

GENERAL LYING-IN-HOSPITAL, VIENNA.

Cases reported by DAVID MAXWELL AITKEN, Esq.,
M.R.C.S., Resident at the Hospital.

Labour, with great deformity; delivery by Caesarian section; operation described; death of the mother, with safety to the child.
—Remarks on propriety of the Caesarian section.

ANNA D—, aged thirty-eight, married; short in stature, below the middle height; pale, thin, and emaciated; chest narrow, and the limbs small; no visible deformity; accustomed to poor living, eating animal food perhaps only once or twice a week; occupation, shirt-making.

On Saturday, the 7th of February, 1846, at seven o'clock in the evening, she was admitted into the Lying-in-Hospital, at Vienna, with labour pains strong and frequent.

Dr. Bright, the assistant of the Lying-in-Hospital, having made his examination, discovered that the outlet of the pelvis was very much deformed, and the brim contracted; the membranes were ruptured; the vagina was hot and dry; the cervix and os uteri soft and swollen. The os uteri was dilated to the size of a shilling; and on passing the finger a little above its anterior lip, a laceration was discovered in the cervix, extending about an inch upwards, and about the size of a shilling in circuit. The patient complained of pain when touched about the neck of the uterus. The labour pains were rather strong and frequent, occurring every three to five minutes. The membranes had been ruptured some hours previous to her admission. This was her first pregnancy, and she had gone her full term. On being interrogated, the patient stated, that about six o'clock A.M. of the same day the pains had commenced, and in a quarter of an hour they had become so frequently repeated that her friends sent for an accoucheur.

A surgeon-accoucheur, or rather, a barber-surgeon, (for the accoucheurs here are principally men that cut hair and shave people,) came to her house in the town. He made an exploration and discovered deformity, so that, to use his own words, he must deliver her as rapidly as possible. He introduced the fingers and ruptured the membranes, and then endeavoured to pass the whole hand into the pelvis. After continuing a long time in this practice (during a pain), he suddenly felt something give way, (the uterus, or neck,) which laceration was the one I have before mentioned. With all this, he still persevered; and the woman, finding herself in more pain, with labour no further advanced, discharged him from further attendance. She continued to have the pains for nearly the whole day; and towards evening, they became so strong, that she decided on coming into the hospital, and arrived there at the time previously stated.

The Professor, Dr. Kleine, was sent for upon her admission, when this history and the deformity were made known. After making his exploration, he said, that there was immense deformity of the pelvis, not so much but that if the child had been dead, he would have preferred craniotomy; but considering the presentation of the child, which was a breech, (the first oblique position—viz., the right side of the child directed backwards towards the mother's left sacro-iliac synchondrosis, and its left side towards the mother's right ilium and anterior notch) from this laceration of the cervix, he was induced at once to decide upon the Caesarian operation. The measurements of the pelvis will be given at the end.

After the woman had agreed to this proposition, and had had the sacrament administered to her, she was placed upon a table, in the recumbent posture, the shoulders being a little elevated. The bladder was emptied of its contents with a catheter; the knees were very slightly bent upwards, and the thighs a little flexed upon the abdomen, to relax the abdominal muscles. Everything being ready, about half-past eight o'clock P.M., and the assistants near the patient, with plenty of cold, iced water, the Professor commenced an incision even with the umbilicus, but on the left side of the linea alba. The incision

was carried gradually downwards, to within one inch and a half of the symphysis pubis, the knife dividing only the integuments. The second incision was directed in the same manner as the former, and divided the left rectus abdominalis as far down as the end of the former incision. Lastly, the peritonæum being exposed, a small piece, corresponding to about the centre of the uterus, was taken up with the forceps, and was gently snipped with a pair of scissors, so as to admit a director. The director being passed upwards, was cut very gently upon, thus making the opening into the peritonæum larger. The finger was now introduced, (the forefinger of the left hand,) and directed downward towards the pubis, the Professor cutting down upon his finger till it reached the extreme end of the abdominal wound. The same means were adopted to extend the wound upwards. This being done, the uterus now became visible. After the incision was made through the integuments, the skin was drawn gently outwards, and pressure made upon the uterus, to keep the intestines as far backwards as possible. As the rectus was being cut through, (lengthwise,) the pressure was increased to still further prevent any chance of the intestines escaping. Slight hæmorrhage now came on as the rectus was divided, but was immediately stopped by the application of sponges dipped in iced-cold water. The woman bore this with great fortitude, scarcely giving utterance to the slightest moan. A little wine was now given to the patient. The uterus was large, and of a reddish-blue colour, the fundus extending an inch and a half above the umbilicus.

The incision was begun at its fundus, in the mesial line, and even in height to the abdominal incision. The cut was continued as far downwards as to be within two inches and a half of the symphysis. The wound was made gradually, as also was that through the integument and rectus, each incision being deeper and deeper through its whole length, till the wall was cut through, leaving exposed the child, enveloped within the amniotic membranes. The membranes were firmly enclosing the child, and a portion was taken up with the fingers and torn through, till there was space enough to extract the child. The pressure was now increased and continued; there was very little bleeding. The child was seen lying in the position before described, (first oblique breech position;) the Professor grasped the feet and gently extracted them, the lips of the uterus and abdominal wound being well kept back by the assistants. As the feet and breech were being extracted, a violent labour-pain came on, the uterus powerfully contracting upon the head and shoulders of the child, which it held with great force for some few seconds. During the pain, the Professor discontinued all extracting efforts. The pain having ceased, the arms were drawn downwards, sweeping over the face, and extracted; and lastly, the head was brought out, but as it was passing out of the cavity of the uterus, another contraction took place, lacerating the uterus at its lower portion, and extending the wound for at least three-quarters of an inch more. From this torn portion of the uterus, considerable hæmorrhage took place, so that the patient completely fainted. Some wine was again administered, which restored her. The iced water was now more frequently applied, and the pressure constant and increased. The divided vessels of the uterus could be well seen; their large, open mouths sufficient to admit a small crow's quill. During this hæmorrhage, which lasted half an hour, the poor woman fainted three times, and the last syncope was so long, the pulse leaving the wrist, and the aspect becoming perfectly death-like, that we had serious apprehensions for her immediate safety: we all thought, in fact, that she was dead; but by the aid of powerful stimulants to the head and nostrils, she revived.

After the patient was a little restored, the placenta, situate at the right side and posterior part of the fundus uteri, was detached, when the child (a fine healthy boy) was entirely extracted; he screamed most lustily. The cord was divided, and the infant given to a nurse.

The woman being again quite restored, sutures (five in number) were passed through the rectus, integuments, and peritonæum, beginning just below the umbilicus, and continued to the symphysis nearly, with interstices of half an inch between each suture. Strapping plaster was lastly covered over the whole wound transversely, and then, after the lapse of a quarter of an hour, the woman was carried into the room appropriated for her. The operation in all took about one hour and a half, including the delay occasioned in restoring her when she fainted. Within half an hour after the operation, one grain of opium extract was given to her.

8th.—Ten A.M.: Had slept nearly the whole night; felt herself very comfortable; tongue moist, skin also; no headach or pain in the abdomen. Had passed urine during the night;

* Annales de la Chirurgie, numero 58, Octobre, 1845.

bowels opened once. Whilst in the lying position, she was not moved from the position we placed her in on the previous night. Pulse weak, rather quick; more than 90, but not quite 100 strokes per minute. Broth was allowed her, and she took slops during the day. Repeat one grain of opium at night.

9th.—The opium had not produced sleep; during the night, she had complained of thirst, and drank a good deal of water; the skin became hot, and the pulse accelerated. Early this morning she had a rigor, which lasted half an hour, very strongly shaking the bed beneath her. Some few hours afterwards she began to vomit, (three or four copious bilious vomitings;) what was ejected was very offensive. Pain came on in the abdomen about one or two o'clock this morning, and the latter began also to swell; the pain was increased on pressure, and very much aggravated when vomiting. About nine or ten o'clock A.M., the vomiting again returned, and at each effort there was an escape of a yellowish, dusky, very offensive fluid, from the wound in the abdomen. The swelling now became so great, that, from the constriction the strapping and sutures had upon the lower part of the abdomen, the swelling above the umbilicus had the appearance as though a large tumour as big as one's head were contained within the cavity of the uterus or abdomen itself. The skin was getting hotter and hotter, quite dry; pulse very much accelerated; swelling and pain in abdomen increasing; escape of fluid (very much increased) from the abdominal wound. Countenance anxious, *alae nasi* dilated, eyes glassy, and rolling of the head. In the middle of the day, low, muttering delirium came on, which continued some hours. Constantly calling for her child, and once making a dreadful effort to get out of bed, to see it, as she said, she fainted, and thenceforward never recovered; she continued occasionally to mutter, and about one o'clock died, being about forty-three hours after the operation. No medicine had been given, excepting the one grain of opium on the 8th, and one grain on the 9th; during the delirium, &c., nothing was administered. The child is suckled by a nurse, and had been doing well.

Post-mortem took place on the 10th, at ten o'clock A.M. Upon removing the strapping, there was an escape of dirty-brown and very offensive fluid. The edges of the wound showed not the least sign of reaction. The incision in the abdomen was five inches and eight lines in length. Upon examining the head, we observed that the parietal bones were exceedingly thin, not being more than one line in thickness, texture firm and compact. The inner side of these bones had patches, of various dimensions, of a thin, vascular, soft osteophyte. At the margin forming the sagittal sutures, especially on the right parietal bone, we noticed sugar-loaf-like elevations on their exterior, whilst depressions were observed corresponding from within, and extending the whole length of the sagittal suture. In the falx, a tough, fibrous, greyish-red coagulum was deposited. Meninges of the brain, thin, pale, and bloodless, showing signs of infiltration of serum; the substance of the brain was very much infiltrated likewise. In each ventricle were contained about two drachms of limpid serum; the choroid plexus pale and bloodless. About a drachm of limpid serum was found at the base of the skull; the thyroid gland pale and small. In the trachea, a thick greyish kind of mucus was adherent to the lining membrane; the thorax was very narrow towards its apex, broad at its base; ribs brittle, and easily broken; they were, moreover, bent inwards at various parts. Left lung free throughout its bulk, but the right lung adherent at its apex to the walls of the thorax by bands of loose cellular tissue. Right side of the thorax narrowed; ribs bent inwards, towards the vertebral column; and corresponding to these points were seen deposits of a yellowish kind of callus. The lungs were collapsed and bloodless, but a little infiltrated, with a dirty-greyish kind of serous fluid. The pericardium contained half an ounce of yellowish serum. Heart small, flabby, contracted, and had upon its surface several small tendinous-looking patches; its large vessels were filled with red fibrous-coloured coagula. The endocardium and valves were of a dusky red, by imbibition; the valves otherwise were normal. The cavity of abdomen contained about two ounces of a dirty-brown reddish-coloured fluid. A portion of the small intestines, commencing about two feet above the caecal valve, was covered by a thin, soft, reddish-coloured exudation, which united them with the uterus. The peritonæum covering these small intestines was highly injected, the injected vessels with their ramifications being beautifully seen. Liver, pale, soft, and easily broken down; size natural. Gall-bladder, filled with a light yellow kind of fluid. Spleen, small, flabby, pale, and quite bloodless. Stomach contained a great quantity of a greyish kind of mucus. The

intestines contained fluid, bilious-looking faeces; kidneys pale and flabby; bladder, collapsed and empty.

The uterus, with its fundus, above the brim of the pelvis. The edges of the wound had no appearance of any attempt at healthy reaction, but were covered with a dirty-brown kind of secretion. That part of the uterus corresponded to the attachment of the placenta, and had on it a dark, firm, fibrous-looking coagulum. The anterior part of cervix, just above the anterior lip of the os uteri, had a laceration of the size of a shilling, or a little larger. The tissue of the fundus uteri was pale and flabby, and the whole organ enlarged. About the cervix it was thinner than in any other portion, and was highly suffused with blood.

Osseous system.—The vertebral column in the lumbar region strongly bent forwards towards the pubis, and the fifth lumbar vertebra was in the place where the upper part of the os sacrum should have been—i. e., a line drawn from the pubis at its centre, and passed backwards, instead of passing directly to the os sacrum, would have impinged about the middle of the body of the last lumbar vertebra. The os sacrum was more than an inch below its proper position. It was highly concave, considerably curved backwards, and resembled the hand when the fingers are extended, and made to flex upon the wrist, to form an acute angle. The whole of the pelvis was very much distorted. Nothing in her history proved that she had had rachitis; indeed, her health had been generally good as a child.

Of the parts attached to the pelvis, the measurements were as follow:—

When the finger was introduced into the vagina, and passed upwards and backwards towards the sacrum, the latter was easily touched, and, moreover, the last lumbar vertebra could be easily felt, the measurement being two inches and three lines, and that from the pubis to os coccyx two inches and seven lines. The finger, pressed a little more upwards, could be passed all round the margin of the brim of the pelvis.

Of the dried pelvis, after being prepared, the following are delineations. I am indebted for them to a worthy fellow here—Dr. Balfour. Drawing *A* shows the deformity of the brim and ilia; and plate *B* is intended to show the deformity as looking into the pelvis from above. The conjugate diameter,

FIG. A.

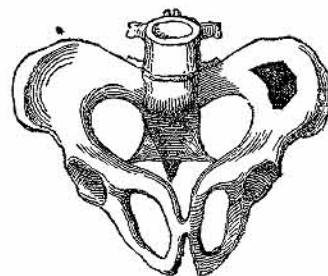
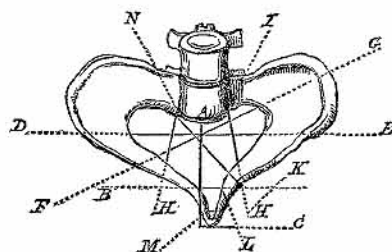


FIG. B.



A B, was only two inches and ten lines; or, inclusive of the beak-like process, *C*, four inches: this measurement extended directly backwards, and impinged upon the most projecting point, which was *A*, the fifth lumbar vertebra. The length of the beak itself was one inch and two lines—i. e., from *B* to *C*. From the left sacro-iliac symphysis to the ilio-pubic junction, (*H* to *I*), measured two inches and five lines; and obliquely, from the right sacro-iliac symphysis to the left ilio-pubic junction, (*N* to *K*), measured four inches and four lines; transverse, from *D* to *E*, four inches and eight lines. From the promontory of the sacrum to the corresponding acetabulum measured two inches and twelve lines. The breadth of the beak-like process of the symphysis pubis, from one part to the other, at its base, *L*, was one inch and four

lines; at its extreme end, eight lines only. The right ilium bent more inwards than the left, but both were of a spoon shape—that is, the crests of both ilia curved inwards, so making them look very concave; the ilia were also very thin, and in parts quite transparent. From the point of the coccyx to the promontory of the os sacrum, one inch and a half.

Outlet.—From the apex of the os coccyx to the arch of the pubis, three inches and two lines. From one tuber ischii to the other, two inches and one line. Breadth of the descending rami of the ossa pubis was one inch. At the junction of the rami of the pubis with that of the ischium, across to the opposite junction of the pubis and ischium, measured only six lines. Dr. Rigby's "Midwifery," in the Library of Medicine, p. 187, and the first plate from Naegele's collection, will give some slight idea of the kind of deformity, especially that at the symphysis pubis. The second plate will give some idea of the concavity of the ilia.

According to English practice, I think the deformity would not have been considered so great as to require the Caesarian section. I think I can prove that it was done with the most humane view; and, at the same time, that the most judicious determination was evinced in adopting it.

In the first place, there was severe laceration of the uterus. This alone is very dangerous; and how much more so does it become when the uterus is subjected to perpetually-recurring contractions! the passage of the child through the cervix and os throwing on one side the chance of either of the limbs, arms, or legs, slipping through this rent, and at once tearing the whole cervix away; or still worse, the rupture extending into the body and fundus. (*Vide* a case of rupture of cervix uteri, *Northern Journal of Medicine*, No. 17, Sept. 1845, related by T. Williamson, M.D.)

Again, the child was living, and apparently healthy, for the sounds of the heart were very distinct. In this woman there was a weak constitution to battle against. There was also puerperal fever raging in the wards, and the number of patients that died in the course of a single day from this "scourge" was awful. I have seen twelve women lying dead in the puerperal room, all having ceased to live within three hours of each other. Now I think that, should the mother have escaped a rupture into the body and fundus, still there was every chance of her becoming affected by this contagion. Most of the cases of puerperal fever we have here, generally occur in persons of the most weak and delicate constitutions. The woman, doubtless, would have had severe hæmorrhage; and this alone might have destroyed her, and most probably the child also. The child, on this day I write, April 18th, 1846, is well, and likely to continue so. What would have been the result had this operation not been performed? This most probably, or, I am inclined to say, most certainly. The mother either would have died from exhaustion by hæmorrhage, or she might, and most likely would, have had endometritis, peritonitis, or have become a victim to puerperal fever. Thus I think that Professor Kleine not only acted with judgment, but clearly succeeded in saving one life instead of losing two.

The patient stated that he had been recently labouring hard in his daily occupations, ascending and descending the rigging of vessels, and at the same time often lifting and straining himself under heavy weights. About six months ago, he felt, he says, a dull and sometimes an acute pain, extending from his loins down into the right groin; but he remarks, that he perceived no swelling there until about ten days before he came to the hospital; that at first the tumour was about the size of a chesnut, but that it became from hour to hour more painful.

No disease in any other part of the arterial system being detected, I put a ligature upon the external iliac artery, on the 3rd of February. The operation was performed in the manner first practised by Sir Astley Cooper, the steps of which, being well known to all operating surgeons, I need not particularly describe. The first incision, however, was commenced a little above the anterior superior spinous process, in order to allow myself room to follow the artery high up, should the disease of its coats render such a proceeding necessary.

The operation was somewhat prolonged by the unruly conduct and excessive resistance of the patient; and the man being both muscular and fat, I was obliged literally to feel my way through the greater part of it. However, pressing the bow of the needle firmly down between the artery and the vein, and making the needle revolve upon its point, the ligature was easily carried round the artery. Upon tightening the ligature, all pulsation in the aneurismal tumour immediately ceased, and the tumour itself became sensibly flattened.

Every proper precaution was taken to preserve the natural temperature of the limb. No constitutional excitement at any time succeeded to the operation; the ligature, however, did not come away until the forty-second day. The patient was discharged on the 18th of April, 1846, without any debility of the thigh or leg, and with scarcely a vestige of the tumour to be discovered by the finger.