

ART. XXV.—*On Decapitation as a Mode of Delivery in Cases of Shoulder Presentation, in which Version cannot be safely Effected.*

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CASES of arm and shoulder presentation in which version cannot be performed without exposing the mother to extreme danger, though of rare occurrence, are sufficiently common to make it necessary that we should be prepared to deal with them when they arise.

These cases are three-fold:—1st. “In some cases,” to use the words of Denman, “the shoulder is so far advanced into the pelvis, and the action of the uterus is, at the same time, so strong, that it is impossible to raise or move the child, which is so forcibly impelled by the pains as to overcome all the power we are able to exert. This impossibility of turning the child,” Denman proceeds to say, “had, to the apprehension of writers and practitioners, left the woman without any hope of relief;” but he goes on to show the uterine efforts will sometimes overcome the difficulty by the production of a spontaneous evolution.

In a second class of cases the difficulty arises from the firm contraction of the uterus. The liquor amnii is evacuated before dilatation of the os has taken place, and the uterus becomes moulded to the child’s body. The undilated state of the os prevents the impaction of the shoulder, which forms such an obstacle to turning in the first case. It is, in these cases, quite possible to introduce the hand, seize a foot and bring it down into the vagina, but the child does not turn, the head remains fixed in the iliac fossa, and the uterus may be torn in the efforts to complete the delivery.

3rdly. Cases of transverse presentation with extreme narrowing of the pelvis.

In the first and second of these cases the child is almost always dead, the compression of its own body and of the placenta having put a stop to all circulation, so if the heart’s sounds cannot be heard we should not persevere in efforts to turn, nor yet wait for the possible occurrence of spontaneous version or expulsion, but at once lessen the child by the most effectual means in our power.

The operations recommended in these cases are two, evisceration and decapitation. Of these, evisceration is the more modern, and, sometimes, the more easily performed; but it is generally, in the words of Pajot, "an operation most dangerous and most difficult."^a Decapitation is a much older operation. It was described by Celsus, and many writers since his day, yet never came much into use, because, probably, of the imperfection of the instruments for carrying it out; but most of our best modern authors recommend its adoption in the warmest terms. Sir James Simpson says of it, "The expediency of ever having recourse to decapitation has been questioned in some quarters; but in cases of transverse presentation where the waters had long escaped, and the uterus had become entirely contracted around a dead fetus, he believed that delivery could be accomplished with more safety to the patient, and more ease to the practitioner, by decapitating and diminishing the size of the fetus, than by attempting the, in such cases, always difficult and sometimes hazardous operation of podalic version."^b

Tarnier says "Decapitation only is capable of fulfilling all the indications when in a case of presentation of the body it is impossible to turn."^c Scanzoni, Davis, Ramsbothom, and Barnes, also advocate the operation in the strongest terms; the last named speaking of it as one of "extreme importance capable of bringing almost instant relief and safety to the mother." Such testimony in its favour demands that we should give the operation our most careful consideration.

The instruments that have been used for dividing the neck of the fetus, in utero, may be arranged in three classes:—1st. We have hooks with variously devised cutting blades. The first of these, and the model on which the others of this class have been formed, is the decapitating hook of Ramsbothom, senior, which is, in fact, the ordinary blunt hook, with a cutting blade fixed in the concavity of the curve, and which resembles much the instrument described by Celsus. Davis, Scanzoni, Jacquemier, and others have modified this hook by the introduction of a guard or sheath, or of cutting blades, made to move by screws and levers in the handle, for dividing the neck. Dubois uses a pair of strong scissors with which he cuts through the neck, bit by bit, from below upwards. Professor Heyerdahl, of Bergin, adopted a different plan. In 1855, he

^a Pajot. *Archives Générales de Médecine*, 1865, Vol. ii., p. 257.

^b *Edinburgh Medical Journal*, September, 1862, p. 284.

^c Notes to Seventh Edition of Cazeau's *Midwifery*, American Edition, p. 1060.

invented an instrument consisting of a handle and hollow stem, together, 14 inches long. The extremity of the stem is curved and forms about a third of a circle. The instrument is hollow, and a strong wire passes up the centre. The wire is pushed up by means of a button sliding in the handle, and at its extremity there is a little knob which closes the open end of the stem. The instrument is used thus:—After it has been passed round the neck the internal wire is pushed upwards, and this projects the knob round and beyond the other side of the neck. A loop of string can now be passed round the knob, and, on withdrawing the instrument, a cord is thus left round the neck, with which a chain or wire rope is drawn round, with which the neck is sawn through, and, to avoid mutilation of the soft parts of the mother, the rope or chain is crossed in the operation.*

Without appearing to have known anything of Heyerdahl's method, Pajot and Tarnier have adopted modifications of it. In the *Archives Générales* for September, 1865, Pajot published a paper on presentation of the shoulder, where there is extreme narrowing of the pelvis, and on a new method of embryotomy. This new method is virtually Heyerdahl's, and consists in sawing through the neck with a cord. To get this cord round the neck and, at the same time, to avoid the multiplication of instruments, he makes use of the handle of his forceps, which is very much bent, and the extremity of which he has perforated, and through this perforation he passes a cord, on the end of which is a leaden bullet. The cord is pulled till the bullet is closely applied to the end of the bent handle of the forceps, which is then passed up into the uterus and hooked on the child's neck. The cord is now relaxed so as to allow the bullet to fall and roll down into the hand of the operator; but if the compression of the parts should prevent the ball from finding a passage, a simple pressure on the fetus with a finger or the bent hook will immediately determine the formation of a sort of gutter in which the ball will at once engage itself. As soon as the cord is fixed in its place the instrument is withdrawn, and the ends of the cord are passed through a speculum, which is introduced into the vagina to save it from injury, and by drawing the cord rapidly backwards and forwards the neck is cut through in a few seconds. If the neck should be inaccessible, the cord may be placed round the body, between the crest of the ilium and shoulder blade, but it

* Catalogue of Instruments exhibited at the Conversations of the Obstetrical Society of London.

will occupy four or five minutes to effect the division here. Pajot's colleague, Tarnier, seeing Pajot's experiments, suggested the use of an instrument, such as is used for plugging the posterior nares (Balloc's Sound), for carrying the cord round the part of the child to be divided, which was the one feature wanting to make it virtually, and to all intents and purposes, Heyerdahl's operation.

During a visit to Paris, in November, 1869, I procured Pajot's instrument, and determined to give it a trial on the first suitable occasion, but it was not till the 8th January last that I had an opportunity of doing so. On that day I was asked by Dr. Harley, of Baggot-street, to see a poor woman, of whom he gave the following history. She had had six children, and always with difficult labours, owing to a narrowing of the brim of the pelvis. When he first saw her she had been three days in labour, and the hand and arm had been lying outside the vulva for 24 hours. He had passed his hand into the uterus, laid hold of a foot and brought it down into the vagina, but by no effort, that he thought justifiable, could he get the child to turn. When I saw her I found the foot in the vagina, where Dr. Harley had left it, and seized it, and tried to turn, but also found the uterus was so tightly moulded to the child that I could not complete the version; and as the fetal heart could not be heard, I determined to divide the neck. I placed the handle of Pajot's forceps on the neck without very much trouble, but failed to make the bullet roll, and had to pass my hand behind the neck till I met the instrument, when I drew down the bullet, and so got the cord into its place. I now passed a speculum as directed by Pajot, and proceeded to cut through the neck, but at the end of one minute and a half of the sawing motion the cord broke, and I feared the operation had failed. On examination, however, I found the greater part of the neck, including the spinal column divided, and I now tried to bring down the foot and effect version, which I did without any difficulty whatever, and the woman made a rapid and satisfactory recovery.*

This is an example of the second class of cases in which version cannot be effected; those in which the hand can be introduced and the foot seized, but the body of the child cannot be turned, I think we may say these are the cases in which evisceration is most difficult and dangerous, and decapitation is most easily performed. Certainly, when I contrast the safety, ease, and rapidity

* The child was exhibited at the Society, showing the head attached to the body by a small portion of skin and muscle.

with which the operation was performed with the difficulty I have myself experienced and seen occur with several experienced operators in performing evisceration, I am most favourably impressed with the value of the operation of decapitation.

On reflecting on the case, it seems to me that the operation might be very much simplified and also rendered safer, and still without infringing Pajot's principle of not multiplying instruments. The cord might be very easily carried round the child's neck by means of an elastic catheter, mounted on a firm stylet, or, what would be better still, mounted on a uterine sound. The firmness and broad handle of the sound would enable us to direct more easily the point of the catheter. The catheter should be a good deal curved; it should form about the fourth of a circle, whose diameter would be three inches. The first step of the operation is to hook this on the child's neck; then, the stylet being held steadily in its place, the catheter is to be run forward, when the curve of the stylet will cause it to pass round the neck till its point can be easily reached by the fingers, or may come into view. The cord may now be attached to the catheter, and drawn back with it, or it may have been previously passed through the catheter, and brought out at the eye of the instrument; so that it can be seized when the catheter comes within reach of the fingers. The ends of the cord are now drawn through a speculum, the catheter having been first removed, and the neck is divided as Pajot directs. If no speculum be at hand, the soft parts of the mother may, as Pajot suggests, be protected by the broad handles of two spoons introduced into the vagina, and used as retractors.

It will be seen that this suggestion differs from Heyerdahl's only in that the internal wire is held steady, and the outer tube is the part pushed forward. It is probable a soft elastic catheter would find its way more safely than the firm wire; but the chief object of the suggestion is that it does away with the necessity for a special instrument, which might not always be at hand when required.

The operation might be further improved by using an *écraseur* for dividing the neck, by which the accidental interruption of the operation by the breaking of the cord would be avoided, as well as the risk of injuring the soft parts of the mother by its friction. Once the cord is placed round the neck there would be no difficulty in attaching the chain of an *écraseur* to it, and drawing it into its place. The use of an *écraseur* invented by Dr. Ritchie

for this purpose was, according to Dr. Barnes, mentioned at a discussion at a late meeting of the Edinburgh Obstetrical Society by Dr. Keiller, but I have not been able to meet with a report of this discussion.

As soon as the neck has been divided, the body may be easily extracted by drawing down the arm, and if the uterus act well it will very probably expel the head; but if not, it may be seized with the forceps or cephalotribe. In using the cephalotribe in this case it will not be necessary to perforate in the first instance, because when pressure is applied the brain will escape through the foramen magnum; and, in avoiding the perforator, we avoid one great source of danger and difficulty in this part of the operation. But it is very probable that the best way of completing the operation would be to aim at the production of the condition that arose in the case under consideration from the accidental breaking of the cord—that is, to stop as soon as the spinal column is divided, and to leave the head attached to the body by a portion of the soft tissues of the neck; then to deliver by the foot, and let the head be drawn down still attached to the body. It is obvious that the division of the spinal column would do away with the difficulty of turning, and the tissues attached to the head would afford us a ready means for its extraction.

I feel that I should apologize for laying before the Society a suggestion for the performance of the operation which has never been tried; but in doing so I am only following the example of Scanzoni and Pajot, who at the time of publishing had not themselves put their suggestions in practice.

ART. XXVI.—*On a Case of Leucocythemia.* By HENRY EAMES, M.D., Dub., Physician to Mercer's Hospital; Joint Lecturer on Practice of Medicine and Pathology, Ledwich School, &c.*

THE malady which I have the honour to bring under the notice of this Society is of rather rare occurrence, and is one of those which owe their separate, and distinctive existence to modern research. In the year 1845 the disease known as leucocythemia, or excess of white cells in the blood, was nearly simultaneously described by Professors Bennett and Virchow; the former having preceded the latter in his description by six weeks. So far as we

* Read before the Medical Society of the College of Physicians.