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SELECT CLINICAL REPORTS.

(Under this heading are recorded, singly or in groups, cases to which a special interest attaches either from their unusual character or from being, in a special sense, typical examples of their class).

A Case of Spontaneous Separation of the Symphysis Pubis.

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Spontaneous separation of the symphysis pubis during, or as the result of, labour is a rare occurrence. From figures taken from Schauta's Klinik, Vienna, only three cases were noted out of 30,000 labours. In Chrobak's reports, three were observed out of 64,149 cases, and but few cases have been published in the last years.

As factors predisposing to the separation of the pubic bones we must consider (*a*) the relaxation that takes place in the pelvic joints during pregnancy. This is especially marked in the symphysis pubis. There is increased congestion, less firmness, and a greater capacity for stretching. This condition of relaxation and extensibility is seen most markedly in young multiparæ, *i.e.*, in women who have had repeated pregnancies at short intervals and whose joints have had little time to regain their former compactness. In many patients, towards the end of pregnancy, if examined in the upright position, it is found that when the weight of the body is transferred from one leg to the other an up and down movement of the bones can be felt. Relaxation occurs sometimes to a marked degree, the patient experiencing difficulty in standing and walking, with tenderness in the region of the joint. Such a condition lowers the power of resistance of the joint when labour occurs. (*b*) Inflammation due to traumatism or other cause; bone diseases, as osteomalacia. (*c*) The shape of the pelvis, diminution in its transverse diameter being the chief predisposing cause of separation of the pubic bones. The generally contracted pelvis is that in which this condition has usually occurred. Pressure is exerted upon the sides of the pelvis and the symphysis gives way. In osteomalacia, and in the funnel-shaped pelvis, there is a predisposition to separation (*d*) The use of instruments is also a cause; more especially was this so in the earlier days of obstetrical practice, when a disproportion between the size of the pelvis and that of the fœtal head was overcome by powerful traction with the forceps. Poullet made experiments which proved

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that a normal symphysis required a force of 180–200 kilog. to separate it, whereas in ordinary forceps cases only a force of 20–25 kilog. is exerted. Thus it would appear that if the symphysis pubis be normally resistant, delivery by forceps will not cause separation. (*e*) Abnormality in the size of the fœtal head is also a factor, especially where there is rigidity of the cranial bones.

The following case is of interest as there is no marked predisposing feature in the clinical history, and because complete separation did not occur till two days after labour.

Mrs. McC., æt. 36 years; seven full term children, five of which are still alive; all the labours had been normal except that the fourth was a footling presentation. There is a history of three abortions. The previous history of the patient is good and without any evidence of the presence of rickets in childhood.

The previous labour, which occurred four years before, lasted about two hours and resulted in a full term male child born alive and healthy. The history of the last pregnancy is uneventful except that two weeks before labour began the patient slipped from a chair when getting out of bed and knocked the right side of the pelvis against a table. This accident, however, seems to have given rise to no discomfort, as she was able to carry out her ordinary work. Labour began at 5.30 p.m. on November 25 1909 and ended at 3.15 a.m. on November 26. The patient was attended in her home by a nurse from the hospital branch, who had much difficulty in managing her, owing to her complaint of the unusual severity of the pains. These pains were not referred to the symphysis pubis at any time. After labour the patient was comfortable, except that the "after-pains" were severe at intervals for 36 hours. On the morning of the 28th, after a motion of the bowels, the patient was changing her position in bed when she was seized with a violent pain, as if something had given way in the region of the symphysis pubis. Only with the greatest difficulty and with help could she regain her place in bed. When I saw the patient shortly afterwards the pulse and temperature were normal. There was pain over and about the symphysis pubis, and round the inner and upper part of the thighs; this was increased on movement or coughing. There was no external rotation of the limbs; some fulness was observed over the symphysis pubis, which was very tender to palpation. There was no tenderness in any other region of the pelvis. Passive movement of both legs caused pain. A firm binder was applied and the patient kept in bed. On December 4 the tenderness was not so great, and a more thorough examination could be carried out, although the slightest movement on the part of the patient still caused great pain. On palpation over the symphysis a distinct sulcus could be felt between the pubic bones, and the left horizontal ramus was slightly higher than the right. There was no tenderness at the other pelvic joints.

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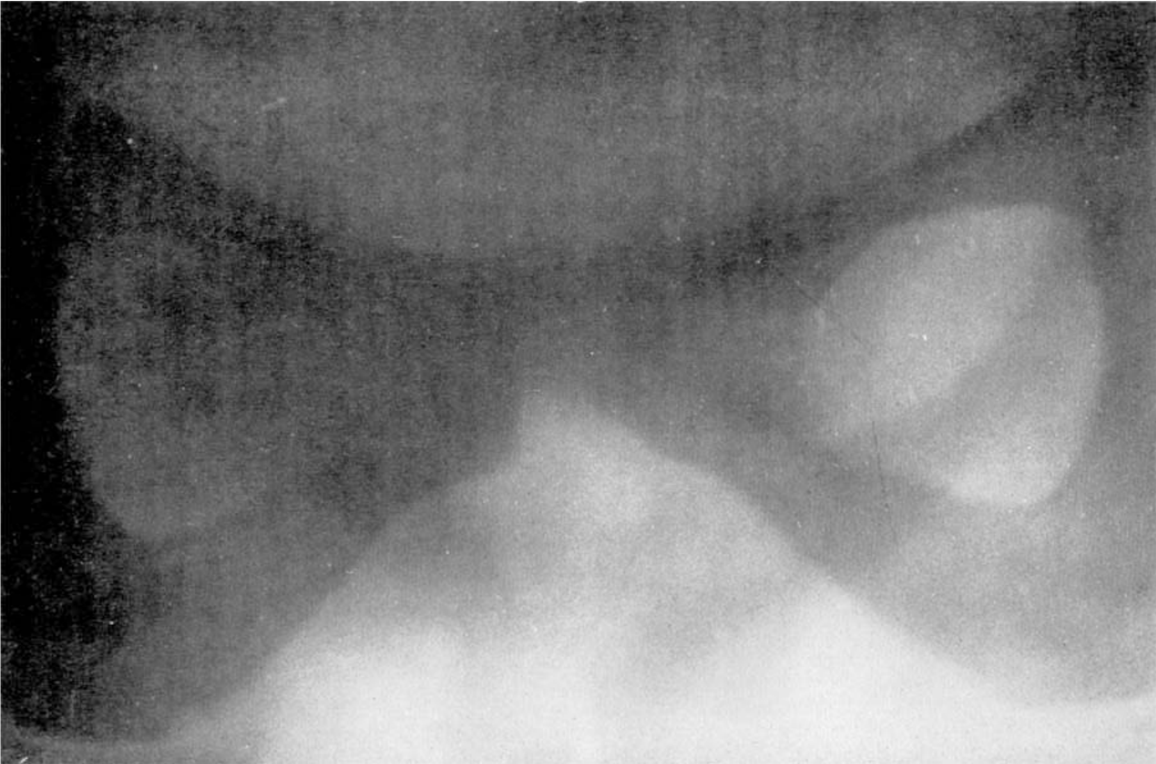

Skiagram showing Separation of the Symphysis Pubis.

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As the patient was still complaining of pain Dr. Louise M'Ilroy had her transferred to the Victoria Infirmary under her care. On Dec. 11 an examination under an anæsthetic was carried out, and the pubic bones were found to be separated $\frac{1}{3}$ of an inch apart; the left ramus was about $\frac{1}{8}$ in. higher than the right. On manipulation there was movement at the joint. The patient was kept in bed lying on her back with a tight binder round the pelvis. She was dismissed well on January 11 1910. The patient was seen again in February. She felt slight pain in the symphysis when climbing stairs, but was capable of doing her usual work. She was again seen in September, when she appeared perfectly well. The examination of the symphysis showed that union between the bones had taken place, the line of junction being evidenced by a ridge on its inner aspect. Measurements were made of the pelvic diameters and some general contraction was observed. The patient measured 4 ft. 11 in. in height.

Remarks. The previous normal labours point to a healthy condition of the pelvis. The last birth had occurred after an interval of four years, which allowed for a return of the pelvis ligaments to their normal condition. The accidental fall, two weeks previous to labour, may have been a factor in causation, but the patient seems to have had very little discomfort from it. Unfortunately, no details can be given as to the size of the child's head at birth, the patient having been attended in her own home by a nurse. The labour cannot be said to have been much prolonged, although it was remarkable for the amount of pain experienced. Separation evidently occurred on the third day after labour, caused by the patient's moving about in bed. This exertion probably completed the separation already begun during labour. Two negative points are to be noted—there was no outward rotation of the lower limbs, nor were they totally incapable of active moment. These conditions were formerly considered to be essentially present. When Ahlfeld first wrote on the subject, he considered that separation was constantly associated with separation at one or both sacro-iliac joints. He modified this view later and allowed that slight separation might occur without any further break in the continuity of the pelvic ring. Other authors, as Braun von Fernwald and Engström, agreed with this later opinion, and the examination of sections proved it for them.

A point of difficulty in my case is how one pubic bone could take up a higher position than the other unless one or other sacro-iliac joint had given way, but no symptoms went to show that this was so.

The explanation of the present condition may lie in the passage through a pelvis, predisposed by its shape to give way at the symphysis, of a child larger than any of the preceding ones; and that partial separation took place during labour, to be completed on

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the first active movement made by the patient. Whether the symphysis was robbed of its normal stability before labour began is difficult to say; nothing led the patient to believe so.

Most of the published cases have occurred in patients having a pathological condition of the pelvic joints, markedly deformed pelvis, or instrumental labours. Arendt,[1] however, published a case somewhat resembling mine. A healthy 23 year old secundipara with a normal pelvis, who, in the middle of her pregnancy, had a fall from a carriage, striking the ground with her back and one hip. This had but slight after-effects. Labour was normal, but on getting up on the 20th day of the puerperium, she had pain over the symphysis. There was no swelling and the pain was allayed by rest. A distinct separation was to be felt between the pubic bones. The patient left the hospital well in six weeks.

Galvagni[2] gives a case almost identical with mine in its time and mode of occurrence. The patient got out of bed two days after labour. On getting into bed again, she lifted one leg, resting the weight of the body on the other, and at that moment felt a violent pain, rending in character, in the region of the symphysis. Movement was impossible. Sepsis occurred and the patient died some weeks later.

1. Taken from " Ueber Zerreissung der Schamfuge wahrend der Geburt." Inaug. Dissertation von Johann Friedrich Ahlfeld. Leipzig. 1868.

2. From R. Braun von Fernwald. "Arch. für Gyn." Bd. 47, p. 104. Also detailed in Engström. "Mitteilungen aus der Gynækologischer Klinik." Bd. 6, p. 239.

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