A CASE OF SPONTANEOUS RUPTURE OF THE UTERUS DURING THE FIRST STAGE OF LABOUR.

BY HENRY W. J. COOK, M.B., B.S. DURH.

AT 5 A.M. on Nov. 28th, 1897, I was sent for to attend a woman, aged thirty-three years, in her fourth confinement. Her previous confinements had all been rapid and normal, all the children except one being alive and healthy. She was curetted for endometritis twelve months before the present occasion and became pregnant soon after the operation. I had casually seen the patient several times during her pregnancy, which advanced in a perfectly normal manner, the only point worthy of notice being that she was of a very highly neurotic temperament. On examining the abdomen as far as I could make out the presentation was normal; there was no unusual distension, the child's movements could be plainly felt, and I heard the foetal heart sounds below and slightly to the left of the umbilicus. Per vaginam I found a capacious, roomy pelvis; the os was dilated only to about the size of a shilling, the head presenting normally, and the membranes unruptured. The pains, which had only lasted a couple of hours, were moderately strong and regular. As the case was evidently in an early stage I left the patient, returning about 7.30 A.M., when I found that the pains had become much more severe and the os had now dilated to the size of a half-crown, the head being engaged in the pelvic brim. I remained with her, intending shortly to rupture the membranes, and to allow her to sit about the room a little. About twenty minutes after, during a severe pain, she suddenly became very faint and pallid, so much so that she almost dropped on the floor, where I let her lie for a few minutes. According to her own statement the pain was so severe as to make her feel faint. Her pulse, previously normal, was rapid and soft, beating at about 120 to the minute; she vomited some milk and water which she had taken shortly before. I administered a hypodermic injection of brandy, after which she stood up and with the assistance of the nurse and myself got on the bed, complaining then only of slight pain in the abdomen. Her petticoat was wet with fluid and there was some blood coming from the vagina, though not in great quantity; the fluid was evidently liquor amnii. I immediately proceeded to examine her per vaginam and found at once that something unusual had taken place. The head had completely vanished; indeed, from the interior I could feel absolutely no part of the child; where the os and cervix should have been I could feel a raw ragged surface which at first felt to me exactly like placental tissue and I thought at first that I must have in some unaccountable way in my first two examinations missed a diagnosis of placenta prævia, especially as she was now losing some blood. I then turned my attention to the abdomen and at first sight saw that I had a case of ruptured uterus with the child floating free in the abdominal cavity. The abdomen was irregularly elongated transversely and in the right umbilical and lumbar regions I could plainly feel a foot through the abdominal wall and on the opposite side was an eminence which I made out to be a shoulder. On feeling again per vaginam (inserting my hand) I could now clearly distinguish the state of affairs; there was an extensive rent extending upwards from the upper extremity of the vagina up the posterior wall of the uterus reaching almost to the fundus; what I at first had taken to be placenta was the edge of the rent and the posterior surface of the posterior wall of the uterus which had evidently become somewhat inverted; through the rent I could feel the intestines but no part of the child or of the placenta. The examination caused the patient great pain and I could go no further without an anæsthetic. Being alone, with the exception of an untrained woman as nurse, I deemed it advisable to wait till I could get more assistance. The patient was almost pulseless and I preferred to wait and keep her going with stimulants rather than have her die under an anæsthetic without anyone else to help. I therefore sent a messenger on horseback to my nearest medical neighbour, Mr. W. H. Brown, of Colac, twelve miles distant. He arrived in two and a half hours and in the meantime I had rallied the patient and just succeeded in keeping her alive

with brandy injected hypodermically and per rectum, salt solution injection, &c. Ether was now administered and the hand was inserted into the vagina through the rent posteriorly (the uterus was partially contracted) and into the abdominal cavity. After some trouble a foot was seized and drawn through into the uterus, the rest of the child following easily, with the exception of the head which somehow caught in the tear; after considerable difficulty it was pulled through and then delivered with ease, there being a large, well-developed pelvis with absolutely no obstruction. There was slight prolapse of intestine which was returned easily. The child was dead. On tying the cord and dividing it the next thing was to find the placenta. This turned out a rather difficult matter, but after some search and by dint of following up the cord to its insertion it was found high up, almost under the liver. The uterus and vagina were douched out with solution of iodide of mercury, two hypodermic injections of ergotine were administered into the buttock, and the uterus, including the rent, was firmly packed with iodoform gauze. We had to finish hurriedly, for the patient being all but dead we turned our attention to rallying her. She improved so far as to be able to talk to her friends with the help of such means as raising the lower end of the bed, stimulants, salt-solution, compression of the abdominal aorta, &c. In the end, however, our efforts were unavailing, for she died six hours after the accident from pure shock. A post-mortem examination was not made.

I have deemed this case worthy of publication owing to its rarity and to the absence of any apparent cause. This lesion, at any time uncommon, generally occurs only in the lower segment of the uterus, and I believe tears beyond the cervix are mostly transverse. In the present case, however, it was almost longitudinal, and reached without a doubt nearly to the fundus. As regards the cause this, as I have stated, was quite unapparent. As far as we could ascertain there was no growth in the uterus nor were there any sharp processes of bone growing from the pelvis likely to cause laceration; the pelvis being large and roomy I fully expected a rapid delivery, and no ergot or other means had been used to produce excessive uterine contraction. The only way to account for the accident was the fact that the patient had suffered from endometritis and the uterine wall must have been affected as a result. The symptoms were well marked and unmistakable almost immediately after the occurrence.

Regarding the treatment, the woman was so much collapsed that abdominal section was out of the question; she would certainly have died in the middle of it; besides, her surroundings were very unfavourable for such an operation. We were fortunately able to deliver her, though with much difficulty, *per vias naturales*.

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FRACTURE OF THE INFERIOR MAXILLA TREATED BY A MODIFIED METHOD OF WIRE SUTURE.

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ON Dec. 29th, 1896, I was asked to see a patient, aged nineteen years, in No. 3 ward of the Leeds General Infirmary. He was a canal boatman and during the early morning of the 28th was winding a lock windlass when his foot slipped on a piece of ice and the revolving arm struck him across the jaw, causing a double fracture of the inferior maxilla and more or less concussion of the brain. On examination I found the jaw fractured through its body between the second bicuspid and first molar teeth on the left side and between the first and second bicuspid on the right side. The anterior portion was much depressed, and although there was no external wound there was considerable swelling and the patient was in an irritable condition. On the 30th he was anæsthetised and I adopted the method of wire suture which I described in THE LANCET of Dec. 3rd, 1892. In this case, however, I brought into use an instrument I have devised for metallic suturing. It is applicable in this or any other situation where osseous suture is required, and I found it answer so admirably that I feel justified in placing before the readers of THE LANCET a somewhat detailed description

of its form and method of application. The accompanying illustration shows the design of the "suture key."

In tightening sutures with pliers it is necessary to release the hold of the wires with every turn given by the hand. This is very awkward in maxillary cases when the fracture is posterior to the angle of the mouth. If however two wires are passed through the holes marked A and B they may be tightened to any extent without being released from the grasp of the key. In this particular case I drilled (with a bayonet-shaped drill fixed in a dental engine) a hole through the body of the jaw between the first and second molars on the left side. Having passed a stout silver wire I drilled another hole between the first and second bicuspsids and so returned the wire. Having repeated this on the right side I raised the depressed mental portion of the maxilla into position and used the "key" as depicted. Before turning

The figure shows the key for tightening the wire after it has been passed through the bone. The free ends are passed through the holes A and B, twisted round the projections on the key, which is then turned round and round by the cross-handle.

down the twisted sutures I coat them with very soft gutta-percha, to act as pads and prevent chafing of the lip. It makes the silver wire softer and less liable to break if annealed in a spirit flame before use. It is well to supplement the sutures by applying a four-tailed bandage, and where there are many teeth and much displacement by a Hammond's splint. On March 15th, 1897, I tightened the sutures and on May 1st I removed them. Before doing so, however, I observed a sequestrum hanging like a threaded bead on the wire on the inside of the mouth. The hole through the centre was made by the drill and the necrosis was most probably due to heat produced by the speed of the revolving engine point. It is therefore well to observe caution in this respect and also not to advance the drill too rapidly through the bone tissue. The fractured portions of the jaw were perfectly united and there was complete antagonism between the upper and lower dentures. I do not think it is possible to bring about such a complete restoration and retention of greatly displaced portions of maxillæ in their normal positions by the methods usually adopted. Now, however, that the dental engine renders the drilling portion of the operation such a simple matter there is, I think, much to be urged in favour of this quick and effective method of dealing with what used to be considered tedious and somewhat unsatisfactory cases. The small instrument I have ventured to bring before the notice of the readers of THE LANCET will be made to my pattern by Messrs. Maw, Son, and Thompson.

Leeds.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

KING'S COLLEGE HOSPITAL.

TWO CASES OF NEPHRORRHAPHY.

(Under the care of Mr. BOYCE BARROW.)

MUCH variety of opinion exists as to the best method of treating moveable kidney. For the minor cases in which the symptoms are not severe or continuous a belt is frequently all that is required; as to this all surgeons are agreed; but the more severe cases need different treatment, for in most of them belts have little effect in controlling the movements of the kidney, and if it be acknowledged that in some cases at least belts are useless then nothing can be done but to suture the kidney. It appears to be necessary that the stitches should penetrate the kidney substance and not be inserted merely into the capsule of the organ. As to the results obtained the general opinion is that the proportion of failures after nephrorrhaphy is small. Albarran¹ says that of 374 cases in which the operation was performed 78 per cent. were completely relieved. Relapses certainly do occur and, as in one of the cases recorded below, a refixing of the organ may be successfully performed. For the notes of these two cases we are indebted to Mr. J. H. Walker, house surgeon.

CASE 1.—A married woman, aged thirty-eight years, was admitted into King's College Hospital on Oct. 21st, 1897, complaining of pain in the back and right shoulder and of a moveable swelling in the abdomen. In January, 1897, she suffered from pain between the shoulders extending down the back and also from pain, "bearing down" in character, in the abdomen. She was under the treatment of a medical man for about three months and then the moveable abdominal swelling being noticed she was advised to have an operation performed. For this purpose she was admitted into St. George's Hospital and was operated on in August, 1897, for the moveable kidney. She was discharged cured on Sept. 20th and for about a fortnight she remained well, but after that the symptoms began to return and were soon as bad as ever. On admission to King's College Hospital her general health appeared to be good. She had never had any severe illness or accident and in her family history there was nothing noteworthy. In the right loin was seen a vertical scar three and a half inches long parallel to the outer edge of the quadratus lumborum muscle. On palpation the right kidney could not be felt, but deep palpation caused a good deal of pain. On the right side of the abdomen towards the loin a freely moveable tumour was easily found; it was slightly larger than a normal kidney. Manipulation did not cause any feeling of nausea. She complained of a continuous dull pain at the lower part of the abdomen. The urine was acid, of a specific gravity of 1030 and contained no albumin, sugar, or blood. On Oct. 24th she had retention of urine for twenty-four hours and complained of a sharp pain in the right flank and the lower part of the abdomen. On the 28th she was anaesthetised with the anaesthetic mixture and an incision between four and five inches long was made in the right flank about an inch below and parallel to the last rib, dividing the old scar at right angles. The incision was deepened through the muscles in front of the anterior border of the quadratus lumborum and entered the kidney which was found to be adherent to the old scar by its upper border so that the kidney could swing freely forwards and upwards. This adhesion was cut through and the kidney was examined, but no stone was discovered. The wound in the kidney was sutured with catgut, the kidney being brought outside the wound. Three stitches were then passed from the anterior aspect of the outer border of the kidney through the cortex to the posterior surface, the

¹ Gazette Médicale de Paris, Sept. 14th, 1895.