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Notes on Abortion

Subject of Prize Essay

by - Wm Walford

For Professor Simpson

Private

Abortion and Premature Labour

Gentlemen,

I dont wish to make any special apology for myself, for sending in an essay for your perusal, which does'nt 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 - I wish simply to make a few observations - before entering upon my subject - which I think worthy of note - as follows -

It being compulsory on all Students, before appearing for their final examination, to send in a Thesis (~~on some medical subject~~) - I think the majority are dis-appointed, and vexed, 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 conscientious members of their profession - they have not time, and are not 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 to find very little time to during the vacations as in my case)

Now time and competence being the only requisites (for an energetic man) - when may we suppose him to be most likely possessed of them - when he has passed his final examination I think the latter is indicated - and then too I think the former is most likely to be available - His mind being not then burdened & mixed with his other studies, he can devote himself almost entirely to his subject - This could be easily provided for under the new statutes, as the Students coming under them have

to wait a period of three years after passing their final examinations before getting their degree of M.D during which there would be ample time to enter into investigations and write an elaborate Theses -

I dont 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 already confined 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 &c

Wm Walford

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 excessively common, and is spoken of as - Abortion when they have done so less than - and Premature Labour when they have done so more than - nine months. This is a convenient division for practical purposes - and in so far a natural one - as the fœtus becomes viable, or capable of surviving when expelled about this period (the beginning of the 7th month) - at least such is the opinion almost universally held & believed by practitioners of the present day, and it is undoubtedly supported by the facts & 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 view - & 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, & mechanical 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

(but this depends to a great extent upon the cause) 2. Because it is frequently unusually severe as compared with labour at the full time (taking into consideration the disproportion between the parts to be extruded at the two periods respectively).
3. Because it may give rise to great mental anxiety on the part of the patient 4. Because it may be - & very frequently is - accompanied, preceded, or followed by severe - and even dangerous hoemorrhage -
From either or a combination of these causes the general health of the patient may become affected - . Still it is not so much to be feared on account of its (immediate) fatality to the mother, as this is comparatively rare, which when it does occur is generally the result of the accompanying hoemorrhage - Of course when induced by severe mechanical injury a serious result is to be dreaded. And again in cases of premature labour in the latter months, where the maternal

passages are greatly obstructed - from distortion of the pelvis - tumours &c 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 &c - 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 &c so 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 discussed the other parts of our subject viz abortion produced by natural causes - or without the interference of art

Taking these and all the other facts bearing

upon the subject into consideration we find 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 terminate in this way - This of 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 over first cases - Again we also find that more than one in every three (1 in $2\frac{2}{3}$) mothers, experience it before the age of thirty - showing

that although more common in - 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 if 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 x when the connections between the ovum and uterine parietes are more fully established - and that it occurs most frequently of all about the end of the third month itself - next at the fourth, next at the seventh, the number of cases at these periods far exceeding those at others - which are of

pretty equal frequency — as the analysis of 602 cases as given by Dr Whitehead will serve to illustrate Thus -

It occured at the 3rd month in 275 of these
" " 4th " " 147 "
" " 7th " " 55 "
" " 2nd " " 35 "
" " 6th " " 32 "
" " 5th " " 30 "
" " 8th " " 28 "
Total 602.

Having so far 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 enquire, 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'nt it possible in some cases to avert or prevent it— This being the order in which the divisions of the subject are naturally presented to the mind, and moreover a knowledge of the first being essential to a proper understanding of the second, and that of the first and second to that of the third— it is evidently the 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 foetal (as adopted by some) is upon the whole the simplest and best— accidental being included with the former

The Maternal Causes— or those

depending upon some abnormal, or unusual, condition of the mother, are very variable; and though more numerous than the ovulae - the actual 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 &c.

We should also add that the ovum 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 leucorrhœa, dependent upon a diseased condition of the lower part of the uterus — especially the cervix & os. The affections giving rise to it most frequently being œdema, simple inflammation, superficial erosion, induration, varicose & fissured ulcerations, syphilitic disease, carcinoma, follicular ulceration, endouteritis &c —

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 obnoxious to it, though

it is by no means constant amongst them — for many cases are on record of women — even 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 ob- - servation — 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 appearances — to be rapidly sinking — but to the surprise of all she began shortly after this to rally 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 - greatly diminished, shortly before, and after, the termination of pregnancy -
We must therefore look upon bodily weakness as one of the causes - though not unfrequently pregnancy follows its usual course, and terminates naturally, in cases of it - sometimes even in extreme ones - as above mentioned —
In some women the susceptibility to it is very great, and this may be either local, or general (constitutional) (as to influence) -
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 &c — 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 ovuline 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 acc- -ident - we say perhaps - as it is by no means established - but the parts 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 &c ——

There is another class of cases in which abortion takes place during the course of a fever (or after), as smallpox, scarlatina, measles, typhus &c, and it is difficult to say in these to which division the cause belongs, to the ma-

-ternal or ovuline - 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 - ovuline. 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~~ the straining, shock &c which accompany vomiting - for instance - then there is the general disturbance of the nervous system, and of nutrition, accompanied by excessive heat &c at the height of the fever - perhaps even the drugs used may excite it sometimes. again there is the great depression (bodily weakness) towards the close (this being one of the causes given before) &c It is possible also that the child may avoid the disease to a great extent, receiving

but little of the poison - owing to the power of selection possessed by the cells situated between the ovuline, and maternal membranes : Abortion does'nt 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 -

Scrofula, and constitutional Syphilis too, are we believe, sometimes maternal, and at others ovuline, causes

There are other local disorders besides those already mentioned which are also said to give rise to abortion, as affections of the rectum and bladder. uterine irritation, and even a pathulous condition of the os uteri - &c

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 others) - 2. Mental Emotion - 3 Bodily weakness, 4 Reflex action, in which the nerves are the excident nerves -

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

We now go on to —

The Exciting 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 — even for years.

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 exanthemata, syphilis &c can be communicated to the foetus in utero from the mother, and it seems also, in some cases, such as syphilis &c 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 — deed we presume that this is often — (not to say 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, viz. to

death, and subsequent expulsion -
Now 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 fatty 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 tied so 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 even

* Dr Barnes. Med: Times & Gaz. March 1853

wanting altogether (probably having given way at an early period in these latter) in which case nutriment is supplied by the foetus having contracted adhesions, at some part of its surface - to the placenta or the membranes at some other spot - — If 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 - monstrosities - and deficiencies in the foetus itself — from cases such as tending to a similar result. Any mechanic obstruction to the development of the uterus too will impede its growth — In addition to these, there are other causes, belonging to this, the ovuline class - whose action you can't attribute (in most cases) to their interference with the nutrition of the foetus - thus the other foetal appendages - amnion, chorion, and decidua, as well as the placenta are liable to fatty degeneration & Hemorrhage also is liable to occur between any of

these membranes — This group of causes, seems to act, as a rule, in the same way viz. by giving rise to the separation of the membranes, and so exciting uterine action — (unless it be in the case of formation of (I suspect the cause here differs little if any from that in the above cases — there is more dilatation of the uterus & by dilated of the ovum) — escape of the Liquor amnii is another thing which is liable to produce it.

It is not likely that the child would be killed by mechanical injury — in case of accident not proving fatal to the mother.

We conclude the category of causes by observing that a close examination of them seems to show, that the immediate cause in (almost) all cases is — unusual — excessive — or long continued application of a stimulus, to the extremities of incident nerves — the influence of impressions so produced passing to the nervous centres — in many if not all cases disarranging their functions — and being thence reflected along the uterine nerves, upon the uterus, and so exciting it to action — It is exceedingly probable that the uterine

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 un- - usual - or abnormal - stimuli from especially in females of the nervous temperament -

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Reset 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 mucous from the vagina - uterine contractions at regular intervals - dilatation of the os uteri, and protrusion of the membranes ~~of~~ - - - but these are generally preceded for some time - which may be only a few hours, or it may be days - 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 &c differing to a certain extent in each case, owing to the difference in cause - constitution &c 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 very often neglected, and the medical attendant not called in, until the symptoms of labour have become developed

Another common symptom is hæmorrhage, which is of two kinds - 1 It may be so situated, between the membrane &c 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 of itself cause their separation a

or they may have been separated before its occurrence - in these cases there is an ex- - ternal flow from the commencement - this is called esternal - In the latter case, of course its existence is at once ascertained - but in the former its de- - tection - while still internal - is generally difficult - at the same time there are usually certain indications of its existence - which may be more or less conclusive - The uterine tumour being larger than it should be, at the period of pregnancy at which it take 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 sick, nauseated & faint, and be- - comes pallid - the pulse is weak &

accelerated - she also complains of lassitude, shivering, headache, sometimes of a difficulty in making water &c - There is generally slight reaction 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 hemorrhage 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-dilatation 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 - fatty degeneration 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 ovum is simply cast off & expelled - the pain & 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 term 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 fœtus, the membranes are retained - So long as this is the case, hæmorrhage

is to be feared.

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 will the treatment be 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 with success, we should not be able so 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 symptoms be allowed to slip by, much valuable time is lost, and the case becomes much

less amenable to treatment —

The treatment will of course vary ac-
-cording 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 mis-
-carriage, we at once set to work, to
try and prevent its occurrence, un-
-less this be deemed impracticable.
in which case our attention would
be turned solely to the safety & well-
-being of the mother (in the early months
of pregnancy - when the child is dead &)

If 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-
-ticularly directed to the quantity of the
hoemorrhage - 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 ~~layed~~ laid down — abortion is more common up to the third month of pregnancy, than at a future period — until after which the sound of the fœtal heart is not developed, the only means (generally) by which its life can be ascertained, (the uterine sound being developed in cases 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 viz - by using the best means to arrest the progress of the case - & treat any bad symptoms as - and in this we shall be met with success or failure, according as the symptoms are severe - or only slightly developed - If the hoemorrhage 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 hoemorrhage 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 &c 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, stimulants &c whether mental or bodily should be avoided if possible. she should be kept cool, being covered by few clothes & 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 & & her ab-

-ortment should be kept cool -

Various methods of arresting the hemorrhage have been proposed, and resorted to, some have rec-
-ommended 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 Cannabis Indica (the Indian Hemp), and this seems to be more successful, but this too is subject to failure, and that in a consid-
-erable proportion of cases, acc-
-cording to some of the best ob-
-servations - The ergot of Rye, and plugging are to be abandoned in the preventive treatment, as they would tend to an opposite result, to that sought after —
Enemata of cold water, or its application to the vulva from time to time is to be had recourse

to - as 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 preparations 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 &c We think Chloroform might be of use in this respect (very in rendering the circulation less rapid) in many cases - given in the first instance, and continued for a time - Opium being afterwards employed (as required) in the form of a suppository - and this especially if the be one of those, whose idiosyncrasy it is to be peculiarly affected by Opium - in whom it produces sickness and vomiting - great depression &c

But this peculiar effect of Opium on some - may in a great measure be

avoided - by giving it with some stimulant as Chlorodyne - which contains - capsicum Indian Hemp cyanate of morphia &c - this would probably do very well - the amount of the stimulant (capsicum) in this case would not be injurious. we think - -

If our preventive treatment prove 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. viz - Hoemorrhage - by far the most common, & therefore important - and uterine phlebitis, resulting from the retention of the putrid membranes - (generally)

Hoemorrhage in cases of abortion is always liable to prove fatal by exhausting the patient - if it occur to any great extent therefore, our interference must be prompt; but if only slight, and the pains rapid, and strong, we may leave it to nature - unless the membranes be retained, when it will be necessary to withdraw them, with the fingers if possible - if not, this assisted by the ergot of rye 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 putrefaction, and dissolution - but during ~~the progress~~ these processes, flooding is liable to occur - or uterine phlebitis to be 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 parietes 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 can't 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 dangerous to do so - especially after putrefaction has been established in the membranes - & should therefore only be resorted to in extreme cases - When there is no flooding - partial separation

with ergot &
of the membranes may sometimes be
sufficient - the receiving the uterus to
contract &c

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 foetus is expelled &c) 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 to be of little avail -
- If everything fail operative inter-
-ference will be necessary - either
instruments being used, or the hand -
according to circumstances - the

period of pregnancy &c - In the latter months simply rupturing 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 applications to the vulva * are used as before mentioned

Great delicacy is required in removing the vomm - when this is necessary -

Flooding 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 women are then quite as liable to puerperal 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 - their lying in,

diet &c should be the same as after an ordinary labour -

In cases of habitual abortion &c - we are called upon to prevent its occurrence - to this end, the general health should be attended to - if she be weak tonics must be given - if plethoric 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 (during the whole of it, should be) - or removed - ~~If she has aborted before~~ - as she again approaches the same period ~~(especially if she always aborts about the same period of pregnancy)~~ of pregnancy at which she 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 - with 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 & 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 it for an essay - our object has however been frustrated by uncontrollable circumstances - and we find that we shall be ~~merely~~ able to do very little more than mention the principal points of interest - which we now proceed to do

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The induction of premature labour

This is of comparatively recent introduction - is a subject of great interest in every respect - and is performed under various circumstances - It is only resorted to when absolutely necessary -

It is one of those operations which we are not called upon to perform sudden, & 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 also generally 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 puerperal fever is epidemic — or other circumstances require it. — The induction of premature labour is practised in cases where — if the patient were allowed to go the full time — some other operation would have to be substituted — of 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

to nature – as in cases of sympathetic vomiting – where nothing remains on the stomach, & the patient is sinking of exhaustion – Thus it was first observed that in patients with deformed pelves & where the birth of a child (living) at the full time would be impossible – that accidental premature labour (as well as in ordinary cases) was often attended with the birth of a living child – not sooner than about the seventh month – It was therefore thought that this might be imitated 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 to her – and in the majority of cases the infant is saved also – but in a considerable number there are malpresentations ✱

the child not having taken up its position properly - in many cases (they must being about the period at which this generally takes place) - In those cases where it is deemed warrantable to induce it before the foetus is viable too - it is of course lost - this others from compression of the head &c -

It has been proposed, and practised 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 exostosis - tumours which cannot be removed - even in cases of narrowing of the vagina &c in which there is so much irremediable obstruction as to necessitate a more severe & dangerous operation - if the patient be allowed to stay till the full time - if she were - of course the child could not live - and then it would be necessary to perform craniotomy - with or

without excision — or in still worse cases — the Cæsarean or Sigaultian sections (the latter is seldom practised now) In the first the child is destroyed — it often proves fatal too to the mother — In the second the mother has very little chance of recovery — the child too 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, & less fatal — It is principally employed in cases where the child is viable — but it is warrantable 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 — as in cases

where rupture of the uterus has previously taken place it has been employed to give both mother & 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 &c (from the pressure of the gravid uterus) - When patients have previously had fits or rigors towards the close of pregnancy - causing the death of the child - it has been avoided in this way - Also in some cases where serous effusion has taken place into the peritoneum & pleura - In cases of strangulated hernia too it has been practised &c &c

When this Operation is contemplated a measurement of the parts should be taken - this can be best done with the hand - either only with - - during two or three fingers - or the entire hand, in some cases (when necessary) - when this is done the di-

-ameters of the pelvis &c should be compared with those of the childs 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 - - & shall therefore know when to commence interference - If the diameters be less than - 2½ inches by 3 - it may be concluded that it is almost impossible for a living child to pass

Various methods of inducing it have been recommended & practised - as abdominal frictions & manipulations - warm baths &c - A kind of sucking pump apparatus -

has also been used - also galvanism - 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 - also ergot of rye has been used - but this is dangerous to the child - the uterus under its influence being kept in a continued ~~state of~~ (or tonic) state of contraction between the pains - & so preventing circulation in the cord -

The simplest, best, & most effectual at present seems to be a combination of two of the above mentioned plans. viz - dilatation of the os by means of a sponge tent - & 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 have

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been raised to its employment - amongst these is that it is immoral - but this has been satisfactorily answered & overruled &c - & so have all the others - & it is now generally practised by all practitioners - (when necessary -)

I have no more to say on this subject - as I have not time to do it - which I regret - but it is unavoidable now -

I conclude with apologies for its imperfection - which is very great - which no one can see more than myself -

Wm Walford

We forgot to mention the treatment in cases

& atrophy
of fatty degeneration of the placenta –
– the general health of the patient
must be attended to – and chlorate of
potash given freely to increase the
quantity of oxygen in the blood –
– a smaller quantity than sufficient
for the preservation of the foetus – it
is not often that the foetus can be kept
alive up to the full term in this way –
– but it can be frequently kept so
until it becomes viable – and
then when symptoms of its approaching
death appear – the principal of these
being the retarding of its circulation –
as ascertained by the Stethoscope –
premature labour is induced –
Children have now 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) & the cause has been ascertained
– tained to be fatty degeneration of
the placenta – or atrophy

We should

also have mentioned that the nutrition of the foetus is not necessarily interfered with in cases where the mother is almost exhausted by some lingering disease — as Phthisis pulmonalis &c

Syphilis – further

Placental apoplexy –

Reflex nervous cause

Plunging for heavens – Sponge bath