

## THE RADICAL CURE OF PELVIC DEFORMITY.

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I THINK it is time that some attempt should be made to remove a discredit that rests on obstetricians, inasmuch as, while successful attempts have been made to cure almost every other form of bone deformity by surgical intervention, the very serious deformity of contracted pelvis has been left practically unconsidered and uncured. It cannot be said in excuse that it is a condition which does not require cure, because, both for the sake of the patient, her unborn children, and the annual birth-rate, cure, if possible, is advisable. Further, it cannot be said that no surgical cure is available, because, for certain cases at all events, it has been in our hands for years. If an excuse cannot be found a reason, or rather several reasons can, and they are shortly these. Obstetricians have been divided into two camps in regard to cutting operations on the pelvic bones; a minority regard such operations not merely as justifiable, but as advisable. A large majority regard them as neither the one nor the other. Further, those who believe have their belief narrowed and limited, because they have been brought up to regard such operations solely as a means of terminating a particular labour, and have altogether, or almost altogether, passed by the larger view—that they can be used as a means of effecting a permanent cure. I think the time has now come both for a little plain speaking on this important subject and

for a complete revision of our views. Plain speaking is necessary to those who would cut out of obstetrical surgery such operations. A revision of views is necessary for those of us who have recognised that the operations have their place therein, but have not recognised quite what that place might be. I ask in advance for pardon for two things. First, if I am rather dogmatic in this matter; I should not be so, if the evidence in favour of my views were not so overwhelming, and if the opposition to them was not likely to be so strong. Secondly, if I am unwittingly regarding myself as the introducer of views which have already been brought forward by others. Necessity is my excuse for the one fault. Ignorance is my excuse for the other, if it exists.

The different cutting operations on the pelvic bones with the object of causing enlargement of the intra-pelvic diameters may be reduced, for practical purposes, to one—namely, pubiotomy. The nature of this operation and its advantages over others of a similar kind are so well known as not to require description. The general views regarding it held by those who sanction its use may be briefly stated as follows:—It is a method of treatment to enable a particular labour to be successfully terminated. It is suitable for the second degree of pelvic contraction—*i.e.* that degree in which the conjugate diameter measures between 8 cms. and 7 cms. in the case of a flat pelvis, or between 8.5 cms. and 7.5 cms. in the case of a generally contracted pelvis. Pelves which measure above these lengths are considered to be amenable to other lines of treatment. Pelves which measure below these lengths are considered to be too small. It is an alternative to Cæsarean section. It is to be carried out at the end of the second stage of labour, when the natural efforts fail to

effect delivery, and either with or without a preliminary attempt to deliver with the forceps. It is desirable that bony union of the cut surfaces should result.

I wish in this paper to disprove every one of these points, and perhaps it will facilitate my argument if I begin by saying what it is I want to prove. It is, shortly, as follows :—First, that pubiotomy is not merely a method of terminating a difficult labour, it is rather a means of effecting a radical cure of pelvic contraction. Secondly, that it is indicated in both the first and second degrees of contracted pelvis. Thirdly, that it is not an alternative to Cæsarean section any more than the wiring of a fractured bone is an alternative to amputation of the limb. Fourthly, that it should never be postponed willingly to the end of the second stage, but should ideally be carried out independently of pregnancy, when its effects are likely to be required. Fifthly, that every effort should be made to avoid bony union of the cut surfaces.

Before coming to the discussion of these points, however, I must first demonstrate to those who oppose the operation that it is a safe and advantageous one.

The safety of pubiotomy can best be proved by the statistics of thirty-five operations, to be found at the end of this paper, which operations were performed by my predecessors at the Rotunda Hospital or by myself. Of these thirty-five women, two died. The first patient died of heart failure immediately after delivery, due, as proved by a *post-mortem* examination, to fatty degeneration of the heart. The second patient died some weeks after delivery of acute miliary tuberculosis, as proved by *post-mortem* examination. Five children out of thirty-six were born dead. One of these was the second of twins, the first child being alive, and another was hydrocephalic. In two

cases injury to the bladder wall resulted. In one, immediate cure followed the suture of the tear. In the second, the fistula was not detected at the time of operation, and so was not sutured. It occurred in the patient who subsequently died of acute miliary tuberculosis. Every patient, except the two who died, left the hospital in perfect health, and with no impairment of the power of walking.

The advantages of pubiotomy can be best proved by two parallel cases, on both of which I operated myself—in the one case performing pubiotomy, and in the other Cæsarean section. These cases are as follows :—

Mrs. E. B. Flat pelvis, measuring 7 cms. in the conjugate, and 10.80 cms. in the transverse. Delivered by Cæsarean section, March 14th, 1911. She had four subsequent Cæsarean sections, the last being performed on November 22nd, 1918, when I also tied her tubes and did a plastic operation to restore her abdominal wall.

Mrs. C. O'C. (Case No. 13). Generally contracted pelvis, measuring 7.3 cms. in the conjugate, and 9.35 cms. in the transverse. Pubiotomy was performed on August 22nd, 1912, a living child of  $7\frac{1}{4}$  lbs. being born. She had four subsequent confinements, of which three were spontaneous deliveries, the children weighing 8 lbs., 8 lbs., and 8 lbs. 6 oz., respectively; whilst one child was delivered also alive by the forceps, applied for no apparent reason, after she had been a few hours in labour. The last child was born on January 1st, 1919, and her pelvis at that time measured 8.95 cms. in the conjugate, and 11.85 cms. in the transverse. The measurements, both in 1912 and in 1919, were made by myself, and I have no reason to think that any material error occurs in them. The incision in

the pubic bone had joined by fibrous union, and the bones were mobile.

The deductions from these two cases are so obvious that I need not spend time in discussing them, and so I may pass on to the different points which I propose to try to establish.

*First Point.*—*Pubiotomy is not merely a method of terminating a difficult labour, it is rather a means of effecting a radical cure of pelvic contraction.* To prove this, it is only necessary to refer to Tables II. and IV. at the end of this paper. It will be seen from them that whereas in forty-five labours previous to pubiotomy, six children were delivered alive spontaneously and four delivered alive by the forceps; in twenty-two labours occurring subsequent to the labour at which pubiotomy was performed, eleven children were delivered alive spontaneously, six delivered alive by the forceps, and two by a second pubiotomy. Further, that the death of one of the three children born dead was due to placenta prævia, and so must not be counted. These figures are very striking in view of the fact that women who have difficult confinements after pubiotomy naturally tend to return to hospital, and so are included in the statistics; whilst women who have no trouble are, perhaps, usually content to remain at home, and so escape observation. Moreover, in practically all these cases every effort has been made to promote bony union of the pubic incision, and whenever it occurred, the full benefit of the operation has not been obtained.

*Second Point.*—*Pubiotomy is indicated in both the first and second degrees of contracted pelvis.* Up to the present, the teaching of those who accept pubiotomy has been that the operation is indicated in the second degree only. In the first degree, it is usual either to allow the head to

mould through the pelvic canal or to perform prophylactic version. The moulding of the head through the pelvis in a case of contraction is, as every one knows, a tedious process, and a most painful one for the patient. It frequently results in the labour ending with the application of the forceps when, perhaps, the head is still above the pelvic brim, and even in failure to deliver by this means. It is then too late to adopt measures other than perforation, and, indeed, in most cases the death of the child has already occurred. Similar difficulties and dangers to both mother and child recur at each subsequent labour, and tend to increase in degree after the third or fourth in consequence of the increasing size of the child. Once we abandon the idea that pubiotomy is a means of ending a particular labour, and regard it as a means of curing contracted pelvis, its adoption in the first degree is even more strongly indicated than in the second, because, while occasionally it may fail in the lower limits of the latter degree to cause sufficient permanent increase in size in the pelvis, in the first degree it will probably always be successful.

It may be asked how one is to distinguish between the upper limits of the first degree of contraction and a normal pelvis. The answer will be furnished by the histories of the patients concerned. If a woman whose measurements are below normal has difficult and dangerous labours obviously due to pelvic contraction, pubiotomy is indicated in order to produce safe and easy labours.

*Third Point.*—*Pubiotomy is not an alternative to Cæsarean section any more than is the wiring of a fractured bone an alternative to amputation of the limb.* Of necessity, any observations on this point are in the nature of a repetition. Once it is admitted that pubiotomy is

safe, and that it produces permanent cure, then it takes its place accordingly; while Cæsarean section, on the other hand, is only a means of effecting the termination of a particular labour. It has its uses. For example: in an elderly patient, who is not likely to become pregnant again, it is a more certain method of ensuring the birth of a living child, since the ordinary dangers of labour are avoided. If it was a suitable operation to perform late in the second stage, I should advise its adoption in primiparæ who came under treatment too late for an early pubiotomy, because I believe almost all the risks associated with the latter operation are due to its late performance. Unfortunately, however, Cæsarean section is equally, or even more, unsuited for such cases on account of the risk of an existing infection of the uterus.

*Fourth Point.*—*Pubiotomy should never be postponed willingly to the end of the second stage, but should really be carried out independently of pregnancy when its effects are likely to be required.* So far as my experience goes, the two principal causes of injury during or after pubiotomy are: first, the penetration of the bladder by the pubiotomy needle; and, secondly, the combined association of the presence of blood beneath the vaginal mucous membrane and a gap in the bony support at the site of incision. Penetration by the needle does not concern us at the moment, while the other causes do. There is always bound to be a certain amount of hæmorrhage at the moment of operation as a result of small injuries to the vulvar venous plexus. This blood cannot readily escape, and consequently tends to dissect a space for itself between the bone and the mucous membrane, and there to form a hæmatoma. Further, at the point of separation of the ends of the bone, there is a gap which leaves the vaginal

walls unsupported. As a result, when the vagina is forced to dilate by the descending head, it tends to tear where it is unsupported, and this tearing is made more extensive by the hæmatoma behind it. Such an accident is most prone to occur when delivery is effected in primiparæ by the forceps immediately after the pubiotomy. It is less likely to occur if delivery is spontaneous, and still less likely to occur if the operation has preceded labour by some days or weeks. In other words, the more complete the recovery of the soft parts from the trauma of the operation, the less likely is laceration to occur, and the smaller will be its effects if it should occur. This suggests that the ideal time at which to perform pubiotomy is when the patient is not pregnant, because then the vulvar blood supply will be at its smallest. Indeed, the only objection that can be raised to such a practice is that the patient might never require the effects of the operation—that is, she might never again become pregnant. When, however, future pregnancies are fairly certain to occur, I should advise operation independently of them. Further, I think it is a matter for consideration as to whether when in a primipara the existence of contraction is not recognised until the patient is in or very near labour, we should not deliver her by Cæsarean section, and perform pubiotomy at a subsequent date for the benefit of future labours.

*Fifth Point.*—Every effort should be made to prevent bony union of the cut surfaces. I think I am right in saying that when pubiotomy was introduced one great advantage it was said to possess over symphysiotomy was that bony union of the cut surface usually followed. This was believed to be an advantage, because it was supposed that without such union the pelvic girdle would be impaired.



and there would be interference with the power of walking. Such a supposition is, of course, untenable, as is amply proved by cases in which the piece of bone between the saw-cut and the symphysis has come away without harm to the patient, and by the ambulatory powers of women who have been born with a split pelvis. On the other hand, the occurrence of bony union prevents any considerable permanent increase in the size of the pelvis, and prevents any separation of the bones during labour. It can best be avoided by refraining from the prolonged use of the pubiotomy belt, by allowing patients early movement, and by getting them out of bed as soon as possible after operation.

The following history is an interesting example of the importance of this point :—

Mrs. M. G. (Case No. 17), pelvis measuring 9.3 cms. in the conjugate, and 10.5 cms. in the transverse, had pubiotomy performed by me in November, 1913, a living child being delivered. According to the practice of that date, she was kept very quiet after the operation, with the result that bony union took place at the incision. She returned to the hospital in February, 1916, and, in consequence of the failure of the head to enter the brim, Dr. Purefoy had to perform a second pubiotomy on the opposite side, a living child being extracted by the forceps. She came into hospital again in January, 1919, the condition then being that my incision was united by bony union, and the incision left by Dr. Purefoy by fibrous union as diagnosed at the time, and as proved by a subsequent skiagram. The membranes had ruptured before admission, and the patient had very poor uterine contractions. She was given every opportunity to deliver herself, and this failing owing to the weak contractions, I had to apply the forceps, and

delivered a living child without the smallest difficulty. I think this case conclusively proves the advantage of a non-rigid union of the bones.

It may be asked if it is possible to guarantee a non-bony union by the means I have suggested, and the answer will be that it is not possible to do so, but that such union is most likely to result, if we deliberately try to produce it. If, on the other hand, further experience goes to show that bony union does result in some cases, in spite of every effort to prevent it, then there will be a legitimate reason for adopting some method which will positively prevent it. Such a method might be found in the removal of the fragment of bone between the saw-cut and the symphysis—a procedure which does not seem to give rise to any inconvenient consequences. For the moment, however, results appear to indicate that such a step is unnecessary. Once it is shown to be necessary, I do not see that we need have any hesitation in adopting it.

It may, further, be asked whether, even if non-bony union results, its fibres will stretch sufficiently to allow increase in size of the pelvis at subsequent labours. Here, I think, we are on surer ground. So far as my own experience goes, at any rate, delivery occurs without difficulty. The explanation is probably to be found in the softening and general relaxation which is known to occur in the fibrous ligaments of the pelvis towards the end of pregnancy, and which permits a slight temporary increase in the pelvic diameters during labour. In this case again, if a more extended experience shows that a sufficient increase in the pelvic diameters is not to be obtained in this way, it is possible that a bone-grafting operation might give good results. For the moment, however, as I have said above, results appear to indicate that such a step is unnecessary.

The difficulties in the way of adopting such procedures as either excision of a piece of bone or bone-grafting are not to be found in their inherent risks, which only occur once in the woman's life, and which must be far less than the risks of repeated Cæsarean sections. They rather lie in the direction of determining whether the operation will be subsequently needed or not. My point, however, is that if the patient wishes to have, and is likely to have, further pregnancies, even a bone-grafting operation is a preferable procedure, once it is proved to be necessary, to repeated Cæsarean sections.

It is also possible that both bony and fibrous union might be avoided by exposing the line of incision and bringing a piece of the pubic fat between the bones. On these points, however, I do not want to express a definite opinion : first, because I do not know that any of them is necessary ; and, secondly, because I only want to insist on facts which I regard as established.

The foregoing five points constitute the main argument of this paper, and I should like to supplement them by a few words on certain alterations in the usual technique of the operation.

The first point on which I must insist is the necessity for accurate measurement of the internal diameters of the pelvis, and the exclusion of such degrees or types of contraction as we cannot hope to overcome by division of the pubic bone. It is extraordinary that at the present day there are still so many obstetricians, possessing the highest skill and knowledge, who consider that they cannot measure a pelvis with Skutsch's pelvimeter, or who think that its use is unnecessary. I am aware that great advances have been made in measuring by means of *x-ray* photographs, and such results are probably quite satisfac-

tory if obtained by a radiologist accustomed to make them. The clinical difficulties in the way of the general extension of the practice are, however, very great. The ordinary error of a man accustomed to the use of the Skutsch instrument ought to be something less than 0.3 cms., and this gives sufficiently good working results. The necessity for accurate measurement lies in the necessity for excluding from operation cases in which the pelvis is too small to allow the subsequent delivery of the foetus alive and in good condition, without injury to the mother. The lowest limit is, I think, rightly put at 7 cms. in the case of a flat pelvis, and 7.5 cms. in the case of a generally contracted pelvis. The first case on which pubiotomy was performed in the Rotunda Hospital is an example of the results of operating below this limit. In this patient the conjugate measured 6.5 cms. The child, it is true, was delivered alive, but of her four subsequent labours, one ended in craniotomy and three in Cæsarean sections. I have excluded this case from my statistics because it does not fulfil the conditions laid down. We have no record in the hospital of any similar case so far as subsequent labours were concerned.

I do not propose to enter into a description of the operation itself, as it is too well known. There are just a couple of points to which I must refer. I do not like Bumm's sharp pubiotomy needle, because its point, if pressed against the bone, tends to stick in the latter, and if allowed to leave the bone tends to wander into the bladder. I use a blunt Döderlein's needle, the elbow of which I have straightened, so that it is no longer right-angled, but carries its curve in the continuation of the handle, as in the case of Bumm's needle. This necessitates making a nick in the skin to allow its entrance and another for its exit.

I think it is a matter for further consideration as to whether the subcutaneous method is advisable when the operation is performed under the most favourable circumstances. When the operation is done at the end of labour, just prior to delivery, the subcutaneous method undoubtedly possessed advantages. On the other hand, I am inclined to think that in operations done at the time of election it will be found wise to make a small incision above the pubis, to separate the bladder from the back of the pubic bone in the region of the saw-cut, and to pass the needle from above downwards. I think this is a more surgical performance, and therefore likely to be adopted.

If the subcutaneous method is adopted, the condition of the inside of the bladder must always be examined. This should be done as soon as the needle has been passed, and before the saw is pulled into place, with the object of excluding positively the entrance of the needle into the bladder. My own practice is to pass a catheter as soon as the needle has been introduced. If any drops of urine in the bladder are clear, it is a sign that all is well. If, on the other hand, there are any drops of blood, then a little fluid should be injected into the bladder and the anterior wall carefully examined with the catheter in order to detect by sound and touch whether the needle has really entered or not. The presence of a little blood in the urine does not necessarily mean penetration of the bladder wall.

If penetration does occur, then the operation must be abandoned for the time being if it is possible to do so, and when next attempted should be done by the open method at the opposite side. If its immediate performance is essential, as in the case of a patient well advanced in the second stage, the same course must be adopted. On no account is it permissible to pull the saw into position

by a needle which has penetrated the bladder, as subsequently the included bit of bladder wall would be cut through by the saw, and a large opening result. On the other hand, a mere puncture is probably of little importance if care is taken to empty the bladder at short intervals during the next week.

The only objection that can be legitimately urged against pubiotomy is the slight uncertainty that exists as to the exact position of the needle-point at the moment it is passing over the upper margin of the pubis. This uncertainty, added to the slight variation that may exist in the exact relation of the anterior wall of the bladder to the same region, may result in perforation of the bladder wall. It is for this reason that I so strongly urge the performance of the operation as long before labour as possible, because then all uncertainty can be removed by performing the operation by the open method.

At the present time it is very difficult to get an opportunity of examining patients suffering from deformity previous to labour, because neither the patient herself nor the general practitioner, who knows of her case, appreciates the importance of an early diagnosis. This, however, is only a matter of education, and once its importance is recognised, then women in whom deformity is suspected will come under treatment in good time. The object of this paper is to remove the false impressions that surround the operation, and any intrinsic uncertainties that attach themselves to its performance. Hence, I strongly urge on medical men the necessity for early diagnosis in order that early treatment may follow.

I may say a word to emphasise the importance of using sharp saws. Operators of non-mechanical tendencies are apt to think that because the instrument once was a saw

it remains so indefinitely. This is a fallacy, which leads to a lengthy forcing of the saw through the bone, with attendant sawing of the skin and soft parts.

The after-treatment of the case is of much importance. Bony union, being not only unnecessary but detrimental, must be avoided. At the same time the necessary approximation of the bones must be ensured. I am inclined to think that, even if no particular care be taken, this approximation will occur spontaneously. It is, however, well to apply a pubiotomy belt as soon as the operation is done, and to have the belt in place during labour to avoid undue separation of the bones. On the other hand, it must not be too tight to allow the correct amount of separation. It may be taken off as soon as the bones tend to remain in fairly close apposition of their own accord, and this will be probably about the fourth or fifth day. Any movements of the patient which do not cause pain may be allowed. There should be little or no tenderness in the region of the incision, and its occurrence usually shows that some infection has occurred. The patient may leave her bed, if convalescence has been normal, any time after the tenth day, when there should be no impairment of the power of walking other than a slight stiffness, which soon passes off.

In conclusion, I should like to suggest that there are certain points in regard to pubiotomy which we must consider to be proved, and which may be summarised as follows :—

1. Pubiotomy is a safe operation.
2. It both enables a particular labour to be terminated satisfactorily, and it cures certain degrees and types of contracted pelvis.

3. It should be performed as long before the delivery of the patient as possible.

4. Bony union of the cut surfaces is unnecessary and disadvantageous.

On the other hand, there are certain points which are still to be decided, and amongst them I may mention three :—

Should pubiotomy be performed independently of pregnancy and labour?

Should it be done by the open method?

Should any special steps be taken to prevent bony union?

*Primâ facie*, it would appear as if the first two questions, at all events, should be answered in the affirmative, and that by so doing we shall prevent complications.

It seems to me that it will require some very powerful, not arguments but facts, to disprove the statements I have made in the foregoing paper, and the consequences I have deduced from them. They will certainly not be disproved by the old fable of the number of crippled women who have been seen after pubiotomy, because I do not think anyone quite believes in them any longer. Nor can that very hoary obstetrical stumbling block serve as an obstruction—that the operation is unsuitable for performance by the general practitioner. Of course it is unsuitable, if for no better reason than that the only cases in which he is likely to be called on to perform it are those in which immediate delivery is necessary, and in which, consequently, it is most likely to be difficult and complicated. But, surely, obstetrical specialists must be very hard set for an objection if they have to resort to one of this type.

The part to be played by the general practitioner in regard to pubiotomy is of considerable importance. It consists in sending patients in whom he suspects the exist-



ence of contracted pelvis for accurate diagnosis and surgical treatment at as early a period in pregnancy as possible, or even before pregnancy occurs, and not, as is so often the case at present, after the patient has come into labour.

I said at the beginning that plain speaking was necessary, and now I make no apology for my last sentence. The operating obstetrician and gynaecologist of to-day has no right to allow himself to be prejudiced by the unproved criticisms and traditions of others in regard to an operation which offers so much benefit to the great majority of women suffering from contracted pelvis.

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DR. GIBBON FITZGIBBON asked whether Dr. Jellett had an experience which would lead him to believe that the same enlargement of the pelvic brim would follow pubiotomy done in the non-pregnant state as when done at the end of pregnancy, as he thought the pelvic bones would not expand, and that bony union would be more likely to follow. He thought that when the necessity for pubiotomy arose in labour the results of the operation were very satisfactory, as shown by Dr. Jellett's tables, and that when the operation had been done the prophylactic effect of the operation applied to the subsequent labours, and that little more was to be gained by doing the operation in anticipation of its being required.

SIR WILLIAM SMYLY said that in cases of flat pelvis with a true conjugate of less than three inches he would still advise Cæsarean section, for, although he was impressed by Dr. Jellett's views, and the arguments by which they were supported, he was not altogether convinced that the permanent enlargement resulting from pubiotomy would in such cases generally be sufficient to ensure the passage of a full-term child. It would seriously affect the reputation of an operator if, having performed a serious operation before term with the express purpose of securing an easier delivery, he were obliged to do it again during labour. Yet it was admitted that

where bony union occurred that would be likely to happen. Dr. Jellett believed that such union could with certainty be prevented; but that remained to be proved. Nor was it certain that when it did not occur sufficient permanent enlargement would be secured; that was really the question at issue. If it could, then Dr. Jellett's position was secure, but if it failed to do so in a considerable proportion of cases, it would have to be abandoned. The histories of the cases delivered in the Rotunda Hospital by pubiotomy, as regarded their subsequent confinements, supported Dr. Jellett's views. His (Sir W. Smyly's) personal experience of prophylactic pubiotomy was limited to one case in which Dr. Jellett had performed the operation some weeks before term, and whose subsequent confinement was normal. If this operation really resulted in a radical cure there was much in favour of its early performance, both with regard to the patient's safety and the operator's convenience. He had never heard of its having been suggested by anyone before, and, therefore, he believed the suggestion to have originated with Dr. Jellett.

DR. HASTINGS TWEEDY agreed with the Master of the Rotunda Hospital as to the great obstetrical value to be attached to pubiotomy. The paper to which they had listened proved convincingly that the operation should (in suitable cases) be performed early in the first stage of labour rather than when the vitality of the infant had suffered by long and ineffectual methods of delivery. He could not approve of subjecting an unimpregnated woman to the inconvenience of this operation on the off chance that it might on some future occasion mitigate the perils of delivery. For similar reasons he would disapprove of its performance early in pregnancy. It could not be claimed at present that the operation would procure with certainty a normal delivery, and it is very unlikely that bones united by fibrous tissue would have the same degree of expansion as is present immediately after their severance.

DR. SOLOMONS thought that a prophylactic pubiotomy on the non-impregnated woman would be reckless. It seemed to him that real advance would be made if pubiotomy were

performed after the child had become viable. By waiting for this period in pregnancy there would be time for the soft parts to recover if labour started at term, or if the operation induced a premature labour, the child would be viable. He noted that Dr. Jellett was one of those who did not mind a delivery *per vias naturales* after Cæsarean section. He (Dr. Solomons) had reported one such case. According to figures published by Hartmann some years ago, the statistics of repeated Cæsarean section were better than those for the single operation.

DR. PUREFOY said :—Dr. Jellett's paper shows how, in certain cases the operation of pubiotomy may bring about a cure of pelvic deformity, and the escape from the dangers and difficulties caused by it in parturient women. How far it may be found advisable in the future to perform prophylactic pubiotomy only a long experience will enable us to decide.