AN INAUGURAL DISSERTATION
ON

Abortion

SUBMITTED TO THE
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DOCTOR OF MEDICINE.

BY
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To

John M. Watson M.D. Professor of Obstetrics and the diseases of women and children in the University of Nashville

This Thesis - the fruits principally of his instructions - is respectfully dedicated by a grateful

Pupil.
The tendency of the medical mind at present is to swerve from the beaten paths of our science and shoot off in wild and erratic orbits bidding defiance to consequence and setting at naught the accumulated experience of ages. The pyres of the profession spurn the investigation of subjects hallowed by their antiquity and consecrated in every age by the devotion of the brightest intellects that have adorned the galaxy of great minds in the medical firmament; because hitherto they can find nothing new concerning such old themes.

Consultation, Percussion, Anatomy, and a host of subjects of minor consequence are magnified into all the importance of sublime sciences and hound with laudatory essays innumerable through the medical press; while woman the first and best gift of God to man, and the various and multiform maladies to which she is by office subject for his comfort and happiness are
passed by in silence and criminal neglect or else
literally swallowed up in the ever vacillating questing
of the medical mind for something new. These things
ought not to be so; and are enough to bring
reproach, and deserved opprobrium upon the
profession.

Reflections like the above furnish the only excuse
I have to offer for choosing the venerable subject
of Abortion, as one bespeaking my most earnest
and faithful consideration at all times and
eminently worthy of my maiden effort upon
a medical subject. I do not presume to be able
to say anything new concerning it; but hope
by its investigation to become thoroughly acquisi-
ted with its protracted forms and management and
thereby make my knowledge subservient to the
alleviation, and eradication of some of the
afflictions and sufferings that man and nature
cut in upon woman—the fairest flower of earth.
The universality of our subject renders it doubly important, and throws new attractions of interest around its investigation. It is bounded by no geographical limits for women of every nation and climate are liable to lose the fruit of conception prematurely. Nevertheless, it has been observed to occur more frequently in civilized than in savage society, and also, to be attended, often with alarming and fatal complications. Thus obviously demonstrating that no condition of life however high and exalted can shield us from our part in the sequences of the primal curse. Nay more, it has been observed to happen oftenest in those whose primary condition enabled them to lead lives of luxurious ease and indolence than in those of the opposite extreme of society. Among laboring women it is usually the result of some accidental violence, whereas, those who move in the higher circles mostly abort from nervous excitability and irritability of the uterine fiber consequent on their manner of life.
The premature expulsion of the contents of the gravid womb may take place at any period of gestation, but it undoubtedly occurs relatively much oftener during the first two months—Madame Lachapelle to the contrary notwithstanding. This subject has been divided into two, where it took place within the first month, embryonic until the end of the sixth and after that premature labor but as they are void of practical utility I beg to be excused for their non-adoption. The process of abortive consists for the most part of two stages—first of the separation of the ovars attachments; secondly, of its expulsion from the uterine cavity. The separation is always attended with hemorrhage and the expulsion with pain. The loss of blood is various in different cases sometimes only amounting to a few ounces and at others to a fearful hemorrhage and always constitutes the chief source of immediate alarm. In the more advanced stages the reverse mostly happens—the pain and separation come first in order and the expulsion and hemo-
illage. It is difference principally arises from the
fact that during the former period the vascular connections
existing between the ovum and the uterus are exceedingly
frail and the least contractions is sufficient to sever them
and the uterine contents escape whole. But in the latter
period the adhesions have become stronger and the ovum
required volume so that a reverse order must necessarily
take place.

Abortion may be either accidental or habitual. That is it may
be the result of some mental emotion or violent injury compromis-
ing the integrity of the ovum or it may be habitual occurring often
about the same period of gestation—there being no ostensible
cause to which we can ascribe the mishap with any show of
reason. Each occurrence predisposes to a repetition of the accident
and when the uterus has once taken upon itself this periodical
disposition to empty its contents it becomes extremely difficult
to break up the morbid tendency and avert the threatened
mischief. It is remarkable that habitual abortions are habitual
consequences. The fact is established and we adhere to it without
philosophizing because of our ignorance in the premise. A female
may abort many times in succession however without destroying
her competency to bear living children. The most desperate
case apparently is not void of hope if judiciously managed.
And it behoves us then as medical men to assure our
patients of this and urge them to vigilant perseverance
in the use of remedial measures.

Causes. The causes of Abortion have been divided and sub-
divided variously according to the caprices and fancies of authors,
and I shall by virtue of precedent pursue the same course
and regard them under the divisions of Constitutional Local
and accidental

Constitutional. These in my humble opinion have been
most shamefully neglected both in accounting for the
accident and in its preventative treatments. Who has
most known women laboring under symptoms of Abortion
assigned to some trivial cause as an unpleasant odor
closed day after day even for weeks with Opium and its
preparations without their constitutions ever having been
interrogated for the cause or one single remedy addressed to its vicis. Such practice is as dangerous as irrational and needs only to be mentioned to be despised. I have no doubt but that scores of women have been sacrificed to the stupidity of the doctors in this respect. I have seen one lamentable instance of it myself. And here without circumlocutions I assert that he who disregards the condition of general systems in threatened abortion is a dangerous practitioner of the healing art.

There are two and opposite conditions of the general system that undoubtedly predispose and often become the immediate cause of miscarriage viz. anaemia and sterility. Suppose for instance that an anaemic female becomes pregnant or that the anaemia supervenes on the pregnancy—the whole mass of circulating is deteriorated and highly unfit for the normal subsistence of the constitution and of necessity every important organ shares alike the devastations of the enemy. Their functions become impaired, altered and perverted. The anaemia vampire-like secretly and silently sucks the life sustaining
blood from the frail tenement of the womb and it absolutely
dies of starvation. On the restorability of the function of involution
that obtains in this state of affairs may beget an irremovability of
the uterine fiber incompatible with the longer sojourn of
the fetus within the cavity of the uterus. What mean the
rapid brow—the bedimmed eye—the bloodless lips—the squama=
disappetite—the sick headaches and in fine the host of
anemic visitations that obtain in a large proportion of the
atrocious abortions if this state of the constitutions does not
play an all-controlling agency in the production of the
untoward result?

Females of Pethoric habits having copious and painful men-
trual discharges accompanied usually with what are termed
hemorrhagic prolapses are known to be very subject to
abortion especially in the earlier months. In such there is
a local determination of blood to the uterus monthly and
consequently an undue fullness or congestion of said organ
which always predisposes and may even excite a mis-
marriage. Pethora may induce congestions of other organs
besides the uterus contused against uteri, amnios and placenta
which will prove iniuals to gestation. Cruikshank's placenta
is always consists in the extravasation of blood into the substance
of the placenta or between this and the parietes of the
wound, and is the result of a plethoric condition of the vascular
system. When abortion happens about the third or fourth
month as it is most wont to do, we ascribe it to the relatively
greater determination of blood to the uterus which takes
place at that uterus about this time. Now this determines
is necessary to evolve the important changes that the foetal
organism undergoes about this time and if this normal
determination be competent to produce or even predispose
a miscarriage we are compelled to admit to a high
rank among the causes of abortion that state of the general
system denominated Prolacta and characterized by its
power and facility of producing local engorgements of the
internal viscére.

All acute maladies of the general economy as the various
cholera and idiopathic fevers as well as all the local
Phlegmavia pretend evil consequences to the regular process of
gestation and though not followed invariably by miscarriage are
nevertheless to be feared. But of all diseases syphilis exerts the
most lawful influence over gestation whether it be the father
or mother that is afflicted. Black air and epidemic influence
are probably the cause of those epidemics of miscarriages men-
tioned by authors. There is a state of the general system char-
acterized by an excessive rigidity of the muscular fibres which
may be reflected upon the uterus entailing the process of
dilatation or producing an unusual sensibility of that
organ so that it will not support the strange and volum-
enous modifications it has to undergo during gestation
without fatal reaction. And in fine we are too prone to
attribute abortion to that about which the female was
employed where the first sign of its approach became
perceptible without seeking for an adequate cause among the
derangements of the vital powers. He say it was caused
by some trivial matter when in all probability the state of the woman's
system was such that the accident would have been inevitable.
Local Causes.

Diseases of the uterus and its appendages. Females who have been married too young or too old often lose the ovum about the sixth or seventh month. They may be that they sometimes lose several conceptions consecutively, each however being retained a time longer than the one immediately preceding it. Now such cases admit of but one rational explanation and that is made by referring them to irritability of the uterus itself. That organ has not been accustomed to the presence of contents and hence it rejects them until a number of pregnancies have established a species of tolerance just as repeated potions of tincture eructate establishes a kind of tolerance in the stomach. Again on the part of the uterus and its appendages we may also number their various adhesions, tumors, displacements, inflammations, deformities, degenerations of tissues as occasional causes of miscarriage. They probably act in most cases mechanically,

Conditions of the contiguous organs and parts. Semenhoia cystitis and constiveness are the three most common pathological conditions that fall injurious upon the process.
of gestation that deserves especial notice under this division as abortives. They act by sympathy upon the uterus extending, thrice irritation to that organ and thus soliciting it to contract there may be tumors imbedded in the parietes of the pelvis or in the rectovaginal septum which may by their presence excite a degree of irritation incompatible with gestation.

Diseases of the ovum and its appendages.

During the first weeks of the existence of the human embryo it is assuredly a temporary or parasitic existence and is surrounded with too many causes of destruction to be able to resist them all successfully. Any of those acute maladies that are wont to attack the foetus soon after birth may set up during intravital life destroy its vitality and thenceforth it becomes a foreign body and the tendency of the organism is to cast it off as a stone or other heterologous substance. Some of the diseases of the parents as scrofula or syphilis may develop them selves in the foetus and ensue its expulsion. The placenta may be atrophied, hypertrophied or it may become the seat of purulent infiltration or a vessel for bloody discharges.
The cord is liable to similar transformations as indeed are all the foetal appendages but the one most certainly followed by abortion is the destruction of the integrity of the membranous involucrum and the escape of the least particle of the liquor amnii. This is invariably followed by abortion sooner or later but mostly it occurs within a few hours from the rupture of the membranes.

Accidental Causes. These may affect either the crown or the mother. And may be summed up as follows—violent mental or moral emotions, excessive fatigue, rough riding, injury to the organs of generation, too frequent coition, falls, blows, and lastly the injudicious use of the cold bath. I once knew a lady after an evening’s walk—plunge immediately into a tub of cold water and abort ere she could reach her bed in the same apartment. She had no signs of approaching miscarriage before she entered the water and in fact the way enjoying excellent health. It was in the fifth and a primiparous which may have had a share in the untoward results.
Symptoms. During the first two months, abortion is not noticed or attended to by any well-marked signs; for then the ovum slips away with but little more disturbance to the general economy than a difficult menstruation and is rarely attended with alarming complications. But at a more advanced period the phenomena are better marked and are of two kinds—such as foretell that the accident is likely to happen and such as show that the process has actually begun.

The first kind are those usually that denote the death of the foetus, as the sudden cessation of the morning sickness, the disappearance of the movements of the child, which up to this time may have been quite perceptible. The shrinking of the lower belly and a veritable inert body in the pelvis which falls about by the mere force of gravity. The female becomes restless, thirsty, complains of a sinking sensation at the epigastrium...
and coldness of the extremities. After a time those of the second variety make their appearance and are very similar to those of ordinary labor of which periodical pains and hemorrhage are the principal. Rigors and nausea sometimes attend the dilatation of the os uteri in abortion, but not so uniformly as in labor. We must bear in mind however that none of the above signs are infallible for hemorrhage the most certain of all is not invariably followed by the loss of the ovum.

The above symptoms in conjunction with the history of each particular case will be ample to enable us to make out a correct diagnosis and I presume that sufficient for all the practical purposes of a thesis.

In reference to the prognosis it is always fatal to the fetus, always occurring before it is viable. But in reference to the mother...
it is usually stated not to be so grave as an ordi-

mary labor. My own opinion is, that—It is

not so dangerous immediately but more so

remotely; for the acute puerperal diseases

often supervene on natural labor than abortion

whereas those chronic maladies of the womb

and its appendages which are the scourge of the

female sex are most apt to follow abortion.

As to how any particular case is to terminate

I would advise the young practitioner to be

guarded. We can confest the woman and her

friends about as much by a qualified Doostris

as by a positive one; and then if any thing

untoward should occur we escape shame

and reproach. In fact I have found it

answer my purpose best to qualify my

prediction as to the termination of any disease

with an expression that—It will probably

terminate this or that way.
Treatment. In this, we have one of three indications in view, the first is to prevent it in those accustomed to abort; the second is to stop the accident when threatened, and the third is to conduct the patient through the process when unavoidable. When we know a woman is habitually accustomed to lose the fruit of conception prematurely, it becomes our duty if consistent to prescribe such a course of regimen as will be most likely to counteract the disposition the womb has taken upon itself, to contract before the fetus is perfected. Perfect rest of body and quietude of mind are absolutely essential to the success of all cases where the uterus has formed a habit of expelling its contents prematurely. Hence we should confine the woman to one room and the recumbent posture from the time of conception until after the
period of quickening. For if we can conduct
them safely over this period they are in
general safe for that pregnancy. The fetes
seem to then be broken loose and nature
once more declares her supremacy and
proceeds to a natural and happy termination.
We must not forget—in the mean time that
this state of inactivity may beget vices of
the constitution which may prove more
injurious to gestation than the most protracted
course on the part of the female. The most-
common of these is constipation which must
be obviated by the mildest aperients or
what is more preferable by a laxative diet
as the black bread, or by much any of the
subacid fruit-stewed preserves etc. We must
also pay particular regard to the constitution
and if the patient exhibit an anemic tend-
ency use the mildest tonics as gentian-
and the like; but if the disease obtains then we must use the lancet-purge and adopt an anti-phlogistic regimen. We must enjoin abstinence from the date of pregnancy. These measures will be successful if the accident is avoidable. But we will now suppose that the process has proceeded a step farther and we find the woman probably after exposure to some exciting cause laboring under periodical pains and it may be a slight sanguinolent discharge from the vulva. Miscarriage is now threatened and we must fulfill the second indication. The woman must go immediately to bed, every source of excitement as noise and bustle must be removed from her chamber. She must breathe a temperate atmosphere. Her diet must be of the mildest and blandest kind and opium or some of its preparations must be
administered at short intervals and in small portions either by the mouth or rectum - the latter of which I think decidedly the most efficacious. In addition if the le

feverish with an irritable state of the System blood letting with saline purges will be very proper. But we will suppose that these means prove fruitless and miscarriage becomes inevitable which may be known by the pains gradually increasing and the bloody discharge augmenting. Now we will have the third indication in view viz. to conduct our patient safe through the Troublesome water. We must stop the opiates immediately and give all our attention to the woman. We must quiet her mind and dispel all apprehensions of immediate danger. In lingering cases we should make it a special point to prevent despondency seizing the mind of our patient
for it cannot act otherwise than most injurious. The foetus will usually be thrown off in a few hours, whole if within the first three months but with the membranes broken up after that time in which case the foetus is expelled first and the placenta comes away subsequently. After the process is over we must enjoin the usual regimen for the puerperal month. The patient must remain in bed as long as any bloody or serous discharge continues; for as long as that keeps up we have infallible evidence that the uterus has not regained its healthy normal condition. The above plan will usually answer where abortion is not attended with hemorrhage but when this occurs it renders the case much more formidable and dangerous and requires much more prompt and decisive treatment. It is admitted however that this complication
is not a very constant attendant on the
process of Miscarriage. Yet when it does
occur we must lose sight of the safety
of the womb and direct all our attention
to the salvation of the mother.
The first indication is if possible to empty
the uterus so that it may contract freely
and thus effectually stay the loss of blood.
Now when practicable I should always
decidedly prefer to do this by gently insinuating
two fingers of the left hand into
the vagina and scooping out the womb
entire. If this were impossible I should
not hesitate to use the hook of Dewes
with a great deal of care and caution
or the forceps of the French.
After emptying the uterus rest in the recumbent
prone posture, cold and astringent lotions to
the vulva loins abdomen and thighs with
cool and acidulated drinks will in general suffice. But should they not arrest the hemorrhage promptly, the tampon should be used. This is generally regarded as a mechanical remedy, but I presume that its efficacy depends as much upon its power to induce uterine contraction by its presence in the vagina as upon its mechanical obstruction to the flow of blood. I think we may always resort to this remedy prior to or a few weeks after the period of quickening with a certainty of success. It can always be at hand for a silk or cambrie handkerchief well oiled and stuffed closely and even into the vaginal canal until it is entirely full constitutes one of the very best as well as most concealable plugs.

But we will suppose that it is impracticable to empty the uteri artificially. Then I would...
the tampon and administer the Ergot of rye with a view of exciting uterine contractions sufficient to expel the foetus into the vagina, when on the removal of the tampon (which should be done at least in twelve hours after its introduction to prevent undue irritation by its presence) it could be removed artificially. Now it sometimes happens that the vagina is so irritable that it will not endure the lodgement of the tampon within its cavity. In such cases, as the best substitute I would use prepare for two, three or more hours close on the vulva by means of a folded napkin.

In cases of retained placenta when it was impossible to introduce the hand I should employ the small wire scrotch of Syrup Lervus and use the peculiar concoction in hope of exciting such powerful action in
in the uterus as would eventually throw of the offending mass and effectually stop the hemorhage.

The sugar of lead (dress thumps) is highly recommended by Dr. Jones in uterine hemorhage but I confess that in the two cases that I have used it my expectations were not realized by any means. Still any remedy possessing the confidence of such a man as Jones is not to be despised and I should administer it again with some assurance of success. However I am forced to regard it as decidedly inferior to the Eszat. It is undoubtedly less efficient and I believe less certain in its action. The fact is I should not rely on any one or two remedies in a case of profuse hemorhage. I had rather have on the whole armor and
do battle if possible with a thousand weapons.

I will just remark further that in cases of depression from the loss of blood stimulants become absolutely essential and of these I believe Brandy and Opium to be the very best. I should give them without stint and with great confidence of benefiting my patient by their liberal administration.

Prophylaxis. After abortion, direct the woman to procure a child and nurse it regularly for eight or ten months and I care not how strong the habit of aborting may have been fixed upon the system she will in all human probability carry her next pregnancy to full term. In cases where there is no
local disease of the pelvic viscera. This prophylactic remedy may be used with a certainty of averting the unhappy accident and breaking up the morbid group upon which the habit depends.

This subject was first brought to my notice by Dr. Roche of Huntsville, Ala., while I was a student of medicine in Lebanon. He had recommended it with entire success in seven cases. The first was that of a Mrs. Robinson, who, by accident, nursed her sister McClung's child. She had aborted four times in succession, but after nursing bore three living healthy children in succession. The old Dr. Roche took the hint from this case, then recommended it in the seven other cases with the happiest result. Three of them had aborted three times in succession, twice twice, and two once.
I was gratified to hear Dr. Watson in his lectures recommend this as a prophylaxis from his own experience in several interesting cases. He never knew it to fail. From the authority of those two great and observant Physicians we are led to believe that habitual Abortions are as effectually shorn of their appalling horror by this new discovery, if I may so term it; as small pox was by the discovery of Vaccination by the great Jenner.