July 1864

Thesis on Abortion
Travel of the Life
by Dr. Walfrid

For Professor Simpson

[Stamp: University Library, Edinburgh]
Abortion and Premature Labour

Gentlemen,

I don’t wish to make any special apology for myself, for sending in an essay for your perusal, which does not pretend to excellence of any kind, and in which there is no original observation. As a rule I think such apologies objectionable, and quite out of place. Just simply to make a few observations—before entering upon my subject—which I think worthy of note—

It being compulsory on all students, before appearing for their final examination, to hand in a thesis on some medical subject. I think the majority are disappointed, and asserts to find that if they pursue the study of the prescribed subjects for
Examination properly - which is quite essential to their becoming practical men, and competent members of their profession - they have time, and are competent to enter into investigations properly for it - which otherwise they would find great pleasure in, which then might prove of great service to the profession.

(Those students who are apprenticed & find every little time to during their vacations as in my case) Time and competence being the only requisites (for an energetic man) who may we suppose him to be most likely possessed of them - when he has passed his final examination I think theatter is indicated - and then too I think the former is most likely to be available - his mind being set then unfurled to meet with his other studies, he can devote himself almost entirely to his subject - This could be easily provided for under the new statute as the students coming under then have...
To wait a period of three years after passing their final examinations before getting their degree — during which there would be ample time to enter into investigation and write an elaborate thesis.

I don't know whether this provision is made or not — in the new regulations. I think it would be a great improvement upon the present system.

I might enlarge upon this, but have satisfied myself with merely mentioning it, and that somewhat indistinctly — but I shall not occupy your time further — but proceed to my subject which I'm afraid is still more incomprehensible.

I am

Wm. Wayrel
Abortion and Premature Labour

The premature expulsion of the contents of the gravid uterus, that is before they have lived the full term (10 lunar months) within its cavity, is exceedingly common, and is spoken of as Abortion when they have done so less than 3 months, and Pre-
mature Labour when they have done so more than 3 months. This is a convenient division for practical purposes and in so far a natural one as the foetus becomes viable, or capable of surviving when expelled at about this period (the beginning of the 7th month) at least such is the opinion almost universally held; we believe, by practitioners of the present day, and it is undoubtedly supported by the facts of cases hitherto col-
lected relating to it. But the division
is not one that can be easily or advantageously
followed in describing or studying it,
as in the causes, symptoms, and treatment
they have so much in common —
It will therefore simplify the matter much
to take it as one subject — still keeping
the division in mind. Specifying any
difference there may be between them
as regards causes, symptoms, or treatment
as we come to each in detail.
Taking this view of the matter we shall in
accordance with it adopt the plan it
proposes in the following pages.
Abortion or premature labour then being
the unnatural or early termination of
natural physiological, nutritive, me-
chanical processes (in connection with
the mother) is consequently, especially the
former (Abortion) always an untoward
event, not only on account of the child being
lost in the majority of cases, but also
1. Because when once having occurred
it is much more likely to do so again.
passages are greatly obstructed—from distortion of the pelvis—tumours—
the life of the child, or mother, or both
may be imperilled.
It is gratifying to know that in many
cases it is in the power of the medical
man—to prevent its occurrence—in
others to cause its postponement until
the foetus becomes viable—and in others
to modify its severity & effects—by
appropriate treatment—and in others
(not the least important) to induce it
artificially—as in cases of deformed
pelvis—to do as to favour the recovery of the
mother, and in not a few cases to
preserve the life of the child also—which
would otherwise inevitably have to be
sacrificed—(unless the Cesarean section
were resorted to)—but we propose to
postpone the latter until we have
addressed the other parts of our subject
viz abortion produced by natural cause
—or without the interference of art
Taking here and all the other facts bearing
When the subject was considered, we found it most interesting, the study of which is incumbent on every one intending to enter upon the practice of Midwifery, where he will frequently meet with, and be called upon to treat, cases of it. For, in looking over the statistics in connection with this subject, we find that on an average, one in about every 7 cases of pregnancy terminates in this way. This itself is enough to impress us with the importance of—and the necessity of our acquaintance with—the subject. With regard to the time of life most prone to its occurrence, we find that it is more common during the latter half of the child-bearing period than the first. The tendency to it increasing with each pregnancy, there is even a marked increase in its frequency in second and later cases. Again, we also find that more than one in every three (1 in 2 2/3) mothers, experience it before the age of thirty—showing
that although more common it is not by any means restricted to the latter half of the child-bearing period.

As to the time of its occurrence after conception, we find that in accordance with the general law of periodicity observed in connection with the female generative organs— it occurs more frequently at a month or some multiple of a month from the last menstrual period (that is at a time when it is not pregnant the catamenial flow would be taking place) than at the intervening periods. We further find that it is more likely to occur before the end of the third month than at a future period when the connection between the ovum and uterine varieties are more fully established and that it occurs most frequently of all about the end of the third month itself, next so at the fourth, next so at the seventh, the number of cases at these periods far exceeding those at others— which are of
prettily equal frequency — as the analysis of 602 cases as given by Dr. Whitehead will serve to illustrate.

Therefore, it occurred at the 3rd month in 275 of these

<table>
<thead>
<tr>
<th>Week</th>
<th>Cases</th>
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<tr>
<td>4th</td>
<td>147</td>
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<td>5th</td>
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<td>30</td>
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<tr>
<td>Total</td>
<td>602</td>
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Having made a few introductory and general remarks upon — and acknowledged the great practical importance of this subject an acquaintance with this subject — on proceeding to investigate it further we are naturally led to inquire, in the first place — what are the causes of occurrences, so untimely, disastrous, and fraught with evil consequences. — Secondly, are there not symptoms (premonitory, as
well as immediate,) which will enable us to diagnose the approach, as well as, the actual existence of premature labour in any given case? And lastly, what treatment are we to employ in these cases, and is it possible in some cases to avert or prevent it? This being the order in which the divisions of the subject naturally presented to the mind, and moreover a knowledge of these first being essential to a proper understanding of the second, and the of the first and second to that of the third— it is evidently at best we can follow.

We begin then with

The Causes

These are numerous, and have been variously divided by authors. Perhaps the division into maternal, and uterine (as adopted by some) is upon the whole the simplest and best—accidental being included with the former.
Depending upon some abnormal, or unusual, condition of the mother, are very variable, and though more numerous than the converse, the accidental number of cases of abortion to which they give rise is probably much less. The accidental causes may be disposed of by simply stating that they usually act by separating the membranes to a greater or less extent and so exciting uterine action that they differ in each particular case and that amongst the most common are falls, sudden or excessive exertion, blows, violent concussions, severe coughing, straining, extremes of temperature combined with fatigue.

We should also add that the cause is sometimes retained with great tenacity in cases of severe injury. We have met with a case of this kind where a lady fell forwards from a table, some three feet high. The abdomen coming violently in contact with the floor...
The shock and pain were severe, but labour did not come on till the full time, when she was delivered of a healthy living child — the accident occurred a little before the eighth month in this case — Amongst the other maternal causes, one of the most common, important, and definite, and easily detected — is leucorrhoea, dependent upon a diseased condition of the lower part of the uterus — especially the cervix too. The affection giving rise to it most frequently being sublema, simple inflammation, superficial erosion, induration, varicose vessels, ulcerations, syphilitic disease, carcinoma, follicular ulceration, and so on.

Again it has been observed to be most frequent in the extremes of society — so that we must conclude that the habits of life have some influence.

We moreover observe that patients of weak constitution, or whose general health is affected are obscene to it, though
it is by no means constant amongst them — for many cases are on record of women in the last stages of consumption having borne well developed, and healthy children at the full term. A marked case of this kind came under our own observation of a woman between thirty and forty years of age, who was far gone in consumption before conceiving. About the seventh month of gestation she was thought — from all appearance — to be rapidly sinking, but to the surprise of all the began shortly after this to swell, slightly, and continued to do so until the full time, and was then delivered of a remarkably fine male child. The labour being a comparatively easy one. (She had had several children before). All progressed favourably, and at the end of three weeks she was sitting up. About a fortnight after this she began to get worse, and ultimately sank — about two months after delivery. We may mention that the expectoration was in
her case. Peculiarly diminished, shortly before and after the termination of pregnancy. We must therefore look upon bodily weak-
ness as one of the causes. Though not unpre-
rentively, pregnancy follows its usual course, and terminates naturally, in cases of it—sometimes even in so-called ones. As above mentioned—

In some women the susceptibility to it is very great, and this may be either local, or general (constitutional). In these cases the accident may be caused by a very slight shock, as mental emotion, of any kind, or a very slight injury, as the extraction of a tooth. These are very bad cases to manage. There are other cases in which Abortion becomes quite an established thing. The female aborting many times in succession, and generally about the same period of gestation—without any assignable cause, either ovum, or maternal. These are even more trying cases than the last—proving very obstinate to treatment,
It is noticed that in these patients conception generally takes place very soon after abortion — so that they are nearly always pregnant — in fact, the organs seem to be unusually active; perhaps it is to this that we must attribute the accident — we say perhaps — as it is by no means established but the part being unusually active, it seems only reasonable to suppose that there will be greater excitability, and more congestion than ordinarily (perhaps even chronic congestion may be established) — and that either singly or in combination they may in some way bring about the premature expulsion of the ovum — the former probably by giving rise to uterine contractions, the latter to separation of the membranes. 

There is another class of cases in which abortion takes place during the course of a fever (or after), as smallpox, scarlatina, measles, typhus, and it is difficult today in these to which division the cause belongs, the ma-
ternal or venereal -- we think it may be either -- for the disease can undoubtedly be communicated to the child from the mother in consequence of which the child may die and the result abortion -- cause trouble. On the other hand we think that in other cases the cause may be maternal especially if the patient be very susceptible as we find other disturbances of a much less serious character induce it frequently. There are many things which might give rise to it during the course of a fever the straining, shock which accompany vomiting for instance then there is the general disturbance of the nervous system, and of nutrition, accompanied by excessive heat at the height of the fever -- perhaps even the drugs used may excite it sometimes. Again there is the great depression (total weakness) towards the close (this being one of the causes seen before) It is possible also that the child may avoid the disease to a great extent, receiving
but little of the fever - owing to the power of selection possessed by the cells situated between the mucous and muscular membranes - abortion does not occur in every pregnant female who has one of these fevers, even though she have it severely. Hence we think it only right to conclude that if the child can live through some of these cases, it can through others - and consequently that the cause in many, if not most of them, is maternal. We suppose too that children are sometimes born alive under these circumstances.

Pyrexia and constitutional affections, too, are we believe, sometimes maternal, and at others vascular, causes.

There are other local disorders besides those already mentioned which are also said to give rise to abortion, as affection of the rectum and bladder, uterine irritation, and even a putridous condition of the uterus.

The maternal causes, speaking generally, may be reduced to the following:

These
Being the more immediate. 1. Shock (This includes the accidental, as well as some other). 2. Mental distress. 3. Bodily weakness. 4. Reflex action, in which the term are the excipient nerves.

Lastly, patients are very prone, and not infrequently heretofore, to attribute it to one or other of the accidental causes when it is really due to some other such as syphilis, pericula, &c. They are naturally led to attribute it with anything unusual (either real or imaginary) which occurred to them about the time of the appearance of the first symptoms.

We now pass on to —

The Foetal Causes. We may advantageously premise here by stating that the death of the foetus is always (except in a few rare cases) followed by its expulsion sooner or later. Though the time at which this occurs, after its death, varies greatly, it may be in a few days, or it may be delayed for months, and
sometimes — though very rarely — every year.

There are many things which may give rise to abortion by causing the death of the foetus — and these are probably more numerous than were formerly supposed, for it has been ascertained that constitutional diseases, especially contagious ones, such as the eye and hematuria, syphilis, can be communicated to the foetus in utero from the mother, and it seems also in some cases, such as syphilis, from the father — independently of the mother being affected. This being the case, it is not at all unlikely that they may in some cases cause the death of the foetus, and in this way lead to abortion, in fact we presume that this is often (at least commonly), the cause, under such circumstances — the weight of evidence too, at present collected on this subject seems to point in the same direction.

Again anything materially interfering with its nutrition may, and probably will lead to a similar result. Fig.
Death, and subsequent expulsion — how there are many ways in which its nutrition may be interfered with, perhaps the most common, and certainly the most important of these, are atrophy, and faulty degeneration of the placenta. The importance of these is in a great measure owing to the fact that they are to a certain extent amenable to treatment — that is, in suitable cases. But we must leave this for future consideration.

Haemorrhage into the placenta to a great extent too, would have a similar effect upon the nutrition of the foetus — but it would probably in the majority of cases give rise to abortion, by exciting the uterus to action, before its effect upon the nutrition of the foetus had been continued sufficiently long to prove fatal.

In some cases, the umbilical cord becomes too tightly as to interfere with, or arrest, the circulation in the umbilical vessels, and in this way the foetus is destroyed. It may also be erroneously inserted, or torn.

wasting altogether (probably having taken place at an early period in these latter) in which case the infant is supplied by the placenta, having contracted adhesion, at some part of its surface. The placenta or the membranes at some other part of the child continues to live. These cases are very rare, and when they do occur, abortion is almost inevitable.

We should not forget to mention also, malformations, monstrousities, and deficiencies in the foetus itself. There are cases, as tending to a similar result, by some obstruction to the development of the umbilical cord will impede its growth. In addition to these, there are other causes, belonging to this, the umbilical cord - where action you cannot attribute (in most cases) to their interference with the nutrition of the foetus. Thus the other fetal organ - deep, amnion, chorion, and decidua as well as the placenta are liable to farty degeneration. Hemorrhage also is liable to occur between any of
The result of...
Nerves and their centres are much more susceptible during pregnancy than at other times—and this will account for their being so easily influenced by unusual or abnormal stimuli—especially in females of the nervous temperament—

First in order we come to the Symptoms

The Symptoms

The symptoms of premature labour are for the most part similar to those of labour at the full time—viz: pains in the back extending down to the thighs, and round to the front of the abdomen—discharge of mucus from the vagina—uterine contractions at regular intervals—dilatation of the os uteri, and protrusion of the membranes—

These are generally preceded for some time—which may be only a few hours, or it may be the day—or even weeks—by dull pain in the back—more or less general uneasiness, and irritability
The patient at the same time, feeling languid and experiencing an inability or disinclination to exert herself - want of appetite differing to a certain extent in each case, owing to the difference in cause - constitution.

These preliminary symptoms are of great importance, as treatment is much more likely to be successful during the time of their exhibition than at a future period, especially if the cause is maternal, for then it may be the death of the foetus has not taken place, but unfortunately they are often neglected, and the medical attendant not called in, until the symptoms of labour have become developed.

Another common symptom is hemorrhage, which is of two kinds: 1. It may be so situated, between the membrane as to be retained until labour pains come on, which by causing their rupture or separation, makes a way for its escape - this is called internal. 2. It may itself cause their separation.
or they may have been separated before its occurrence in these cases there is an extrernal flow from the commencement. This is called external. In the latter case, of course its existence is at once ascertained, but in the former its detection, while still internal, is generally difficult. At the same time there are certainly indications of its existence, which may be more or less conclusive. The interine tumour being larger than it should be, at the period of pregnancy at which it takes place, is one of these, but this is very little to be relied upon. There being many sources of fallacy here. It also differs in other respects from the normal tumour being rendered more tense. These conditions of it can only be ascertained when it has risen above the pubes. There is also more or less constitutional disturbance produced. The patient feels exhausted, faint, and the convulsions public. The pulse is weak.
accelerated - the chief complaints of
cassitude, shivering, headache.
sometimes of a difficulty in making water
there is generally slight pain at intervals the patient generally
experiences a sensation of weight in the pelvis, accompanied by a
slight pain, of a dull character.
It may be remarked that the hem-
orrhage is the more to be feared,
the earlier the period of pregnancy
at which abortion takes place.
As to the cause of the hemorrhage,
it is attributed to mechanical injury
in the case of accidental abortion
but in others it is not so obvious.
in some it is probably due to over-
dilation of the blood vessels from
some cause or other - and in others
to organic change or deficiency
most commonly of the membranes.
whether giving rise to their separation
or not. amongst these last - falls
defeneration seems to occupy the
first place. —

It remains to be mentioned that in some cases the symptoms as above mentioned are only slightly pronounced, or almost altogether absent, the fever is simply cast off or expelled. The pain is inconvenience suffered by the patient being very slight, and her recovery a rapid one.

It has been observed that these cases are generally in those women who have become habituated to abortion.

In some cases, on the other hand, it sometimes happens that when one dies, at an early period, it is not then expelled, but is retained until the birth of the other, at the full term — although the symptoms of labour were developed at the time of its death.

There is another class of cases in which after the expulsion of the fetus, the membranes are retained, so long as this is the case, hemorrhage
We take up in the next place

The Treatment

This is undoubtedly the most important part of our subject, but at the same time it is inseparably connected with the causes & symptoms, and the more perfect our acquaintance with these becomes (for it is by no means perfect) the more successful is it likely to be. The treatment is by no means to be limited to the labour, & its consequences, we aim at more than this viz. at the preventing or averting it in many cases, & sometimes, will success, we should not be able to guard against it without a knowledge of the causes which might lead to it, the symptoms by which its approach is manifested. For instance if the preliminary symptom be allowed to slip by, much valuable time is lost, and the case becomes much
Self-amenable to treatment —

The treatment will of course vary according to the cause. The stage at which the case has arrived, at the time it comes under our notice — If we are called to a case of threatened miscarriage, we at once set to work, to try and prevent its occurrence, and lest this be deemed impracticable, in which case our attention would be turned solely to the safety of the mother (in the early months of pregnancy, when the child is dead) — On the other hand, labour has actually set in, our object is to get it over as soon as is consistent with safety — and to modify, so far as we can, the severity of its effects upon the mother — At the same time we are on the look out for any bad symptoms, our attention being par

icularly directed to the quantity of the

haemorrhage. We should never lose sight of this, it being as a rule the most
dangerous & troublesome accompaniment of abortion.

What are we to do then in a case of in which abortion is threatening.

Our duty would be plain; could we ascertain the state of the uterine contents—for instance if the child is dead, it is of no use trying to prevent it; in fact, it should be encouraged.

But this cannot be ascertained in the majority of cases, for as before stated, abortion is more common up to the third month of pregnancy, than at a future period—until after which the sound of the fetal heart is not developed. The only means (generally) by which its life can be ascertained, (the uterine sound being developed in case of fibroid tumours as well as pregnancy)—and this source of information was excluded, until the introduction of the stethoscope into midwifery practice.

The rule therefore is—when it cannot be ascertained whether the child lives.
or not to give the benefit of the doubt to the child — and treat as if it lived big — by using the best means to arrest the progress of the case. Treat any bad symptoms to — and in this, we shall be met with success or failure, according as the symptoms are severe, or only slightly developed. If the haemorrhage is great, and there are pains, and these have been long continued — especially if accompanied with bearing down — we shall have little hope of success — on the contrary if the haemorrhage is only slight, or absent, and attended with only slight pains, we shall have a good chance of succeeding. More so in some cases than in others, according to the cause, for instance we shall be much less likely to succeed in the intractable cases of habitual abortion, or where there is great
susceptibility than in those where there is an adequate assignable cause — if not too violent a nature.

The premature, or abortive treatment will vary according to the condition of the patient. Thus if the patient be strong or plethoric, general bleeding will in most cases be of use, but if she be of a weak habit of body, or anemic. This would be contraindicated, & so on. The patient should be kept perfectly quiet, every source of excitement, or irritation, stimulant, whether mental or bodily should be avoided if possible. She should be kept cool, being covered by few clothes. If the couch or bed upon which she lies should be resisting, so that a proper position may be maintained, without any exertion on her part & after all...
treatment should be kept cool.

Various methods of arresting the hemorrhage have been proposed, and recourse to some have recommended the mineral acids - the sulphuric principally, in large doses, which seem to have been but little successful, and cannot be relied upon.

Dr. Churchill recommends the Camphor, Indica (the Indian hemp), and this seems to be more successful, but this too is subject to failure, and that in a considerable proportion of cases, according to some of the best observations. The cry of dye and clipping are to be abandoned in the preventive treatment, as they would tend to an opposite result to that sought after -

Every sort of cold water, or its application to the sciuene from time to time is to be had recourse
to aid it is of considerable service (it should seldom or never be injected into the vagina) at the same time full doses of Opium or some of its preparation, are given, so as to bring about a suspension of the uterine action for a time — it acts as a sedative upon the circulation, and allays irritability. We think Chloroform might be of use in this respect (merely in slowing the cir-
culation) in many cases — first in the first instance, and con-
tinued for a time — Opium being afterwards employed (as required)
in the form of a suppository — and especially of the kind of
those, whose idioestheny is
liable to be peculiarly affected by Opium
—in whom it produces pictures and
somewhat great depression. But this peculiar effect of Opium on
some, may in a great measure be
avoided - by giving it with some stimulant as Chlorodyne - e.g.
- indigo - capricum - Indian hemp
- oxygen - of morphia. This would
probably do very well - the amount
of the stimulant (capricum) in
this case would not be injurious.

If our preventive treatment were unsuccessful, and the patient
abort in spite of it - we must
then make the best of it, and
do all we can for her safety &
comfort - our

Treatment of abortion would differ
little from that of natural labour
were it not for the more common
occurrence, in connection with
the former - of two accidents:
- Hæmatohæmorrhage - by far the most
common - therefore important -
and uterine phlebitis, resulting from
the retention of the uterine
membranes - (generally)
Hemorrhage in cases of abortion is always liable to prove fatal by exhausting the patient. If it occurs to any great extent therefore, our interference must be prompt, but if only slight, and the labor rapid, and strong, we may leave it to nature, unleft the membranes be retained, when it will be necessary to withdraw them, with the fingers, if possible—if not, this assisted by the extract of ergot may be successful. But neither of these plans may succeed—we must then try some other, for it is dangerous to leave them. True—they will ultimately come away after retraction, and dissolution—but during the progress these process, floretting is liable to occur—or uterine phlebitis may set up, the latter from absorption of the putrid matter. The former results from the division of the vessels (uterine sinuses)—the above methods having failed, how are we
to proceed. Various instruments have been used for this extraction. But there is danger of injuring the uterine walls, with most of these. The simplest and safest seems to be, to separate the membranes more (if possible) by means of the uterine sound, or a catheter, and then to withdraw them by introducing the fingers, or the entire hand, if it cannot be done without into the vagina, or by seizing them with forceps if safe, as when they protrude slightly from the os. Dr. Churchill has invented an instrument for this purpose; but forceps if properly managed, guided by the finger, would be perfectly safe under these circumstances. It is absolutely necessary to introduce the hand sometimes, but it is dan-
gerous to do so, especially after pro-
traction has been established in the membranes. When there is no floating, partial separation
Of the membranes (may sometimes be sufficient) the uterine muscles to contract in.

When flooding occurs where abortion is inevitable, to a dangerous extent, it may be stopped by plugging the vagina. If the uterus be not very capacious, as in the latter months (when the fetus is expelled,) when it could hold sufficient blood to prove fatal, without external flow, in which case the treatment would be similar to that given for flooding where the preventive treatment is resorted to, only that the quantity of opium must be smaller, so as not to suspend uterine action, which must here be encouraged.

The various other drugs recommended by authors seem of little avail. If everything fail, operative interference will be necessary. Either instruments being used, or the hand, according to circumstances.
period of pregnancy. In the latter months simply recapturing the membranes may sometimes be sufficient at the commencement.

When plugging has to be resorted to, cotton wool or a silk handkerchief are generally preferred with oil, and it is renewed every few hours with cold application to the vulva to ease used as before mentioned.

Great delicacy is required in removing thedown—whence is necessary. If plugging, although not immediately fatal, may be injurious by retarding recovery and permanently affecting the health of the patient.

Great care is required in the after treatment of cases of abortion as they are then quite as liable to superficial diseases as after labour at the full time. If not more so. They are very liable to neglect themselves in this respect. They must therefore be looked after.
diet should be the same as after an ordinary labour.

In cases of habitual abortion, we are called upon to prevent its occurrence. To this end, the general health should be attended to. If the body be weak, tonics must be given. If phlegmic, the reverse. The bowels must be kept in order, and the diet be light and nutritious. A moderate amount of exercise should be taken. All causes avoided, or removed. If the last aborted aborted before, as the again approaches the same period (especially if the abortion aborts about the same period of pregnancy), if pregnancy at which the aborted before, rest must be strictly enjoined, and she must be kept cool. The use of the hip bath with cold water is also found very beneficial.
In the obstinate cases of habitual abortion it is recommended that the uterus should have a long rest—will judicious treatment in the meantime.

We have only made a general summary of the treatment, as the various cases differ infinitely in their details, and require to be treated accordingly. A great deal will therefore depend upon the judgment and discrimination of the medical attendant—just as is the case with most other diseases. Every medical man too has his own peculiar method of treatment—some insisting more upon one point—others upon another.

Before quitting the subject we intend to give a slight sketch of the methods of reasons for and objections to the inducing
Premature labour - in certain cases. We intended to have dwelt upon this part of our subject at great length in fact this was the principal object we had in view when choosing if for an essay. Our object has however been frustrated by uncontrollable circumstances - and we find that we shall be merely able to mention the principal points of interest - which we now proceed to do.

The induction of premature labour is comparatively recent introduction in a subject of great interest in every respect, and is performed under various circumstances - it should be resorted to when absolutely necessary.
Not one of those operations which we are not called upon to perform but – declined, I without time for reflection (as a rule) – and as many objections have been, and are liable to be, raised against it, there should always be a consultation. A few days are not of very much importance in many cases – the patient is able to go about as usual before the operation. Consequently we usually have it in our power to delay it for a short time or remove the patient from one place to another – when a puerperal fever is epidemic, or other circumstances require it.

The induction of premature labour is practiced in cases where the patient were allowed to go the full time. Some other operation would have to be substituted in a more dangerous kind to the mother or child, or both – or as in some where the patient would inevitably die if the case were left
Hence - cases of sympatheitic vomiting - where nothing remains on postmortem, the patient is sinking of exhaustion.

Thus it was first observed that in patients with deformed pelvis e - where the birth of a child (living) at the full term would be impossible - that accidental premature labour (as well as in ordinary cases) was often attended with the birth of a living child - first sooner than about the seventh month - it was therefore thought that this might be initiated artificially by exciting the uterus to action in some way or other - it was found that this could be done in various ways - with varying success. The operation may be said to be perfectly safe - if properly conducted - that is, to the mother, it seldom proving fatal; but in the majority of cases the infant is saved also - but in a considerable number there are malpresentations.
The child not having taken up disposition properly in many cases (the period being the period at which this generally takes place) — in those cases where it is deemed warrantable to induce it before the fetus is viable too — it is of course lost — others from compression of the head.

It has been prepared, and practiced in cases of pelvic deformity, where this is too great to allow the passage of a living child at the full time — also in cases of obstruction from other causes — as sesstosic tumours which cannot be removed — even in cases of narrowing of the vagina to in which there is so much irreconcilable obstruction as to necessitate a more severe and dangerous operation. If the patient be allowed to stay till the full time — if the case — of course the child could not hap and then it would be necessary to perform amputation — with or
without excisionation — or in still worse cases — the Cesarean or Pijoultian sections (the latter is seldom practiced now) In the first the child is destroyed — it often proves fatal to the mother — in the second the mother has very little chance of recovery. The child lost is not necessarily saved — whilst the mother is saved in nearly all cases, and the child in a great majority when premature labour is induced. This is therefore much safer, the fatal — it is principally employed in cases where the child is viable — but it is not always safe in certain other cases, to save the mother — especially if the deformity be so great as to preclude the possibility of a living child being born — in cases of sympathetic vomiting as above mentioned.

There are other cases in which it has been proposed — where the obstruction is not the impediment — and cases
Where rupture of the uterus has previously taken place, it has been employed before both mother and child a better chance — also where there would be softening & danger of rupture of the uterine walls if allowed to proceed to the full term — as in some cases of fibroid tumours & (from the pressure of the gravid uterus) — when patients have previously had fits or yoga towards the close of pregnancy — causing the death of the child — it has been avoided in this way — Also in some cases where nervous tension has taken place into the peritoneum pleura — the cases of strangulated hernia too it has been practised to in — when this operation is contemplated a measurement of the parts should be taken — this can be best done with the hand either only with the hand either only with the hand — during two or three fingers of the mature hand, in some cases (often necessary) when this is done the child —
-ameters of the pelvis - should be compared with those of the child's head - at the different periods. These have been obtained approximately. The time of pregnancy must then be ascertained as near as possible. Being furnished with these data we shall be able to tell after pretty nearly after a careful consideration and comparison of them at what time the head of the child will be able to pass just nicely. When it will be too late for it to do so - I shall therefore know when to commence interference. If the diameters be less than 2 1/2 inches by 3 - it may be concluded that it is almost impossible for a living child to pass.

Various methods of induction have been recommended and practiced - as abdominal friction and manipulations, warm bath, a kind of sucking pump apparatus -
has also been used — also of abduction — separating the membranes slightly — also their rupture — also dilatation of the os — also a continuous stream of warm water directed against the membranes for 10 minutes, or so at a time — alsoajoring by use has been used but this is dangerous to the child — the uterus under its influence being kept in a continual state of tone. State of contraction between the pains & preventing coagulation in the cord —

The simplest, best & most effective at present seems to be a combination of two of the above mentioned plans — viz. dilatation of the os by means of a sponge bent — & injection of warm water from time to time (once or twice a day) — the membranes are probably separated at the same time by this process — It then generally comes on in from one to four days — 

Various objections here
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various objections here
been raised to its employment—amongst these is that it is immoral—and this has been satisfactorily answered—of overruled to—so have all the others—and it is now generally practiced by all practitioners—(when necessary—)

I have no more to say on the subject,—as I havent time to do it—which I regret—but it is unavoidable now.

I conclude with apologies for this imperfection—which is very great—which no one can see more than anyone.

Wm. Walpole

We forgot mentioning the treatment in cases,
Of fatty degeneration of the placenta. - The general health of the patient must be attended to - and chloroform
potash must freely be increased and the quantity of oxygen in the blood.
- a smaller quantity than suffering for the preservation of the fetus. - It is not often that the fetus can be kept
alive up to the full term in this way.
- but it can be frequently kept as
until it becomes viable - and
then when symptoms of its approaching
death appear - the principal those
being the stopping of its circulation
as ascertained by the plethysmograph.
- premature labour is induced
- children have in many cases been
saved by this treatment - which would
otherwise have been lost - It is
practised in cases where the patient
has previously aborted (generally
several times) if the cause has been one of
the placenta - we should
also have mentioned that the nutrition of the foetus is not necessarily interfered with in cases where the mother is almost wholly affected by some sugar-removing disease—such as diabetes mellitus.
Syphilis in female.

Placental ablation.

Reflex nervous cause.

Plugging the birth canal: Sponging.