieces of placenta, sheets of membrane, &c., to a less extent, of clots.
will often protest the worst symptoms to all conduct of ante-partum.

Every year I have been more informed upon this point, and as I have taken increasing care to insin the complete removal of the symptoms. Any cases have given me less than anxiety, the number of premature births has steadily diminished. If the uterus is kept emptied & care is taken that no septi germs are allowed to gain entrance to the genital tract, either at the time of the labour or afterwards, the case will almost centre upon the fertility to a safe & rapid recovery may be expected. Secondary haemorrhage becomes a thing almost unknown and all septic births are avoided. This is the case in normal and easy labours and a factor in force instrumentate labours, when this may have been lacerations of the cervix vagina or perineum, or of all, and then absolute asepsis is of still greater importance, what an immense danger is added to the case, if a piece of placenta or membrane is retained within the uterine cavity.
decompensation gives rise to aseptic discharge which rotes the raw surfaces as it drains away. And I am convinced that if a piece of membrane remains within the uterus for more than two or three days it will become septic in 3 cases out of 4 in spite of the most rigid employment of antisepctic precautions, and although it may be promptly washed away by a uterine douche yet by the time that symptoms occur indicating its presence the mischief may be done if the poison have got beyond reach. The complete emptying of the uterus is also the greatest safeguard against immediate post partum haemorrhage, and this truth has been less than frequent as I have observed increasing each upon these vital points.

Before proceeding to the first part of my thesis, "The management of the third stage of labour." I should like to glance for a moment at the anatomy of the part involved. The removal of the placenta and membranes, and also the mechanical problem involved in the third stage of labour - during the
process of growth of the uterus the decidua reflexa and decidua vera have become united thus obliterating the cavity of the decidua praecox altogether being blended also with the foetal chorion are practically but the glistening edges of the placenta, which Callot has been formed from the decidua capsularis and villi of the chorion during the latter part of pregnancy the connexions between the placenta and membranes on the one hand and the uterus on the other have become less and less intimate that they would at the time of birth be so slight that the uterine contractions easily tear them.

The mechanical problem involved in the third stage of labour is, that the uterus, a hollow muscle, has by its own contractions to get rid through the serous of amnion membrane loosely lining its interior, the said membrane being at one part the placenta developed into a fleshy mass.

The manner in which the uterus accomplishes this is not always the same. The usual and most favourable way is when the placenta, which is first detached, becomes rolled up...
Edgewise and passes as it were through the membranes, peeling them off the uterine surface as it descends. That part of the membranes fronted with the placenta being first detached and that opposite to the placenta left being the last to come away. The placenta present rolled up in the membranes which latter have that smooth internal surface now external. But the placenta is sometimes cast off in a different way presenting with its uterine surface downward & uncovered by the membranes the latter following it with their uterine surface external.

The reason why this occurs is often, I believe, as follows (3) That the placenta is in these cases attached lower down and nearer to the exit than usual, so that when the uterine commences to cast it off, the lower edge of the placenta is at once at its full or very soon comes there, there being no membrane attached to the uterine between the lower edge of the placenta & the exit, or at most only a narrow zone which is at once stripped off, the placenta is free.
to descend with its uterine surface in direct contact with the uterine wall instead of passing down inside the membranes. After the lower edge of the placenta passes the vagina, the flesh of the body rolls onto the peritoneum, much as the child's head does in the act of extension, unless the whole of the placenta is lying outside the vagina with its uterine surface downwards and the membranes following up into the uterine with their uterine surface directed upwards. Gently gentleness than usual is now often required to remove the membranes entirely, because there is a different mechanical process at work inside the uterus. Of course, if the membranes are very loosely attached, they often come away almost as easily this way as the other; but this is not always the case and it will for the following reason. In the first case the membranes are peeled off from above downwards, the strain on them is only that the tensile force required to overcome the resistance of each tiny line of attachment to the uterine wall as it is becoming detached whilst in the second case the force has to be
In the second method probably as the uterus contracts, especially if very gentle traction is kept up upon the membranes the uterine wall gradually tears itself away from them. But this second process is by no means as mechanically simple, and usually takes much longer and is much more liable to lead in tearing of the membranes.

Two other points bearing upon this question (1) that it is when the placenta is attached low down that this second process occurs; and (2) that the tail in the bag of membranes will be found near the edge of the placenta.
The liability to haemorrhage during the third stage is distinctly greater. Not long ago I had a case which threw much light on this point. I was called by the midwife to a case of haemorrhage before delivery in which I could just feel the edge of the placenta in the uterus. After the birth of the child there was a decided tendency to post-partum haemorrhage and the placenta was detached in the manner I have described by the second process.

In the management of the third stage of labour I am convinced that it is a mistake to be in too great a hurry to deliver the placenta. As the child is being born the hand should be kept upon the uterus and follow it down keeping up gentle pressure perhaps exerting very slight compression during the pains. The placental end of the cord should not be tied as by allowing it to bleed the bulk of the placenta is diminished. The cord should not be tied at all until pulsation in it has ceased. Then the child will be deprived of blood which...
which would naturally belong to it. The hand should next be removed from the fundus until the placenta is deliverec, and firm contraction and traction obtained. From time to time the fingers of the right hand should be passed into the vagina to ascertain the progress of the case. No harm will arise from this practice, which is deprecated by many, provided care be taken to cleanse both the vulva and the opening hand. I am convinced that it is a great mistake to expel the placenta without first ascertaining what nature is doing. If now it is found that the placenta is being gradually expelled nothing in the way of interference is required. Any undue haste in expressing the placenta will very likely cause irregular contraction of the utrum leading to incarceration of the placenta or what often happens the placenta is torn away from the membranes to a greater or less extent and a lot of unnecessary difficulty is caused to recover them. When the placenta is lying in the cervix or
vaqua. A little gentle depression is often necessary to expel it and does no harm. As the placenta comes down the lower edge should be scanned from time to time to ascertain whether the membranes are giving way for if they do tear it is generally at this point that the tear commences. If it is found that they are giving way, it is good practice to desist from effort at expression and to pull gently upon the cord, keeping at the same time two fingers of the left hand upon the placenta or by their fingers retarding the descent of the lower edge. By this means it will be found that the placenta is gradually rolled onto the cervix, and 10. That its center first upper edge comes down, and the uterine is prevented from spreading round the edge of the placenta. When the strain finally comes upon the torn part it is at a greater mechanical advantage.

Diagram illustrating the above.

Surface of resistance before the tearing of the placenta has been turned around by method described.
If the placenta is delivered by the method which I have described before, as the second is with its uterine surface downward & hanging the membranes trailing up into the uterus with their uterine surface anterior, external, then gently & continuously traction upon the placenta will usually safely bring them away entire, but the traction must be very gentle to steady & prevent periods of ten minutes is sometimes required to effect our purpose. It is understood that no traction is to be made on the cord when the placenta is still in the uterus.

But if haemorrhage occurs either external or internal, more active treatment at once becomes necessary. The patient being upon her back, the uterus should be compressed and an attempt made to stop the placenta which can usually be accomplished; but if it cannot be easily done and any delay occurs, it is better at once to introduce the hand as it is probable that there is incarceration or adhesion of the placenta. Less harm is done by the introduction of the hand into the uterus with proper antisepsic precautions than by too forcible attempts.
an expression. Sometimes it happens that the placenta is expelled into the vagina, that the membranes are tightly gripped by the_OS uterus. In this case the hand should be passed into the vagina, the OS dilated by 3 fingers afterwards. This is usually no difficulty in extracting them entire.

If in spite of all care the placenta breaks away from the membranes, it is the best practice at once to remove them by passing the hand into the vagina, if necessary into the uterus.

If the placenta is found adherent, it must, of course, be carefully peeled off. The fingers being insinuated beneath the edge, the separation is commenced at this spot and carried out systematically. The fingers curved to the curve of the uterus, with their backs to the uterine wall should be moved backward, forward, laterally, with a sort of striking movement. This will be found to separate the placenta much more safely and effectively than if they are pushed straight on. The placenta must
be freed right up to the edge. In passing the hand into the uterus it should if possible be kept outside the membranes but if this cannot be done it is well to make as small a rent as possible in them in passing the hand under the edge of the placenta when all is free the whole mass together with the hand should be depressed.

The utility has seemed to me to be of some importance in introducing the hand into the uterus (6) that when the hand has been passed into the vagina this time the fingers inserted into the os the uterus should be pressed down upon the internal hand by the external hand placed upon the fundus; care being taken that pressure is made in the right axis. After the hand uterus has thus been forced into the internal hand the latter should be advanced slightly the process repeated, & so on, until the hand enters the uterine cavity. By this means there is not so much risk of doing harm or of straining the attachment of the uterus as when the external hand is merely used to steady the fundus & make counter pressure, while the active force is imparted
to the internal hand. The two hands of course work together instinctively, but the point I want to bring out is that the more active force should be gather in the internal hand. Great gentleness of course must be employed in all these manipulations.

After all is completed, in this as in all cases where there has been more than the usual amount of interference, the uterus should be douched thoroughly with an antiseptic solution such as a 1% solution of iodine 3% to the point of warm water, and it is my practice to have the uterus afterward a perineum containing 20 grains of iodoform.

At the completion of the third stage a full dose of ergot should be given as a matter of routine practice and during the first hour the uterus should be my frequently examined to ascertain whether proper traction is maintained.

If it is found after careful examination of the placenta that any small portion of it is left behind which it has been impossible to remove
without undue manipulation. I think that the best practice is to give an
intra-uterine douche about 36 hours
after the birth, for by this time the
uterine piece has probably become
loosened and easily washed away.
There has not been sufficient
time for putrefaction to take place.
If it is not, by the first douche
an iodopropion persyrny should be
introduced into the uterus. This
douche repeated again next
day that, as long as necessary.

Some accidents of the third stage
of labour.
Retention of Placenta. This may
be due to so called hour glass
contraction. Probably it is practically
always contraction of the internal os.
Out of my 3000 cases I have never
seen one with hour glass contraction in
the body of the uterus. The treatment
is to pass the hand in the manner
already described when there will
be no difficulty in removing the placenta.
Adherent placenta. The treatment
of this has already been described.
The delivery of the placenta may
also be prevented or balanced arrested by adhesion of the membranes. In this ease the hand should be passed in and they should be gently separated.

Post Partum Haemorrhage. This when severe is one of the most alarming accidents which occur in midwives. A great deal can be done by careful management of the third stage of labour, in the manner already described to prevent its occurrence. I have with each year of experience had less these troubles of this kind.

If the hand be kept on the uterine and gently pithed and, the uterus can generally be kept contracted and if it dilate instant warning is given to the practitioner.

I would like incidentally to state that in my experience Chloroform or any anaesthetic decidedly predisposes to Post Partum Haemorrhage. This seen in simple easy cases of when any care has been taken to prevent it.

Post partum haemorrhage may occur either before the placenta is delivered or afterwards. It may occur before the birth of the placenta then the
latter should at once be expressed, or if this cannot easily be done the hand should be introduced into the uterus and the placenta removed. If it occurs after the birth of the placenta, then the uterus should at once be cleared of clot by firm pressure with the hand kept up upon it. The patient should in all cases be placed upon her back and the bladder emptied by a catheter. If haemorrhage continues in spite of this hot water at 120° F. should be used with the intravaginal douche. Fragments injected hydraulically. This delightful to feel the uterus contract up instantly under this my douche & I have scarcely ever found it fail; but should it do so it becomes necessary to add to perchloride of iron diluted & injected into the uterus; great care is necessary that the injection does not become blocked by clot thereby preventing the ready escape of the fluid. It is necessary to keep the hand in the vagina all the time in order to ascertain that the fluid is escaping as it is pumped in—An assistant should have a hand on the fundus to make
Sure that no undue destruction of the uterus is occurring. I have only once required to use the perchloride of iron in any 5000 cases in this case it was entirely successful, instantly arresting the haemorrhage. No further evil followed beyond a somewhat perturbed perspiration.

The causes of haemorrhage before the expulsion of the placenta are:
1. Implantation of placenta too low in the uterine
2. Partial adhesion of the placenta to membranes
3. Forceps contraction (contraction of internal os)
4. Presence of another child in uterus is occurring

The cause of most alarming haemorrhage. This occurred to me once. The first child was born easily naturally but its birth was followed by a most fearful rush of blood. On placing the hand upon the uterus I at once observed that there was another child thus presenting by its feet was quickly extracted. Then immediately introduced my hand and removed the placenta (single placenta with two cords).

Evidently it had been partially detached on the birth of the first child the uterine being preserved.
from contracting by the second child. The haemorrhage had occurred all bleeding ceased as soon as
the uterus was empty; but it was one of the most alarming cases I ever had to deal with.

Some patients are very prone to post-partum haemorrhage. One lady whom I have attended 3
times has on each occasion had very severe haemorrhage, although on the second & third occasions it was considerably controlled by a full dose of ergot just before
the birth of the child. In this case there was no difficulty about the birth
of the placenta which very quickly followed the child, but just
during the few minutes required for its separation the haemorrhage was tremendous.

The possibility of puerperal haemorrhage coming from a Carcinoma of the
Cervix or Vagina or perineum should be borne in mind. In this case it
is often associated with a firmly Contracted
uterus. The contraction of Contracted
uterus with haemorrhage should always
lead to the suspicion of this cause. Pressure will usually stop it or it may be necessary to treat the surface with peroxide of iron. I have never had any serious trouble from this cause in any 3000 cases.

After the completion of the third stage has come as from contraction has been established. An examination should always be made to ascertain whether any injury has been inflicted on the genital tract by the labour. Any laceration of the perineum should at once be stitched. There are two ways of doing this. The more usual way is to pass the stitches from the outside taking up all the tissues with the exception of the mucous membrane of the vagina. Another and I think better way is, after temporarily plugging the vagina with some antiseptic material, to pass the stitches from the vagina, taking up all the tissues except the skin. By excluding the skin from the sutures a great deal of pain is saved to the patient and there is the additional advantage that there is no track along the suture from
As perineum, along which septic germs may travel. This method is a little more difficult to execute, but the result is decidedly better; a much more perfect repair of the perineal body is effected.

The propriety of stitching a ruptured cervix primarily has been suggested but has not been found much favour so far I have never had to suture a laceration of the vaginal wall. With great care in the antenatal after treatments and absolute rest, it is marvellous how much nature will effect in this way. I have known more than once an extensive laceration of the cervix combined with a tear in the posterior vaginal wall extending down to the muscular coat almost completely repaired by nature so that at the end of a month it was scarcely perceptible. As these accidents usually occur in a case of long standing labour, I think it is not advisable to subject the patient to a tedious operation with only a doubtful prospect of success, for this part, once opened with blood, would be very difficult to accomplish.
The best course appears to treat in due and after labour. I have devoted much attention to these points and have endeavored to arrive at the means for success. They are as far as I have been able to ascertain as follows: first, early in the labour and before any vaginal examination is made the external part should be thoroughly cleansed and afterward studied aseptic with a 1% solution of carbolic acid. They should be kept sterilized throughout the labour by the same means. The solution should be used for the asecoles of the nurse's hands, for the instruments and for the instruments. In making all vaginal examinations the uterine aperture should be opened to view the upper vagina. Raised or tilted examining fingers may be passed directly into the vagina without coming in contact unnecessarily with the external part. I am quite sure that the greatest care in sterilizing one's own hands is often neglected. I am often called by the finger carrying in some deposit matter from the perineum to external part of during labour this much constant.
Watchful care is required to prevent this. During the third stage the same careful cleansing is more than ever necessary during any manipulation in extracting the placenta. A form of antiseptic solution of course stands by the side of the practitioner until which the hand is immersed before each examination. No kind of lubricant should be used. It is quite unnecessary and only harmful. After the completion of the third stage the internal parts are again stripped. If the case has been a normal one, requiring no undue interference, an iodine foam pessary is passed into the vagina as far as possible during the first day or two. The internal parts are cleansed then washed with the antiseptic solution every 4 hours and later on less often. Salvarsan foam pessary, accused from the first, the vagina is not interfered with in any way again. Should any undue manipulation, instrumental or otherwise, have been necessary, one after labour one intra-uterine antiseptic douche or pur the iodine foam pessary until the
tume early afterwards treating
the case as just described. If
any vaginal discharge present
or otherwise presents antisepic douche
should be used from the commencement
of labour and immediately on its
completion. An intravenous douche
and lithotomy perjury. Among the
preparations in this latter case
vaginal douche of antiseptic solution
should be used. After prolonged
trial I have quite given up any
vaginal douche in normal cases.
After giving up vaginal douche
was in the habit of having
perineum of chloroform passed into
the vagina night morning for
several days, but my cases have
always been since then, has been
given up of the vagina left drenng
alone. Completely evacuate the
bladder. Take care that no depoic
is introduced at the time of labour
and afterwards keep the uterus
sterilized sealed up and secure
our with the case go wrong. The
case which do defy our best endeavours
occasionally are there in which there
is a preceding puerperal vaginal discharge.
If any membrane or a fragment of placenta has been unavoidably left in the uterus, the best plan is, as soon as possible to give a uterine douche at the end of 24 hours, and repeat it if necessary. Do not wait for a rise of temperature before giving it.

The temperature should be taken immediately after labour, when it will often be found to be raised a degree or more, and afterwards every 4 hours for a few days, or longer if necessary; otherwise it is very easy to miss a febrile rise. If it should rise above 100° the cause must immediately be sought for. If it cannot be explained by the state of the womb or of the breast, or by retention of urine or some cause not connected with the uterus it is best at once to work out the uterus to introduce the ether. Ether will relieve, if it is done unnecessarily; if we wait for more definite symptoms the most valuable time may be lost. This is unnecessary if there are no signs of the lochia. The most depth blases are often quick to some factor.
The diseases of the peritoneum associated with rise of temperature.

Before proceeding to this subject, I wish to glance at the lymphatic system of the pelvis.

Elli in his demonstration of anatomy on page 645 of his book. The lymphatic glands of the pelvis form one chain in front of the sacrum and another along the internal iliac artery. Their efferent ducts join the lacunar glands. Into these glands the lymphatics of the generative organs in the female, the lymphatics of the uterus and walls of the pelvis are collected.

The lymphatics of the vagina accompany the bloodvessels to the glands by the side of the internal iliac artery. The lymphatics of the uterus are in two sets. One set accompanies the uterine vessels to the glands on the internal iliac artery. Another set issues from the fundus uteri. The broad ligaments accompany the ovarian artery to the glands on the aorta. The last are joined by the lymphatics of the cavity of the Fallopian tube.

Drain roll page 587. The lymphatics of the external genital organs pass into
The superficial inguinal glands. The superficial vessels from these perforate the fascia, come into connection with the deep glands, pass into the abdomen by the sides of the rectum, and being connected with a chain of lymphatics which lie along the rectal vein acting, terminate in the lumbar glands.

Thus it is seen that the lymphatics from all of the genital tract in the female pass essentially into the pelvis. That cephalic part of the rectal gland can lead equally with those more internal, to the commencement of evisceration into the abdomen and cavity.

The lymphatic system of the uterus has enormously increased in size and acting during gestation and is destined to play a most important part in the involution of that organ which follows delivery. Unfortunately for this very reason, it has also enormous capabilities for the absorption of any septic material which may be present in the genital tract. This is probably one reason why septic blood venous distended under these circumstances
of the puerperal diseases connected with rise of temperature of any importance I believe. There is practically all due to septic infection. What is it then which determines the differences between these? Why is there at one time a localized pelvic inflammation, at another time a spreading inflammation associated with general sepsis, or at another a very few and deaths without any visible pathological change except an alteration of the blood? Are these local inflammations, not uncommon in midwifery practice, where strict antiseptic is not carried out; many fortunate escapes from general sepsis, or are they something essentially different? Remember once in the early years of my practice, before I was so much impressed with the importance of antiseptic in midwifery, that I had quite a small epidemic of cases of puerperal pelvic inflammation. They were all cases attended during a period of about two weeks. Some 500, yet not one of these had any symptoms approaching to general infection; and it does not seem to me for this that,
If this was not something essentially different in the deposits causing these cases, from that which set up general septicemia, that they would not all have escaped the grave disease.

Is it then that the species of microorganism at work in this one case is different to that at work in the other, or is it the same infection acting under different conditions of the system and different surroundings; or is it that the dose is different. I think that my cases quoted above rather point to the difference in the species of the microorganism as the most important factor. But, possibly the surroundings of the case and also the dose of Bacilli are often of great importance.

Watson Cheyne suppuration septicaemic diseases 1887 page 17 lines 5-10 point only to the constant association of Staphylococci with preceding inflammation to Staphylococci with circumscribed abscesses and again at page 72 "Influence of Species" he refers to this same point. He also says "No Staphylococcus is by far the most dangerous organism from its power of occupying in the living tissues" stating that...
Brenkel has found Streptococcus pyogenes in a great variety of purulent diseases especially in the so-called lymphangiotic forms in which it rapidly spreads finally setting up general septicemia. This is the commonest form of rapidly fatal purulent fever associated with general peritonitis. At the bottom of the same page (72) he says: the Mikrooccus pyogenes leucis is especially associated in man with mild inflammation. Thus there is ample evidence in favour of the theory that species has a chief importance in determining the character of the resulting inflammation. The same thing is seen in surgery practice. A mere septic wound is a perfectly different thing from a wound attacked by erysipelas.

Dose and concentration is one of the most important factors on the part of the micro-organisms in determining the kind of inflammation or septicemia that occurs. Agoston looks upon the difference between acute, ulcerated and general pyaemia as principally a quantitative one. This is only partially
Correct, but at the same time dose and concentration (i.e., the whole dose added at one point) has a very important effect upon the nature of the resulting illness. Watson Cheyne septic diseases page 67 found in experimenting with Proteus vulgaris that laths were invariably killed by a dose of 225.000 bacteria while a dose of 56.000.000 bacteria always caused an extensive abscess of which the animals died in from 1 to 8 weeks. Fewer than 18000 bacteria seldom caused any abscess, whilst numbers intermediate between the last two caused abscesses, the size of the abscess depending upon the initial dose. Similar results were found with Pyogenic cocci. Watson Cheyne attributes these phenomena largely to the simultaneous action of the products of the bacteria which assist them to gain a foothold by their injurious effect upon the cells.

This question of the effect of dose is one of very great interest and probably explains in large measure the deleterious effect of retained pieces of placenta and membranes or clots in the uterus for they provide...
a suitable soil for the development
of countless numbers of microorganisms.
It is supposing that only a few
spermatozoa enter the uteri at one
the time of labor they would probably
be at once destroyed by the healthy
tissues and quickly washed away
in the tubal discharge, but if they
meet with retained pieces of the
placenta they find a soil in
which to develop which is outside
the influence of the living cells of
the body; these being no power
over them they are free to develop
unless opposed until a dose of
manufactured strong enough to
attack successfully the uterine
tissues themselves, and unless the
whole mass is quickly swept away
by the uterine douche general septicaemia
may result.

The condition of the tissues
into which the bacteria are inoculated
is also a matter of vast importance;
for if they are bruised and lacerated
it is found that a much smaller
number of bacilli are able to establish
themselves, than when the tissues are
sound. This can easily be understood.
if we bear in mind what occurs to the tissues when they are bruised, not only in the vitality of the cells themselves lowered, the circulation of the fluid interfered with, and partially also the influence of the nervous system, extended more or less by the branching of the terminal branches of the nerves; but numerous little clots are found by the laceration of the tiny blood vessels, which are outside the influence of the tiny cells and in which any bacilli which may gain entrance to them have a greatly increased chance of establishing themselves.

This explains why, Catteris parures, superficial errors spaceful, inflammations are much more likely to follow some short; labors.

Various things have an effect upon the virulence of micro-organisms. For instance, their virulence may be decreased by cultivation outside the body or by the action of an antibiotic not sufficient strong to kill them in the contrary it is supposed that their virulence may be increased by their passage through
Some individuals with whom I have no
interaction. The increase in violence during
the season of sepsicaemia,
Local and seasonal conditions are
also a certain influence. It is known
that cold and moisture are predisposing
causes to sepsicaemia, they may be
also but probably less immoderate
in proportion. And the frequent
occurrence of osteomyelitis in beree
is an instance of the effect of locality.

Mode of entrance of microorganisms
in the presoncal female

They may be carried into the genital
tract by imperfectly sterilized hands
or instruments, but this ought never
to occur. But I am inclined to think
from careful observation that they
are not imperfectly carried in
from imperfectly sterilized instruments
but by the examining finger. Since
I have paid very careful
attention to this point I have had very
much better results. I used to pride
after most elaborate cleaning of
hands instruments that still cases
of infection would from time to time occur but since it has been my practice to sterilize the vulva before each examination it is very rare that a case goes wrong. In private practice even good nurses cannot constant supervision upon this point and I am also, as before stated, very careful that the examining finger goes straight into the vagina. There may be some slight fistula in the unnoticed, which secretes a little pus, that may by the squeezing effort of the patient be spread over the perineum. Lastly there may be some old pelvic suppurative discharging into the vagina or some other purulent vaginal discharge. This is not a common cause but that it does sometimes operate to defeat the very greatest care I am convinced and I have noticed on several occasions when a case has inexplicably become septic that the infant has also suffered from purulent phthismia. Stenosis of the vagina before delivery has perhaps diminished this risk, but in private practice it is not always possible
to carry it out; as the preacher often and the nurse also sometimes does not see the case until the head is down on the perineum; and it is always difficult to satisfactorily disinfect the vagina. It also seems to me that it would often be futile for this reason; that if a sinus is discharging into the vagina or if the vaginal mucous membrane is secreting pus, although we might wash it away for the moment, more would be at once poured out. Whether gonorrhoea can produce septic infection appears to be doubtful and many affirm that when it apparently does there is a mixed infection at work and they allege, that when glandular abscess occurs with gonorrhoea, that the abscesses are not found in the abscess, but ordinary pyogenic cocci.

If this is so we already know that glandular suppuration is common in gonorrhoea or that the difference, at any rate, is that there is probably often a mixed infection in gonorrhoea, or at any rate that the gonorrhoeal inflammation...
Pelvic inflammation, occurring in the puerpera,

This may be either pelvic cellulitis or pelvic peritonitis or perhaps more often a mixture of the two.

I have already stated my belief that these inflammations are invariably septic in their origin or practically so. They are not due solely to a prolonged and difficult labour or to inflammation from lower cure of tedious the labour may have been, if septic is excluded the puerperal is period often after without the least sign of temperature. Such a case as the following is an instance. It occurred in a case which I attended last year. A primipara with a slightly contracted conjugata very rigid, soft part was delivered by the forceps applied above the knee, before that was fully dilated. She had been a long time in severe labour and although I was not brought to give advice of forceps the child was severely lacerated at the vagina.
torn throughout, the greater part of its length. Yet the posterior was perfectly normal at first. Indeed of these scars, scarcely a trace of the severe injury remained. The temperature at no time rose above 99°. This is only an instance of many similar cases which I have had. How often in surgical practice do we see the same thing. There must be often very great tissue injury to tissue or a simple lacerated fracture yet there is no inflammation.

I think therefore that there can be no doubt that these pelvic inflammations are septic. They may be broadly divided into two classes. One which suppurate, those which do not. To take the latter first as they are by far the most common. Why, if they are due to septic infection, do they not suppurate? In some cases it may be that the dose of poison is not sufficient, that the poison becomes that of by the resulting inflammation the tissues are not able to deal with the microorganisms which have gained entrance to them or it may be that the species of Bacillus influences the result; but I think that often
The following is the explanation: the bacilli remain in the genital tract or at any rate are confined to the surface of any ulcerations or lesions or to the endometrium. What then from these poisonous products which are absorbed into the surrounding tissues and set up inflammatory swelling in them is this constant feeding of the tissues with these poisonous products which keeps up the local inflammation? That the products of these bacilli are capable of producing this result is proved, for instance in the case of diphtheria in which disease it has been demonstrated that the Tüpfel bacillus only exists in the false membrane but in which disease you get set up by the products of the bacillus not only general disturbance of the system but also a condition of local swelling or the cervical glands or cellular tissue.

Lines Woodhead page 338 line 23 23 26 seq.

Speaking of the alkaloids formed by micro-organisms says that in addition they have an extremely injurious local effect, giving rise in many cases.
to the death of the tissues with which they may come in contact. At the point
where this process is formed *if* one of these alkaloids cause the death of
the tissues it is only reasonable to suppose that others of a milder nature, or
perhaps in a less concentrated dose, may set up inflammatory action
with swelling.

The effect of treatment directed to
the sterilization of the endometrium or
of a sloughy condition of a laceration,
in immediately causing the disappearance
of the surrounding inflammatory
depot is also very strong et evidence
in favour of the view being the
correct one. Again and again I have
found a case of alumets in the
blood ligaments disappear like
magic after washing out the uterus
by passing an indelible Bougie into
its cavity. If the cervical canal has
closed up, there is no reason to suppose
that anything is retained but
that there is only a sterile endometritis
present; then 20 grains of Potassium
permanganat into the uterus & cavity without
any preliminary douche is quite
sufficient & is much safer under
These circumstances. The following case which occurred in my practice two years ago may well illustrate this point. WM. had had a swelling which developed shortly after labour in the right broad ligament. It was painful and the size of a large plum. He remained stationary for 10 days. The temperature varied during this time from 101.5 to 102. Then introduced into the uterus, which was now completely detached & with its cervix contracted, a syringe of sterile fluid. The vagina having been previously well drenched. No further treatment—local or general was adopted. In 3 days the temperature was normal. There again rose; and in 4 days the swelling had practically disappeared, and it never gave any further trouble. This is more satisfactory than weeks of rest in bed that's vaginal douches. It is very important to get rid of these attacks as quickly as possible when they do unfortunately occur, as the longer they remain the more likely they will be of secondary attacks taking place in the tissues which have
been inflamed. The resulting traction
on such uterine appendages often produces
resulting in misplacement and and
perhaps lifelong misery. The point
which I particularly wish to insist upon
in relation to these cases of pelvic suppurative
pelvic inflammations is that they often
are due to morbid product absorbed
from septic surfaces in the uterus
or vagina, and that they are kept
up indefinitely by a constant
supply of non-morbid material which
is thus elaborated; and that if the
supply is cut off by the destruction
of the tissue in this general tract, then
the tissues will rapidly free themselves
of poison and return to their normal
state.

The same thing is seen in the
inflammation and thickening
which surround a foul ulcer;
perhaps in the ty, which are kept
up for months or years or
long as the surface of the ulcer
remains septic. But striking the
ulcer, and immediately all the
inflammation, thickening, which
surround it will disappear.
Pelvic abscess.

Pelvic abscess may be due either to a cellulitis which has suppurred or to a circumcinded pelvic peritonitis which has suppurred, and which has become cut off from the general cavity of the peritoneum by adhesions. Both these forms are due to the presence of pyogenic cocci. This is admitted now by all authorities. Even if they do not accept the septic theory as accounting for the former milder cases, which I have just described. As far as my own preference goes I believe that they are principally due to suppurating pelvic cellulitis although generally there is more or less pelvic peritonitis surrounding them. The pus however is as a rule in the cellular tissue. This is I believe true of cases which occur during the puerperium if at all, whereas which occur apart from this state. Much difference of opinion has existed upon this point, but the balance of opinion appears now to be in favor of the view which I take.

Playfair Edill pg. 415 lines 12 to 15 says: "It is certain that suppuration is more likely to occur in cellulitis than in.
pelvic peritonitis. Its origin in pelvic cellulitis is also pointed out by Saladin pages 774 and 775. He says speaking of localized parametritis that suppuration may eventually occur.

I have already stated my opinion that when a localized pelvic inflammation does not suppurate it is very often because the pyogenic cocci have not themselves gained entrance to the tissues or because sometimes occurs not a sufficient number of cocci to cause suppuration or that they are not of a sufficiently virulent form; but in the suppurring variety of cellulitis with which we are now dealing, there can be no doubt that they have gained entrance to the tissues. It may be that they have been directly inoculated into the tissues at the time of labor; or that from various causes such as violence or concentration of dose or form increased susceptibility from bruising of the soft parts they have afterward been enabled to establish themselves.

If suppuration has once occurred, what is its course? Saladin page 775 speaks of it as usually pointing
In the group, Dr. Laurence of Chicago tells me that he has collected a series of 100 cases seen in consultation in which he believes has pointed in the groin - my own experience has been quite the contrary. Out of my 5000 cases of labour in which there have been several cases of suppurating pelvic cellulitis, not one has pointed in the groin. The majority have pointed in the vagina and discharged themselves this way. Two have discharged through the bladder or urethra - none through the Rectum.

The best treatment is warmth, hot vaginal douche, external fomentation, opium, quinine, internally. Attention to the state of the bowel, and if they point internally I believe it is best to allow them to open themselves. I have always followed this plan with complete success. If the point externally they should of course be opened with aseptic precautions.

When the abscess is due to an infected puerperal peritonitis it is much more serious than when due to a suppurating pelvic cellulitis. There is more risk, although fortunately not so great a
One as might be expected, of its
rupturing into the general cavity of
the peritoneum. And when it is opened
either by nature or by art, it is more
difficult to heal as its walls are
formed of peritoneum instead of
Cellular tissue. Moreover the resulting
mischief is more serious from the
malting together of important organs.
The cause of suppurating pelvic-
peritonitis is the direct passage of
bacterial poison through the walls of
the uterus or Fallopian tubes, or through
the patent end of a Fallopian tube.
In a suppurating cellulitis, the bacterial
poison penetrates into the tissue
surrounding the uterus.

The diagnosis of Pelvic abscess rest
upon the temperature curve the occurrence
of Rigors and other signs of the presence
of fever, combined with the physical
diagnosis of swelling & pooling of fluctuation
in case one lap. Such abscess is certain
dehiscent, it is known from something
done to the diseased part which
caused between ample inflammation
of perforation inflammation Appendices
epiploicae The poison may say
Perpetual Septicemia.

Perpetual Septicemia occurs when the septic poison is not arrested in the pelvic organs as was the case in the localized inflammations which I have just described; but, from a greater intensity spreads to the system generally. This greater intensity may be due as shown before to larger initial dose of the poison, or to a debilitated condition of the patient, or lastly and probably more important of all, the microorganisms which cause the general infection are of a different species and have an innate power of spreading within tissues, without setting up a limiting inflammatory barrier. The Sepsis cocci have been found especially associated with these grave forms of infection. As has been shown when speaking of the localized pelvic inflammations there is probably in most cases a different poison at work although of course cases overlap each other to a certain extent. It seems true something analogous to the differential which exists between simple inflammation and spreading inflammation of unknown etiology. The poison may gain
Putrefaction in the lymphatics or by the veins. The most usual channel is the lymphatic system, and when it is remembered how enormous is the volume in these vessels during pregnancy, it is no wonder, if any virulent microorganisms gain entrance, that they spread rapidly, setting up an uncontrollable sepaciaemia in many cases.

Think for clinical purposes at any rate purpural sepaciaemia may be most conveniently separated into the following three varieties: (1) Acute sepaemia without any visible pathological changes beyond a profound alteration of the blood; (2) sepaemia with pathological changes most commonly acute spreading suppurative peritonitis; (3) sepaemia or often only septic infection, at any rate during its later stages, in which the microorganisms are chiefly and notably at first solely confined to the decomposing contents of the genital tract. On the first variety death takes place before there is time for any inflammatory reaction in the tissues, whereas with a case of this description but a similar result is sometimes seen in the
acute specific fever such as scarlatina.

The second variety in which there is a marked inflammatory reaction which with the first variety constitute the majority of the so-called heterogenous cases, is when well marked and strongly fatal. I have seen four cases of it occurring in my own practice and three in the practice of others during 16 years of work. They were all fatal, remorselessly fatal never pausing in their downward course. They are I believe in the vast majority of cases due to primary inoculation of the tissues of the genital tract, or the time of labour with a virulent spreading variety of microorganism.

So far as my experience goes they set in almost invariably early if at all in the first 3 days, much more often within the first 48 hours. I have not yet met with a case of acute spreading pelitinitis in which there has been a period of complete apathy for 48 hours after delivery. This statement refers to the typical cases of this class but of course more severe pelitinitis often comes on at a later period in the third variety...
These cases are almost as fatal as the first variety usually running their course in a few days. The onset is usually but not always abrupt. There is probably an initial sign after which it may be found that there is some pain over the abdomen. The temperature is raised to 102 or 104 or more. Swelling of the abdomen rapidly comes on. Each hour almost the tenderness and swelling spread higher and higher over the abdomen. One sign of great value is immobility of the abdomen during respiration. The veins are drawn up. The aspect of the patient is pitiable. There may be constipation or diarrhea. After a time delirium comes on as the failure of the kidney is pronounced. In the haptic liver, there is a gradual insidious onset and throughout the whole course of the disease until death occurs on the third day there was heavy, thick, pain. The other symptoms of Peritonitis were present undoubted. The peritonitis...
arises through excision of the soft inflammation to the peritoneum through the lymphatics. It may arise from depth as matter passing through a patent tube. In one case which occurred in the practice of an amputee I am inclined to think that it may have taken its origin in the zone of an old incised parietal ala. That this is a possible cause there is no doubt. As any case although the attended some 4 or 5 cases during the same 30 or 40 years time after this case all the latter did well without any rise of temperature. Unfortunately an autopsy was not allowed. Occasionally undeserved blame may arise in this way.

The prognosis of this class of cases in its well marked form is very bad. Any high temperature and rapid pulse are of bad omen. The pulse is rigidly held to be the more important sign of the two. In one or many cases the temperature never rose much over 101 but the pulse was ominous from the first and the case ended fatally in 3 days.
In the third variety in which the septic microorganisms are wholly or chiefly in the contents of the genital tract, or in which they are contained in a septic endometritis there is marked contrast to the variety just described. These cases are often described as autogenous but they are not autogenous any more than the first and second variety, as the septic material must be introduced from without but perhaps they more often take origin in a slight preceding septic condition of the requisite mucus membrane than in the case of the first two varieties; and for this reason that the contents of the uterus such as retained placental sheaths or pieces of membrane form a more favorable soil for the growth of putrefactive bacilli than the healthy tissues and that these microorganisms which would be comparatively innocuous to healthy tissues are enabled to obtain a foothold in the dead tissue and multiply and to manufacture their poisonous alkaloids unchecked. A small proportion may arise in this way, but still in this third variety as in the others in the vast majority of cases the septic materials
is conveyed to the patient from without.

By whatever term these cases are
described I wish to insist particularly
upon their clinical difference from
the second variety in which, as I have
previously intimated, the poison is usually inoculated
primarily into the tissues themselves
and spreads in them from the first.

The symptoms in this variety are equally
alarming at first. There is generally
a sense of rigor followed by a rise in
peripheral temperature and the usual signs
of acute septic infection; but there
is not the same amount of pain
over the liver and lower part of
the abdomen, and at first at
any rate there is no general pallor.

The abdomen may be somewhat tender,
there may be some or less inflammation
about the liver; but the abdomen is
found to move with respiration and
sympathetic dilatation is not as a
rule early in its onset. Very often
the temperature rapidly falls to normal
again after a few hours, or even in
advanced cases. There may be a few hours
or even days of agasarion, after the same phenomena
occur again. These come to look upon
this quick fall in the temperature, and
as it is with an acceleration of the
all the symptoms as of very favourable
prognosis and of great value in
showing that. I have a case of this
plan to deal with the irregular temper
ature with high peaks is unmasked
contrast to the continuously high temperature
of cases associated with general
perfluudus. These cases are generally
at first cases of TYPHOID or leptospirosis
infection; although if not promptly
 treated they may soon pass into
the graver condition of Leptospirosis.
and they often rapidly get well.
In describing these two, the second
attack, varieties of purpural fever
I have purposely laid great stress
upon their essential difference both in
origin and course, but without doubt
there are very many cases intermediate
between the two at times in a. Change
clinically this rigid distinction I have
merely illustrated my meaning by taking
the typical cases of each & I think
that it is a distinction of some
practical value which I have endeavored
to point out.
The nature and causes of the poison in puerperal septic diseases.

The theory of Todd and Barlow and those who thought with them that puerperal fever is a disease due to germs, and due to a specific infection is now quite untenable; I do not propose to go into this point further. That to state my belief that it is the same thing as surgical septicemia only occurring in a puerperal woman, and that it is in the same way as surgical septicemia due to a mixture of septic microorganisms. Holding this view I feel very strongly that if a patient gets puerperal septicemia it is my fault or the fault of some one of her attendants. This is I think true absolutely if we except the occasional and rare cases in which the poison was present beforehand in the maternal passages as in gonorrhoea or a discharging sinus.

What are the principal modes of access of the poison to the patient?

(a) Causes affecting her surroundings,

An insanitary state of the house.

The presence of a case of contagious disease in the house such as Syphilis.
afoul wound, scarlatina? or are all as this case of purperal sepulchre

(2) Causes appertaining to the attendant, for example; their having recently been in contact with septic cases. I would note here the importance of great care that there is no septic focus upon any of the attendants such as a slight poisoned wound upon the finger or hand perhaps unnoticed or any chronic discharge such as ophthalmia or tubercle. I feel pretty sure that one fatal case of purperal peritonitis which I have seen was caused by a slight septic wound on the finger of one of the attendants which was not at the time considered of any importance. I think that the slightest suspicion of a septic wound or sore however trifling upon the hand or finger should be an absolute bar to any one attending to a purperal parturient woman. In the sudden emergency which occur during labour you never can be sure that the damaged finger or hand will not be instructing you to assist.

(3) Causes appertaining to the patient.

(a) local such as gonorrhoea or
My name is Andrew Johnson. I was born on the 29th of December in the year 1831. I am married to Mary Johnson, and we have two children, John and Mary. My work is in the construction of buildings.

In the winter of 1853, I was working on a large building project in the city. One day, while I was working on the roof, I fell and injured myself badly. I was taken to the hospital, but despite the best efforts of the doctors, I succumbed to my injuries.

I passed away in the early hours of the morning, leaving behind a wife and two children. My death was unexpected and sudden, leaving those around me in shock.

I am here to share my story with others, so that they may learn from my experience. I hope that others may be encouraged to take care of themselves and those around them.
There was no tendency on the uterus, rectum, or bladder, at any subsequent time during the progress of the case, of slight pelvic inflammation. On the following day there was slight one third and a typical Scarlatine rash. It was afterwards found that the nurse, who slept with the patient from the first, had been avoiding a neighbor to nurse her child with Scarlatine just before coming to my patient. This lady had a perfectly normal attack of Scarlatine, followed by profuse chloasma, no complication occurred, and apparently her peritonitis was unaffected by it so far as her urinary system was concerned. The color remained bright throughout and she made an uninterrupted recovery. It is probable that in this case the infection was conveyed in the ordinary way, that is, through the genital tract that the use of antiseptics had also tended to guard the genital tract.

The probability is that when proper antiseptics were applied from a case of Scarlatine there is a mixed infection at work, that the Scarlatine poison operates by preparing the soil for the pyogenic germs of the patient.
more vulnerable to them. – Crooker's page 233
states that Bräukel & Freudenthal found in the throats of patients suffering from
scarletina, and also from the internal organs, microorganisms indistinguishable from Streptococcus pyogenes.
Stated that the identity of this Strepto-
coccus with Streptococcus pyogenes
Streptococcus pus intermedius was
established by microscopic and
macroscopic appearances, and also
by experiments upon animals. They
considered that this Streptococcus was
due to secondary infection to which the
air was opened by the lesions of the throat.
Possibly, too, when the scarletinal infection
occurs through the genital tract, it acts
in the same way by opening the air to
this secondary infection, and it is possible
also that this secondary infection may
be exciting side by side with the true
scarletinal poison. The conveyed with
it from the case of scarletina which is
the source of the infection. There is also
another way in which the uterine system
may become infected by this secondary
infection. It may be that sometimes
the streptococci gain entrance into the
blood through the throat lesion or that circulating
in the blood. They may find a congenital
soil in the uterine tissues whose vitality
has been lowered by the pressure
perhaps bruising to which they have
been subjected during the labour. The
support of this proposition would assist
the fact that animals will survive
without ill effects a certain dose of
septic microorganisms as long as
they are uninjured; but that if any
part of their bodies has been injured as
by the production of a simple fracture
an abscess will be produced at the
site of the injury by a dose nearly
the same as that which was harmless
in the uninjured animal.

There seems to be a large amount of
evidence in favour of the theory that
both typhoid and scarlatina can
produce purpurae leukocaeas without
showing manifest signs of the specific
disease but there is not sufficient
evidence to show whether in these cases
there has been secondary infection.

The same time. There has not as
present been isolated any specific
organism for scarlatina, but if such
should be accomplished, it would be
interesting instruction to ascertain

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whether a pure cultivation of it was capable of setting up peritoneal septacemia when injected into the genital tract of a perforal animal.

In the collective investigation report on Peritoneal pyrexia page 92-93rd paragraph it is stated: "It is still a matter of opinion whether the poison of Scablaturos can produce ordinary perforal peritonitis without rash or one thereof.

Those who hold that this is possible appear to be unanimous in the statement that if that specific signs of Scablaturos are not manifested the case is much more severe & likely to be fatal than in the case when the disease runs its natural course.

The injection conveyed from a case of Phlegmonous oedipelas produces undoubtedly any fatal form of perforal septacemia. It may set up oedipelias externally starting from an abrasion. It what more often happens is set up an oedipelias inflammation of the internal organs which rapidly spreads over the peritoneum. Acute spreading peritonitis in the perforum has many points similar to an internal oedipelas.

Conclusion that can be made the point of these facts that:

...
Prophylaxis & treatments of purpurae lepthericae.

Both those who practice antiseptic midwifery, the number of cases showing symptoms of purpurae lepthericae will be very small, and of this small number the great majority will be due to the imperfect emptying of the uterus, whereby a uterus is left for the development of the ordinary postpartum bacteria which are so universally present. Small pieces of placenta & membranes are of more consequence than we think, as they are cut or easily expelled by the uterus & more blood clots in & so favourable to the growth of microorganisms as dead tissue.

The essential points in the prevention of lepthericae are thus: (1) Strict antiseptic or rather aseptic at the time of labour and afterwards; (2) The perfect emptying of the uterus invected by the careful management of the third stage of labour. For many years devoted a great amount of attention and care in endeavouring to arrive at the essentials of success, and I have come to the conclusion that given that the first of these points (strict-asepsis)
is incurred as it can be and ought to be in every case; that the result, however, chiefly upon the successful attainment of the second point, the complete evacuation of the uterus.

For the successful practice of asepsis there arrived at the following points:

1. Absolute sterilization of hands and instruments and of the internal part of the patient.
2. Instrument a 5 per cent solution of phenol is beyond the test. In the hands and internal part of the patient a (0.1 in 1000) ethyl alcohol solution is the test. But in using ethyl alcohol solution on metal part is of great importance (by) that soap turpentine should first be freely used and that the skin should be absolutely freed from the slightest greasiness. If this is not most carefully attended to the ethyl alcohol solution will not come into perfect contact with the skin. I have often noticed in using it that after immersing the hands in it the moment they are cleaned from the solution the latter runs off them as water runs off a duck's back, and I am never satisfied until this has been overcome. So the ethyl alcohol in my opinion is ethyl alcohol in
What it is wanting is penetrative power. It has not the power of going into the cuticle which is possessed in such a remarkable degree by carbolic acid. In this season if my hands have recently been contaminated by any suspicious discharge I prefer to use a 1 in 20 carbolic solution first, and afterwards the one in 1000 solution. No kind of lubricant should be used during labour for the examining finger for this same reason with the exception perhaps of lubricated glycerine which is free from this objection. Lately I have given up even this. It is quite unnecessary as the maternal parts are freely lubricated by the mucous which they secrete. A basin within the carbolic solution stands by the side of the bed into which the hand is immersed before each examination and the hand must be cleansed each time before being again dipped into it; as the discharge causes a rapid deterioration of the mercurial solution by precipitating its active alkali metals. The external parts of the patient are cleansed with the same solution before each examination. The examinations should be as far as
after the completion of the labour thy natal part are again disturbed and an irrigating douches (for 10) are introduced into the vagina. In subacute cases, and when a clamping of the natal part has not been done the genital tract is left empty alone during the puerperium. This applies perfectly straightforward cases.

If there has hitherto been any undue manipulation. I give immediately after labour an antiseptic uterine douche and then the irrigating douches into the uterus. Afterwards confining myself as before to antiseptic treatment of the natal part. If it has been impossible to remove any shred of membrane or placenta I repeat the uterine douche at the end of about 24 hours by which time they will have become loose; if they do not then come away as often as necessary until they do. After each uterine douche the irrigating douches are again introduced into the uterus. If this is done one douche a day is quite sufficient. By these means I am generally able to prevent any harm arising even when the uterus has not been emptied completely.
The time of the labour of a case in that it is far better practice than waiting until any symptoms appear before resorting to the internus douche.

The second great point is the assurance of an aseptic preparation by the complete drying of the abdomen; has already been treated of in my remarks on the management of the third stage of labour.

It is safe to attend midwifery when you have septic cases in your practice. If in attendance upon a case of purulent septicacemia or adherent organ or a septic wound in which it is necessary that you should soil your hands with the air changes, I think it is wise to abstain from midwifery practice. You cannot do justice to either the one case or the other, when you may be called at any moment from the septic case to attend a woman in labour. Just as in any belief in the value of antiseptics I cannot bring myself to test them to their fullest. Of course in some practices it may be impossible to avoid it but I think that if by any means a substitute can be found this should be done.

With sentiments the case is different.
for the infection here is a day one and does not penetrate into the fold, and creases of the skin under the nails as is the case with liquid air changes.

After 24 hours of isolation from an infectious case and thorough and complete antiseptic cleansing with change of clothes I believe that practice safely is attained. In the case of the midwife who attends to the ordinary cases of our lying in society here, if ever a suspicious case arises I at once make her case attendance upon the patient thorough and complete herself. Neglect taking charge of the sick case. By this means in case here you had a second case arising in practice out of the first.

Treatment of puerperal septicemia

The temperature of a puerperal woman having been carefully watched from the first; if any rise takes place over 100 a careful search should at once be instituted for the cause; and if it cannot be quite satisfactorily accounted for by anything outside the uterine system such as obvious venereal inflammation etc. then the proper treatment is at once to administer an intra-uterine douche, following this by the introduction...
into the uterus of the Dodofoon,故说.

Instead of introducing the pessary it is sometimes easier to inject some Dodofoon emulsion before withdrawing the uterine tube, care of course being taken that no air is admitted. This can be conveniently done by making a little nick in the uterine tube into which beyond the uterine tube through the nozzle of a syringe previously completely filled with the emulsion. By compressing the uterine tube into the distal end of the syringe the emulsion can then be easily injected into the tube. The nozzle of course must be made rigidly with the little hole in the uterine tube.

For washing out the uterus I prefer a reservoir douche, the proper pressure being obtained by raising the reservoir about two feet above the patient. The antiseptic I prefer is a solution of iodine in warm water 3i to 6i. The vagina should first be douched. The curved uterine pipe, preferably a glass one, should be guided through the os by two fingers with the solution flowing all the time. The fingers should be retained at the os to make sure that the solution is returning properly. The left hand or the hand of an assistant
Should there be placed on the fundus to
work any case dilatation of the uterus.

During the first few days after delivery
the ordinary glass tube answers very
well, but as soon as the cervical canal
is becoming narrowed it is necessary to
have some form of double channel
tube, of which Boston's is in my opinion
the best. It is less likely than any
other to become blocked by debri, and
if it does, the debri can often be
alplodged by withdrawing the tube a
little. By means of it I have found
to become blocked almost at once, by
debri getting into the exit holes. In
the absence of a special tube always
use your elastic catheter may be
used. This often answers better than
anything else as it may be moulded
to any curve required upon it stilllet.

The stilllet should be cut shorter
than the catheter so as to extend
scarcely to the edge but quite to the
other end of the catheter. The indicator
tube from the douche can then be slipped
easily over the catheter and is in no
way interfered with by the stilllet. The
catheter can then be passed like a
sound or if any unusual difficulty in
In contradistinction, a duckbill speculum may be passed and the anterior lip of the os studied with a hook, after which there can be no difficulty in passing the tube. It is advisable to dip the hook in pure Carbolic, liquefied, the little puncture in utero sealed and no harm results from it. Sometimes it is advisable to introduce a second and larger Catheter without its stilllet to act as an exit tube. The uterus floor must be most carefully watched and the douche tube instantly clamped if there is any obstruction. If the cervical canal is much closed, the utero-constrictor involuted. The probability is against there being anything much retained in the uterus; but under these circumstances there may be a leprous endometritis which is keeping up the leucorrhoea. In such a case as this, I believe the best practice is, after careful disinfection of the vagina, to pass an Iodoform Bougie into the uterus and use the uterine douche as it is not devoid of danger nor are these circumstances when the cervix is at all contracted even with the greatest care & gentleness it is quite possible to force fluid along.
The fallopian tube. There is also another way in which harm may arise when the outflow is not very easy. Then although the fluid may be returning at about the same rate as you are injecting it, yet if the outflow is not very easy, the fluid whilst passing through the uterine cavity is at a pressure and by this means septic matter may be driven into the lymphatics, typical harm be done. Which this may account sometimes for the fact that, the temperature rises after a uterine douche as is sometimes observed. I can recall a case in which I believe that this happened.

Alarming collapse from over distention of the uterus sometimes occurs, but with an exception of the case just mentioned, I have never seen any harm arise from the uterine douche.

By this prompt local treatment I don't think that harm is ever done; and it should always be treated at once. It is unadvisable to wait for the development of more distinct symptoms, as we never can go back and take up again the chance which we have missed of cutting off the poison.
at its source - If the case is one
of those in which the poison was from
the first in the tissues themselves no
harm has been done. If it be a case
in which the poison is in the uterine
content or in a septic Endometritis
infinite good will be accomplished,
and as we cannot tell which kind
of case we have to deal with at first,
which it is the best practice to commence
always with the local treatment. Of
course if the case is not near and if there
is extensive peritonitis it is
useless to try it. If there is only a
very general infection it is possible if the
source of infection is removed that the
system may be able to deal successfully
with the acute opposition which has already
been absorbed.

This then being the way in which I
commence my treatment - in all cases
I will now describe what measures
have seemed most useful in the further
conduct of these cases. They chiefly
depend upon which of my two great
divisions the particular case belongs
to. I take first the cases which so far
as my own experience goes are the most
common. One which I have described,
in my third class as dependent upon satisfaction taking place in the context of the uterus or in which not more than the endometrium or vaginal mucous surface is involved in the toxic process. These are the cases in which most can be hoped for in treatment. The local antiseptic remedies which I have there just described will often be found to act after the disease, if early enough applied, but if as often happens although immediate good follows these, the symptoms again come on a repetition of the same treatment should be carried out as often as necessary. Once a day will usually be sufficient or perhaps not so often if the toadstool is much case left within the uterine. If not only septic contents are present in the uterine cavity but there is a septic endometritis as well, it will certainly be necessary to repeat them more than once before this is subdued, and in addition general treatment will be necessary to fight the complex to overcome the poison which has already gained entrance to it; it which must of necessity be still further altered as long as
living necessary means exist in the
general tract. Constant watchfulness
and care are necessary, with good
nursing are capable of accomplishing
much. I have seen some apparently
almost hopeless cases get quite well.
And if they do recover, it is marvellous
how little permanent damage is left,
and how complete the recovery is.

One case which I attended through
a very severe attack of this kind, was
on two occasions almost at the point
of death, and on each of these occasions
the attainment of the necessary therapeutic
ends was followed by immediate
improvement. On the first occasion
the cause of danger was threatening
heart failure. The pulse continued to
rise in frequency, was almost
immeasurable; the patient was rapidly
dying; when the injection of large
doses of Digitalis rapidly toned up
the heart rescued the patient from
death. A few days afterward the
fever abated and almost immediately
from want of sleep. One dose of
Pephrin given in 20 grains destroys
sent her to sleep for nearly 24 hours,
with short intervals for nourishment,
After this she became perfectly healthy and was born convalescent. Large quantities of tonics and are often necessary and of course as much highly nourishing fluid food as possible.

Laxative is often of much service but I should like especially to mention lassens' extract which I have found of the greatest service. I generally give it in 3/4 doses every 4 hours. It has a particularly beneficial effect when there is high temperature combined with constipation and flatulent distension of the bowels. After from 3 to 4 doses have been given the bowels often begin to act nicely, the temperature to fall, the tongue to clean, and the flatulent distension to disappear. Patient speaks so gratefully of the relief it gives to this last most distressing symptom. I have almost always found it will work when given in this way. One of my patients I think owes her life to lassens' extract. Every day that the patient can be kept alive her chance of ultimate recovery improves. These cases although my anxious ones are always full of
hope and are in marked contrast
in this respect to the second variety
the treatment of which I write now deserve
in this second variety in which the
poison is from the first, or at any rate
early in the case, in the tissues
themselves, after the first dose, which
I give to all cases, I almost think that
much is to be hoped for from further
local treatment. They are as I have
stated before in the majority of cases
associated with that remarkable disease,
Acute Spreading Infection Sepsis.

Of course the same general treatment
which I have described above applies
also to these cases. It is the spreading
nature of the poison which is at the
root of their fatal tendency. The same
thing is seen in surgical practice
when Syphilis attacks a wound.
The most rigid active antiseptic
treatment of the wound afterwards
fails to check the disease because
the poison has gone beyond its reach
and as it is with the disease now
under consideration—

The Salicylic preparation has been tried
But I cannot see how it can eliminate
The deepness in which it is in the peritoneum
Opium appears to be no good for anything but anaesthesia. Caffeine, carbolic acid, and many other medicines are practically useless and are reduced to an endeavour to support the patient's strength. But in this of our last efforts to a steady, rapid, downward course is the rule in the well-marked examples of this disease.

Suicide and drainage of the peritoneum have been proposed and tried in a few cases but, hitherto, I believe without success.

I would suggest the following as a perhaps a better plan. That a large drainage tube should be passed down to the bottom of Douglas' pouch retained there. The patient should then be raised at the shoulders and upper part of the body so as to allow as much of the pus as possible to fall into Douglas' pouch and drain away. The shoulders should then be lowered, and a large quantity of warm bathed water allowed to flow in through the tube. The upper part of the body should then be raised again till the water allowed to drain off washes
out for with it. Water should then be admitted again the process repeated and over, as often as necessary, until the water returns clear. An antiseptic dressing should then be applied over the tube frequently changed. The flushing of the peritoneum should be repeated from time to time as often as considered necessary. By this treatment an enormous amount of poison would be got rid of if carried out early enough might be of some avail.

The difficulty of course is that almost as soon as one recognises the nature of the case it has become almost desperate.

One other method of local treatment for a septic condition of the peritoneum I should like to mention only to underline if I may correcting I cannot see that it is safe and should not like to try it under these circumstances. It would be quite impossible to make sure that all septic matter was removed, if any is left behind mere harm than good results such as the instrument would open up innumerable channels for the absorption of septic poison.
With fear.

Much has been written about the disease of the heart, but I believe that it is now pretty universally accepted that what used to go by this name is in reality a transient epigastric irritation from the absorption of the products of putrefaction though almost in the general track. A transient rise of temperature does sometimes occur when the heart's fluid becomes full and hard but it rapidly subsides when the secretion is well established, and is accounted for by the local condition of the heart. The temperature is not raised by this cause to any great height, and the condition of the heart should never be accepted in the early days of the fever as the cause of any decided pyrexia without the very greatest caution.

Sawtooth and many other cases with the exception of those light cases just referred to this point in my experience comes on at about a late period of the fever generally after the first week. Many cases of fever are believed by some to be occasioned during the general debility.
but as far as my own experience goes this is not the case; but on the contrary depression always leads towards the disappearance of the milk, and shrinking of the breasts, which give no further trouble. The cause of mammary inflammation probably always lies in the breast themselves and in the vast majority of cases are due to some faulty condition of the nipple, either from fissures or ulcers of the nipple or blocking of the milk ducts. The condition of the nipple most favorable to mammary trouble is callousification. The nipple is tied down and instead of expanding with the general enlargement of the breast during pregnancy and after the birth of the child it sticks in, or rather the breast swells up around it. Associated with this detached condition of the nipple will usually be found numerous secretions and fissures in the nipple. These are not apparent until the nipple is drawn out by the breast pump, when they will be almost invariably found.

This condition of the nipple acts deleteriously in two ways. Firstly the milk ducts are heat upon themselves
And thirdly, mechanically obstructed.

And secondly (this is perhaps of chief importance) the ulcerated and fissured condition is concealed and difficult to treat satisfactorily, as the discharges are confined in the cracks which are with difficulty kept clean. Although the nipples may be carefully drawn out, and the unhealthy ones dressed yet, they frequently retract again or cause retention of the discharges.

This is the absorption of pus into the cracks from the areas which produces the serious cases of mastitis budding in abscess. The soft microorganisms may be absorbed either by the lymphatics, in which case the abscess is usually more superficial; or the microorganisms may creep down the milk ducts, producing a deeper and more serious abscess.

To guard against the occurrence of breast inflammation the nipples should be carefully attended to during the latter months of pregnancy and from the first hour after delivery, they should be most scrupulously cleansed.
ulcers will be found covered by scabs, under which is a minute quantity of pus - these are innocent enough in appearance, but, that they are the real source mammillary abscess I have satisfied myself. The scabs should as quickly as possible be removed by warm Boracic ointments and the latter ones sent into a healthy condition.

After a short while Boracic ointment, and perhaps an occasional touch with a solution of nitrate of silver will form a good means of obtaining a cure. The heart of course should never be allowed to become too full. By constant use of the nipple I have been able to reduce very much the number of cases of serious mammillary trouble.

If unfortunately a heart abscess should form it should be opened with antiseptic precautions as soon as it has come fairly near to the surface. It is better not to be in too great a hurry; otherwise unnecessary injury may be inflicted upon the heart, since in reaching the abscess - unless the abscess is quite superficial and insignificant - it is much better to give
now be introduced and the theory applied. By this method I have treated a good many cases and deeply seated abscesses in which after 6 months there was not a mark left. There is no need for an incision more than sufficient to admit the drainage into the abscess. If the abscess is kept aseptic it is often surprising how quickly it heals.

Pleuromastia Dolens.

The first question which arises in relation to this disease is whether it is septic or its origin. This question has been hotly contested and I do not propose to enter into all that has been written about it; the many theories which have been advanced. The most recent belief inclines to the septic theory, and this is the view which I hold with regard to it. One point which has seemed to me of some importance in support of the septic origin of this disease is this, that in the cases in which Pleuromastia Dolens appeared there has been almost invariably a certain amount of rise of temperature in the earliest days of the fever-persim-
auditing has, I have usually found, been accompanied by a greater or lesser degree of pelvic inflammation, often so slight as to escape notice if not carefully looked for. This indicates that a deeper process, perhaps often of a mild nature, has been at work. It is this I believe which is the cause of the clotting in the vesic liberation. I have seen several cases of Phlegmateria Dolorosa but have not yet met with one which has occurred in a patient who has had a perfectly normal temperature up to the time of its occurrence.

Galatin page 803 holds the opinion, stating in support of it, that when the disease occurs apart from pregnancy, it is generally in a case in which there is some source from which aseptic abortion may take place, as in ulcerated cancer of the cervix. I have recently had under my care a patient with uterine polyps in whom there was aseptic discharge from the uterus. She had a prolonged attack of Phlegmateria Dolorosa.

Playfair page 401 mentions the same point.

Tyler Smith page 538 mentions the care of a practitioner who, whilst attending
a case of dysipilation, due threat, attended also 3 ladies in their confinement, all of whom were attacked with Phlegmata doloris. This is particularly valuable evidence.

The possibility of the clot in the uterine vein extending through the veins in the broad ligament to the thigh vein other spreading down into the femoral vein might be considered; but, if the disease was due merely to clotting of this mechanical nature without some further cause, I cannot understand why there should be a decided temperature often ushered in by a definite rigor. These symptoms could not surely be caused by an aseptic clot in the veins.

May fair page 398 describes it as a local manifestation of a general blood dyspasia and not as essentially a local disease.

St. Hilary too also advocates the aseptic theory and considers that obstruction of the lymphatics, plays an important part.

St. H.S. Jarrigue in the American system of gynecology and obstetrics page 321, Vol. 9 mentions the disease as one of the
manifestations of puerperal infection. He mentions it as a matter of course, apparently thinking it unnecessary to discuss the question. The gravity of Puerperal Dolus varies greatly in the same way as it does in the Case of the other Breech of the Fetus. Incised wound in the seat of Septic infection. There have been cases in which the condition of the uterus has led to any serious morbid. Danger of course may occur and detaching of clot.

The treatment required is absolute rest with soothing external applications. Opium if necessary at first for the pain. Saline and calomel in Iron. Very prolonged rest is often necessary and it is a great mistake to allow the patient to get about until the swelling of the leg has passed off. Otherwise it is very apt to become Chronic.

In conclusion I would say that this Thesis does not in any way profess to be an exhaustive treatment upon the subject, but that it only contains, as it tute portrays, some points in the management of the third stage of labour in the puerperal
...stated that I have endeavoured to indicate three points which have seemed to me to be of very great importance in the practical management of the customary woman, as they have occurred to myself during the past sixteen years and one of my experience of 2000 labour.

The careful observation of these has made me to reduce to a very small proportion the number of cases which depart from the normal course. The subject is one of very great importance not only to the lives of our patients, but also in enabling us to preserve their health and usefulness in after-life intact; and in the prevention of a fruitful cause of uterine trouble and chronic invalidity.