

of time, be generally adopted for the removal of small or average-volumed calculi from the bladder, and I cannot but think that since its introduction it would have received ere this a greater amount of sound surgical sanction had some lithotomists of the day, of the highest authority, deviated, in a spirit of inquiry, from a beaten track; and experimentally tested the applicability and efficiency of this modified Marian operation, the revival of which must be regarded as a useful addition to the resources of the healing art, and as a high compliment on the part of modern to ancient surgery.

Broad-street-buildings, May, 1860.

ON A

CASE OF RUPTURE OF THE UTERUS.

By JOHN H. ALDRIDGE, M.D.,
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THE history of the case, ascertained from the patient herself, and from her friends, is as follows:—

Caroline S—, aged forty-one years, a tall, very robust woman. She does not remember ever having had any illness in her life, except at her confinements. She has been married eight years, and has given birth to seven children, two of whom were born dead. Her labours have generally been easy. This time she was taken in labour at twelve P.M., March 30th, 1859. The uterus contracted pretty strongly at the commencement, and after an hour or two she had several very powerful pains indeed, “sufficient,” as she herself expressed it, “to have brought half-a-dozen children into the world.” Suddenly, at three A.M. of March 31st, after such an above-described violent pain, she felt something give way in her abdomen with an audible snap (imitating the noise by snapping her finger and thumb), and she immediately exclaimed that “the child was born.” At the time she heard the snap and felt something give way she was going up stairs, and a clot of blood passed from her. She went to bed soon afterwards. From this time there was a slight red discharge from the vagina, but at first it was nothing to excite any alarm. In the afternoon, a midwife made an examination, and gave it as her opinion that the woman was not yet in labour. *She never had any proper labour pains after three A.M. of 31st March.* She was tolerably well all this day, going about her household duties as usual, but rested badly at night, in consequence of which she lay down in bed on the following day (April 1st), and slept from ten A.M. until two P.M. She now felt constant, but not severe, pain at the lower part of the abdomen, *but had no regular labour pains.* The abdomen was also rather tender to the touch.

April 2nd.—Patient said she was a great deal better, and had passed a good night. She was going about her usual household work under the impression that her time was not quite up. The discharge was slightly increased in quantity, and was a little fetid. The pain at the lower part of the abdomen was less.

From this time until the 5th of April the patient remained in much the same condition. At this date, however, the discharge from the vagina was much increased, and had a very offensive odour. The abdomen was much distended, and very painful.

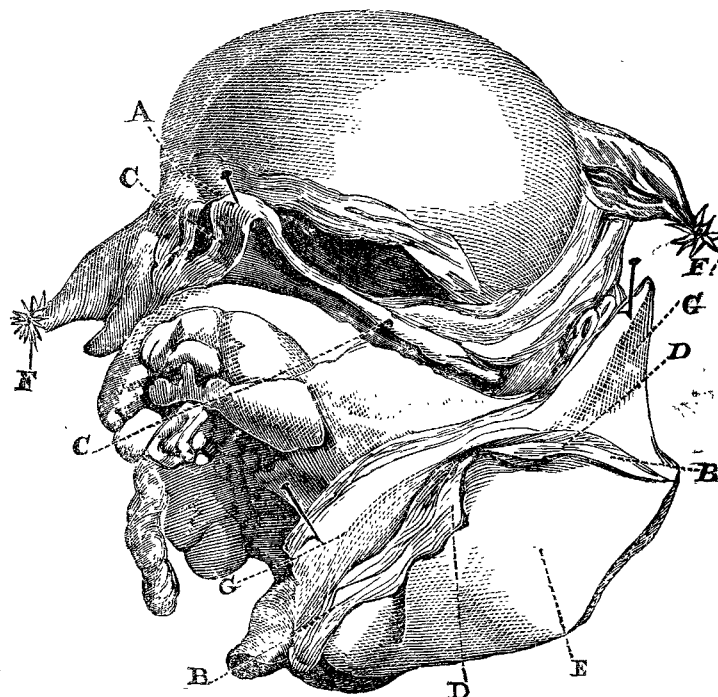
On the following day (the 6th) Dr. Scott and I visited the case together. On entering the room, we were at once struck with the horribly offensive odour, which we soon ascertained to be caused by the blackish-red, watery discharge from the vagina. The woman's face expressed great anxiety and pain. Her pulse was quick, but *full and strong.* She was lying on her back. Her abdomen was very large and distended; it was tympanitic as far down as the umbilicus; below this, dull on percussion. The belly was tender to the touch, so that on pressing it with the hand at all firmly she cried out. The foetal heart was not to be heard anywhere. No part of the child could be felt through the walls of the abdomen, owing to the latter being so tense and blown up. On examination per vaginam, the os uteri was felt to be dilated to about the size of a half-crown, and to be quite flaccid. Two fingers could be easily passed through it, but no part of a child could be felt. We concluded that there must be rupture of the uterus.

Dr. William Bullar saw the case soon afterwards, and confirmed our diagnosis.

It was determined to bring away the child by the operation of turning. At three P.M. of the same day (the 6th) the operation was performed. The left hand was passed into the uterus, but it was only after the whole hand was quite through the os that the fingers came into contact with the *unbroken* bag of membranes, through which the limbs of the child could be felt. After rupture of the membranes, one leg was seized, and a full-sized male child was extracted without difficulty. It had a large cedematous scrotum, was very putrid, and must have been dead for days. After the removal of the child, the placenta was brought away. The latter was quite rotten, being merely a bag of membranes filled with putrid, fatty-looking matter. After this had been removed, the hand was passed up again, and came into contact with what at first seemed to be a piece of the placenta which had remained behind. On more careful examination, however, this was found to be of a firm, hard texture, feeling like a dog's tongue, and being distinctly attached to the uterine structure. It was therefore concluded that it was a piece of the ruptured uterus, which, indeed, at the post-mortem examination it proved to be.

The patient bore the operation well, but the abdomen never became much smaller. She sank gradually, and died on the 11th of April, five days after the operation, and eleven days after the supposed period of the rupture.

Autopsy on the day after death.—Only the abdomen was examined. On opening this, the cavity of the peritoneum was seen to contain a considerable quantity of the same blackish-red, watery, stinking fluid, that had during life escaped per vaginam. The intestines were all adherent one to another, and were bound down by soft adhesions, showing severe, extensive, and recent peritonitis. The fundus of the uterus was protruding above the pubic symphysis, and on washing away the blackish-red fluid partially covering it, the rupture in the walls was immediately seen. The uterus, bladder, and rectum were removed together from the pelvis. The rupture was seen to extend from the right extremity of the fundus obliquely through the whole body and cervix of the organ, and for some distance into the upper wall of the vagina. The accompanying figure, by Mr. Samuel Stainer, of this town, shows very well the extent of injury to the womb. The cavity of the uterus



was stuffed with tow, and a drawing was taken in order to show the line of rupture more distinctly. The tear is represented extending from A, the right extremity of the fundus, to B B, the upper wall of the vagina, dividing in its course into two halves, D D, the upper wall of the cervix. The line of rupture is irregular and somewhat jagged, and is seen to be, as it were, double, a thin shred, C C, in part composed of the whole thickness of the uterine wall, in part of mere peritoneum, being in the centre of the tear. So far as could be learned by the naked eye and by the microscope, there seemed to be no diseased state of the uterine walls at the ruptured portion, or in any other part of the organ. The womb was about the normal size five or six days after delivery. The bones of the pelvis

were carefully examined, and were found to be normal in every respect. There was no unusual prominence or roughness in any of them, which could have at all predisposed to the lesion of the womb. The conjugate and other diameters of the pelvis were of normal length.

Remarks.—It is more than likely that the rupture of the uterus in this case occurred early on the morning of the 31st March, when the patient experienced the extremely violent pains, and when she felt something give way in her belly, with an audible snap; for she stated distinctly that after three o'clock A.M. of the 31st, when the above occurrence took place, she never had any more *labour* pains. Of course at first the tear could not have been so extensive as is shown in the figure; for before the operation the os uteri was distinctly felt to be entire, and during its performance some difficulty was experienced in passing the hand through the os. In all likelihood the passing of the hand into the womb, and the extraction of the child, enlarged the rupture which already existed. That the rupture took place very early in the labour is evident from the history of the case, and from the fact of the membranes having been found unbroken at the time of the operation. It is difficult to assign any cause for the severe injury to the womb in this case, there having been none of the circumstances usually given as predisposing to rupture of the uterus. The woman had had many easy labours before this one. The bony pelvis was of normal dimensions. There was no history of a fall or of an injury to the womb during the pregnancy, and, so far as can be judged from the woman's account of her labour, the uterus had not been subjected for any unusual length of time to great pressure or attrition from its own expulsive efforts. If the rupture of the uterus really occurred on the morning of the 31st March, it is remarkable that the patient should have lived so long as eleven days after the accident. This circumstance clearly shows her to have been a woman of no ordinary strength of constitution.

OBSERVATIONS

ON SOME

RARE SURGICAL ACCIDENTS.

By WEEDEN COOKE, Esq., M.R.C.S.,

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THE labours of our great ones of the past have been so fruitful, and the laws resulting therefrom so indisputable, that it would be difficult to point to any one bone in the body which, when the subject of either dislocation or fracture, has not been fully studied, the symptoms of its displacement or injury accurately described, and the method of reduction or adaptation clearly and authoritatively defined. The young dresser, when first called upon to diagnose these injuries in the absence of his more practised superior, or the middle-aged practitioner whose surgical acumen has rusted from disuse in a remote district, can always refer to those classic guides which adorn the literature of this century, with assured confidence that he will find therein described the injury he has before him, and the mode of manipulating for its relief. But, whilst asserting with pride the remarkable and scientific accuracy of this branch of surgery, it must be acknowledged that there are occasionally embarrassing cases, which, from the rarity of their occurrence, have not been seen by the student during his hospital studies, and do not find a place in the class-books. Of this nature is a case of

FRACTURE OF THE PELVIS,

which has recently been discharged from under my care in the Royal Free Hospital. I will first relate the particulars of the case, and then remark upon its diagnostic peculiarities:—

Wm. G—, aged thirty, admitted under my care Jan. 10th, 1860. Whilst carrying a sack of corn he fell with the whole weight of the sack and its contents upon his loins. He was unable to walk, and was carried into the hospital. Upon admission, the symptoms were very obscure as to the exact nature of the injury. There was great fixedness of the whole of the left leg, the foot was everted, the limb shortened, and the gluteal region much flattened. There was excessive pain and tenderness in the course of the long saphena nerve, espe-

cially at the inner condyle, resembling *morbus coxæ*. There was also retention of urine, requiring the use of the catheter for two days. By extension and counter-extension the shortening and eversion were overcome, and the limb readily returned to its natural position. He continued to complain of much pain down the inner side of the leg, and especially over the tuberosity of the ischium. Forcible pressure upon this latter point produced great pain, and a certain amount of mobility was manifested. There was no crepitus, however, to be detected over any part of the pelvis. Abduction and adduction of the thigh were equally painful, and flexion upon the trunk, which was employed for diagnostic purposes, induced very acute suffering. The long splint was applied without the extending perineal band, and the patient kept quietly in bed for six weeks. The splint being removed, he was then allowed to get out of bed and sit up for a short time each day, but suffered much. He was not able to use the crutches for another month, and the leg swelled when put to the ground. There was still some tenderness over the ischium. At the expiration of three months he could with the aid of crutches get about tolerably well, but was not able to stand entirely upon the leg of the injured side. He was then sent to the Convalescent Hospital at Walton, and is doing well.

Now there were three views to be taken in the diagnosis of this case when first admitted. Was it merely a severe contusion accompanied with concussion of the nerves supplying the muscles of the thigh? was it a dislocation? or was there fracture either of the head of the thigh-bone or of some portion of the pelvis? and if the latter, what portion? It is not at all an uncommon circumstance for patients to be brought into hospital unable to use one leg, and shrieking with agony upon the least motion, in whom there is neither dislocation nor fracture, but such loss of power from nervous concussion that they will lie in bed for weeks, unable to walk, or even to stand upon the injured limb. The absence of all crepitus or displacement is generally sufficient to indicate the nature of these injuries; but even then a lurking doubt will sometimes remain in the surgeon's mind whether there is not some pelvic injury. In the case before us, however, the displacement when first admitted was sufficient to prove that it was something more than contusion. Of all the dislocations to which the thigh-bone is liable, that of the head of the bone on the pubes, commonly called "upwards and forwards," is the only one in which the leg is decidedly everted; but as the head of the bone can in that case be felt below Poupert's ligament, and the leg cannot be flexed upon the trunk, this was of course not the injury presented for diagnosis. It was then a fracture—possibly of the neck of the os femoris. But who ever met with a case of fracture of the cervix femoris within the capsule in a man aged thirty? Of 225 cases seen by Sir Astley Cooper, two only occurred in persons under fifty. There is, however, a fracture external to the capsule which in most respects resembles the injury our patient had sustained. In this case the leg is slightly shortened, the foot is everted, and the usual rotundity of the joint is lost. This fracture may happen from severe injury at any age, and even the crepitus, from the neck of the bone being driven into the cancellated structure of the trochanter, may or may not be very evident. The great diagnostic mark distinguishing the case before us from the fracture above alluded to is this: that in the pelvic fracture the leg, after reduction, retained the position it was placed in unsupported; whilst in all cases of fracture of the upper part of the thigh-bone the abductor muscles will, when uncontrolled, draw the foot outwards, and also restore the shortening.

Having, then, by a process of elimination, arrived at the conclusion that the fracture was in some part of the pelvis, it behoves us now to fix upon the amount of injury done. The ossa ilii were certainly uninjured; there was neither crepitus nor pain produced by manipulating this portion of the pelvis. The os pubis of the affected side was also undoubtedly free from injury. That the ischium was decidedly fractured was proved, I think, beyond contradiction by the extreme pain produced when it was pressed upon, as well as from the oscillation which could be effected in it. I am further disposed to argue that this bone was by the injury partly separated from its colleagues at the acetabulum, and thus, the round ligament being injured, the head of the femur was allowed to be drawn somewhat upwards and outwards by the strong pelvic muscles which have this office. The inability to pass urine, also, for two days will be explained by loss of purchase for the accelerator urinæ and compressor urethræ muscles, which take their origin from the ramus of the ischium. In the greater number of instances of fracture of the pelvis the diagnosis may be verified in the mortuary. All fractures of the pelvis are dangerous,