Traumatic Separation of the Symphysis Pubis during Delivery.

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AN unusual accident, causing considerable alarm, but fortunately ending fairly satisfactorily, took place in the case here reported.

The patient was an unmarried woman aged 27. When I first saw her she was pregnant and near the time for her delivery.

Pelvic measurements:—Interspinous, 24 cms.; intercristal, 26 cms.; external conjugate, 20 cms.

It will thus be seen that, from the point of view of external measurements, the pelvis was of good size.

The head, felt above the brim, was not engaged. The fœtal heart was not definitely heard at first, although there was a suspicion of it on the left side. The exact position could not be determined by palpation.

Labour pains commenced about 1 p.m. on June 7, 1923. The membranes were said to have ruptured before that time, but the accuracy of this would appear to be doubtful. Progress was exceedingly slow and the dilatation of the *os* was very gradual.

By June 9 the pains were continuing somewhat irregularly, the head was engaged, and there was no overlapping. The *os* admitted only one finger and progress seemed to be suspended. The patient was tired but not exhausted, and her general condition was satisfactory. There was neither tetanic contraction of the uterus nor true inertia.

By the morning of June 10 very little progress had been made. At 1.30 p.m. morphia gr. $\frac{1}{4}$ and scopolamine gr. 1/100 was given in the hope that the patient might be eased of her pain. Scopolamine gr. 1/400 was repeated at 5 p.m. and 8 p.m. At 11.45 p.m. morphia gr. $\frac{1}{6}$ and scopolamine gr. 1/200 was given. The effect of this was only partial. The treatment was discontinued. The fœtal heart was heard at 5 p.m. During all this time progress was being made and, though slow, there was no justification for performing Cæsarean section, the pelvic measurements being good, and the head being in the pelvis.

Next day, June 11, after a restless night, the patient was taken to the Maternity Hospital. By this time the cervical dilatation had

distinctly increased, and one felt that aid must be given in spite of the fact that full dilatation of the *os* had not quite been reached. Therefore about 2.30 p.m. I applied the forceps, the House Surgeon administering the anæsthetic. But the head would not advance. Being somewhat fatigued by my vain efforts, I asked the House Surgeon to try what he could do. He was a lusty and muscular youth and, putting forth his strength, made the head move downwards almost at once, but at the same time there was heard an ominous crack. There were also signs of laceration of the soft parts. The head was carefully delivered, a double episiotomy being done, as a laceration of the perineum into the anal canal seemed imminent. The baby, weighing 6 lbs. 4 ozs., was dead and its delivery was followed by much meconium.

The damage done was sufficiently disconcerting, and made one feel distinctly anxious. There was a separation of the symphysis pubis with a wide laceration of soft parts communicating with the bony gap, so that this part of the injury was of the nature of a compound fracture. The track of this laceration was on the right side of the urethra. The urethra with the surrounding tissue was displaced downwards, and to the left there was a laceration of the left side of the cervix right up to the left fornix. A severe median tear of the perineum was only prevented by the double episiotomy already referred to. The reason for the dystocia was that the head was in the persistent L.O.P. position.

The track leading to the symphysis was packed with flavine gauze, the cervix and the perineum were stitched with catgut, and the patient was carefully treated and kept in hospital for about a month. She had an irregular temperature for a time, the highest reading recorded being 101.8° on one occasion. A good deal of sepsis and some sloughing of soft parts ensued, but eventually the sepsis disappeared and the raw areas granulated over. There was some retention of urine necessitating catheterization. Cystitis developed, but this rapidly responded to treatment by lavage. For a time there was tenderness over the symphysis.

By July 10, 1923, the patient could stand and walk a few steps with support. A few days later she could walk fairly well and tenderness over the pubis had gone.

The reason for refraining from craniotomy was that one could not be sure the child was dead. The fœtal heart sounds had seldom been heard, and then very faintly, because of the position of the child and, possibly, because the fœtal heart may have been feeble. The reasons for refraining from Cæsarean section have been given. It is true that symphysiotomy might have been done, but it is obvious that the forceps should in any case have been tried first. To leave the case to nature any longer was out of the

question. The patient had had quite enough fatigue and, besides, it is a question if the natural expulsive forces would have been equal to the task.

The fœtus was examined from a pathological point of view by Dr. Christine Thomson and, from the findings, she suspected syphilis. The patient herself showed no signs of such a disorder. I had the opportunity of examining her again in April, 1924, and at that time I drew off blood for a Wassermann test. The result showed a negative reaction. Local examination at this time was distinctly interesting. The bony measurements were exactly as before. It was difficult to be sure of feeling any gap between the pubic bones. An X-ray photograph shows that there is a break in the normal line of the upper edges of the pubic bones in the region of the symphysis, but there is very little, if any, widening of the symphysis itself and union seems to be perfect. The tear leading up by the right side of the urethra to the symphysis is represented by a deep epithelialized sulcus, the urinary meatus being eccentric and displaced to the left. There is a slight degree of cystocele but no rectocele, although the perineum is very deficient. There is much cicatrisation in the vaginal vault. There is neither urinary nor rectal trouble.

The patient looks well and walks perfectly. She puts in a full day's work as a tailoress, and seems to be not at all inconvenienced by her somewhat alarming experience.

In this case the likelihood is that traction was not made in the axis of the pelvis but that the pull was forwards as well as downwards, thus levering the head with considerable force against the back of the symphysis in a forward direction.

The following is taken from the *Medical Annual*, 1915.

"Tuley (*Amer. Journ. Obstet.*, 1913, ii, 152), in recording a case of this rare condition, gives exhaustive references to the literature and the views of various authors as to the causal factors. In the case recorded, traction had been applied to an unreduced occipito-posterior presentation, and this proving unsuccessful, the case was sent to hospital, where the head was pushed up, turned forward, and delivered with forceps. It was not definitely determined when the accident occurred, as it was only afterwards, when attempting to control hæmorrhage which was localized to lacerations in the region of the urethra, that it was discovered that a space of at least $2\frac{1}{2}$ inches existed between the two pubic bones. The only treatment consisted in strapping the hips, and the patient eventually recovered and walked well.

There have been 134 cases recorded, and in the vast majority the condition follows upon delivery with the forceps, especially the high operation in small pelves. In a discussion which ensued,

several members recorded their experiences, which went to show that the condition was much commoner than the literature of the subject might suggest, and also that the ill effects were trivial in the majority of cases."

I have Dr. Buist's permission to mention another case of ruptured symphysis pubis which occurred in the Maternity Department in May of this year (1924).

Labour had been very slow. The head being in the pelvis and the cervix being dilated, the House Surgeon delivered with the forceps. Only a slight tear of the perineum was noticed at the time. Later a hæmatoma developed over the symphysis pubis and there was tenderness on pressure. An X-ray photograph showed a separation of the symphysis pubis. The hæmatoma became septic and had to be incised. There was some pyrexia, but the patient apparently made a satisfactory recovery. The child was alive and mature.