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MANAGEMENT OF OCCIPITO-POSTERIOR PRESENTATIONS IN MIDWIFERY PRACTICE.

In Labour the proportion of cases of vertex presentations in which the head descends into the pelvis in the third and fourth positions is variously stated by different observers. Leishman[1] gives a table in which the percentage varies from 82.88 as given by Naegele the younger to 3.84 as given by Swayne. The proportion is usually stated as about 25 per cent.

The condition is revealed early in labour by abdominal palpation, and after the os has dilated by the ease with which the anterior fontanelle is reached.

In the vast majority of occipito-posterior presentations when the occiput in the course of its descent reaches the floor of the pelvis it is directed forwards, and so rotates into the occipito-anterior position. In this termination the head rotates from a position in which there are greater mechanical obstructions to its passage to one in which these obstructions are lesser. In the occipito-anterior position of the head the sub-occipito-bregmatic diameter of the head, measuring 3½ inches, has to pass the vulvar orifice, while in the occipito-posterior position the

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[1] A System of Midwifery 1880 page 348.

occipito-frontal diameter, measuring 4½ inches has to pass. This rotation therefore to the anterior position of the occiput makes for the safety both of the mother and the child.

In a minority of cases however this safety-making rotation does not take place. The main causes of failure to rotate are extension of the child's head and defects in the pelvic floor.

The proportion of occipito-posterior cases in which the head does not rotate was found in Rotunda Hospital[1] to be 0.69 per cent of all deliveries. Munro Kerr[2] found it to be 7 per cent of occipito-posterior positions.

In these difficult labours it is obvious, without going into the mechanism of labour, that, if a case terminates, either by natural means or by the aid of the accoucheur, in an occipito-posterior position, there is greatly increased danger of injury both to the mother and to the child. To the mother the greater risk arises chiefly from injuries to the soft parts, the perinaeum especially being liable to be torn to a greater or lesser degree. The increase of danger to the child arises from the extra pressure to which the head is subjected in its passage through the pelvis. Even in favourable presentations of the vertex, namely, the first and second positions, all authorities agree that in many cases a

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[1] Rotunda Practical Midwifery, 1908, Tweedy and Wrench, page 198.

[2] Operative Midwifery, 1908, page 28.

certain amount of laceration of the perinaeum is unavoidable. According to Duncan[1] this occurs in 60 per cent of first labours. How much greater then is the risk of injury in those cases which terminate occipito-posterior.

A slight laceration of the perinaeum, extending to say an inch or so, as a rule heals well if the torn surfaces are brought together with a few stitches. A severe laceration however can be regarded in no other light than a serious one. If it is at once properly sutured the wound generally heals well, but occasionally it does not do so. Even if it heal well, in the event of another pregnancy occurring, the cicatrix is very prone to give way. Occasionally there is failure of union and if the laceration has extended into the rectum proper control over the bowel is lost. There are many instances in which even skilled obstetric surgeons have failed to remedy this condition, which entails on the sufferer a life of misery. With a laceration there is always added the danger of the entry of septic organisms leading it may be to sapraemia or septicaemia.

As illustrating one effect of a rupture of the perinaeum I may quote a case occurring in my practice.

Case I. Mrs. W. Age 25. Attended in first confinement 1st Sept., 1904. Antero-posterior diameter of pelvic outlet

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[1] System of Gynaecology, Albutt, Playfair & Eden, 1906; page 719.

slightly contracted. Presentation was third cranial. I attempted pressure upwards on forehead during pains but the head did not rotate. I administered chloroform and delivered the head with forceps in the occipito-posterior position, with considerable difficulty. In the operation the perinaeum was ruptured, the tear involving the rectum. This I stitched up carefully, and the wound healed completely, the control of the bowel being quite normal.

I attended this patient in her second confinement on 20th Aug., 1908. The presentation was first cranial. The second stage was tedious, the patient desiring instrumental aid, which I refused to give. While the head was distending the perinaeum the cicatrix in the latter suddenly gave way, tearing somewhat like a piece of wet paper. The rupture extended as far as the rectum, but did not involve the circular fibres. I administered chloroform and stitched the wound carefully. The wound however only healed to one third or so of its extent. Even if the wound left after incomplete union be only comparatively slight nevertheless the condition resulting is also unfortunate and serious. Most authorities on gynaecology hold that rupture of the perinaeum predisposes to herniation of the pelvic contents.

Simpson[1] thinks that it is the main cause. Galabin[2] attributes a leading part to rupture of the Perinaeum in the causation of prolapsus uteri. In the treatment also of prolapsus uteri if the perinaeum be not intact the most effective remedy, namely a pessary, cannot be used with effect.

Any procedure, therefore, is of importance, which will tend to reduce the number of these unfortunate accidents.

In the treatment of persistent occipito-posterior positions of the head different methods are advised by different authorities. A few of these may be briefly summarized here:

Leishman[3] recommends, if the head is free

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[1] System of Gynaecology, Allbutt, Playfair & Eden, 1906, page 182.

[2] Diseases of Women, 1887, page 75.

[3] Op. Cit. page 346.

at the brim rotation with the long straight forceps. If the head is at the pelvic floor he advises that its flexion be assisted by pressing up the forehead, and pulling down the occiput with the vectis. He also recommends[1] that when the head is at the pelvic floor rotation should be attempted with the forceps. This failing rotation combined with extradtion should be employed. If this do not succeed the head should be delivered in the occipito-posterior position.

Playfair[2] quotes Bataillard[3] and Fry[4] as recommending manual rectification of occipito-posterior positions. He does not himself express an opinion on that treatment, but goes on to describe the method of delivery by forceps in the occipito-posterior position, stating that in this there is no special

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[1] Op. Cit. page 544

[2] The Science and Practice of Midwifery, 1898, page 419.

[3] Ann. de Gyn., Aug. 1889.

[4] Amer. Journ. of Obstet., March 1897.

difficulty, excepting the risk of rupture of the Perinaeum.

Galabin[1] recommends that the vectis be used over the occiput to effect rotation in persistent occipito-posterior cases. He admits that it cannot be so used if the head is pressing on the perinaeum and bulging the parts. If the head has not descended into the pelvis he recommends that it be brought down with the forceps, and then the forceps removed, and rotation attempted with the vectis. He also states[2] that an attempt should be made to rotate with the forceps, either straight or double curved. These efforts failing he recommends that the head be extracted in the occipito-posterior position.

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[1] A Manual of Midwifery, 1904, page 651.

[2] ibid, page 664

Fothergill[1] recommends that the head be delivered in the occipito-posterior position. To avoid a deep central tear of the perinaeum often extending into the rectum episiotomy may be performed.

Eden[2] recommends manual rectification in these persistent occipito-posterior cases.

Munro Kerr[3] also advises manual rectification.

Tweedy & Wrench[4] recommend leaving the case alone if there is no uterine inertia. If there is uterine inertia they administer a sleeping draught, or morphia hypodermically. If the pulse or temperature of the mother rise, or the child shows signs of distress, they deliver with the forceps in the occipito-posterior position.

Of the method of rotation with the forceps I have never made trial. In some instances I have found the head to rotate spontaneously in the process of attempting to deliver with the forceps in the occipito-posterior position. This necessitates taking off the pelvic curved forceps and re-applying them.

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[1] Manual of Midwifery, 1907, page 320.

[2] Manual of Midwifery, 1908, page 223.

[3] Operative Midwifery, 1908, page 30.

[4] Op. Cit. page 196.

To attempt rotation however with the forceps has always appeared to me to be hazardous. Both hands I fancy would be required to grasp the forceps, so that the left hand would not be available to apply to the surface of the abdomen externally to assist in rotating the body of the child. In the process there must be considerable risk of injury to the Pelvic structures.

Neither have I tried rotation combined with extraction by the forceps. It seems to me to be haphazard work. The method of Expectancy, as practised for instance in the Rotunda Hospital, appears to me to possess grave disadvantages. In the second stage of labour the head of the child is a foreign body in the pelvis, exercising great pressure on its walls and contents. To prolong this pressure for an indefinite period must cause deleterious effects on the pelvic structures, and predispose to their inflammation or sloughing, or to the entrance of germs, which are always present in the vagina, into the tissues.

Drs. Hicks and Phillips[1] have shown by their statistics that prolonged labour, and the prolonged pressure on the soft parts within the pelvis, was a more potent cause in producing thrombi, pelvic abscesses, peritonitis, and such like complications than the

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[1] Obst. Trans., 1872, Vol. XIII. page 55.

injuries produced in instrumental delivery.

Emmet[1] also gives statistics which show that delay in delivery and the consequent pressure was a commoner cause of pelvic complications than injuries from the use of instruments.

The prolonged second stage must also have a reducing effect on the woman's general condition. At that time as a rule she can take little or no nourishment. This lowering of her general powers must have a prejudicial effect on her recovery to health.

Even if this treatment were the best it would be very difficult to apply in general practice. In cases at a distance, say in the country, it would be almost impossible. In these latter cases too the presence of a trained nurse is the exception.

During the last four years I have employed the method of manual rectification in those persistent occipito-posterior presentations. I have employed it in all the cases I have encountered, fifteen in number, and in each instance it was performed with ease and success.

The following is the manner in which I perform it. The patient, in the usual midvifery position, is put thoroughly under the influence of chloroform. The right hand, carefully

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[1] The Principles and Practice of Gynaecology, page 669

antisepticised is introduced into the vagina and the foetal head grasped between the fingers and thumb. The head is flexed and gently pushed upwards. The left hand is applied to the surface of the abdomen and the anterior shoulder pushed forward with it, and at the same time with the right hand the head is rotated into the occipito-anterior position. Firm pressure is then made over the fundus uteri so as to force the head down again into the pelvis. It is well to have ~~the~~ pressure over the fundus kept up by an assistant or nurse till the forceps are applied in the usual way. Or if the operator decides not to use forceps he can himself maintain the pressure till the patient comes out of the effects of the chloroform, and the uterine contractions become re-established. Generally it is well to deliver with the forceps at once.

The operation of course should not be performed too early, but time given to see if spontaneous rotation will take place. In these cases, in the second stage of labour after the head has been resting on the pelvic floor for two or three hours, for reasons above stated, I believe that manual rectification of the position is more in the interests both of the mother and child than further delay.

Some of the authors quoted above give cases in which they failed to effect rotation from impaction of the head or shoulders or other cause. These cases of failure should be few in number, and in them one is in no worse position than before in proceeding to direct methods of extraction.

Formerly, in an experience of eighteen hundred cases, I followed the plan of delivering the head with forceps in the occipito-posterior position, in those cases where it did not rotate spontaneously. Though I have sometimes done so without injury to either the mother or child, yet by far the worst lacerations of the perinaeum that have occurred in my hands have been in these positions. Indeed when I discovered an occipito-posterior presentation in a primipara, or even in a multipara, I had come to regard the case with some apprehension. Since adopting the manual rectification these, the most difficult cases, have so to speak been eliminated, to my great satisfaction.

Statistics show that foetal mortality in this method is 5 per cent as against 10 per cent in the expectant method of treatment.

The following two cases may be quoted as illustrating the value of this mode of treatment:-

Case II. Mrs. McC., age 30. Fourth Confinement. The former confinements were normal and easy. Attended 20th Aug., 1909. On arrival the head was resting on the perinaeum, the pains being strong and frequent. I found that the presentation was the third position of the vertex. I tried upward pressure on the forehead during the pains. After two hours, as the head showed no signs of rotating, I administered chloroform and performed manual rotation. As the pains had been good I then allowed the patient to come out of the chloroform, and in the course of a few pains the child was born.

Case III. Mrs. H., age 28. Primpara. I was asked by a brother practitioner to assist him in this case on 12th Dec., 1909. He was anticipating difficulty owing to the small size of the pelvis. The woman had been in labour for 30 hours. There was a large caput succudaneum, and the head was arrested in the pelvis. As there was great sensitiveness over the abdomen the presentation could not be clearly made out. Under chloroform I found that the head was in the third cranial position.

I performed manual rotation, and delivered with the forceps with some difficulty. There was a tear of the perinaeum extending to an inch or so. Both woman and child did well.

In the last case had extraction of the head been effected with forceps in the occipito-posterior position, I am certain that it would only have been done at the expense of very serious injury to the mother, and with increased risk to the child.

In dealing with the occipito-posterior position of the after-coming head in foot and breech presentations there is no difficulty. When the pelvis is being born if it does not spontaneously rotate with the back to the front it is easy to induce it to do so by rotating the pelvis. If the child's trunk be born before the arrival of the attendant, the head may be found in the occipito-posterior position. I have encountered this difficulty once. It is overcome by rotating the head and body together, so as to bring the head into the occipito-anterior position.

In this country in dealing with the occipito-posterior presentations there is no doubt that the vast majority of general practitioners adhere to the older method of extraction by the forceps in the occipito-posterior position. This delivery

by forceps is effected too without much of a delay to allow of spontaneous rotation. There is an increasing demand too I believe among women to have chloroform administered, so as to avoid some of the irksomeness of the labour pains. The giving of chloroform even in small quantities generally has a weakening and retarding influence on the pains. All this leads to an increased use of the forceps, and to their being used in an increased number of occipito-posterior cases, which have not spontaneously rotated. It is not surprising that the older methods should be largely used seeing that writers on the subject appear to be about equally divided for and against manual rectification of occipito-posterior cases. I am convinced that its general adoption, in competent hands, would lead to reduced foetal mortality, and save parturient women from a great amount of risk and suffering.