To take the opposite type of patient.

Many years ago I saw an old Welsh collier who insisted on resuming work a few months after a fracture of one of his lumbar bodies. He had a fracture of his pelvis also. He died suddenly at his work from aortic disease. Another man, who was an old bare-fist fighter, worked very shortly after fracturing his spine. But the most interesting case of all was that of a particularly well built young collier who sustained a crush fracture of the second lumbar vertebra, with considerable displacement and fractures of several transverse processes. He enlisted in the Guards and served for six years. At the end of that time he returned to South Wales and claimed for an injury to the spine, which had been found at Aldershot and as a result of which he had been discharged. He was paid a lump sum by the colliery company, and then announced that he was going round the world as a servant to his company officer, and that his spine was perfectly right.

A large amount of displacement of adjoining bodies is possible without any cord lesion. This is particularly the case in the lumbar region, where the tube formed by the dura mater is looser. In several of the films which I showed to the Moynihan Club the vertebrae had been almost pulped and were sometimes lying side by side, so that the cord was displaced laterally at a right angle. In the last month I have seen a curious dislocation in the cervical spine, in which marked displacement is very clearly demonstrated. In this man movements of the neck were full and free, and the only symptoms were paralysis of the right deltoid and loss of the biceps tendon reflex.

A great deal naturally depends on the man himself, but I cannot see why, in the case of a wedge fracture, slowly developing, with smooth surfaces and no pressure on the spinal nerves, there should be any serious loss of working capacity. Compared with the distortion of the spine of the hunchback or some of the bony diseases, these wedge injuries are mild, and they are often as slow in appearing as many of the spinal diseases. But the fracture-plus-erosion type of accident is of course quite different. Here one has rough bony surfaces and an acute angular deformity, and it seems to me that until bony fixation has occurred, to form, as it were, a splint, such a man might suffer pain over a very long period. As regards transverse processes, where the displacement is considerable, they often never unite, though they occasionally may do so with considerable callus. I have one case in which several of them have united to form a solid bony column lateral to the spine. In a few months these separated processes are often painless, and the cracked process in which there is no displacement should cause no pain after, say, three months.

It is impossible to illustrate many of this series, but six skiagrams are reproduced on the Special Plate. The examples I have selected speak for themselves. Apart from the tragedy of these unfortunate men being injured in this way and often untreated surgically, there is the other more mercenary view to be taken, for it has a serious bearing in the low state of the coal industry. In compensation these 270 cases mean a tax on the local industry of about £20,000 per annum.

FULL-TERM ECTOPIC GESTATION

BY

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(With Special Plate)

The treatment of a full-term ectopic gestation is probably unique in the experience of any individual practitioner, and for this reason it is relatively common in obstetrical records. Caldwell, in recording a case of extrauterine pregnancy, with mother and baby living and well, stated that 121 such cases had been reported previously. In 1929 there were actually three cases of full-term ectopic gestation reported in the *British Medical Journal*.

Consideration of the reports of cases of extrauterine pregnancy shows that it usually occurs in a multipara, that the left side is rather more commonly affected than the right, and that the sex of the child is not affected by the side involved. Pre-existing cervical endometritis has been held to be a predisposing cause, but this has not been really established.

In the following case certain unusual features were present. In the first place the case was observed at four critical periods: (1) in mid-pregnancy, probably at the time of secondary intraperitoneal rupture of a mesometric gestation; (2) in the late days of pregnancy; (3) at the spurious labour and subsequent period of devolution; and (4) at delivery by operation. Secondly, certain complications arose. The spurious labour was followed by an intermittent pyrexia, the operation was complicated by an irreducible ventral hernia, and finally there was the occlusion of a ureter.

CASE REPORT

The patient, aged 36, was admitted to the Southlands Hospital on April 6th, 1933. She had had six previous pregnancies—all living children, the youngest being 5 years old. She was sent in from an outlying district as a case of acute abdomen. There was a history of an acute onset of abdominal pain, rigidity, and vomiting twenty-four hours previously; these signs and symptoms rapidly subsided without operation. In the general examination at this time it was noted that she was about five months pregnant, and that the presentation was a breech. She was discharged ten days later free from symptoms. In the light of our subsequent knowledge it seems probable that this attack was one of peritonismus associated with the secondary (intraperitoneal) rupture of an already established and growing mesometric pregnancy.

On July 19th the patient was readmitted, being sent in by an ante-natal clinic as a case of hydramnios. On admission her temperature, pulse, and respiration were normal. The abdomen was pendulous, and there was a small irreducible ventral hernia containing, apparently, omentum only. The foetal tumour was large and tense. What was then thought to be the fundus was one and a half inches below the xiphoid. Neither foetal movements nor heart beats were noted, and the presenting part was indefinite. There was no vaginal bleeding or discharge. There was oedema of both legs associated with varicose veins, with ulceration on the outer aspect of the right leg. The Wassermann reaction was ++. No abnormalities were discovered in the urine. Her condition remained unchanged until August 11th, when she complained of indefinite pains in the back, which had started the previous evening; later she had abdominal pains. Her breasts were secreting.

On examination the foetal heart could not be heard and movements could not be felt, although the patient was convinced that she had felt movement; she "could feel it breathing" was how she expressed it. By vaginal examination there was a slight "show." The external os was softened and patent, and the cervical canal filled with necrotic tissue, which bled easily. On bimanual examination a definite tumour was palpable in the posterior and right lateral fornices, and extending up to the right side of the pelvis, with a smaller mass to the left and higher up. A piece

of the necrotic material was sent to the laboratory, and the following sketches of "possibilities" made (Fig. A).

The necrotic tissue was reported on (by Dr. Shera, County Pathological Laboratory, Hellingly) to show: "Finger-like processes of tissue, which is composed of large polygonal cells, having oval nuclei, some of which show mitosis. The cells are not epitheliomatous, but are probably foetal in origin, and resemble Langhans's cells. They may be derived from a chorion epithelioma, or from placental remains."

By August 13th all pains had ceased. The patient was comfortable, and no further vaginal bleeding occurred. On August 22nd the temperature rose to 100° F., and continued to swing between 99° and 102° for the next ten days; there was also malaise. There were no indications of acute chest

were reduced by blunt dissection, and by separating adhesions between ligatures. The neck of the sac was brought out anteriorly to the line of the peritoneal suture, so that it no longer communicated with the peritoneal cavity. A drainage tube was put into the pouch of Douglas. (Fig. C.)

The patient went on well for a week, and the wound rapidly healed. On the seventh day the temperature rose to 101.8°, and an irregular pyrexia continued for three weeks, for which no definite cause was found. There were some crepitations in the chest, which was later explored by a needle, without finding any fluid. The urine was clear and sterile.

Subsequently a cystoscopy was carried out, and a catheter failed to pass up the right ureter. The patient was then

FIG. A.

or abdominal involvement, and no loss per vaginam. A catheter specimen of urine was sterile and without abnormalities. These negative findings lead now to the inference that the morbid features present were due to systemic intoxication by the products of foetal devolution.

On September 2nd there was a recurrence of haemorrhage and discharge per vaginam. It was found on examination that the external os had completely closed again, and that the same ill-defined masses previously felt were still to be made out on bimanual examination. Here again sketches of "probabilities" (Fig. B) were made for discussion of the case with the consulting surgeon (H. J. McC.) who was called in, acting as deputy for Mr. John Griffith, consulting surgeon to the hospital.

On the same day (September 2nd) a laparotomy was carried out (H. J. McC.) under general anaesthesia. Multiple peritoneal adhesions and bands were encountered, some of them connected with the hernia, and others going to a sac rising out of the pelvis. Exploration with the finger revealed a normal-sized (a non-pregnant) uterus on the left side of the sac. It was not found possible to extirpate the sac without opening it, and, rupture being imminent, the rest of the abdomen was packed off and the sac ruptured; a full-term dead female foetus was removed. Maceration had begun. The fluid in the sac was of a greenish, grumous nature, and appeared to contain meconium.

After removing the foetus the placenta and sac were gradually removed. The placenta was mainly attached to the right side of the pelvis, and between the layers of the right broad ligament. The appendix formed part of the wall of the

FIG. C.

sac, and was removed with it, the stump being invaginated into the caecum in the usual manner. There was a good deal of bleeding on separating the sac from the depths of the broad ligament. The separation was a laborious proceeding. The ureter was not seen, although it was realized that it lay in the vicinity of the attachment of the sac. It was not thought advisable to prolong an already lengthy operation by identifying the ureter. The contents of the ventral hernia

FIG. B.

transferred to the Royal Sussex County Hospital, and an intravenous urogram showed a good shadow of the dye in the left renal pelvis and ureter, but none on the right side. A subsequent cystoscopy (Mr. J. R. H. Turton, acting in the absence of H. J. McC.) with indigo-carmin, which had not been available at the first examination, confirmed the fact that the right ureter was occluded. The patient left the hospital on October 6th in good health.

COMMENTARY

In considering the case one wonders if it would have been better merely to have marsupialized the sac and drained it, which would have been a comparatively simple operation. But it was decided at the time not to leave so much necrotic and probably infective material behind, added to which that potential source of trouble—the appendix—formed part of the sac wall.

Photographs of the foetus and the adventitious gestation sac are reproduced on the plate. A skiagram of the ossification centres was also taken. These confirm that the foetus was a well-developed and full-term female weighing 6 lb. 12 oz. and measuring 19½ inches. Two congenital defects were present: a moderate degree of hydrocephalus and double pes calcaneus, much more marked on the left side.

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FIG. 1.—Foetus in gestation sac (posterior aspect).

FIG. 2.—Macerated foetus.

FIG. 3.—Gestation sac and placenta.

FIG. 4.—Foetus showing congenital defects.