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'Difficult, and Impracticable Labour.'

BURNS.

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LABOUR is made difficult by numerous causes, and the degrees in which it is so are very various. The most difficult cases are those in which a marked disproportion exists between the head of the fœtus, and the bony pelvis. Those are least manageable by ordinary means, and have been most fatal in their results, in which the pelvis is so deformed or distorted, that the conjugate diameter falls greatly short of its ordinary length in inches. Its established standard length has been derived from accurate measurements of the well-formed pelvis. Deviations from this are ascertained by measurements in the living subject. Every degree of deviation is a deformity. This, however, may exist in a degree so slight, that labour may be accomplished by ordinary means in many cases, and in others by such as involve neither the mother nor the child in any serious danger.

The next degree of deformity prevents the birth of the fœtus, while the head retains its standard or ordinary size at the full time. In these instances, the head has been diminished by an operation fatal to the child, but not necessarily injurious to the parent. To prevent this evil, premature labour has been induced at a period of fœtal growth, sufficiently advanced to allow of the child being born alive, and reared. Of thirty-three cases,

VOL. XV.

15

with the particulars of which Dr Merriman was fully acquainted, the results of premature labour were as follows :

'In 21 of these the children were born dead, 4 were born alive, but incapable of living more than a few hours. One of these was a case of twins. Nine were born alive, and capable of being reared.'

'Thus,' says Dr M., 'nearly *one-third* of the children were saved, who must have lost their lives, had the women gone to their full times, and been delivered by the perforator; and all the women recovered, the majority of whom, if not the whole number, must have been lost, had the *Cæsarean* section been performed.'

The following limitations and cautions respecting the operation for inducing premature labour are from a paper of Dr Merriman, in the Transactions of the Medico-Chirurgical Society of London :

'1. As the primary object is to preserve the life of the child, the operation should not be undertaken till *seven complete months* of utero-gestation have elapsed; and if the *pelvis* of the mother be not too much contracted to allow of it, the delay of another fortnight will give a greater chance to the child of surviving the birth.

'2. The practice should never be adopted, till *experience has decidedly proved*, that the mother is incapable of bearing a full-grown *fœtus* alive.

'3. It is sometimes necessary to have recourse to the *perforator* in the first labour, though there may be no considerable distortion of the *pelvis*; therefore, the use of this instrument in a former labour, is not *alone* to be considered as a justification of the practice.

'4. The operation ought not to be performed when the patient is labouring under any dangerous disease.

'5. If, upon examination before the operation is performed, it should be discovered that the presentation is *preternatural*, it might be advisable to defer it for a few days, as it is possible that a spontaneous alteration of the child's position may take place, particularly if the presentation be of the superior extremities.

'6. The utmost care should be taken to guard against an attack of shivering and fever, which seems to be no unusual consequence of this attempt to induce uterine action, and has often proved destructive to the child as well as alarming with regard to the mother. The peculiar circumstances under which the operation is performed, and the habit of body of the patient, will determine the accoucheur either to adopt a strictly antiphlo-

gistic plan, or to exhibit opiates, or antispasmodics and tonics.

'7. In order to give every possible chance for preserving the life of the child, it will be prudent to have a wet nurse in readiness that the child may have a plentiful supply of breast milk from the very hour of its birth.

'Lastly, *A regard to his own character should determine the accoucheur, not to perform this operation unless some other practitioner has seen the patient, and has acknowledged that the operation is advisable.'*

The delay under the circumstances stated in the fifth paragraph above quoted, has, according to Denman, Burns, and the late Dr Merriman, answered the important end for which it is proposed. A later writer, Dr Ramsbotham, offers a different view of the subject. 'Whatever situation,' says Dr R., 'the fœtus in utero assumes in the early stages of gestation, it retains that situation throughout the whole of pregnancy, and so presents in the time of labour. Although there be, relatively, in the early months, a larger quantity of liquor amnii in proportion to the size of the embryo, than in the more advanced stages, which may be supposed to allow it a free and ready motion in every direction on change of posture in the mother, the disproportion gradually diminishes as the process advances, so that by the completion of the seventh month, the relative quantity of that fluid is so lessened, as to be found insufficient to permit the change of position proposed.*'

Dr Ramsbotham offers no facts in support of his doctrine, and it does not therefore materially affect the practice, or the delay under the circumstances as recommended by the above named writers. It would not seem, however, very easy to ascertain the presentation at the period referred to in the operation. It is not very easy to do it in the earliest hours of labour, which takes place at the usual time and after its most natural manner. Is it not almost impossible, in the case supposed, of premature labour artificially induced, the os uteri having been merely opened by the finger, or a passage through it effected by a small instrument, as far as the membranes? It is not questioned that Denman, Burns, and Merriman ascertained the presentation in the cases in which they waited before they broke the membranes; but the rule is for the whole profession, and the question is a fair one, whether the majority of the profession will be able to ascertain, under the circumstances, whether the presentation be natural or not; and if the latter, whether it be a foot or hand which presents.

The cases are rare, at least in this country, in which the practice under consideration will ever be made a matter of

question. But this fact in their history, makes it very important that the rules of practice regarding them should be very accurately stated. Cases may occur, and if the doctrine of Ramsbotham, which is certainly reasonable, be true in the majority of cases only, it may be in some of those which demand the operation. Delay here would be obviously useless; and under an expectation that a change in the presentation might occur, it may be so far protracted, that the whole purpose of the operation may be defeated. Unless, therefore, the presentation is obviously premature, and of the upper extremities too, there seems to be very little reason for delay when the time as above prescribed has arrived for the operation.

Other means recommended in this degree of deformity consist in abstaining as far as possible from food during pregnancy, with the view to prevent the growth of the fœtus. To abstinence has been added occasional bloodletting, and the use of laxative medicines. A paper on this subject was published by Mr James Lucas, of Leeds (Eng.) containing cases in which these means had been proved useful. Dr Merriman remarks very justly on the practice here recommended, that undoubtedly it may be useful in cases of well-formed women, whose children are comparatively very large, and are delivered with difficulty, and possibly where a very slight degree of deformity exists. He considers the expected benefits to be confined within very narrow limits. Assilini has the same views on the subject. He supports them by the well-known fact, that the fœtus will acquire full size, notwithstanding the irritability of the stomach of the parent has been so great and so constant as scarcely to allow any food to remain long enough in its cavity to allow of its being digested. He might have added what is equally true, that the fœtus is not unfrequently born of full size and in good condition, though the parent has been sinking under chronic disease during the whole of pregnancy, and is too much emaciated and exhausted to survive delivery.

The last degree of deformity to which I shall allude is presented by those cases, in which the conjugate diameter is so much diminished as to render delivery by the natural passages impossible. And now what are these cases? In answering this question, other deviations from the standard pelvis, which consist in a shortening of the conjugate diameter will be stated, together with their effects on labour. Writers have not agreed on the precise degree of contraction of the conjugate diameter at which the delivery of the living fœtus becomes impossible.

* *Practical Observations in Midwifery*, by J. Ramsbotham, M.D. p. 19.

Dr Osborn says, that a fœtus at full maturity cannot pass alive if the dimensions of the pelvis, from the pubes to the projection of the sacrum, be only 2½ inches. Dr Clarke of Dublin places the limit at 3½ inches, under which a child at full maturity cannot pass. Dr Hamilton says, 'manifestly under three inches.' Burns says, 'It is universally agreed, that a living child, at the full time, cannot pass through a pelvis whose conjugate diameter is only two inches and a half.'

It is not easy to ascertain the precise degree of contraction the pelvis may have experienced. It has been ascertained, however, in the mass of cases with sufficient accuracy for practical purposes. The natural efforts in some cases, and the forceps or lever in others, have at the limits of contraction above stated been sufficient for the delivery of the fœtus. Exceptions, it is true, have occurred to this remark, but they have not in the majority of instances been made by the simple fact of the contraction of the pelvis.

Dr Bland, in his elaborate critique on Dr Osborn's *Essays on the Practice of Midwifery*, has some useful remarks on deviations from the standard pelvis, and on their effects on labour. He notices a source of error in estimating the contraction of the conjugate diameter which should not be overlooked. 'For although,' says Dr Bland, 'the sacrum may project so much, or advance into the pelvis so far as to reach within two or three inches, and consequently the entrance into that cavity would be only of that diameter, if the bones were directly opposite to each other; yet the pubes, being placed something lower than the greatest projection of the sacrum, and opposed to a part of that bone that diverges backward, the real distance between them may be much more considerable than to the touch it may seem to be. When it happens, that, in cases where the projection of the sacrum has occasioned exceeding great difficulty in the beginning of the labour, opposing an almost insuperable bar to the entrance of the head of the child into the pelvis, by directing it too far forward over the pubes, yet when that direction has been altered by the crotchet, or by any other means, and the head brought into the line of the centre of the pelvis, the conclusion of the labour has been frequently effected with very little exertion or force.*' —pp. 200, 201.

From the allusion to the crotchet in the above quotation, it will be perceived that Dr Bland has not in view the saving of the child in these cases, for the use of that instrument is fatal to the fœtus. It may happen that the contraction of the pelvis of

* Observations on Human and Comparative Parturition, by R. Bland, M.D.

the kind described by him, exists in a slight degree, and in such a case the efforts of the womb, or the long forceps, may be sufficient to bring the head through the brim, and into the cavity of the pelvis. Dr Bland's work, with some readers, will lose much of its effect on account of the spirit in which it is written. It is wholly controversial, and was written, it would seem, with the sole purpose of controverting and refuting the theoretical and practical doctrines of Dr Osborn. It was to correct or to oppose Dr Osborn's statement of the degree of contraction of the pelvis beyond which the living child could not pass, that the quotation above made, has a place in Dr Bland's Observations. This consideration, however, should not diminish its practical value.

The conjugate diameter of the pelvis is now and then found to fall far within the limits above named. Mr Charles Bell has a pelvis in his museum so exceedingly narrowed in this direction, that a marble measuring less than one inch in diameter cannot fall through the conjugate diameter in any direction. This is an extreme of contraction. In less degrees the head may pass if diminished in its bulk, and there are means of doing this. How far may this be done? The whole vault of the cranium, as some French anatomists express it, may be removed, and nothing but the breadth of the base of the cranium and the depth from the root of the nose and the symphysis of the chin left to pass through the pelvis. Dr Davis, it seems, from a review of his very late work on 'instrumental midwifery,' has invented an instrument by which even the breadth of the base of the cranium may be lessened, and of course nothing more would remain to obstruct delivery but the face. From a very accurate admeasurement of the base of the standard cranium, as given in the '*Récherches sur les différens degrés de compression dont la tête du fœtus est susceptible*,' of M. Thouret, it is ascertained that the *auricular* diameter, as he terms it, of this part, viz. from one temporal bone to the other, measured from the squamous portion to the branch of the zygomatic process, is from $2\frac{1}{2}$ to nearly three inches. Burns and others, who have measured the face from the root of the nose to the chin, the vault of the cranium being entirely removed, have ascertained that the average depth here is an inch and a half. We have, then, only to ascertain the capacity of the pelvis in a given case, to learn, whether the head diminished as above, can pass, or, this being impossible, whether an attempt shall be made to save the lives of the mother and child by other means, or the patient be left to die undelivered. With many the latter alternative has been preferred: or rather all ordinary means

having been tried, labour comes to be considered impracticable; and though an apparent interest continues to be taken in the case, and an imposing activity to be displayed, nothing effectual is done. The patient sinks more or less rapidly, and the case is terminated by death. By others, extraordinary means have been employed, and delivery under most hopeless circumstances has been accomplished. It is not to be concealed, that death has most frequently been the result of these efforts; but, though this has been the case even in the majority of cases, the means have not been abandoned. They, or one of them, still belong to the profession, and recent circumstances give a peculiar interest to at least one of them.

Two operations have been proposed and performed for relief in the otherwise hopeless cases of contracted pelvis under consideration. One of these, the Cæsarean operation, is the oldest, and has retained its place from the remote antiquity from which its origin is dated, to our own time. The section of the symphysis pubis, called from the individual who first performed it, the Sigaultian section, is more modern in its history, and was comparatively short-lived. The history of the operation of Sigault is quite extraordinary. I say Sigault, though it is well-known that *Severin Pineau* recommended artificial means for causing a separation of the symphysis nearly two hundred years before him. Pineau, however, never included among these means the section of the symphysis; he merely recommends fomentations, baths, &c. applied to the part. Sigault conceived the idea of this operation in 1768, while a student in surgery. He performed the operation on a woman named Souchot, in 1777, and with success. *Baude-locque*, many months before, as he says, Sigault *had dared* to perform his operation, had attempted, in an inaugural dissertation, defended before the schools of surgery in Paris, to destroy the favourable opinion entertained of the section of the symphysis. The successful result of a case, in which the section had actually been made, served to give at once an extraordinary celebrity to the operation and its author. The profession, throughout Europe, it is said, admitted it among the established facts of surgery; the author received the highest honors which are in the gift of his calling, and the strongest expression of the public favour, in the patronage of the government. The faculty of Paris caused a medal to be struck in honour of Sigault, and the government settled a pension on him, and on the individual who had submitted to the operation.

This operation was not long-lived. Subsequent trials were less successful. Even where the pelvis was not excessively

narrowed, the gain in the diameter was not so great as to allow the child to pass, except by the use of so much force as to destroy it. Siebold, a very distinguished man of that time, performed the operation, Feb. 4, 1778, on a patient aged 35, the year following Sigault's case. This woman had had seven children, all dead born. Six of these had been delivered naturally, and one after being diminished in bulk by instruments. Siebold found the conjugate diameter to be *thirty-three lines* in length. The standard foetal head is from thirty-six to forty-two. This seemed a favourable case for the operation, and it was performed. Much difficulty was experienced, for the symphysis was completely ankylosed, and it was found necessary to use the saw, in order to separate the bones of the pubes. This being done the child was turned. The greatest difficulty was experienced when the head arrived at the pelvis. It was necessary, says Siebold, to compress it, *fortement et sans miséricorde*. He was several times about giving up the case in despair. He expressed the strongest regret for having made the attempt. The patient recovered. Many patients were submitted to the operation, but the results were so unfavourable, that the operation became more and more seriously questioned, until at length it has almost passed out of use. Sigault himself is considered as having had his own confidence much shaken in it, inasmuch as he ceased to recommend it in the last years of his life, in cases in which the small diameter of the brim was less than two inches and a half. Now, as the French inch is a line longer than the English, he may almost be considered as giving it up altogether, as confessedly the child will pass alive by the ordinary means, or with other artificial assistance, through a pelvis of these dimensions.

There were two facts in this operation which concurred in destroying the confidence of the profession in it. The first was, that there was not so much gained of room to the pelvis, by the section, as its author and his partizans held forth; the second, that so much violence was done the other symphyses of the pelvis, by such a separation of the pubes as gave any useful additional capacity to the pelvis, that the patients either died directly of the operation, or dragged out a miserable existence afterwards. Thus it was found that a separation of the bones one inch, added but from one to two lines only to the conjugate diameter; two inches and a half, six lines; and this last, to the manifest injury of the sacro-iliac synchondroses. M. Serin obtained three lines by a separation of two and a quarter inches. F.M. Chevreul two lines for two inches; and M. Desgraves, six lines for two inches, and eight lines separation. Deventer said

that it was not by a separation of the symphyses, but by a retrocession of the sacrum that an increase of the brim is to be procured; and, finally, Roëderer adds, that a separation of the pubes only increases the transverse diameter of the pelvis. It is surely not to be wondered at, that under such various and discordant results, and such contradiction of great men of the times, that this celebrated operation should have declined, and at length come to be found hardly any where else than in the history of medicine. This qualification may be sufficient to embrace the solitary cases which are still, now and then, to be met with. A year or two since, two such cases occurred in Naples. The operation was performed by Dr Manchini, professor of anatomy in that city. In both, the children were born alive, and did well. The mothers recovered. After the operation the patients were put into warm baths, and the farther separation of the bones and dilatation of the parts left to the efforts of nature. On delivery, the bones were found to have receded from each other an inch and a half. In one case, no re-union of the bones took place, in consequence (it is supposed) of their not being brought into apposition after delivery, and the power of walking is not perfectly recovered. In the other case, the bones were brought together and retained in their situation by rollers. The bones united, and no inconvenience was sustained.*

I have not been able to turn to the particulars of these cases. They were, probably, very favourable for the operation. Such cases there doubtless are. It was the error of Sigault and his partizans, that they applied it indiscriminately to all cases. It was to supersede the Cæsarean section and crotchet; in fine, to render impracticable labour a comparatively easy thing. They forgot the shape, the outline of the pelvis. They seem to have regarded it as a circle, made of a single piece of elastic substance, which would be enlarged equally in every direction, by being divided in any part of it. The brim of the pelvis is not a circle. It is an ellipse, or triangle; when deformed it is most commonly so, by a compression of the ellipse in one direction, and in front for the most part; and a corresponding lengthening in the other, or transversely. Bearing in mind the relations of the bones with each other which form the pelvis, particularly of the sacrum, it is evident that in the deformity in question, no useful size will be gained by the pelvis from the operation.

The cases in which the section of the symphysis may be

* Med. Chirurg. Rev. and Journ. March 1824.

serviceable, and for which, if ever, it may be revived, would seem to be those in which the pelvis preserves its natural shape, but is under size, either positively or relatively. Thus it may be too small for the head to pass when of standard dimensions, and when compressed by the forceps or efforts of the womb, as far as it is susceptible of compression. Here a gain of room in *every* direction, as would be the case under the supposed circumstances, might be of great advantage, and it might become a question whether the perforator should be used, or the symphysis divided. Or, secondly, the pelvis may be of standard dimensions, but the head out of proportion large, or the sutures and fontanelles ossified, or allowing of no compression. Here, relatively, the head is too large to pass, and the same questions might occur as under the circumstances just supposed. From the state of midwifery practice in this country and Great Britain, it is almost too much to say, that a question would be made as to the proper course. And should one arise, it is *not* hazarding too much to say, without any qualification, that the answer would be universally against the section of the symphysis.

The Cæsarean operation still belongs to the profession. The history of this operation is alike curious and instructive with that we have just considered. The true operation consists in an incision into the cavity of the abdomen, and into the uterine cavity. The term has been sometimes misapplied, for it has been given to simple gastrotomy. It is a very different thing from this, and in what will now be said concerning it, the true meaning of the term will be adhered to. It has been frequently performed. When Dr Hull published his translation of M Baudelocque's memoir, he collected accounts of two hundred and thirty-one cases, of which one hundred and thirty-nine proved successful. This list includes the cases published on the continent of Europe, as well as in Great Britain.

The difference of result of the operation on the continent, and in Great Britain, including Ireland, is quite striking. Most of the successful cases have occurred on the continent. In Great Britain, the operation has been performed in twenty-five cases, if Mr Barlow's case be one, which has been doubted. Of these, two women have survived, and ten children. Mr Barlow's is one of the successful cases. It has been objected to this, that the uterus was not opened. Mr Barlow contends that it was, against Professor Hamilton and others, who deny his claim to the only successful operation of the kind ever performed by the profession in England. Dr Merriman is disposed to side with Mr Barlow. Mr B. has performed the ope-

ration twice since. Both women died. They were over 40 years of age, and suffered severely from malacosteon. The children were both saved.* The remaining successful case in that country is quite astonishing. The operation was done in a village in Ireland, by an illiterate midwife, one *Mary Dunally*, upon a patient named Alice O'Neal, and with a razor. 'She held the lips of the wound together with her hand,' says the *Edinburgh Medical Essays*, Vol. V., 'till some one went a mile and returned with silk and the common needles which tailors use. With these she joined the lips in the manner of the stitch employed ordinarily for the hare lip, and dressed the wound with whites of eggs.' In twenty-seven days the woman was well. There is no reason to doubt the truth of this narrative. A surgeon, Mr Duncan Stewart, saw this patient some days after the operation, and Dr Gabriel King of Armagh, drew out the needles by which the edges of the wound had been kept in contact.

A question may arise of the causes of the difference of result of the operation as practised on the continent, and in Great Britain. It has been resolved into the difference of time in the cases, at which the operation has been performed in the two countries. On the continent it has been done *early*, when circumstances have distinctly shown that labour was impracticable without it; and also *early* when the question has been between it and the use of the perforator; and, finally, it has been done *early* in cases in which, by Baudelocque's own showing, and who is himself a strong advocate for the operation, the labour might have been accomplished without it. How far the result has been effected by the time chosen, will be shown by some cases hereafter. In England, the operation has been delayed even beyond the time when any thing could be hoped for, either by the natural or artificial efforts. It has been done in short, at a period of labour, in the otherwise healthy, in which generally very serious diseased action has occurred from ineffectual labour; or at a similar time in those who were suffering more or less from grave disease before labour took place. It is not to be wondered at, that the results should be so very diverse. In Catholic countries, a religious scruple has made the life of the foetus as important as that of the mother; and the means of relief, therefore, in these cases, are to be such as will give the former the best chance of being born alive. Perhaps the life of the child is even thought of more importance than that of the mother, as it is by baptism that it is to become a member

* Vid. *Essays on Surgery and Midwifery*, by James Barlow, Surgeon, 1822.

of the catholic church. The operation is done early, that this advantage may be secured to the child. In England different views prevail, and the perforator and crotchet are used where there is a chance of delivery by them; and other means are deferred in the hope, that, at length, by some chance, the case may terminate without them.

The principal reasons for the delay, which is considered as having had so much agency in producing the melancholy result of the Cæsarean operation in England, have been found in a disinclination to interfere with a process so healthy as labour is, and especially after a manner so appalling as the steps of this operation are acknowledged to be,—the diseased state of the system under which labour takes place in many instances, and the fatality which has hitherto attended it. If its hitherto fatal character be now ascribed to its true causes or not, it has itself become an argument against an early recurrence to the operation. It is no part of the object of this paper to recommend precipitancy in the adoption of unusual means in the treatment of difficult labour. There is much in the function of labour itself which encourages delay. It is the only *natural* and *healthy* function which falls directly under the professional cognizance of the physician. It is accomplished, by its own agency, in the vast majority of cases. It is highly probable that these peculiar facts in its history, have a powerful effect in directing the practice, or in preventing the adoption of active means early, in cases in which this function does not take place under circumstances strictly *natural*; or is itself *diseased*. They may have an influence which, at the time, the physician may be unwilling to acknowledge. Is it not true, that the cases which have ended fatally, after the use of artificial means of whatever kind, and others which have been seemingly hopeless, or have laid the foundation of chronic disease,—is it not true that the dangerous or fatal character of such cases has far more frequently proceeded from a delay of judicious and well used means, than from precipitancy in their use?

There is indeed a rashness occasionally to be met with, in hurrying labour, which is sufficiently reprehensible. This consists in the use of means for expediting the process, when there is no other motive for doing so, than the saving the time of the practitioner. Thus ergot is given; violent voluntary efforts recommended and enforced, and even instruments employed, where there is no serious indication for either. The cases I refer to are those in which an insurmountable obstacle exists to delivery, whether positive or relative. In these, the strength at length fails; the pains cease; the urinary bladder

is compressed; the abdomen tender; the pulse rapid; the heat great; the tongue dry; vomiting is present; and, worse than all, constant jactitation, with disturbed mind,—these are the cases which are produced by delay, under the circumstances above supposed, and which are among those in which the most serious and violent operations have at length been performed, and with the serious purpose too of saving life.

The Cæsarean operation continues to be occasionally performed, in cases of otherwise impracticable labour. Cases are recorded in the foreign Journals, and a very brief sketch of such as are at hand will be given. It will be perceived that they have, in most instances, been performed on the continent of Europe, and with great success.

I. In the ninth volume of the *Medico-Chirurgical Transactions*, 1818, a case is published from Dr Locher of Zurich, who performed the operation, Feb. 1817. The conjugate diameter measured 'not above two, or at most two and a half inches, and the remaining dimensions were in the same proportions.' The patient was an exceedingly deformed woman. Dr L. saw her first at 3 A.M., and performed the operation at 5 P.M. Both mother and child were saved. The question here was, between the use of the perforator and the Cæsarean section. The woman was certain the child was alive, and the latter operation was preferred. This would not, probably, have been the decision in this country, or in England.

II. This case was performed in the West Indies, and is reported in the *London Med. and Phys. Journal*, No. 288, 1823. Patient, a slave aged 40, and had been nearly 60 hours in labour. The conjugate diameter would scarcely admit three fingers, say two inches in length. The sacrum jutted towards the symphysis pubes, and from this last projected a tuberosity about an inch and a half towards the sacrum. She recovered, after an alarming attack of peritoneal inflammation. Nothing is said of the child. It is observed, that the operation has been more successful on slaves in the West Indies, than on Europeans.

III. In Graefes and Walther's *Journal*, a case is given by Mr Rutt of Upper Silesia, which is incorrectly called a Cæsarean operation. The abdomen was opened, but not the uterus. The case was extra-uterine. The woman recovered.

IV. In the *Medico-Chirurgical Gazette* of Saltzburg, is the case of E. H. aged 28. Pelvis not more than two inches wide. The operation was performed on the second day. The woman recovered. The child lived half an hour. Dr Johnson, of the *Medico-Chirurgical*, thinks the surgeon highly culpable for not

preferring embryulcia to the Cæsarean section. The latter was preferred, as the child was declared by the woman to be alive.

V. VI. Dr Johnson, in his number for Sept. 1822, has the following.—‘*Cæsarean operation successful.*—M. Bosch, surgeon to the public hospital of Mæstricht, has recently performed this terrible operation with success. Both women were young, or in the prime of life. The pelves of both were, of course, distorted. The operations were performed in the public hospital. The incisions were in the *linea alba*, and the lives of both mothers and children were preserved.’—*N. Bibliotheque Med.*

VII. VIII. These were both cases of *self-performed Cæsarean section*. The first was a negro woman in Jamaica. She performed the operation on herself, and recovered. The child died of lock-jaw. Dr Mosely communicates this case. The second occurred in this country. It is published in the *New York Med. and Phys. Journal*, March 1823. I quote from Dr Johnson as above. He has some doubts about the authenticity of these cases. Of the last, he says, ‘It is one of those extraordinary cases which we cannot easily believe, yet dare not positively deny.’ She recovered.

IX. May 23, 1818. Dr Locher performed a second operation on the patient mentioned No. 1. Her situation was more unfavourable, for rupture of the uterus had occurred before the operation. Some hours elapsed after the accident before it was performed. She died 8th July following.

Connected with this subject are the operations which have been, within a few years past, successfully performed on the abdomen for hitherto incurable disease within its cavity. Among these, are those of Mr Lizars of Edinburgh, for the extraction of diseased ovaria. These have been published in this *Journal*. This bold and wise surgeon, has the best claims to the admiration and respect of the profession. He has been successful, where the circumstances have been the most discouraging; and he operated even against the opinion of those who were consulted with him on the cases. One case was fatal; one successful; and in two others the operation was useless, but not fatal. In speaking of this contributor to our profession, his anatomical labours should not be forgotten. Operations for similar purposes with those of Mr Lizars have been performed in this country. The cases of Dr McDowal are sufficiently remarkable. They amount to three. They were performed under no very favourable circumstances, and were successful. Dr Nathan Smith has performed a similar operation with suc-

cess; Dr Gallup an unsuccessful one in Vermont;* and, very recently, Dr Alban G. Smith of Danville, Kentucky, has published a case of the same kind, which was successful.† Both of the ovaria were extirpated in a case in Pott's works, Vol. III. p. 352. The woman recovered.

Allied to the subject of this article are other operations on the abdominal cavity, though made for other purposes than the above. The case in Hufeland's Journal for Feb. 1825, is one of these. Gastrotomy was performed in this case for '*Intus-susception.*' The intestine was divided, the intus-suscepted part, to use the language of an English journalist, was drawn out, and the wound in the intestine brought together by six stitches in the form of the glover's suture, and the ends of the silk thread brought out of the wound. The intercepted part, when drawn out was found to be *two feet in length.* The man recovered. Other operations have a similar connection. Such, for instance, are those of the late Professor Oslander of Göttingen. These consisted in the removal by the knife of portions more or less extensive of the diseased uterus. Many of these were successful, where little more than a temporary benefit, if any at all, could have been looked for. Dupuytren of Paris, one of the great names of modern surgery, has followed the example of Oslander, and with similar results. The cancerous uterus has been extirpated entire by Dr Sauter; and notwithstanding the necessary injury done the bladder and peritoneum, the patient recovered entirely, and returned to her ordinary labours. She died four months after of cough, dropsy and diarrhœa. 'On examination the bladder was found still open; the wound of the peritoneum, through which the intestines had descended, was quite whole, and no inflammation or adhesion in the abdomen or pelvis.‡' Mr Chevalier, in 1804, extirpated the uterus in a case of chronic inversion of that organ. The patient was 54 years of age. The ligature was passed round the *cervix uteri.* This part was about four inches in circumference. This was a case of *complete* inversion; the tumour reached to below the middle of the thighs; the patient recovered, and lived many years afterwards.§ Mr Newnham has published a very interesting case, in which he removed by ligature the inverted uterus. The uterus was in the vagina. The patient was aged 24, and was delivered 21st Jan. 1817. The ligature was applied 13th April. The tumour became detached 6th of

* Vid. North American Medical and Surgical Journal, Philadelphia. No. 1. Vol. I. Jan. 1826.

† Vid. New-England Journ. of Med. and Surg. Vol. XIV. p. 358.

‡ Vid. Annali Universali, 1823.

§ Vid. Merriman's Synopsis of Difficult Parturition. Third Edit.

May. It was about the size of the human heart. The patient recovered.* Finally, the os and cervix uteri have been divided in a scirrhus state during labour, to permit delivery, and with success.

It would not be difficult to multiply successful cases.† It must not be concealed that unsuccessful ones are also to be found. No selection has been made in those now briefly stated. They were found, with the exception of Osiander's and one or two others, in works which have been periodically or otherwise published within the last two or three years; and all the cases met with have been noticed. They have not been collected with a view to any precise mode of practice, much less to indicate the cases in which such practice might be proper. It has been with the view to bring together a variety of facts, which may have a nearer or remoter bearing on some of the important questions in operative midwifery. If they do no more, they do this; they may serve to show, that very serious lesions may be made in the abdominal cavity; that that cavity may be freely exposed to air and temperature, by an extensive incision into it; and, further, that enlarged and variously diseased organs may be removed, without greater danger to life than occurs in other great operations in surgery. Finally, they show that most important operations may be done on the uterus itself, when most diseased, and when only displaced; that it will tolerate a ligature on *itself*, and be thus extirpated, and with safety to the patient. Perhaps it may be allowed me to say, that under all the circumstances the success has been greater in all these cases, than in the great operations referred to. Do they not have some bearing on the Cæsarean operation, in its appropriate cases, and may they not be looked to for an argument for an earlier recurrence to such operation, than has been deemed safe by British practitioners?

There is another case, to which these facts may be applied, and to which they may be thought more legitimately to refer. I mean the case of *ruptured uterus*. Under all the ordinary modes of treatment, this accident has been as fatal as the Cæsarean operation, as it has been performed in Great Britain. Gastrotomy, if my memory serve me, has been performed in this country in the case of ruptured uterus, in one or more cases with success. I am not aware that the operation has been performed in this city in the same case. Three cases of ruptured uterus have occurred here, within a few years, which

* Vid. Newnham's Essay on Inversio Uteri, p. 31.

† Vid. 3d Vol. of this Journal, p. 54.

were published in former numbers of this Journal. They were all fatal. In one, the fœtus was delivered by turning. A portion of it had escaped into the cavity of the abdomen. Both mother and child died. In the other cases no attempt seems to have been made to deliver the fœtuses. Death happened in about two hours after the rupture in one of these last cases; in the other, sixty hours after. In these cases was not gastro-tomy indicated? Was there the least prospect of recovery, while the fœtus and its appendages remained in the cavity of the abdomen? Is there any warranty of a favourable issue during the state of things contained in the last question, in any authentic facts in the history of midwifery? As far as I have examined this history, I find no such warranty. If any patients have lived, it has been a life of almost uninterrupted misery. In some cases, indeed, ulceration has at length taken place in some spot of the uterine cavity, as in extra-uterine pregnancy, and the decomposed fœtus has either been forced by portions through the opening, or gastro-tomy has been performed, and the whole removed at once.

There are some facts connected with rupture of the uterus, which deserve to be noticed. These are presented in the whole state of the patient, in whom this accident has occurred. A state, resembling the extreme of exhaustion, follows in the majority of cases immediately, and sometimes a short time after the accident. The prostration is extreme, and is more noticeable from occurring so soon after great exertion of power. The countenance is remarkably expressive of the overpowering oppression to which the system has been suddenly subjected. This state is not exactly imitated by the effects of uterine hemorrhage, even when very great. It is most nearly so by the state which occurs suddenly in inverted uterus, particularly if this accident be complicated with uterine hemorrhage. It is unquestionably the sudden rupture of the organ which directly produces this state of the system, but is it not kept up and increased by the unnatural situation which the fœtus has been made to assume? As to the treatment of this case, authors I believe are universally agreed, that in all cases of rupture of the uterus, if the child is within reach, it should be always delivered by the natural passages; by the forceps if possible; if not by getting at the feet, and thus delivering it. The question is about the time. If the above question be answered in the affirmative, which I believe to be the true answer, this should be done as soon as the nature of the accident is fully understood. Suppose, however, that the fœtus has escaped entirely from the uterine cavity, and returning it

is out of the question, shall gastrotomy be performed at once, or shall it be delayed; or shall no attempt of this kind be made to save the woman or child? Mr Burns says, 'If we have been called early, when the child is yet alive, and before the abdominal viscera have been much irritated by the presence of the fœtus, we are warranted to extract the child by a small incision.*' In this country, the physician being for the most part in attendance when pains are urgent and the child fairly in the pelvis, and the state of the child being quite uncertain, we have authority for operating as soon as the whole nature of the case is understood, and this last may be done very soon. Thibaut, and Lassus, French writers, and the latter a late one, recommended an immediate resort to the operation, to preserve the strength of the patient, and to prevent fatal prostration. If the part of the uterus ruptured be ascertained, they recommend that the incision should be made on the corresponding side of the abdomen. I would conclude, by asking, if the facts contained in another part of this paper do not furnish some probability of a favourable issue of gastrotomy in the cases of ruptured uterus now referred to? And does not the state of the patient, in these cases, support the doctrine that the sooner the operation is performed the better?

CLINICAL REMARKS, No. IV. By A. L. PEARSON, M.D.

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Acute disease of the Brain.

ONE of the most important concerns in the business of a general practitioner, is to watch the progress of disease in infants, from trifling indisposition to severe disease; and it is an universal observation, that whatever the infantile complaint may be, and whatever organs are the seat of it, the brain is always easily affected, and this affection may ultimately be the source of danger and cause of death. It were a desirable point gained, could we learn to distinguish the early symptoms of this affection. But writers on this subject, particularly Cheyne, who has been more read than any one, lay too much stress on the important knowledge to be derived from observing the colour and consistence of the alvine discharges, which in truth are perpetually varying, and not unfrequently perfectly

* Principles of Midwifery. 3d Am. Ed. Vol. II. p. 55.