Inaugural Dissertation
On the
Induction of Premature Labour
Submitted to
The Medical Faculty of the University of
Edinburgh
in conformity with the rules for graduation by authority of
The Very Reverend Principal Lee
and with the sanction of
The Senators Academicius
by
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Candidate for the
Degree of Doctor in Medicine
1845.
The design of having two beings, whose lives (if we may so express) they hold in their hands, the fear of saying themselves open to the repudiation of the law.

In this Stage I will endeavour to present the question in its true Obstetrical light. I will consider as much as possible, the history, and the actual state of the Science, in all calling to my aid the authority of learned men, so necessary in a question of this description, and the force of argument from all prejudice. I will only to remove such scruples as might stop the work of giving in the execution of a practice so useful and yet so much called in question.

By indirect Premature Labour is understood the expulsion of a living and viable foetus, brought forth by art before the period appointed by nature, with the aim of preserving both the Mother and the Child.

Induced Premature Labour has also been called, and very improperly, Forced Abortion, it is under this last denomination that it is known in Ireland Medicine. It is the Künstliche Frühgeburt of the Germans.
The following definition will establish a perfect

ought distinction between premature labour and forced

laboration. On the left, in reality, the fetus is sacrificed

for the preservation of the mother, in the other, without

compromising her life, the endeavour is to bring forth a

viable child. If it not then aborted be confined at the

same manner, Induced Premature Labour with Forced

Labour. In premature artificial labour, Nature very

almost alone, but only communicated a slight but sure

impulse, in forced abortion on the contrary, lost, but

almost alone, said all that Nature yields, must be

extracted from her.

In examining solely, we are soon convinced that the Ancients neither recommended nor

practised this operation. We cannot designate by

this name, those abortions that Acting I, Paulus Epicteta

witnessed, and in the list of which Censor, the

100 celebrated Matron Eggeria excelled. It concern

seriously, that this practice was unknown to the Ancients

from the ignorance which has existed until lately of

the exact length of generation and labour,

It appears from the most authentic documents

that England was the birthplace of Induced Premature
Labour. It was about the year 1760 that the most eminent physicians of Great Britain, struck with the unfortunate rigidity of the Pericardial Operation had a meeting in London to discuss this question, and it was then decided, that amongst women, when the "Pelvis was Narrow", if the inability of the Forceps was established it was preferable to endure Premature Labour.

This decision made a great impression, and was tried boldly in Britain and Germany, where it was adopted by some, and rejected by others.

The first case in which it was deemed necessary, fell under the care of Dr. Mcconkey, and terminated successfully. According to Dr. Deacon, this was in 1755, but Busch on the contrary, says, that this was proposed by W. Cooper in 1745. It appears after scarcely much practice in Germany than in England.

The affirms that in France, Antoine Petit had conceived the idea of it about the same date, and
Definiing seems to trace back the origin of it to Paris, whilst others have attributed it to Deacon.

But in examining closely the story, one discovers that Petit and Wiliam Cooper had been quoted by Macanby, and the "Analysis of facts" demonstrates
that Pages had only put into practice a forced labour in a case of Reproduction, and that Seventy had only induced a Simple Abortion. In 1799, Antoine Mey, grand-father of the distinguished Mazale, performed it with the best success. — Thus the years, Wilde, MONGELI, BURBOLD, Hug, ROSA, MON DE, HENLEIN, BEER, MENGIS & others often induced labour before term with great success, while the practice had been adopted by the elder Biere de Frey in 1772 for removing Stillbirth immediately before.

In France the proposed operation was for from being so readily adopted. Certain doctors of the National Church, regarding the importance of fetal life, or perinatal, rather than interpretation as to harm obtained Medical Men from making the attempt. In 1778, Hougel de Vangelin proposed to bring on labour about the 7th or 8th month, in cases where labour at the full time could not be accomplished. The proposal met with little notice, and the fame so as not of the operation being performed in France till 57 years afterwards. Some names of high authority such as the most violent opposing against the operation, Colomer, BERNADODE, Dezeg, SCHAFFELLE, & BOEIN condemned the
Practice chiefly on the following grounds— that it was impossible to determine the exact relation between
the head of the child & the pelvis, or the period of
pregnancy—that the means employed were highly
dangerous—that the risk of subsequent danger to the
Mother was too great, that it was impossible to near
a child at the 7th month. Some of these objections
we shall soon see are confounded, & the others are
imaginary, not real. Pelleetie, in the Archives Generales
for May 1834, was the first in France to publish any
account of the performance of the Operation. The case
was one of delivery of the sitting, the Mother received, but the child
unfortunately was not saved.

It was in the first instance proposed at the Academia of
Paris to induce premature labour in a woman labouring
under diœmesis of the heart, but the means failed, gave
their consent against the operation as being improper. Valentine
immortal. Bouilla in the first Volume of his De l'ouvrer de
Medicine Legale & Madame Riviere in 1829—offered
the practice. Delpeau in the first edition of his Société
day Accomodat. Society against it, but more recently
this high authority has changed his opinion, for in the
Second edition of 1835—our friend Bien's text run
favour of the operation, to which he has since performed with considerable success. - In 1830 Burchardt of

cariously published an admirable monograph on the subject, declaring the success of his practice in the country

to which appears to have opened the eye of his countrymen

to the benefits to be derived from the operation.

So lately is due the honour of first performing the

eration with success in France, the twice operated

discovery in 1835. - In 1835 Paul Dubois, lately,
in his Essay on the different kinds of female deformity in

favourable terms of the operation which he had since

perform it on the healthy subject. - The author of the

latest work on Midwifery published in France, M. de

Vially, says, thanks to the efforts of Mr. Haly,

Dubois's, P. Dubois's Illness, deeply brought on

before the full term, an operation hereafter recognised in

French Midwifery. - For a long time it proved

useful to our neighbours in England and Germany, while

a foolish prejudice caused to be rejected by French

Practitioners, who did not hesitate even to turn away to

the Caucasian Section and symphysisotomy.

The Haly, Securing Mid in first propped to induce

labour, the operation has been performed in that county
by himself, Lovat, Bell, and Ruther

Shall in 1799. performed the operation in

Dover, as it is regarded as one

of the regular operations of Midwifery.

The number of opponents whom he as a humane
objected to fear, destroy, or injure, and effectually
more or less plausible efforts have been directed against
the practice. The day is not far distant, when the
reputation of this operation will be completely withdrawn,
who knowing how it may not yet become necessary
to restrict the extension of it? Such at least is the
regard of M'Arthur of the London Board.

To show the morality of the action resorted
to by the Greenhead who practises premature Induced
Labour, in one of which two cases in parallel, the one
this operation, and the other abortion as forbidden by
law.

One accoucheur is called to attend a pregnant
female with a fever below the standard size, and
with respect to whom he judges it necessary to
bring on premature labour; heetsy to save the
Mother, and the Forty from the undue death, or
most serious danger, but them, all conscientious,
and long before the mother and those concerned
the favourable issue promised by the operation. He supports his arguments by the concurrence of an eminent colleague, in his opinion, throughout the case, avoiding violence or any direct action on the woman or on the fetus. He is convinced that if the albany gestation to go on to its natural term,
mother or fetus, and often both, in the greatest
danger, one of the two must infallibly perish. By
induced labour, there is a probability of saving both, but particularly the mother. Wishing to
avoid these being established, between the organs
of the mother and the body of the fetus, a dissection,
such as would expose the parts of an living infant,
helpfully come to its full term, by an operation being simple, and
coped from natural labour, the necessity of most
daring operations collapse the Abnormal (Symphysiotomy,
Nystro-tomy, Embryotomy) which is the pregnancy
had been allowed to go on to its natural period,
must have been inevitably put into practice; he
longed then to seize the critical moment when the
fetus beany the same proportion to the pelvis as in
labour at its full term. Besides this, the life and
The viability of the question being forced a new view of the operation. Nothing is done contrary to the will of the mother, to whom no guilty intention can be imputed, any more than to the physician. It is the desire of doing good that animates the man of genius.

In the case of abortion forbidden by the moral code, the expulsion of the fetus is practiced with an evidently criminal design, with the intention of destroying the fruit of conception, of removing this all trace of pregnancy, and often effacing every vestige of a fault, which it is the mother's interest to conceal. The expulsion is almost always brought on at an epoch when the exterior signs of pregnancy begin to manifest themselves, consequently at a period when the fetus is not yet viable; and it even even it, the circumstances in which this criminal manoeuvre is practiced would almost inevitably cause its death. Moreover, the act is secret, guilty even in the thought of him who performs it, and her who solicits or suffers it. Publicity and the aid of a colleague are repugnant; the most active and prompt means...
are employed, violence is not always avoided, all of 
are in haste, clasping and tearing—Behold 
them in the one, Sincerity, reputation, and death in the 
other, publicity, a good conscience and life

It is now impossible to the legisla that this 
operation was first used in the different countries when 
it was first practiced.

From a statistical table published by St. 
Ambro, Berlin 1833. in 170 cases of cesarean 
operation labour known to have, and practiced in 
Saxony, England, Holland, and Italy the loss 
of 16 of the Mutter had been prepared; the 91 who 
declain had been dangerously ill before the operation 
of 120 infants brought forth living, 77 survived.

Mr. Schaffner says that until 1831, 
cesarean 
operation 
labour 
hearing 
to his knowledge been in about 46 times, 
eight member 7 females died, 37 infants were born alive, 
and 6 of the remaining 63, 55 survived.

Mr. William Menting 114 Operating, of which 
72 were in England, 14 in France, 7 in Italy, 8 in 
Holland, but of these 114 cases, 46 infants were dead long, 
16 living, and 52 survived, 8 of the Mutter died, but 
5 are not there cut off by obstetrics independent of the surgery,
According to Mr. Holtz of Strasburg, in 1800 women, pregnancy labour had been in about 211 times, and had resulted in 133 losing children. Hamilton said he had practiced it 10 times on the same woman.

Mr. Seguin of Montauban reports, that out of 280 cases, which he had collected, six women only had died, and the infants had been saved.

Mr. Delphine has summed from the Journal génial de Médecine, the "Bulletin de Séances," the "Journal Complémentaire des États de Barlow," the "Journal de Médecine," the Dictionnaire de Médecine par Seguineau et Seguineau," and finally from the "Mémoire de M. Holtz" the basis of the following table.

In the operating of 520 women, 28 have been dead, 5 have been living, but not viable, and 16 survived. Hamilton, out of 27 children 23 died, 9 out of 12. Bouchardet 35 out of 52, and Marshall 1 out of 4. out of these 144 cases, 88 children survived, and only 3 women died. One of them finally from hydrothorax.

In England, the cataract 148 losing children from 50 operations. In Germany 52 out of 79.

The then as an average, Mortality amongst.
Women never exceed one in twenty, and it may be said, with
design degrees of certainty, that the half of all the children born
by induced labour have been saved, a fourth part being
afterwards died from meconium.

It is from alleging that women submitting to
induced labour, were born by any sight, either at the time
or afterwards, without doubt, the propriety of relief,
the child coming from the head, but who can say
that in the operating which at a later period must have
been resorted to instead of it, that the children would have
been less exposed to danger, if obstetrical, removing them,
expediently, frequently being forth a dead child, and
when the Haemorrhage is decided on being greater
longer after the preceding length of the labor has already
killed the foetus, by I suppose, unable to discover how
much more terrible are the consequences of these operations
with regard, to the mother. Results so favorable and so
incontestable in the death of themselves, and to both at
them above, should I hence, resolve the question as to the
culpability of the operation.

For them from considering induced labour as a cure
or an attempt against the long delay and seemin do
be not the in its own operation, regenerates in certain cases, and
constituting a valuable resource which it would be
inhuman to neglect. Every conscientious accoucheur
will regard it as a duty in certain circumstances.

Let us now consider Medical Premature Labour
according to the Medical view.

Throughout obstetrics there has been directed against this
operation, often with a distressing tenacity. The
Nestlecular response should alone suffice to reassure them,
but as a friend and householder, duty questions in dispute,
and as, besides, these objections have been made
strongly by enlightened and learned many whose work
have for many years sought and obtained the obste-
trical practitioners, and in whose eyes their opinion yet
constitutes an authority. I shall endeavour to combat success-
ively the arguments more or less plausible, by many
of which they have not availed to abolish the practice
of induced premature labour.

A most serious objection is that regarding the difficulty
of determining the exact moment when induced Labour should
be practiced. I confess that in certain cases, it is difficult,
and even impossible to characterize the exact date of
pregnancy, but in a great majority of circumstances I
consider it is easy to determine the date when the
growth of the foetus is so marked that it may be, without its being so much so, as to cause entirely the death of the mother in passing through the pelvis.

So come to a satisfactory conclusion of this, it is necessary to commence by ascertaining the number of menstrual periods since the last evacuation ceased. We compare the number of days of Monthly periods with those since the manifestation of the first movement of the foetus (if such movement has already taken place) adding these days signed furnished by examination, we can determine within a few days the date of the pregnancy.

Without giving to the appearance of the Monthly discharge, or to the date from when the movement of the foetus commenced to be felt, more reliance than these two circumstances ought to be given to neglect counting them, and the commencement of the pregnancy is not to be counted from the forenoon time when the catamenia should have appeared, but more than fifteen days sooner; in reality we observe that conception most frequently takes place in the days immediately following the Menstrual period.

In May bleed, wherein to instanct ourselves from
Several different sources:

1. The recollection of the woman regarding the time when she became pregnant, and the particular sensations she experienced, which made her consider herself to be in that situation.

2. The date of last menstruation.

3. The movement of the foetus.

4. The gradual and regular enlargement of the abdomen.

These different calculations prove, that in general we can fix the date of pregnancy to within fifteen days more or less. In the majority of cases, this day begins to be felt, when at the Seventh and Eighth month the head is softer, more comfortable than at the full term. From that, if its size is more than exactly proportioned to the pelvis; the diminution of its diameter may obviate the difficulty, and on the contrary, if labour be induced too early, all chance of the preservation of the foetus is not entirely lost. It is also observed that the size of the head cannot be ascertained. I admit that it is impossible to know the head of the foetus in this way, particularly, when by the expulsion of the membranes, but I allege that it is not impossible to know its size in comparison to the pelvis.
On death, it is known, that the diameter of the head at
the 7th and 8th Months of intra-uterine life, one in
general almost invariable, that at this date, the neck
is softer, and more conformable than at the full time.

It is known besides, from the observations made by
Browning & Clarke, and confirmed by Mr. Holty, that
the heights of girls (although the boys are in general of larger
or equal other respect) are if less diminutive than those of
boyes; this, of course, is impossible to squeeze; but that
does not render it of efficacies at the period of labour.

Another being invented, not only easy to this term is,
of the Society be viable, but in re-creating all the signs,
which would be sufficiently sometimes a belief of the child
being alive, and on discovering to fit exactly the state of
the pregnancy, Probability change almost into full
appearance. Of however, in other cases instances,
the miscarriage being to neglect bringing forth a child
not viable, notwithstanding every precaution having been
adopted, still it will be a satisfaction to him to know
how little danger the mother has run, when compared
with the misfortunes, which at a later period would
have overwhelmed her.

Thus, the dangers of Ireland from natural labour.
have been singularly exaggerated by the opponents of the practice. They never remember that labour could not have been terminated by Nature alone, "the
strong arm of nature." One rough "violent" it would
be perhaps impossible to cite one solitary authentic fact,
where abortion had been successfully induced in the
case of a deformed fetus. Now, it can easily be
proven that among the number of instances in which
abortion, which has been recorded in the Statistical
Reports, and the greatest number of which had been
unsuspected, is accounted for from the deformity of the fetus, the
Mortality amongst the women is only one in Twenty
six, only slowly and constantly that the uterine
contracting are brought on, and as they are not any
danger in their lasting even two or three days, their only
objection worth a moment's thought is the headache. When we
are practised it is with the view of saving the mother
from those ensuing danger, such as Convulsions, Hemorrhage,
Death. This operation saves the mother from all the
dangers attached to Puerperal or other Caesarian
Sections, at the same time that it also permits a viable
infant to be born.

It is also reported that induced labour being an
as a consequence, chronic complaint. It is said, in fact, that the medicine given may cause fever, and the efforts to dilate the uterine orifice by any means may be dangerous, if it cannot be brought about by the simple use of the bath. The mother or child would not run any risk, the child being sufficiently grown, but brought on in this gentle manner, it ought even to be looked on as a benefit to the female.

They have also approached induced labour with the means of causing abortion, hemorrhage, and retention of the placenta, more frequently than ordinary labour. Experience has done away with most of these means. The numerous observations published until recently, and the means at the disposal of the surgeon, have been found less satisfactory. In fact, no mention of miscarriages of this kind taking place in a larger proportion after this operation, which often labour of an ordinary kind, and besides were these few well-founded, it does not appear that they alone would cause the presentation of an operation so advantageous. For many useful directions would prevent these accidents from taking place.
Another objection, not less difficult to combat, is drawn from the difficulty of determining properly the depth in the formation of the pelvis. This point, at the present time, made singularly clear, we know that the geometrical dimensions of Mr. Overhults has always found a most exact measurement of the ordinary pelvis, it can be applied to the principal diameter with some little complication adopted to determine to all the pelvic diameters, and only can be measured in a perfectly mathematical manner. Besides, in the case of a general eminent, the accoucher can have the opinion of a colleague, by after the most minute and careful examination, he has still some serious doubt, he would wait until a post-delivery long has been and his complaint.

When he said, "Must a woman be doomed to certain death because the long too narrow a pelvis; moreover, in slow labour, would not be an operation for seven, or help dangerous to thereby be endeavor to snatch her from her unhappy destiny, throw the section of the safe, so the Caucasian operation." Without doubt, her death is not certain, but the chance was against her if they did not decide on bringing on premature labour.

Mr. Figueira thinks that out of 157 cases of Symphysiotomy
83 Women were saved in 73, or women Number, then left. Mr. Delphine (according to Bonin) Mentions 140 deaths out of 142 Segmentum Operations. On the other hand the Cesarian Operation proves still more favourable. Regard both as good to the Mother. The Statistical Data made by Mr. Delphine, of well authenticated cases, published since the 18th Century up to 1834, show 111 fortunate cases, against 147 unfortunate ones, i.e., Bringing this Report up to 1841, Mr. Sabou reports 134 successful cases against 159 unsuccessful, that is, to save 5 out of 11, cases succeeded. Out of the 100 cases reported of by Mr. Paul Sabou, 60 women died. From the 112 of Michelot, 62 lives left, of the 72 cases mentioned by Barnetlerger 42 died, in four from the 720 cases collected together by Mr. Figuerie, 124 women saved!!! See this from presenting but but think of the mortality, a number such as would be very large, Hysterotomy comes to the tomb nearly half the Mothers who submit to it.

It appears, it is true, less favourable for the child, in these two Operations, since on Symphlopetomy they came about 1 in 3 (according to Barnetlerger 13 out of 140 cases) and in the Cesarian Operation hardly 4 out of 100 save the first Bidelzheim. In the 12 cases of Mr. Hochstede, of Witting
brought forth, I died shortly after birth, and of starvation.
But thus, at what expense are these advantages bought,
or what food is the mother placed? Now, of these
two being confided to the care of the Accoucher, which
has the greatest right to assistance; the mother already
attached to the world by numerous ties, and with life
more; every chance of preserving by the operation of
some medical labour, whilst without it, she is exposed to
the most serious danger, or the life of the foetus who is
an entire stranger to these ties, and therefore reaching
causes of death in constantly sooner than before its death, it
even afterwards, since we know that one tenth of the children
born here attain to adolescence. - Is it not better in all
cases, to preserve the whole instead of the branch?

If, besides, we recollect that in Londonderry premature
labour, the same at least half of the children, and
more than nine tenths of the mothers, it must dearly
be admitted that, "without arrogating to ourselves the
absolute right of life and death over the foetus," the
Accoucher may, I ought even, in certain cases forge
without labour, to the Caucasian and Ignatian
operations. In doing so, he only belongs to the sphere
of humanity, and does not arrogate to himself the right.
By to embyotomy tocephalotomy, neither one
or other can really be brought into comparison with it;
if the infant be alive, it must necessarily be sacrificed.
If it be dead, these operations, the one as much as the
other, expose the Mother to the greatest danger.

He can consult in the "Memorial des lecouchemens
de Madame Beziin" a table drawn up according to
observations made by Rammbohm, in which the
turning of the child, followed by decapitation, afterwards
by perforation and extraction of the skull, has almost
always been followed by the death of the Woman.

Embyotomy, says Degernan, cannot be justified
but in a case where the fates, i.e., death, because its offers no
guarantee to the Mother (when the fates is so narrow, that the
practice of the caesarean operation is really pointed out)
ablest as people right is their operation, and the few
guaranteed chances offered by Embyotomy does not
warrant the sacrifice of the fates.

But what are the results of the reasoning of
Mr. M. Cajan and Beauregarde, who, after all acknowledging that in the case of a serious hemorrhage it is a duty to practice induced labour, consider this same operation as a crime, in the case of a Haemorrhage. In reality however, the only true difference between the two circumstances is quite in favour of what they wish to stigmatize, i.e. induced labour, the labour being to last two days, whereas in the other way the amount in general was but one. But it has also said is certain that premature labour is the only probable cause for the Mother, whilst those women-regarding more severe and life dangerous, of the Caucasian 9 wastful operating and Caesarean. It has been seen that may be thought of these circumstances; I shall only add, with regard to the decision of the French, which appears to be the least perceiving of these operations, that Mr. Cajan himself confesses, "That it is very difficult if not altogether impossible to determine in practice the circumstances under which Symphysiotomy may become useful or advantageous." Or is it then so much a resource? The urgency that there is to apply a remedy more immediately in one case than another, does not make any true difference in the value of the Method.
It will be perceived, from what we have said, how gratifying, and how little conformable to the principles of Science is the generalisation of uncertain given by some to this operation. What can in reality, the necessary conditions to render an operation agreeable to the principles of Science.

It is necessary to be adhered to 1st. That the other means of curing the patient exist. 2nd. That the effect of the operation will be, either the complete removal of the evil, or much relief, and a prolongation of the patient's life so considerable as to compensate for the pain and danger attached to the execution of the operation. 3rd. That the operation in itself is feasible. Now what I am endeavouring to explain demonstrate very sufficiently, that indeed labour answers to the conditions of this programme.

It has been urged against the operation that it goes but too rarely a small chance of life to the child.

To dispute this theoretical objection we have only to look to the practical results which have followed the adoption of the practice as shown by statistics.

The following table will shew the results of four thousand thirteen cases.
Burrow in 18 cases saved 12 children, or 8 flat

Hambly in 41 cases saved 23 or 56

Morrison in 46 cases saved 21 or 45

Hamilton in 57 cases saved 50 or 88

Kippin in 70 cases saved 73 or 81

Kilman in 161 cases saved 148 or 71

The lowest rate of success on record is given by Dr. Robert Lee of London who lost 7 children in 31 cases.

But in order to appreciate the full reason of the benefit resulting from this operation, consider the child, 160 certainly a member of children are lost (Yet Dr. Hamilton lost only children out of 57 cases) to prove how or mind what would have been the fate of these children of this mode of practice had not been adopted. How many of these cases deliver could not have been effects without the crutch of the forceps, and in nubilum the children would have been still born.

There is also the liability of the child to present the same or similar parts than the head. When the broad

hat is only about the time where formanum labor is induced that the child takes up its position in the

lateral with the head downward, we will expect to find this combination by no means uncommon. According to
Practiatical presentation occurred in
15 out of the 45 cases recorded by
14 — — 41 — — Montgomery
56 — — 112 — — Dubois
5 — — 57 — — Hamilton
Whenever there is a practical presentation the
danger is much magnified, and it is a source of
difficulty in cannot guard against. If one finds by
the stethoscope that the head of not presenting without
delay operating for some time in the hope of the presen-
tation realising itself,
I will not discuss the objective desired
from the difficulty of forcing on contracting strong
toughts to cause the evacuation of the fetus in a few
of time. But receding that of an ordinary labour, or
regular enough to allow the by labour to dilate, so as
to leave the fetus uninjured. The operation
details describe this objective to its fullest value.
At one time it was hoped to permit the body
of thickened from nature Labour by a breathing regimen,
attended to from the commencement of pregnancy, but
it has been since confuted how little a breathing
regimen, or the general state of the mother health.
influencing the growth of the fetus.

We know that Mr. Sterne was himself the
enlightened to re-establish this means, thinks, that
the threatened pregnancy may offer some chance of
the better reversion among the female measures
not by them 3½ inches, or at the most 3½ inches. And
the measurement below them 1½, this means would not
seem but as an auxiliary, and its efficacy must
not be calculated on. It is recommended, says
Mr. Sterne, to place the woman from the moment
of her pregnancy, under a well-known regimen with the
idea that improved by Abstinence, she will give
birth to a good small being. But in this practice
often the opposite happens, from what it appears to promise.
Not only when such a regimen had been adopted by
a person in a healthy state, but even by one whose consti-
tution had been worn out by some chronic disease.

How often do we remark that health leads
to distinction females, being very comfortably, gen-
tle birth to robust children, whilst others, strong,
will feel heavy for the only delicate one. This is
because the constitution and the growth of the fetus
are not absolutely dependent on...
of the Mother, these two organizations being distinct
and independent of one another.

The case authenticated Dr. J. Smith, as
Relate by Mr. Conklin.

A person of middling stature, long arms,
frail, and delicate, had already undergone three
most difficult confinements, on account of the excessive
size of her children. Pregnant for the fourth time,
She came for advice, her pelvis was regular enough,
but only measured about 8 inches in the Ventro-
Posterior diameter. She was submitted to the rule
of a strict regimen, eight ounces of blood was taken
from her every Seventh or Eighth week. This daily
loss was being allowed to satisfy her appetite at any
expense. She came remarkably well of them, let the
commencement of the Ninth Month of pregnancy,
the belly was enormous, without decided fluctuations.
Believing an considerable development of the
fetus, it was to prevent that she should submit herself
"to artificial premature labour. After the deliberation
of the Otolai, the Water broke, a thumb was present,
turning over, Rugby. A child by descent had 
been extracted, which, according to the opinion of the father,
Mention the learning. The learning and for long stabilization of the mother, it is put in base all the foregoing productions. This example appears very conclusive as to the total influence the regimen or the general state of the female is over the duration of the fetus.

Under any circumstances then, the learning regimen cannot supplant the operation of forced labour. It has besides other tenancives, which will not be mentioned here.

I shall now merely add a few more statistical facts to show the material mortality after the uterus has been cleared of its contents, before the expiration of the full time.

Dr. Messimer operated 46 times. Baird ad the mother
Harrellon — 67
Hanscomb — 67
Solomon has built — 67
Kelton 161. 8 mothers before last

Altogether then, the proof comes to the conclusion that whether can regard the operation in respect of the safety of the mother or child, that there are the most urgent reasons for having to cause to it in certain cases.
I shall now state the nature of the cases urging
the Indications of Premature Labour.

I. In these cases in which the pelvis is so
deformed that it would be unprofitable for a child
to pass through at the full time, and yet with
some contract it as to prevent the foetus at an unduly
but still viable age — as already seen it was under
such circumstances that the operation was first
performed by Kelley, and first performed by Macquon in
1757. — It is difficult to lay down a rule as to the
precise size of the pelvis at which this operation is calculated
for. Macquon, Buzen, give it from 2½ to 3½
3½ to 4½ inches in any of its diameters. — If the pelvic
measurements exceed 3½ inches, then this operation is
called for, while, if less than 2½, it would not
operate in saving the child. — They are allowed
to give the following table, as showing what is
generally held as the operation required in different
degrees of pelvic deformity:

<table>
<thead>
<tr>
<th>Degree of Pelvic Deformity</th>
<th>3½ Inches</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1½ to 3½ Inches</td>
</tr>
<tr>
<td>Caucasian Section</td>
<td>1½</td>
</tr>
<tr>
<td>Premature Labour</td>
<td>2½ to 3½</td>
</tr>
</tbody>
</table>

31.
As to the size of the fetal head at different periods of intra-gestation, I give the following table from Mr. Figueroa:

<table>
<thead>
<tr>
<th>Age of Fetus</th>
<th>Bifrontal Diameter</th>
<th>Occipito-frontal Diameter</th>
<th>Occipito-bregmatic Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>7th Month</td>
<td>2 inches 9 lines</td>
<td>3 inches 8 lines</td>
<td>2 inches 10 lines</td>
</tr>
<tr>
<td>7 ½</td>
<td>3</td>
<td>3 9</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>3 1</td>
<td>3 10</td>
<td>3 1</td>
</tr>
<tr>
<td>8 ½</td>
<td>3 2</td>
<td>4</td>
<td>3 2</td>
</tr>
<tr>
<td>9</td>
<td>3 4</td>
<td>4</td>
<td>3 4</td>
</tr>
</tbody>
</table>

It has been objected against such calculating that one cannot be sure of the exact age of the fetus unless it is previously stated, etc., etc. That certainty is certain, if it is true that the diameter of the pelvis is the same. To use this is true, but those objections are not quite as the length of the form of the pelvis or the diameter of the pelvis. We can determine the form of the pelvis or the diameter of the pelvis by assuming the longest possible form of pregnancy (Churchill).

As to the other, a well practised finger will yield information sufficiently accurate for practical purposes. In the absence of anatomical constrictions, besides it is an...
established rule that postnatural labour is not to be induced in general in Remaniacs, and if the case justly convinced from our knowledge of the case it is بعض

The proper time for performing the operation is a most important point, and must be regulated according to the exact degree of contraction of the pelvis.

According to Blyton, labour may be induced at

2½
30
31½
35¼
36½
37½

2
2
2
2
2
2

Labour when anterior posterior diameter of pelvis is 2.7

1
2
8
9
10
11
3

It will be seen that this table all but agrees with those already given.

It is now an incontestable fact that the child is viable at the end of the seventh calendar month of extra-gestation, and examples are not wanting of children being born alive at an earlier period.

After the 32nd week or about the 220th day from conception during its commencement from the 10th to 12th day from the last day of the last cutaneous, and enduringly to count
our careful actions by the state of quickening. For, I believe that the operation may be performed with all hopes of success, as far as the viability of the child is concerned. If the fetus is living in the womb, we should not operate so soon as when there is but a single child, on account of the dangers being smaller, having a life chance of surviving when born before the full time.

II. When affections are present endangering the life of the mother, and dependent or aggravated by pregnancy.

On this subject Dr. Denman says; "the propriety of this practice has also been considered, when women have, during pregnancy, suffered more than common degrees of irritation, especially to the womb, in such a state, that it cannot bear nourishment of any kind, or in any quantity, and the patients are thereby reduced to a state of dangerous weakness."

Dr. Hamilton mentions one case. Burns another, Dr. Davis records three cases in which this operation was performed under the circumstances mentioned by Denman, where the mother would in all human probability have died from exhaustion, before the full term of sixteen months had expired.
When the pregnancy is complicated with extensive effusion of the lungs, or the organs of the abdomen, and where at the full time, the enlarged uterus contracts from the forceps drawn back to injure the placenta, premature labour has been induced by Pegg, from whom I have taken the best details.

Sebilek and Caesarean operated in some instances, in which the firm's effusion which is generally confined to the lower extremities of pregnant females, having extended to the pleural and pericardial cavity, became the source of many severe and dangerous dyspnea.

From the report of the Berlin Lying-in Hospital, we learn that the operation was practised in cases of

Pneumatisation of the Abdomen. Pegg, resorted to it in an instance of strangulated hernia, to facilitate the operation, to give the child a better chance of life; the mother died soon after, but the child was saved.

III.

The next case, where I consider it to be the duty of the

physician to induce, premature labour, is when the factors of the mother's, if natural size, but where the infant is habitually of too great development for the natural passages. In such cases Dr. Hamilton was the first to practice this operation. He was followed by several others.
had gone much beyond the usual period of uterine gestation, when the child was more enlarged in size than children born at the natural time, although in the great majority of cases, the children are not, and in all these it was found necessary to diminish the size of the child by heating in order to effect delivery in the fourth pregnancy. Dr. W. ordered labour at the full time and saved the child. I believe that labour might be induced with benefit in cases where natural labour could not take place, but on account of any extraordinary large size of the child's head, but from the being too strongly agitated, labour preventing delivery, the cres the upsurg amont of compulsion, and consequent diminution of the motility of the placenta. Premature labour may be induced in those mothers whose infants are liable to perish during the latter months of uterine life. Dr. D. D. was the first to propose it under such circumstances.

The cases belonging to this class of labour the child after uterine lowering the end of the gestatory period. Most often for the induction of premature labour, Dr. D. D. takes the stage of the act of the child, if this happens, but from any disease of the other parts of the foetus, but from causes without the part of the lactation, from particularly of the placenta.
When one considers the relations the placenta bears to the fetus, that it is directly subjacent both to the inspiratory and expiratory actions of the latter, performing for it at once the function of the lung and of the stomach, or perhaps more properly of the mouth, we would, at one aspect, that disease of that organ, of any extent, will endanger the life of the fetus. -

It is a well-known fact in uterine pathology, that when a woman has once had a dead-born premature child, she is very liable to have the same unfortunate occasion happen in her subsequent pregnancies. I know of but a few cases, in which woman have lost but one child in the womb. Some females always lose their children about the 7th & 8th month of their pregnancy. The same individual generally is observed to do so, in a ruin of her pregnancies. The different disorders which lead to this unfortunate habit, may be referred to the diseases which attend the different disorders affecting the body of the fetus itself, include fevers, which is the most common cause of death from chronic structure. They are acute fevers, because the tissues of the body lymph are so abundant, and present exactly those appearances and conditions, which lead them into such in the case of an adult, would be admitted as satisfying proof of the attribute. Here we see one of a long and acute characteristic.
The cause of this disease we can assign to the existence of a syphilitic taint in one or both of the parents in almost every instance, and this can be destroyed by the gentle use of mercury, and other appropriate poisons, administrations during the intervals of pregnancy. By this treatment, many women may carry their children to the full time, and the unfortunate occurrence of a dead born child be prevented.

The diseased state of the placenta being the cause of death in many cases.

II. Hypertrophy of the fetal structure of the placenta, and

III. Note the inflammatory inflammation and thickening of a greater or less portion of the placenta, commencing in its chorio-cordal portion, and stretching through the substance of the organ — This may affect only one placental lobe, or two or more distant or contiguous lobes, and in other instances it may involve almost the whole of the organ.

These two disordered states of the placenta, must exert an injurious influence on the function of nutrition, or absorption in the f Austere, or of both — and if they arrive at a certain intensity, must destroy the life of the extra-uterine being.

Death of the foetus from disordered placenta, appears to be caused, not from want of nutrition, for we find these foetuses
not so extravagant, as we often find living children at the full term, but from deficiency or disturbance of respiration. If the placenta is diseased to so great a extent that this necessary function is much impaired or totally concealed, death must ensue all the fates, and the great tonic tonic proves to be the greatest in these cases of diseased placenta, &c. It is now of course, by degeneration, if not by destruction, or at least by degeneration, that the child in such circumstances that respiration can be carried on. This can be accomplished by the introduction of some substance into the child's veins. If possible, tend not to allow this to be done so near the full gestation term as possible, the can adopt the cutting of arteries giving the blood as near as possible, in the manner pointed out by Dr. Simpson in his first chemical lecture. By the introduction of small doses of the alteration salt of asthma, and others have proposed this punic in cases where pregnancy is complicated with the presence of fevers and some irritations, and some high in the body of the living.

Dr. Ashley lately that the increased vascular supply sent to the uterus during pregnancy leads these terminous to ten healthy and in perfect suffuration, and that death occurs soon after this termination.

In which Dr. Ashley's operation, new years occur.
Before the latter months, and if prematute labour were induced when the uterine cervix was rigid and indolent, the uterine would be as liable to be inflamed, as when the full gestational term is expired. I believe that the operation is not justifiable under these circumstances, unless the tumour is uncommonly large.

Dr. Bell has proposed to induce it in females who have had the uterine rupture in the second month, that at the full period of their next pregnancy, the tumour would recur, and by our operation, this would be prevented. He mentions a successful case of this sort, to the practice. However, a great, if not fatal objection is, that cases have been known of women who have had rupture of the uterus, and in their next pregnancy, bearing children at the full time without this accident again occurring. Pirbright did it in a case of uterine abortion.

Beckford wrote in his only expression to the condemnation of obstetric premature labour, these cases of cases of uterine haemorrhage, prior to the full term of gestation when the child is in all likelihood destitute, and the safety of the mother threatened. In the former thing one would see the operation was intended for the same reason.

The means proposed to bring on prematur
labour are numerous and various. In the table of process I will arrange them under distinct heads.

I. The simplest of all was that proposed by Professor D'Herembout at Wittenberg by abdominal friction and compression. To these among others have joined the thermo baths. In some instances these manipulations produce the desired effect, bringing about a safe and quick delivery, but in some cases they prove them unworthy of being relied upon generally, barely affected by the means.

They may be of much use in exciting the action to action: some of the cases of operative I am about to notice have been admirably accomplished. So are they in useful edifying.

II. The profit of this has been strongly recommended by some authors, particularly by young Honebohy as an effective means in inducing the generation of the child. Paul Dubois in France, Hagen in Germany, and several practitioners in this country (as Dr. Robinson of London, Mr. Keran of Florence) have obtained their object by this means. Dr. Lee has tried it, but failed. It was at one time denied that the Secale Cornutum had the effect of originating uterine contraction, but from its action in these cases, and its action in the induction of pregnancy in the act, we must allow that it has this power.
Dr. Young bothave mention that in 26 cases in which he brought on labour at the 7th or 8th month by its effect alone, all the mother recovered, but 12 of the children were born alive, while 14 were still born. That of those who were born viability only by discovered for very length of time. The low rate of success is a fatal objection to the uncombined employment of this Medicine. The one would be justified in leaving courage to it alone, while he can gain big object in a higher way, with an almost certain chance of success.

Dr. Young bothave now combined the exhibition of the

Pygot with the next Menu Doctrine of

III. The extraction of the Membranous.

This is the mode which Medico proposed, by which

Macaulay first performed the operation. He introduced a

Stilette perforated the Membranous (allowing the liquor amni

to escape). The result of this simple puncture is the sudden

escape of the liquor amni before the bag has been opened. It

in consequence the pressure on the foetus is dispelled, thus

for the hew success of those, who have adopted this

method.

So obviated this objection, by the too sudden escape of

the liquor amni, the puncture has been made obliging,

a few minutes after the bag broken. For this reason a variety

of instrument have been invented by Redge, Hlepe, Missouri.
In ordinary catheters with a curved notch, answers the purpose sufficiently well. This is judged by the introduction of a small quantity of water and air between the uterine and bladder membranes, and the fluid then made at this point, so that only a small quantity of water and air escapes through this line of communication. The great object of the last mode is the liability of the bladder or urethra to be punctured or a partial separation effected from the walls of the uterine, which would be not probably be followed byhemorrhage fatal to the child.

IV. The best mode is that proposed by Dr. Hamilton.

by the introduction of the membranes for some distance around the vesicouterine line. The stage in which he performed the operation was, that the finger is introduced through a gently dilated to an extent; the membranes are then cautiously separated from around the vesicouterine to the extent of two or three inches. Being instead of using the finger to dilate the bladder, He commonly a pair of forceps to be employed on the scene that his imitation is thus caused.

Dr. Campbell's is commonly in the same manner as male catheter of the largest size with the cervix slightly bent, its being as says is thus caused. Whatever the deception of Hamilton's method he employs, the organ is somewhat so insensitive of excitement, that it begins to be resisted at
intervals of two or three days. The uncertainty of this method has been urged as an objection against it. When it is not successful Dr. Hamilton advises us to puncture the membranes in the oblique manner.

Thus in May 1791, 9009 Indeed, In Dr. Hamilton

handy 60 children were saved out of 37 cases.

V. Liberation of the Child: by Means of the Gripe

In the plan expounded by Hume, Birmingham, Wellington, Durkengr Da. Hume who was the first to form it, describes it as being safe, certain. Swainson: Wellington operating May 2, 1791, "Libration can never draw more cases of Osipon, amongst I am a great Hume, est de son effort beaucoup plus certain. Libration qui en republique est permanente, progressive, reguliere, ble.

The way of operating is as follows. The eye is to be held gently to such an extent that the operator's finger can touch the membranes, which are not to be punctured. At Strype's one or two or three inches long is then to be introduced till the joint, which is advised to be two or three lines in diameter, is in contact with the membranes, the tent to be well grasped and to have a strong firmness attached to the local extremity in order that it may be removed without any difficulty. When it succeeds Dr. Hume议 in".
Surely can it dilate the uterus gradually, but forcibly.

There is some difficulty in fixing the bandage in the corviator, but in about this, the bag is then plugged. Phlebus recommends a T bandage to be applied over the whole in order to keep it in its place. The pain is expected on account of the great pain it causes to the patient.

A single tent is to be introduced after twenty-four hours until the bag is fully dilated, when passing cells in general superman. This will generally occur on the third or fourth day after the process is begun.

VI. Dilatation of the bag itself is sometimes made necessary. This is an old method of obtaining criminal abortion mentioned by the Roman authors.

It was managed by means of the penis introduced into the bag—It has been suggested and practiced by Dr. Lee, but I question its utility. It will dilate the bag no doubt, but will it open up the uterus? Professor Sampson has tried it in several cases for weeks of time, seven days, but without effect.

To which of all these methods then are we to give the preference? From what has been said, it will be seen that postponing the membranes, and the administration of the Egoat can best approach
to the child, and that the operation of separating the membranes from the uterus is the method recommended by Dr. Hamilton as the safest. The mode by which I would prefer inducing premature labour would be the Hamiltonian method, combined with some of the other methods. — By which some other authors recommended Hamilton's method to be conjoined with the administration of the Ergot. But I would rather combine it with rules, that is, with the ablationation by means of the Spongy tent. By this means Dr. Suflar has induced premature labour with success on various occasions. I recommend it strongly.

In all cases we must prepare the patient for the operation some days previously. The bowels should be well open, and some gentle exercise should be taken every day. The state of the stool should be carefully attended to, and all the functions of the body should be in good order. The general health of the lady to be as much restored as possible. The bath with also recommended and Dr. Bonnet advises a bain de air a few days before the operation. — After the operation, the patient must be diligently watched till the subsidence of the pains, which period, as we from Ten. Cassius according
to the kind of operation ye, from 20 to 100 hours.

After these have commenced, we are to endeavour

to finish the labour as soon as possible, and in order
to procure relaxation of the system, we may employ 1/3
the quantity abstracted if course being regulated by the
habits of the body of the patient and the state in which
she may be at the time; or also support the by lutine,
over which we can enable to adjust the dilatation of the by
by artificial means. The application of instruments is to
be avoided, unless they are most decidedly called for; the
fetal bones are soft, and the physical injury would be
great. The perforation of the uterine being extensive
accompanied with preaching and rigor. Great
disturbance of the nervous system is produced by its, severe
rigor, rapid pulse, and delirium as the occasional
symptoms, but these symptoms proceeding from nervous
vibration do not continue long enough to produce any
serious consequences.

During the operation Labour the cord must
be held no at constricting, and in every case must be
fallowed to guard the patient, all excitement.

After delivery, one should watch carefully for
the first symptoms of an attack of puerperity, which
Sorcery, Donovan, is very apt to occur after the induction of premature labour. Some fear, sometimes delirium, can be induced by persuasion, or the patient is too costly to follow the operation, and may be removed by a disease of domestic proportions.

In other respects, the treatment is to be conducted on the same principles as after a normal labour, but greater care must be taken proportionate to the increased danger to which the woman has been exposed. A small dose, with or withoutoppy ought to be provided in order to affect nourishment to the infant, but in cases of premature labour the milk is devoured by the mother for three or four days after delivery. The greatest care should be taken of the infant, as it will be delicate to rear with considerable difficulty. It should be exposed to as little cold as possible. In Germany, children from almost born are covered with cotton and wool with this view. They should be applied to the breast very frequently, and Receive little nourishment at a time, as the digestive organs are very weak.

In conclusion, the operation ought never to be attempted till perfectly certain that it is necessary.
and one should always if possible have a consultation with some experienced and respectable practitioners.

We should never operate in a first labour even in deformity, without being quite sure that the pelvis is incapable of giving passage to a full grown child. We ought to judge in every case of the duty for operating, by a careful manual examination and by the history of the woman's previous labours. If the presentation is discovered to be foetal, naturally, before the operation is performed, we wait in the hope that a change of position will take place.

James Hunter, Robertson.