ON
PUERPERAL HEMORRHAGE

William James Clegg
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Martin Hæmorrhage is one of the most alarming occurrences which come both in the practice of the obstetrical Physician and one of the most fatal to the practitioner to witness. There are few cases indeed in which the patience, energy, and self-sacrifice of the Practitioner are more severely tried, or where in more requisite a thorough knowledge of every thing necessary to be done. Confidence in his own resources, proceeding from a perfect acquaintance with the subject, alone can render him efficient, alone can qualify him to practice with safety to the patient, or with any degree of satisfaction to himself.

By a judicious application of the rules of his art, the accoucheur may often rescue the poor sufferer from the most imminent peril, whilst he so often the leading to death is fairly accelerated by ignorance or want of timely interference.

In order fully to comprehend the nature of Martin Hæmorrhage, he have in the first place, to inquire into
The source of the bleeding. A correct knowledge of these causes can only be derived from a clear and accurate conception of the nature of the connexion between the mother and foetus, or in other words, of the structure of the placenta. Very little satisfactory information exists on this point. Previous to the time of the Hunters, the prevailing opinion among the earlier physiologists was that a free communication existed between the bloodvessels of the mother and those of the foetus. Wickersham held this opinion. He was however the only physiologist of any reputation at the present day who maintains this doctrine. The great advance effected by the Hunters consisted in showing that the placenta is in many of the lower animals, thus made up of two distinct portions, maternal and a foetal portion; that in the umbilical or foetal portion, the arteries terminate in villi by a continuance of capillary branches in the maternal portion there are intermediate fulfilments which the arteries terminate and from which the veins begin; that the blood
from the uterus is conveyed into the placenta by Ramalec. Earley's ducts, detained in the testicles in order more efficiently to act on the blood of the uterus through the thin walls of the utero-placentat vessels, and transmitted by prolongation of the uterine arteries.

These were the main features of the views proposed by the Hunter and after a resolution in which the Scientists of the uterus placentat vessels were not only questioned but entirely denied, is essentially the opinion of the most distinguished anatomists of the present day.

Some Modern Obstetricians still effort to doubt the utility of the Henri Ficinus View, and maintain that the placenta is entirely a fetal organ, of these the principal are Bell, Pemberton, and Westford of this country and Volpier in France.

The followers however of Reid, Godwin, Owen and Eschwey, have most unquestionably established the presence of the utero-placentat vessels, and it is somewhat difficult to imagine how the
Evidences of these vessels can be doubted by any one conversant with the above authorities. The results of the experiments of the French anatomist appear eminently conclusive. And so they are not generally referred to in the text-books; a brief account of them may not be considered indifferent.

On injecting the arterial and venous injections of the mother with differently coloured injections, and subsequently carefully cutting into the uterine cavity, he observed the red injection distinctly visible over the internal surface of the placenta. After the injection penetrated to deeply has shown by further examination. On separating the placenta, several small vessels were seen passing from the internal surface of the latter, penetrating the decidua, and dipping into the placental mass. These vessels consisted of arteries and veins, and were easily distinguished by the respective colour of the injections. The arteries were numerous and especially in toward the center of the placenta. They were oblique in direction, had a marked
tendency to assume the spiral form, and
were continuous with the uterine arteries.
The arteries were single and rarely anas-
tomized.

The veins, unlike the arteries, anas-
tomized freely forming a network of
vessels embracing the lobes of the placenta.
In size they were generally the same as
the arteries, sometimes larger. They ter-
minated in the uterine veins.

On throwing an injection into the umbil-
citial arteries, the fluid apparently
traversed the whole mass of the placenta
as far as its external surface and re-
turned by the umbilical veins. In no
case did the fluid injected into the
maternal vasolar system, find its
way into the vessels of the fetus. Each
system of vessels was observed to be com-
torily distinct, intermixture of the
fluids injected never occurring, unless
as a result of extravasation from rupture,
resulting from mechanical or manipu-
lation.

The result of these injections alone
clearly demonstrated
1. The existence of the utero-placental vessels

The existence of the utero-placental vessels
it is that the umbilical arteries end in the umbilical veins by continuity of canal, and consequently that no direct communication can possibly exist.

These conclusions I think are unanswerable, even in the absence of all other proof. Cuvier, his under whose eye these experiments were conducted, in every respect the results arrived at by Ramoni.

Although anatomists generally are agreed as to the structure of the uterus and placenta vessels, there is considerable difference of opinion as to the precise mode in which the blood conveyed by these vessels is distributed in the interior of the placenta. According to Dr. Reid the blood sent from the mother to the placenta is ejected by the curving arteries of the uterus, into a large sinuous vessel called the umbilical artery of the mother, which is intersected in many thousand different directions by the placental tufs, proceeding into it like fringes, and passing its thin plates before them, in the form of sheets, which closely envelope both
the trunk, and each individual branch composing these trunks. From this
see the maternal blood is returned
by the utero-placentat veins.
Professor Brodie corroborates the
views by Dr. Reid. Polnae states
that the utero-placentat vessels penetrate
the uterine arterio at all points of its
surface, forming in the interior of
the placentas a very fine network of
vessels. Wagner holds nearly similar
views, but states that the network is
formed of very delicate tubes of large
calibre. According to Weber also, the
vessels form a network and delink with
them as venules hemispheroidal in the internal
of the placenta itself. Escholtz supposes
that the utero-placentat vessels form no
disposition to the distribution of arteries,
and veins generally.

The maternal portion of the placenta
is formed by the enlargement of the
vessels of the decidua, which extend
and assume the character of venules
and between which the villi of the
chorion dip down.

Such is a rude outline of the maternal
portion of the placenta. It now remains briefly to examine the structure of the fetal portion.

The ovum, at first smooth and apparently structureless, having entered the Fallopian tube, becomes roughened and presents a shaggy appearance. The villi at this early period consist of cells bounded by a basement membrane externally of capillaries. Coincident with these changes, in the constitution of the ovum, the enlarged follicular glands of the mucous membrane of the uterus pour out a secretion into which the ovum on its arrival is embedded, and from which it derives the nourishment necessary at this early stage of development. As growth and cover increases and the demand of the embryo becomes greater, blood vessels form in the interior of the villi, and speedily unite with branches of the umbilical vessels. Only a portion of the villi covering the ovum, those in immediate contact with the vessels of the latter, become completely developed, the rest gradually disappear.
As development advances the blood vessels enlarge, increase in number, and extend more in every conceivable direction, necessarily producing similar changes in the villi. So this way is formed the socalled portion of the placenta, which essentially consists of the hemifying vascular villi of the chorion.

On resume the placenta is a compound structure, consisting essentially of blood vessels belonging to the mother and blood vessels belonging to the child, the blood of the mother being conveyed into its substance by the umbilical arteries, and after traversing its interior is returned by veins which terminate in the uterine sinuses; the fetal blood arriving by the umbilical artery is transmitted through the thousand ramifications of that vessel, and having permeated the placental tufts, is conveyed by the umbilical veins to the body of the foetus. It is easy to conceive how the equilibrium of an arrangement so beautiful and delicate may be disturbed, on the application of an
episteme causae: and the extensive vascular
disarrangement explains the severe
consequences with which such an oc-
currence may be attended. If indeed
from any cause the Placenta be partially
separated from its attachment, rupture
of vessels is the necessary consequence
and profuse hemorrhage inevitable.

Much controversy however has existed
and does exist as to the precise source
of the hemorrhage in such cases.

The bleeding is said to proceed from
the micro-vascular arteries from the
uterine arteries, and through the
detached portion of the Placenta, the
most probable view, and possibly from
all these sources.

According to Professor Simpson
the bleeding takes place from the
lacerated venous system of the separ-
ated Placenta. It is perfectly consistent
to suppose that the lacerated Curtiling
arteries contract like those arteries in
every other part of the body, and ef-
sentially present hemorrhage to any
material extent but the placental ex-
tremities of the veins, being utterly
sation in the dilatation, contraction, and dilatation of the uterus, produc- 
ing to some extent the lodgement of the clot, and opening the previously con- 
tracted and lacertated orifices of the 
Caulking arteries. The fact that the 
bleeding ceases is nearly so when the pla- 
centa is completely detached in placenta 
praevia must be considered by anyone 
unprejudiced mind as presumptive evi- 
dence almost amounting to certainty 
of the validity of the terms of the Con- 
de to the source of the hemorrhage.

In order to get over the difficulty 
various explanations have been proposed, 
one of which are grounded on Aristotelian 
facts and necessarily false, others 
ridiculous and all inadequate.
Dr. Ramstotten doubts the fact and 
cannot but think that the discharge 
would be considerably aggravated and 
subsequently states that it is curious 
such an effect should be produced.

The view can suffer little from trivial 
statements of this kind, which anyone 
can or cannot think of but states is quite 
commensurate to the question, the fact
In indisputable, and there is no curiosity connected with the subject, by adopting the view already explained, it is utterly impossible to pronounce the statements of Mr. Sache, with his theory of placentae circulation. It has been since foretold and asserted that the blood escapes from the uterine arteries, and never through the detached portion. His assertions however being destitute of proof are perfectly fictitious.

The truth or incorrectness of the views of Dr. Robinson I conceive might be experimentally demonstrated by a series of careful injections of the arterial and venous systems of the uterus in cases where death has taken place in the latter months of utero gestation, having previously partially separated the placenta. The injections in such an experiment would in all probability pass more readily from the lacerated extremity of the Curtiling arteries than where the separation has taken place naturally in a living uterus, and also that in consequence of the retrograde flow of the liquid in the uterine veins it would to
How often be poured from the then
uterine vessels. Nevertheless if the
operation were carefully conducted
and the injections sufficiently fine
I think it is equally probable that
part of the injected fluids would per-
out of the separated portion of the
placenta (provided the separation were
not extensive), and provided they
were suffered to be the correct ones.
Independently of these possible sources
of the hemostage) bleeding may result
from 1st. rupture of the uterine decidual
ven.
2nd. Rupture of the Cord;
3rd. Be of the placental vessels of the placenta.

In respect to the first of these sources it is not probable that bleeding to any
serious amount can frequently occur.

The two last though attended with danger
to the mother, but implicate the
life of the child. The limits of the
present extract forbid any further
consideration of this most interesting
subject. And we now proceed to make
a few remarks on peripheral hem-
orrhage in general.
It must also always be remembered that the danger to the patient under hemorrhage is to be estimated not so much by the amount of blood actually lost, as the effect produced by such loss on the constitution. Some women of a strong and robust frame will bear the loss of a larger quantity of blood with comparative impunity, whilst the same amount in other persons is favoured in this respect, might be attended by the most hazardous of not fatal effects. In general it may be stated that the danger to the patient from uterine hemorrhage is proportionate to the amount of effusion, and the quickness with which the blood is poured out, this latter bearing a definite relation, for the most part, to the period of gestation at which the hemorrhage occurs. When hemorrhage occurs suddenly, and a large amount of blood is quickly lost, a hypovolemic insufficiency and arrest of the bleeding for the time but when the flow is slight and long continued, the immediate constitutional effect is but little apparent, a degree of exhaustion is ultimately induced.
If leading to the extinction of life. The unfortunate victims of this pernicious
fever become pale and have a brawny aspect, the tongue becomes white and the
lips lose their luster; a serious condition of the blood vessels occurs, and the
various organs are deficient in the tonus they require for the active and healthy
performance of their functions. The nervous system requires a high degree
of this excitibility. Agitation and commotion are imperfectly accomplished.
the circulating system participates in the general arrangement, the heart
beats feeble, palpitation occurs on the slightest surprise; in a word, an
endemic condition is established; which centres hereafter is followed by its dis-
terrible consequences.
Hence, short ap-
flections, disease of the kidney.
Hemorrhage may be external
or internal, and occasionally both these
conditions obtain.
Of the two principal forms of
Hemorrhage, the internal is the most
dangerous and inescapable in such
cases as in the earlier months of pregnancy.
It may prove fatal to the life of the child, without being attended, at least in the first instance, with any alarming symptoms, and in the latter month, arising, and after labour may complicate the mother's existence, before the real nature of the accident is discovered. This complication seldom occurs before the 6th month, for although the uterus may be emptied its capacity before this period is comparatively small. The holds true also in a great measure even in the 3 last months and during parturition.

It happens most frequently to a greater extent, and is most dangerous after delivery. This happens in the later months or during labour, although there be no visible hemorrhage, the patient becomes suddenly pale, complains of vertigo, nausea or fainting experiences; the case is highly suspicious and it is the duty of the practitioner to place his hand on the abdomen of the woman and examine the uterus. If the case be one of uterine hemorrhage the uterus will be found round and doughy to the touch, its volume quickly increasing and the base of the organ may
be felt so high or even above the umbilicus.

In some cases in which hemorrhage has

ceased or after delivery, the uterus is said
to have acquired the dimensions it had
previously to the commencement of labour.

Any careful attention directed in

most cases to simple enough. There are
certain particulars however which ought
to be attended to as they may lead to
an alarming conclusion. Thus for instance,
in these cases a uterus remaining in
uterus may be taken for distended ab-
donence, and if excessive hemorrhage may
simulate a case of internal hemorrhage.

A distended bladder, retained placenta,
and symptomatice state of the abdomen,
susceptibility may thus lead the prac-
titioner, if vaginal examination

aided by the consistence of the external
husband will easily distinguish the
first and in respect to the other, the
resonance and uniformity of the breeding
in meteorism, and its defined outline
and feeling in distended bladder, will

guide the diagnosis. It is an important
circumstance also to remember that
end of the gray supravaginal during labour
without any relation to hemorrhage.
In such cases however there is an increase in the size of the uterus. In certain rare cases some be resulting from hemorrhage has been observed, without enlargement of the uterus, the blood having lodged and coagulated in the vagina.
During the latter instance of atonic abortion the danger from uterine hemorrhage is also enhanced by the effect the accumulated blood has in producing a separation of the placenta from the uterine walls. This secondary separation causing a general of the hemorrhage, even if the bleeding were arrested by nature or other means, the coagulated blood in the interior of the uterus becomes a source of irritation inducing uterine contraction and probably producing a recommencement of the bleeding. The liability to internal hemorrhage is also probably greater after than before rupture of the membranes. In the latter case the uterus being already distended with the amniotic fluid, is little disposed to further enlargement, and offers
An obstacle to the lodgement of any considerable amount of blood,
A thin birth may also augment the tendency to this complication. The large size of the uterus and its increased muscularity, the extent of surface occupied by the attachment of the placenta, and the chance of inertia, easily account for this greater liability in these cases. Partial separation of the placenta may also occur after the birth of the first foetus, and the bag of membranes, by preventing part of the cotyledons effectively conceal the hemorrhage, increasing very much the peril of the patient, in as much as circumstances prohibit the removal of the placenta by the first child. When internal hemorrhage occurs at an advanced period of gestation, the seat of the accumulation will necessarily vary with the part of the vascular communication which has been the source of the hemorrhage.
Most generally, perhaps, the blood is effused between the uterine surface of the placenta and the corresponding
As part of the labor, when this happens, the uterine coats bleed detached the
placenta until it has reached some
part of the circumference. Subsequently
producing a separation between the
internal surface of the uterus and
the placenta, it collects between them.
The entire margin of the placenta has
been found adherent, whilst the rest
of the uterine surface was completely
detached forming a sort of cul-de-sac
into which the blood had been poured
in sufficient quantity to drown fetals
to the mother. The accumulation
may take place in the substance of
the placenta constituting a centum
hemorrhage. If the life of the mother is
endangered by such an accident,
the child is immediately destroyed and
premature expulsion induced. According
to Badderley also, the blood may collect
at any period of pregnancy between
the visceral layer constituting the bag
of membranes. Death the hemorrhage may
accumulate in the amniotic sac in
consequence of rupture of the umbilical
tide of extravasated blood has also
been found between the placental surface of the placenta and the chorion.

Causes. The causes of hemorrhage may be divided into predisposing and precipitating. Occasionally as in placental implantation hemorrhage is a necessary consequence. The conditions rendering hemorrhage inevitable have been considered as immediate or special causes.

Predisposing causes. The physiological and pathological conditions attending sterile gestation sufficiently account for the frequency of hemorrhage at these periods and among the predisposing causes those modifications hold an important place. When the process of generation has commenced, a state of organon of the genetat organs is produced, and of the uterus in particular, of which vascular determination is the principal element. This congested state of the organs of generation, then normal in amount favors and is indeed a necessary condition of the development and isolation of the ovum, and prepares the interior of the trophob for its reception.
pressure, and especially by occurring in a Pliocene constitution and abundance of green leaves at the place coincidently with the Botanical period a proper hemorrhage the change must be the result involving destruction of the ovum, and in entirely constituting true abortion. Such cases frequently pass for simple amenorrhea which they simulate as the same phenomenon accompanying to a certain extent the maturation and effusing the independently of sexual intercourse in the after birth again. Whilst the zone is free and floating in the nutritive circulation the change consequent upon rapidly advancing organisation and the increased vascularity of the uterus and of that part in particular in immediate contact with the umbilip favours the production of hemorrhage.

The tendency to hemorrhage the change probably attains its maximum about the 3 months of intrauterine life, and this is not surprising when the increase in the number and size of the vessels, and the extreme delicacy of their walls, in a word the great vascularity
of the uterus. The conception, from the formation of the uterus-placental complex and innumerable ramifications of the placenta, as the chorion, at this period is forgotten. The placenta indeed has now acquired all the elements and to some degree the constitution it foresees when perfectly developed, without its compact and strength and consequently is more amenable to impressions which tend to act injuriously on the uterine economy. As the gestation advances, the tendency to hemorrhage becomes less, the placenta being now perfectly developed or nearly so. Its attachment firm and structure compact, is capable of resisting influences which might have been attended with risk at an earlier period of pregnancy. In the latter months of pregnancy and certain anatomical peculiarities in the structure of the uterus have been pointed out by Mr. Guizot, as predisposing causes of hemorrhage. According to him the uterus, towards the close of pregnancy consists of two distinct layers, an external one, the fibres of which are longitudinal, and an internal having
Circular fibres. The relation these two forms bear to the vascular structure of the uterus, enhance the liability to
hemorrhage, if by any unfortunate circumstance the tonus of the uterine arteriae be induced.
Irregular contractions of this nature are
not frequent after the 3d month
interfering with the circulation
and producing congestion over a
surface more or less extended of the
placental disc ultimately leading
to rupture of the minute vessels
placification, and hemorrhage.
From what has proceeded it will be seen that the very constitution
of the uterus fetal contraceptions and
the local Phenomena which attend
pregnancy, renders it analogous
to derangement and hemorrhage
from any cause capable of producing
an increased determination of
blood to the uterus, or an over plenitude
condition of that organ. The change
which the genital apparatus undergo
during pregnancy, effect more or
less all the functions of the economy.
end grant the general sensibility and
these physiological effects of exaggerated
by feasting in the uterus, become an-
aggraval causes of predisposition.
Besides these loco changes necessarily
accompanying pregnancy, there are
defects depending on a diseased con-
dition of the uterus or its appendages.
Hence the predisposing causes have
been clumped into two orders.
1. Maternal, or those which originate
in the maternal system.
2. Obstetric or those depending on some
defect in the product of gestation. Our
present limits forbid us to do more
than enumerate the principal causes
applicable to these two heads.
1. Maternal cause
a. Malposition
of the uterus, or uterine torsion.
2. Pathological states of the uterus and
surrounding parts, of these the principal
are tumors in the uterine tissue and
adhesion of the uterus to other parts.
These so more strictly speaking
perhaps predisposing cause of
abortion than of Hemorrhage, the latter however is so constant an attendant of the former that it is difficult to consider them separately.

3d. Constitutional conditions of the Mother, as Phtisis, Anaemia, the Hemorrhagic vesicular or venepusus method, the syphilitic taint, or the occurrence of fever, small pox, scarlatina &c. often interfere with the progress of gestation and induce hemorrhage. A general phtisic state of the system frequently attending pregnancy accompanied as it is with a high degree of nervous susceptibility has always been considered a very common cause of hemorrhage, and all the more so if occurring in a Constitution originally phtisic. The phtisic Constitution and lymphatic temperament have indeed been described as constituting alone the predisposing causes of Hemorrhage. In this condition of the System, a luxurious mode of living, use or abuse of alcoholic stimulants, too frequent employment of baths, breathing an ever heated atmosphere, &c. and
On the contrary, I ought to be decidedly avoided, as especially liable to produce a degree of local congestion, incompatible with the safety of the foetus. Hæmaturia, anaemia, and most certainly, leading to the rupture of vessels and hemorrhage. General anaemia is also sometimes attended with equally disastrous consequences. This state may be induced by anxiety, weakness, poverty, or may depend on original defects of constitution, from whatever cause the anaemia proceeds. Every circumstance tending to augment the predisposition should be carefully guarded against and the defective nutrition corrected by generous diet, etc.

The second order: Embraces
1st. Disease of the ovum and its appendages,
2nd. Formation of the ovum and its appendages.
3rd. Diseases of the placenta. These causes are frequently associated with the cases in the maternal organs and predispose to hemorrhage. By interfering with the perfect nutrition of the foetus, perhaps causing its death.
...and consequent expulsion,

Exciting Causes. Many of the pre-disposing causes already enumerated may become exciting or accidental if long continued. The causes described as exciting by Paracelsus, authors are expanding by numerous, embracing almost every circumstance forever Injury deviating in any way from the ordinary course of Nature, for all practical purposes the accidentalt. Above the predisposing causes may be divided into groups a. Those referable to strong mental emotions b. Those produced by physical shocks. Among the exciting causes referable to violent mental emotions the most common are passion, surprise, fear, oppression joy, grief, anger &. Under the second head may enumerated injuries directly or indirectly applied to the interior, as falls, blows in the abdomen, bruises, wounds, irritating infusions, tight lacing, sudden movements of the body, jumping, running, dancing, coughing, hectic purgative, emmenagogue, mercurials, &c.
The latter class of cases are primarily in the uterus, distorting the relative standing between that organ and its contents, in the former the action on the uterus is remote and is a result of the previously, quite excited state of the system generally. The reaction forcing excessive determination of blood to the uterus, engorgement of the utero-placental vessels, and ultimately rupture. Hence extravasation, placental separation, and hemorrhage.

Although the occurrence of hemorrhage in many cases may find a satisfactory explanation in these Moral and Physical conditions, yet it is not to be supposed they invariably occasion hemorrhage, either singly or combined, and their influence in this respect is far from being always in proportion to the violence and intensity of their operation, much apparently depending on the presence or absence of predisposing of the tendency indeed with which the vein is sometimes retained in spite of the severest injuries is perfectly
astonishing, Dr. Dave mentions the case of a woman, advanced to the part of pregnancy, being thrown from a horse and trained without any bad consequences following. Mr. Green also relates the case of a young lady who was pitched beyond the head of a horse, belonging to a cabriolet in which she was riding, the horse having suddenly fallen in its course. He adds that the unfortunate lady fell flat upon her belly and that she was five months pregnant, yet not the slightest hemorrage occurred. A case is related also by Dr. Whitehead in which a woman had sustained fracture of the skull caused by a blow from a hatchet for which she remained nine months in the Manchester Infirmary. No hemorrage occurred from the uterus and she was delivered of a healthy child at the full period of letters. Many cases of a similar nature are on record. They must however be considered exceptional, and it must more frequently happen that the slightest annoyance on the part,
of the woman has been followed by alarming hemorrhage, causing the death of the foetus and often threatening the life of the mother.

Besides the causes which we have

labeled as predisposing and exciting;

there are other conditions of the uterus

causing hemorrhaging or favoring the

production of hemorrhage. Rarely

superable to these divisions. Of these

causes or conditions the principal are;

Maternal Insufficiency, and at the termination

of the second stage of Labour, insertion

of the Placenta over the cervix uteri

the first to be now proceed to consider,

Maternal Insufficiency after delivery. At the

termination of normal labour, the

uterus after the expulsion of the fetus

and even during its expulsion retroacts

upon itself by virtue of the contraction

of its tissue. The parenchyma of the blood-
nerves of the organ are thus pressed

against each other, and as a consequence

obliteration of their calibre occurs to a

greater or less extent, effectually pre-

venting any serious amount of

hemorrhage. Sometimes however the
litterus appears to have lost its contractile power; the contractility being entirely absent or nearly so, giving rise to inertiae partial or complete. Again, inertiae may be partial or uniform according as a part only or the whole of the part of the organ is affected. Among the principal causes producing latency of the litterus may be mentioned 1st exhaustion whether constitutional or principally affecting the litterus. The latter indeed is by far the most common cause of inertia and may proceed from excessive or long continued litterine action however produced. It is frequently the result of tension and difficult partition, or when instrumental aid has been required, and may follow the administration of ergot, or the employment of stimulants during labour. Where severe and continued action has attended the use of these agents, it is also apt to result in looms who have borne many children occasionally also the atony appears to depend on constitutional exhaustion...
the uterus only partaking of the general weakness.

2. Rapid expulsion of the Child.

The very opposite conditions are obtained
or as frequently happens produce effects
identically the same. When the uterus
is suddenly emptied of its contents.

Whether as a consequence of parenchymatous
rapid contraction, or by the interference
of the accessory uterine is apt to
result. The too rapid expulsion of the
foetal is indeed a very frequent cause
of hemorrhage. And is the more to be
guarded against, inasmuch as the
practitioner may be induced to hasten
the delivery of the child after the expul-
sion of the head, either to please the
mother who often expects the body
immediately to follow, or to forestall
the prejudices of the nurse who as frequently
measures the skill of the doctor by his
expedition in executing delivery. It was
needless to show that a practice fraught
with such manifest danger ought
never to be adopted in ordinary cases.

In general nothing is required on the
part of the accoucheur, and nature
Should be allowed to expel the contents of the uterus without assistance. Then the interference is attempted, the protruding uterus adapts itself better to the diminishing size of the cavity, and follows the gradual expansion of the child. Contractility is then to a majority of cases restored and firm avoided. The influence of these causes in the production of inertia is greatly modified by the presence or absence of certain predisposing causes and the Historic constitution and sympathetic temperament in particular. The influence also of antecedent post-partum inertia in producing a liability to its recurrence in preceding pregnancies appears to be pretty well established.

The presence of a state of inertia is determined by manual examination. On the application of the hand over the uterus in its normal condition after delivery, a hard, firm swelling is felt round resistant and well defined, occupying the hypogastric region of the abdomen and firm to the touch. If inertia is
The present absence of uterine contraction are consequently absent, these absence affording valuable indications of the state of the uterus. The mere absence of the uterine tumour is not sufficient however to characterise the evidence of uterine inertia, but if accompanied with increased volume of the organ, on manipulation no elevation is felt but that of softness and flaccidity, if the abdominal and uterine walls are easily depressed so that the hand may be pressed against the spine and if the flaccidity is permanent or nearly so, and the uterine portions cannot be felt, there can be no doubt as to the nature of the case. If it be necessary to introduce the hand into the uterus, this state of softening and flaccidity is still better perceived; the cervix is quite soft and easily dilatable, and readily allows the hand to pass into the interior of the organ. When the inertia is less complete, the uterine swelling is found to be more consistent yet easily distensible and appears to float in the abdomen.
This condition of the uterus may exist without haemorrhage necessarily supervening, provided the retroplacental clot remains perfectly intact. Whenever partial or complete separation of the placenta occurs, haemorrhage is inevitable. Such being the important nature of this affection, it becomes a matter of serious inquiry to ascertain the means of its prevention and likewise the means by which it may be most efficiently and speedily remedied when it has occurred. In reference to the former, the evident indications are to destroy as far as possible the predisposing causes, and to combat the condition leading to its production. Where there is a habitual pethropic state of the constitution, repeated bleedings are advised by some; during the latter months, this remedy ought however to be carefully and gradually employed, and when active haemorrhage exists it is obviously unavoidable. A condition of uterine inertia often results from inattention to the principle of Management of the 3rd stage of labour. It is sometimes forgotten that in every instance after separating the child, the hand should
Means ought to be employed to accelerate the delivery. In the Post Partum hemorrhage, has occurred from inertia in uterine pregnancy, every precaution ought necessarily to be taken, and careful attention to the management of the third stage is doubly important, and in such circumstances the expeditious delivery of Eryt, whilst the head is passing the pelvis, is frequently attended with the best effects. Several instances of the beneficial effects of Eryt in such cases have come under my own observation.

Let with standing these precautions inertia supersedes and persists, means should be employed to stimulate the uterine contractions. This is best accomplished by placing the extended hand over the uterus and applying intermittent pressure in a compressing form with the expanded fingers, and one or two fingers may be introduced into the voluntary, with the same view. Eryt may also be administered. In this way uterine action may very generally be induced the placenta expelled, and just avoided, if necessary.
these means fail, nothing remains but
to remove by manual extraction, an
operation in which the utmost gentleness
is required, and care for means free
from danger. When uterine inertia
occurs after extraction of the placenta,
hemorrhage is inevitable, and its con-
sideration together with the management
of hemorrhage complicated with retained
placenta (from dying of the fetus, is
referred to treatment of hemorrhage)
during or subsequent to the third stage
of labour.

Inversion of the Placenta over or
near the Cervix uteri. The existence
of this anomaly has been long known
and is described by many of the older
authors. Stellman states that
in severe hemorrhage occurring during
pregnancy, the placenta is generally
found presenting. Cases of placenta
presentation is also recorded by
S. Vierele, Dr. A. Meulenburg and
others. The real nature, however, was
not very imperfectly understood
by these observers. From having
simply announced the fact,
and others, the greater part indeed described the placenta as having fallen from the fundus uteri, and explained its attachment by the supposition that it was glued to the cervix by capillary blood. The illusion of Portal was the first who discovered that the placenta was originally developed in this situation and that consequently it was not accidental. The observations of Portal though reflected by his immediate successor, were subsequently corroborated by Stuart, Goddard, Pinel and others later by Dr. Rigby, who was undoubtedly the first to give a clear and full exposition of the whole subject. Since Leuret's time the implantation of the placenta over the cervix has been considered an inevitable cause of hemorrhage, and very generally is so to a greater or less extent, invariably indeed when the placenta is healthy and adherent. Hemorrhage from this cause takes place in the three last months of pregnancy and during parturition. It seldom occurs before the eighth
Month. The parity of its occurrence in the early months and subsequent frequency is very satisfactory explained by the rapid development of the fetus during the latter months. The placenta indeed at this period is fully developed or nearly so, and is immovably fixed over the back of the uterus and is consequently incapable of accommodating itself to the rapid enlargement of the inferior portion of the uterus. During labour again, the dilatation and elevation of the back of the uterus by distending and lifting take a portion of the maternal surface of the separated placenta, necessarily influences a powerful influence on the production, and amount of the hemorrhage. There are cases on record of placental presentation where no blood was lost later during parturition or in the latter months of utero gestation, or where the hemorrhage was trifling. In some of these cases the placenta was detached and expelled by nature, satisfactorily accounting
for the absence of hemorrhage, of this
nature as the cases related by Ophius
Prentice and the two cases of Leopold
Cited by Velpeau. In other cases the fetus
had been living and the insertion
appears to have been partial; the pain
strong from the commencement, the
membrane early evacuated, and the
vessels in consequence being thoroughly
compressed by the advancing head
effectually preventing any great
amount of hemorrhage. In other
tases again whose authenticity cannot
be doubted this explanation is in-
admimable, and various speculation
have been attempted, a modification of
Mr. Leav's opinion appears to me to be the
most rational interpretation of the
phenomenon. He remarks that in all
these cases the child was dead and had
probably been so several days before
delivery, as a consequence of the death
of the fetus, complete arrestment of
the foetal circulation takes, the
blood in the placenta foetal venous
vessels coagula and obliterate their
caliber giving to the placenta a
A consistency resembling that produced by extravasated lymph into its structure, the uterine also for a large supply of blood being with blood, similar changes to a certain extent take place in the maternal portion of the placenta, sealing up the maternal cells. Now admitting that the hemorrhage proceeds from the separate surface of the placenta it necessarily follows that the bleeding under such circumstances is physically impossible, and the fact that the hemorrhage occurred is contrary (rather than otherwise) to the view of Professor Simpson. On the contrary it may be safely, y an asserted that it is both morally and physically impossible to produce it in any way with the notion that the bleeding proceed from the uterine saliva. When any respect is paid to sound reasoning or legal inference,

Symptoms. The symptoms accompany varying uterine hemorrhage are those produced by loss of blood in general. Varying necessarily as to their nature,
and severity, according to the amount of the hemorrhage, depending on the discharge, constitution of the patient, antecedent hemorrhage occurring before the 5th or 6th month is seldom attended with fatal results, and in the great majority of cases previously to the occurrence of the accident, the woman experiences a great sense of uneasiness and unaccustomed lassitude, attended with pain in the lumbar region and upper part of the thighs, the pain being increased or augmented in lying on the back or left posture. These signs evidently symptomatic of local uterine, are sometimes accompanied with nausea, increased fullness and frequency of pulse, flushing of the countenance, or occasionally with a phlethoric state of the system. After a time varying from a few hours to several days these manifestations are succeeded by the general symptoms of hemorrhage. When hemorrhage occurs during the last months of extra gestation at the time of parturition or subsequent to delivery,
it is a much more formidable occurrence
and is attended with much greater
fear and danger to the patient,
after or independently of the previous
symptoms already enumerated. Hemor-
rhage occurs slight in amount or so
prolonged as to compromise the life of
the patient. In the latter case syncope
supervenes and arrests the discharge
for the time, by and by in general the
patient recovers; the pulse becomes again
perceptible, and with it a cessation of
the bleeding. The first attack of
syncope may prove fatal. More fre-
quently however if not interfered
with the bleeding recurs again and
again, and syncope ultimately
causes off the patient. The symptoms
which attend the severe or fatal forms
of hemorrhage though varied are very
characteristic, first exhibiting great
disturbance of the circulatory system
and being speedily followed by evidence
of similar disarrangement of the ence-
phalic and respiratory function,
along with the function of the nervous
centres. The organs of the circula-

are first affected. The pulse is quick,
flattening and rapid, and impatience
quickly follows, the general surface
of the body is cold, blanched, and the
neck and forehead are covered
with perspiration, the lips are pale
and the face lean and ghastly; the
eyes have a rendered expression and
the countenance becomes great languid.
The patient after a time generally falls
and the bleeding returns. The symptom
already indicated follows each other in
rapid succession, and augmented
intensely, a state of intense and fast
cessation is induced; the patient con-
spicuous of a purple in the face, thinks
the room is darkening, calls out for
fresh air and gasps for breath, a
sense of impending suffocation and
great constriction of the chest occurs
followed by pantings or convulsion
and death. Such is a brief summary
of the general symptoms which all
company severe flooding, and though
they admit of great variation from
a variety of circumstances they are
more or less present in all cases.
Diagnosis. Although easy at an advanced period of utero gestation, it presents some difficulties in the early months. If occurring during the first six months of pregnancy, hemorrhage may be confounded with difficult menstruation, and the premenstrual symptoms persisting in the abode may be referred to that cause, that much as their nature, seat, and effects, are the same. In general however, by careful attention but forming a correct diagnosis the danger is comparatively small. The previous sign of the existence of pregnancy the bleeding having come on after the application of some violent expectoration cause the expulsion of blood being attended with severe abdominal pains slight dilatations of the uterus. Afford ample data for distinguishing earlymiscellaneous hemorrhage from excessive menstruation, as pregnancy advances the diagnosis becomes much more certain. And any considerable excessive discharge of blood, occurring after the ninth month, they must be
Regarded as pathological.

When haemorrhage occurs in the last months or during labour, it must result from one of the following.

Either there is an abnormal insertion, insertion of the placenta, or a separation, must have occurred between the placenta and uterus, and it is exceedingly important accurately to distinguish to which of these causes the bleeding is to be traced. Of all the haemorrhages occurring during the latter months of pregnancy, a considerable proportion, the greater proportion indeed, are referable to placental insertion over or near the cervix uteri; this being by distention in regard to placental implantation, the point of distinction in regard to placental implantation, the best marked and of careful attention is well known to be correct diagnosis. They are derived from manual or digital examination.

Physical signs. A Concomitant symptom. After one firm on examination in placenta praevia, the content is found softer and thicker than natural, the inferior part of the body of the uterus present a greater consistence, and the presenting
part of the uterus cannot be ascertained.
If the finger be introduced into the
neck of the uterus after traversing
circulated blood it arrives at a obstacle
presenting a fleshy impression sur-
face which opposes the further advan-
tage of the finger. The presenting part is
also found to be adherent and sur-
rounded by the neck of the uterus.
When there is only partial insertion
a portion of the membranes or presenting
part of the child may be felt, and if
the sac be carefully examined the
edge of the placenta may sometimes be
succeeded. If the physical signs are
ascertained to exist there can be no
doubt as to the nature of the case. The
difficulty consists in their recognition
and in some cases circumstances forbid
the necessary manipulation. As for
instance in primiparous labor before
parturition the vagina is not sufficiently
dilated to admit the finger and
even the length of the neck of the
uterus would render a minute ex-
damination of the os internum dif-
cult. In such cases the rational
Signs become increasingly valuable and indeed are alone admissible, as the periods of the bleeding coincide with the development of the uterus. Haemorrhage does not in general come on before the eighth month. It has been observed as early as the fourth and as late as the tenth month. It commences frequently without any appreciable cause, often during sleep and in general, at first is not very abundant, continues only for a short time, and then ceases completely only after a longer or shorter period varying from a few hours to a few days. The bleeding situation is more profuse and continues for a greater length of time. The haemorrhage is increased during uterine contractions and diminished in the interval between them. The distinguishing characters of an avoidable haemorrhage may be briefly enumerated as follows:

1. It occurs generally in the latter months of utero gestation, seldom before the eighth month.
2. It is traceable to an appreciable cause.
3. The hemorrhage is increased during uterine contractions.

4. And above all the presence of the placenta over the cervix as ascertained by digital examination.

Accidental hemorrhage or hemorrhage resulting from partial separation of the placenta does not in general occur before the commencement of labour, and is traceable to some unfavorable cause. The discharge is more frequent in the intervals between the uterine contractions, and though in digital examination the uterus is free and the membranes may be felt.

Prognosis - The prognosis of placental hemorrhage is almost always unfavorable. It is less so in the early month, and as already stated, a fatal result to the mother from placental hemorrhage is a rare occurrence before the 5th month. Yet life may be preserved to the lowest child even at this early period. The danger to the mother increases as pregnancy advances in respect to the fetus, however the chances of its preservation diminish.
in a inverse ratio. Although hemorrage in the early month is ordinarily followed by the death of the foetus, and in the later month it is frequently necessary to empty the uterus. A termination as this action is to be hoped inevitable. Hemorrage especially at an early period is often arrested by judicious treatment, and the relation of the placenta to the uterus is disturbed. Instances indeed have occurred in which hemorrage threatening destruction to the life of the mother has not been followed by expulsion of the womb.

The prognosis is most unfavourable perhaps in placenta praevia both to the mother and foetus, destructive to the mother from the frequency of the occurrence of the hemorrage in the latter month, its amount; the certainty of the occurrence, the charge when labour commences, often demanding an operation severe at all times, but especially formidable in this complication from a variety of circumstances, and dangerous to the child either from the manipulation.
necessary for its removal or the hope less explication of the womb. The discharge is increased also when the insertion is central. The mode in which nature arrests the discharge varies according to the cause of the hemorhage. Of dependent simply or local plethora of the inferior part of the uterus, the consequence may constitute its own remedy by restoring the equilibrium of the uterine circulation.

Hemorrhage produced by partial separation of the placenta is not necessarily followed by the expulsion of the fetus, as appears well established by the observations of Demer, Monro, Morveau, Trotter. The separated portion being blocked up by coagulable lymph, the circulation being carried on, and the portion of the fetus supplied by the better half. According to Pugez, the detached portion of the placenta may not attach itself to the uterus, and become as efficient as before, Drummans mentions the same and supports his opinion by an observation of Proctor.
Treatment. In the treatment of urticaria hemorrhage there are certain general remedial measures, now or then available in all its forms, which should be attended to, and a glance at them may not be irrelevant before indicating the special treatment of the particular varieties of hemorrhage.

For refrigerants, comparatively little can be placed on this class of remedies, in the treatment of action, flooding so dangerous, however they are convenient and agreeable to the patient, and when judiciously administered are unattended with any bad consequence. The secret of their exhibition consists in giving them in small quantity, and in a concentrated form, in order to prevent the engorgement of the stomach which is often in a most perilous condition. Whether they have any effect directly in diluting the hemorrhage is doubtful, and with this view they should never be adopted to the exclusion of other and more important remedies.

The General Aids
Oxalic acid, acetate of lead, &c., in the face principally recommended. Perhaps the best refrigerant is ice or cold milk allowed to dissolve slowly in the mouth, and taken in small quantities from time to time.

Temperature, Cold. I have thought this worthy of a separate head, though essentially refrigerant in its nature. Considerable diversity of opinion has existed on this subject, some practitioners undervaluing its utility, and others thinking it necessary to satiate the patient with moisture. When, however, judiciously employed, cold is a very valuable adjuvant, both as a saline and topical agent. The skin of the patient ought to be well cleansed, and kept at a cool temperature, and a larger abundance of bed clothes ought to be avoided. The long and continued use of cold, however, on certain morbid shaggy and undescrutable and indeed injurious, producing internal congestion, diminishing the vital force of the system, rendering the patient
Crisp and, probably augmenting the tendency to demontage, the local application it is useless unless applied suddenly and at distinct intervals. The principal object of its application seems to induce temporary uterine action and in this way to favour the operation of the means employed to secure permanent contraction.

The indication can never be fulfilled by its continued application. Hot applications are often decidedly useful and act precisely in the same way. They are more particularly applicable when much nervous instability exists, when there is much tendency to oblique effect of force. The power of this invaluable obstetrical agent in enhancing feeble uterine action can no longer be doubted, and by virtue of this property, its value as an anti-tearative basis is equally well established. Its exhibition, however, requires care and due consideration, as it may prove dangerous.
As it is otherwise beneficial, it is given by some accoucheurs so for instance by Fabris as a cure for amenorrhea, its effect is such a little however is very doubtful. Indeed recent observation seem to show that it has not the least power of exciting uterine contraction, and is only effective when exhibited after uterine action has already commenced; and it is to the property principally of not only that its value as an empirical remedy depends.

The circumstances under which effect may be given are the following:

1. In severe hemorrage during abortion
2. In severe hemorrage preceding abortion produced by the retention of the placenta
3. In unavoidable hemorrage after rupture of the membranes when the uterine contraction is feeble
4. Simultaneously with the pain occurring tripping and the imminent danger for threatens
1st. When Hemorrhage has resulted from uterine inertia after birth, in previous accouchement as deduced from the previous history of the patient and in Post Partum Hemorrhage, in the contrary its exhibition is contra indicated, when there is a possibility that turning may be required to effect delivery, and it might not to be given during parturition when there has existed in previous labors a tendency to Post partum Hemorrhage.

Preg. The plug has been used from the earliest period of obstetrical science, especially a kind of plug is mentioned by Hippocrates. Its use is now principally restricted by accouchers to the early months of pregnancy or threatened abortion or during abortion when the Hemorrage is great, and lastly as a palliative measure in Placenta praevia, before the uterine is dilated or distended.

As to its employment in the later months, there is considerable disparity of opinion amongst
Abstinence, the majority however, discurse upon its use, averring that its application is dangerous and hazardous to the life of the mother, maintaining that the uterus is liable to miscarriage at the full period and that there is great danger from internal accumulations bleeding. This remedy is principally used recourse to in the early months and its propriety must be regulated by the constitution of the patient. If there be indubitable evidences of general phlegm, bleeding is advisable. It is often however employed very indiscriminately and some practitioners are in the habit of bleeding all cases of uterine hemorrhage occurring in the early months. A glance at the causes of abortion are strongly sufficient to show the absurdity of such a wholesale course of practice and account for the frequent unfortunates results of such treatment so injudicious, since the causes differ so essentially, that a uniform method of treatment can not be followed.
with the slightest chance of success. There are some cases indeed of, for example, when abortion arises from a derangement of the fluids, exaggerated nervous susceptibility, or any anomie state of the system, when it is perfectly inadmissible.

In determining the propriety of an abortion, the susceptibility of the woman arriving at the full period of labor, or the possibility of the termination of labor, ought to be attentively considered. If abortion be inevitable, the best chance of recovery from its employment but if the uterus be closed and normal, and there be a prospect of uterine evacuation continuing in a phlebotic constitution,

bleeding is of unquestionable utility. It is needless to add that in all cases of acute periperal hemorrage, bleeding is out of the question. It is a prophylactic rather than a remedial agent.

For instance, the general rules to be followed and adopted universally in all cases of uterine hemorrage, are the following: The horizontal position, and perfect quietude mentally and bodily; the former rigidly insisted on
And the later always maintained as much as possible. The pelvis should be elevated slightly above the rest of the body and the patient ought to lie on a flat, firm hard bed, in a large well-ventilated apartment. While it can be had, stimulants of all kinds are to be avoided; the room ought not to be too light, and the attendant ought to be prevented from chattering. Cheerfulness on the part of the woman ought to be encouraged and every source of annoyance removed. The bowels of the patient must be kept open by gentle cathartics or injection of warm water. Donation of every kind should be avoided.
The special treatment of periperal hemorrhage may be conveniently considered under the following division:
1. Hemorrhage during the first sixty months of uterine gestation
2. Accidental Hemorrhage
3. Hemorrhage during the 3rd stage of labour and after removal of the placenta
4. Placenta Praevia

Treatment of Hemorrhage during the first sixty month of utero gestation.

The treatment of hemorrhage during the first sixty months necessarily involves that of abortion, of which indeed, bleeding is so frequent an attendant, that it is often considered and treated as the principle symptoms. The indications of management are derived from the amount of the discharge, and concomitant
circumstances, of the hemorrhage to slight and the pains trifling, the rules for the general treatment of hemorrhage must be rigidly enforced, and a full dose of opium administered, with a view to prevent the occurrence of abortion.

When however the hemorrhage is considerable, and the pains severe, this event is almost inevitable, and the principle indication under such circumstances is to moderate the discharge until the ovum is expelled.

 Might not better be given in such cases, in order to accelerate the delivery? And is the possibility that abortion may not take place a sufficient argument against its employment?

The chief is the most direct means of checking the hemorrhage. It apparently acts in two ways by preventing the external flow of blood, and by forcing the blood to coagulate internally in this way.
Obliterating the surfaces of the bleeding honds. It also stimulates the uterus to contraction and hastens the expulsion of the product of gestation; the use of the plug being almost invariably followed by abortion. Hence I think it follows that when the plug is employed for the arrestment of hemorrhage during the first six months, it is also admissible whenever it is employed there seems to be no valid objection to the use of both.

We have already remarked that in the early months the small size of the uterus prevents internal accumulation to any great extent but if gestation have advanced to the fifth or sixth month and the plug he had recourse to, its effects on the uterus should be carefully watched.

In addition to these means cold may be applied to the genitals and Churchill has been great benefit from the use of cold water
The plug should be removed sooner or later according to the nature of the case, an examination made, and if the case be presenting, it may be hooked down with the finger.

In spite of these means the patient is retained, and the flooding of the face do so jeopardise the life of the patient, recourse must be had to manual or instrumented interference. For this purpose, Sevret recommends warm water injection into the vagina and uterus, and the French Accoucheurs generally use a pair of long slender forceps, a bistoury is recommended by Dr. Jevons. Instrumental interference however is generally inappropriate by British Practitioners, and if interference be required, the introduction of the finger as recommended by Mainwright is the least objectionable. It is an operation however, not without danger, and ought never to be resorted to except in desperate cases.
Sometimes the deciduose are retained after the expulsion of the fetus, in spite of every effort to remove them. The dangers are to be apprehended from this state of matter. flooded and vitreous phlobitic. Under such circumstances the placenta must be removed. The French proposed to do this, as already mentioned by the French. Hoadford has also invented a pair of tongs for this purpose. The finger, however, is the best instrument, the least dangerous, and the most efficacious, and alone ought to be employed.
Accidental Hemorrhage

The management of accidental hemorrhage has formed the subject of severe controversy and some disparity of opinion in various epochs. According to general, however, the view of both agreed respecting the line of practice to be pursued. Mauriceau appears to be the first who suggested the mode generally adopted at the present day. It was subsequently followed by Villar, Clement, and especially insisted on and advocated by Praz, but for a clear exposition of the principle of the practice by inspection of the membrane and the term to which it is applicable, the preference is indebted to the late Dr. Rigby.

The indication of treatment in this form of hemorrhage will necessarily vary according to the amount of the discharge and the period of retrogression at which it occurs. When the hemorrhage is slight in amount, and takes place during the last three months of pregnancy, the general principle must be
rigidly enforced. A large spate ad-
ministered with a view to obviate the
occurrence of uterine contraction.
If notwithstanding this change
continued, more active measures
must be employed. Dr. Churchill
speaks highly of cold water injection,
Vulpes &c., and recommends the application
of compresses to the upper region of
the back. He advises them all
stage of pregnancy, and has seen
their application attended with the
most conspicuous success, according
to Aubert, the Ergot is exceedingly
useful in this case.
The plug has been vaunted by some
authorities as the most efficient
remedy when judiciously employed.
By which is meant I state it when
it is successful. According to Leury
it is almost always attended with
success. Dr. Churchill recommend
its adoption in the slightest forms
of the variety of hemorrhage. It
is difficult to see how it can be
use, it is an instinctive rather
than a rational practice, and may
Incorrect the haemorrhage but can never prevent or arrest it. It is consequently useless and dangerous. If these means have no effect in arresting the haemorrhage, parturition must be induced by rupturing the membranes, and a dose of ergot administered provided the uterine contraction are feeble and the or. uterine relating to dilatable. The uterus may also be stimulated to contraction by abdominal friction and by irritatiing the with the finger. If notwithstanding the bleeding continues unabated the labour must be delivered by the ordinary operation of turning recommended by Pree. Or still better when it can be accomplished by extra uterine manipulation as fow. given by Hamilton.

Where the uterine is undilated and there are urgent reasons for terminating the labour J. Church advises embrocation Which he says is not difficult and unattended with risk. The risk is not great with
regard to the child certainly. Its death being inevitable. With regard to the mother, statistics apparently show that childbirth is not less attended with danger. Might not incisions of the cervix be more useful in such cases? And delivery effected subsequently by turning, or the like.

The indications are precisely the same as when hemorrhage occurs during parturition, both in the chronic forms of hemorrhage pre-

eating labour.
Treatment of Hemorrhage during
the 3rd stage of labor and after
removal of the placenta.

If the hemorrhage comes on
prematurely, to the expulsion of the
placenta, the litter must be
compressed of its contents, and con-
traction as speedily as possible
induced. The placenta however may
be retained from uterine die con-
traction of the neck or middle of the
litter, from abnormal balls, or
also worse from thirst adhering
partial separation necessarily results
in the latter case, and all tend to
induce along of the litter and as
a consequence favour the production
of hemorrhage. In order to get rid of
the afterbirths, a large dose of opium
may be given, it may be much
better, however, and more effectually
due to a dose of Chloroform.

If the placenta cannot be extracted
by any other means, it is said the
hand is to be passed gently and
with very great care into the uterus
principally to induce contraction.
It is rare however, that the introduction of the whole hand is required, and sometimes it is impossible from the contracted state of the uterus.

The placenta in a majority of cases may be separated, the clot cleared away and contraction induced by passing two fingers within the womb if the placenta be properly adherent, the fingers may be introduced between the placenta and uterus.

Or the placenta, if the placenta may be grasped towards the centre, as recommended by Hamilton and Barraclough, and gradually being drawn away, the hand is not to be withdrawn, but allowed to be expelled by uterine contractions, clearing away at the same time any obstructions, and passage may continue.

If the adherent portion cannot be separated without considerable violence, it is better to bring away as much as possible and leave the rest to nature; the adherent portion will be eventually thrown off, and injection of tepid water should be used in order
to remove irritating secretion.
Retention of the Placenta for more
is a rarer occurrence than is often imagined.
According to L. Churchill's statistics
occurring only once in 600 cases.
The Placenta may be retained from
distant inversion and is frequently
caught between the lips of the cervix.
In general if abdominal friction be
had, Effort given, and the cord put
in the stretch and gentle traction
exercised backward in the direction
of the axis of the womb, by means of two
fingers within the vagina, uterine con-
traction is induced, and the placenta
expelled; or if the insertion of the Cord
can be felt, and a portion of the placenta
easily accessible, its Placenta may be
brushed back toward the decidua.
Notwithstanding the use of these means
the Placenta is retained, and the fear
hemorrhage supervenes, it must be
immediately removed by manual
operation, unless the patient is prostrated
when interference should be delayed,
and time given for the system to take
somewhat before succour is had to the
operation, if hemorrhage continues after the expulsion of the placenta, the uterus should be grasped firmly externally with the hand especially towards the fundus, and two fingers pressed within the os uteri, hold the clots broken down and cleared away from the vagina, and uterine cavity. If these means fail the abdomen should be slapped with cloths dipped in cold water, or cold water may be dashed on the outer face as recommended by Plenstorffen. We have already referred to the usefulness of the continued application of cold, hence to bladders and bags as advised by some, should be avoided as useless and injurious. If these means succeed as is generally the case, it is necessary to hold the hand over the uterus for some time in order to prevent retention of that organ. It ought not to be removed until we are perfectly satisfied that permanent contraction is obtained, and subsequent retention should be guarded against by a pad or cup placed...
over the uterus and secured by a
bandage. The plug for obvious
reason is perfectly inadmissible in every
form of remontage from breast
subsequent to the birth of the child.
In remontage however depending
on rupture of the cervix the plug
has often been successful, and there
can be no objection to its use provided
the uterus be kept firmly contracted.

Ergot is a valuable auxiliary, but
in consequence of the time required
in order to develop its peculiar
action, no immediate good can follow
to exhibition. Its ergotpic effect may
perhaps be more speedily induced
if given by inhalation, or in the form
of suppository. In spite of these
means the bleeding remains unchecked.

As a "dernier resort"Compaction of
the aorta, and transfusion may be
tried. Respecting the first it has
been proposed to effect the compaction
in 3 days. Through the abdominal
walls above the fundus uteri as
described by the younger Flandroze,
who speaks highly of its efficiency.
And through both the abdominal and uterine cavities, and lastly others advise that the hand be introduced into the uterine cavity, and the cord compressed through the posterior wall of the uterus, the first is decidedly the best mode of procedure. It is difficult indeed to see how compression could be produced by the two last methods, and the benefit in the use of the hsemorrhage, probably depended more upon the induction of uterine contraction, than from any direct pressure on the cord itself.

Compression of the cord is a measure apt to be lost sight of. Numerous cases are reported of its success by Blandell, Chailly and others. Transfusion as prescribed by Dr. Blandell has been repeatedly tried in British practice, but upon the whole with little real success, the patient relying for a time but ultimately sinking.

Various other means have been proposed to arrest post partum hemorrhage, Dr. Blyth advises the
Child to be applied to the breast.

Galvanism is recommended by Radford. Introduction of the whole hand is employed by some. It is a hazardous and dangerous practice, however, and should be avoided if possible.

 Stimulants and Cordials should be employed with great circumspection, and their effects can only be watched in order to prevent violent reaction, and if a state of paroxysms set in after the homoeopage has ceased, A full dose of opium should be given. Opium whatever be its "modus operandi" wonderfully supports the powers of the patient under such circumstances. The irritation is removed, nausea and vertigo cease, pain vanish, and the gloom of despondency give place to cheerfulness and hope.
Treatment of Placenta Previa.

In treating a case of placenta previa, the first objects demanding the attention of the observer, after having satisfied himself as to the nature of the case, and from which the indication of management must be drawn, are:
1. The amount of the hemorrhage and condition of the patient.
2. Period of uterine gestation.
4. Extent of the placental attachment.

The treatment of Placental insertion is of two kinds—Palliative and Radical.

The conditions requiring the use of the first or palliative plan are the two following, viz., I. When the bleeding commences before the full time of uterine gestation, and the discharge is not great. II. When the child is living and uterine contractions absent.

Under these circumstances, the palliative treatment is especially applicable, and by its judicious employment the patient may approach or arrive at the full period of pregnancy, a consummation devoutly to be wished.
both as regards the Mother and Child, the labour being more prolonged and
difficult, under the employment of the Radical treatment; less difficult
to the practitioners. And less dangerous
to the Mother, and an additional
chance of life is afforded to the Child.
The Palliative treatment consists
of the rigid enforcement of the ordinary
rules for the management of puerperal
fever and ophosphate, and removal of all stimuli.
Absolute attendance, free ventilation,
and free use of light. Refrigeration is
most efficient, given in minute quantity
and frequency. And most beneficial are
the injections, Calomel and Nitrate of
lead in the form of Acetate of Lead and
Opium pill is probably the best, being
effective as an astringent and palatizing.

Another and very important indication
viz., the prevention of uterine contract-
tion, despite may be given every 2, 3, or
6 hours, or oftener, according to the amount
of the flooding. In addition to these
became the local application of Cold.
Employment of Cupules, injections as
recommended by Hamilton, and the
use of the Plac of it need it should
be had recourse to.

The Removage however may be so
proposed as to demand immediate
interference, or openly become so, or
the gestation may be completed, and
labour set in, equally inexcitating
operative procedure. What must be
done in such an emerency? Three
plans are proposed to meet the difficulty,
constituting the Radical treatment
1. Evacuation of the liquor amnii;
2. Extraction of the Child;
3. Extraction of the placenta.

The first of these modes of procedure
is most suitable when the implantation
is partial or protracted only to the margin
of the uterus. And the practice is
equally that of accidental Removage,
from which it was derived by Leavens
and others. In general after perforation
of the membranes, which is best effected
by a common quilt, and evacuating
the amniotic fluid, the head descends,
completing the passage, and effectually
close the mouth of the bleeding vessels.
It is seldom employed where the insertion is central unless the to be too small to turn the child or extract the placenta.

**Removal of the Child**

This plan has generally been followed since the time of Guillaumeau almost without exception. The conditions under which it is most likely to be successful are: When the pains are delayed, the liquor sufficiently dilated; the fetus alive; and no great amount of hemorrhage. The relaxed state of the puerperal facilitates the manipulation necessary for delivery, and affording some chance of saving the child. Having decided on the suitability of this mode of treatment, the next great question is the time when delivery should be effected. When is the operation of turning to be had recourse to?

This is an exceedingly important and often an exceedingly difficult question to answer since the operator in placenta praevia, even in the practice of the best accouchers has been
attended with the most painful morta-

tality. One half of all the deaths in case
of Puerperal Fever, having resulted
either from rupture of the Cersei's
lint, which in consequence of its great
vascularity, and the enormously
enlarged state of its vessels, produc-
an amount of hemorrhage rapidly Carrying
of the patient, or from uterine fibrin,
consequent on the operation of the Vinc of
the Cersei. Hence the introduction of
the hand indeed for the purpose of
turning, ought never to be attempted
before the parages are sufficiently
dilated. As rupture of the neck of the
uterus is almost inevitable, and
the operation consequently defeats the
purposes for which it is intended.
Hence the danger of attempting de-
liberly too early. The result is equally
disturbing or perhaps more fatal
if manual interference be too long
delayed, for although the parages
may be delayed and the cervix,
fully dilated and inviolating the
necessarily exhausted state of the Mother,
would render the operation of turning
in the highest degree hazardous, and would almost of necessity be followed by certain death, either from the shock in the first instance, or subsequent hemorrhage. Hence the calculation results of operating too late should be as vividly before the mind of the practitioner on the one hand, as are the effects of a lack of early interference on the other. The most judicious practice is perhaps to state that an undue superabundance of practice is very opposite, and in determining the time of delivery, the following circumstances are especially to be attended to viz. the amount and effects of the previous hemorrhage and state of the passages, the presence or absence of the placenta is immaterial, and they ought never to be looked for.

The operation presents nothing peculiar. After the usual preliminaries, having chloroformed the patient, the hand is introduced by the side of the placenta, the membranes ruptured and the foot brought down as in ordinary cases.
It was proposed by Mardel, and is recommended by Gillespie, to perforate the placenta with the hand and to drag the child through the opening thus produced. The plan however presents no advantage over the ordinary method and unnecessarily destroys the child if alive; the placenta too is apt to enlarge the child and thus to increase the dangers of the body to be preserved. In placental insertion with a dead child, delivery has been effected by the obstetrix.

The forceps can only be employed when the implantation is partial, and the uterus considerably dilated.

The plan of removal of the child is perhaps applicable in a large majority of cases where the patient has been under the immediate observation of the attendant from the commencement of labour. His services however may be required when the patient is already exhausted, or again the hemorrhage may be excessive and by its continuance place the life of the mother in imminent peril, whilst the want of prudence
and unremitting. In both conditions turning is justifiable, and in the latter impossible. As Rigby states that by means of the bag we may enable the patient to grip with perfect security until the pain has produced a sufficient dilatation of the uterus to admit the hand, a result so favourable however is by no means always the case as the enormous mortality consequent on the operation in placenta praevia presentation sufficiently proves. Under such circumstances the plan of Professor Simpson alone meets the exigencies of the moment, the placenta must be separated and if necessary removed. By this procedure the haemorrhage, the chief source of danger is arrested and time is gained for the recovery of the patient to rally, and the labour allowed to proceed natural ly. A large amount of maternal life is saved, and the introduction of the hand, always attended with danger is frequently avoided.
objection has been brought against this practice viz that the child is inevitably lost. This certainly would be a very formidable objection if the foetus were always or generally alive but in more than one third of all the cases of Placenta praevia the child perishes. In nearly every case in which its adoption is recommended by Professor Simpson, the child is already dead; the argument rests on a supposition false, and though specious is unreal.

When cases of Placenta praevia are left entirely to nature, death takes place from hemorrhage, with effects of delivery in one of 3 ways. Either by occluding the head directly through the placenta, or when the inversion is partial by rupturing the membranes, and by separating and carrying the detached portion of the placenta before the presenting part of the child; more frequently the placenta is separated from the uterus passed through the os, and expelled dangling between the
The cases in which its adoption is recommended by Professor Sampson:

1. When the child is dead
2. When the child is not yet viable
3. When turning would be improper, dangerous, or impossible. If when the placenta or passage of the mother are organically contracted, when the uterus is too contracted to admit of turning, if when the hemorrhage is so great as to threaten the life of the mother, or when the mother is already exhausted.

The operation is easily performed if the woman is chloroformed; two fingers are introduced within, the uteri the placenta separated and if necessary a female catheter may be passed into the maternal uterus, in order to be perfectly satisfied that complete separation has been effected. In general extraction is not required but if there is any doubts that the placenta may not be entirely separate.
it is better to remove it. The plan of extraction as proposed by Professor Simpson has not the reception generally awarded to real improvements in any department of science. Much of the opposition has obviously been engendered by jealousy, and some appear to have lost sight of the subject entirely in venting their spleen upon the Professor. Others again have amused themselves in showing the practice ought never to be adopted in cases in which its adoption was never advised. whilst others either intentionally or from inattention have mistated the facts stated by Professor Simpson or put a false construction on his statement.