seen recorded in the tracing. Two injections of adrenalin were given; the effect of each was to increase the volume of air entering the lung as the result of dilatation of the

bronchioles and to cause a rise of blood pressure. The effects were temporary. The third injection was atropine, which produced permanent and maximal broncho-dilatation by paralysing the broncho-constrictor nerves, and increased cardiac rate, and therefore blood pressure, by paralysing the cardiac vagus.

RUPTURE OF VEIN OF DERMOID CYST:

INTRAPERITONEAL HAEMORRHAGE: OPERATION:
RECOVERY.

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THE following case is of interest as illustrating a cause of intraperitoneal haemorrhage which must be of considerable rarity, since no mention of it is made in the works on gynaecology with which I am familiar.

A married woman aged 29 was seized with severe abdominal pain at about 7 p.m. on November 24th, 1919. She had been quietly walking home from a friend's house when the pain came on very suddenly, at first on the right side, but soon becoming more general. There was a history of a similar attack in June, 1917, when nothing abnormal was detected in the pelvis, and neither renal or appendical trouble had been suspected. She was kept under close observation, but the trouble cleared up, and by July 10th no sign of it remained. She had had a much milder attack in October, 1918, but had not called in a medical man. She had two children, aged 4 and 2. The first labour was a very difficult occipito-posterior, which had called for forceps delivery, and had resulted in extensive laceration. Recovery had been satisfactory, and there was no history of obstruction to labour. In November, 1917, there had been a miscarriage at the seventh month, brought on by the shock of seeing an aeroplane smash. The menstrual history was suggestive. She had been regular till October, when the period had come on ten days late and been very scanty. The November period, also late, had begun the previous day, and was also scanty. When I saw the patient (at 3 a.m.) she was markedly blanched, and in very great pain. There was no air hunger or restlessness; she lay very still, moaning with pain. The temperature was 98° and the pulse 80. There was no distension, but movement was limited, and the lower half of the abdomen was extremely tender and rigid. I could detect no dullness, but the tenderness was too great to allow of thorough percussion. On vaginal examination I found the cervix low, not softened, and the fornices distinctly "boggy." No tumour was palpable, and the uterus, as far as the difficulties of the examination allowed me to judge, was not enlarged. The gloved finger had a little blood on it. The patient retched and vomited after the examination, the vomit containing about half an ounce of bright blood, which I disregarded as being probably pharyngeal.

The sudden onset, combined with the very extreme pain and tenderness, pointed to haemorrhage into the peritoneal cavity, which together with the rather suspicious menstrual history, strongly suggested a ruptured ectopic gestation. On the other hand, the history of the two previous attacks had to be taken into account; if they had been appendical, the present trouble might be due to the rupture of an appendix abscess, though this did not seem very likely. Neither the history nor the signs suggested a perforated ulcer, gastric or other. There was no reason to suspect an ovarian tumour as the cause of the mischief, since none had been discovered at previous examinations, or was palpable now.

In view of all this, I diagnosed a ruptured ectopic gestation, gave morphine gr. $\frac{1}{4}$, and ordered absolute rest, and an ice-bag

over the hypogastrium. Seen early next morning with Mr. F. C. Madden, F.R.C.S., the patient's condition was much the same, but the pulse had risen to 96. The morphine had not given much relief. Mr. Madden agreed with my diagnosis, and it was decided to move the patient into the Anglo-American Hospital, Cairo, for operation at once. Morphine was given again, and the eight mile journey in an ill-sprung ambulance was well borne.

As soon as the patient had been prepared and given saline by the rectum, Mr. Madden operated (4 p.m.).

A median subumbilical incision revealed the peritoneal cavity full of blood and clot. On clearing some of this away, a dermoid cyst of the right ovary, the size of a polo ball, was found and delivered. The tumour involved the whole ovary, and the right tube was seen running on the side of the cyst. The long pedicle contained a number of large veins, and near the base of it were three transverse tears. The upper and lower of these were superficial, but the middle one, about an inch long, had opened a vein, from which the haemorrhage was seen to proceed. This vessel was with difficulty secured, as it ran directly into the folds of the broad ligament. The pedicle was finally transfixed near its base, and the tumour removed. The adnexa on the left side were normal.

The cyst showed no signs of torsion beyond the tears in its pedicle, and contained the usual grumous fluid, and rudiments of hair and teeth.

Beyond a little difficulty with the bowels on the fourth and fifth days, the patient made a rapid and uninterrupted recovery.

The striking points of the case are the rare nature of the accident, the rather close way in which the history simulated that of an ectopic gestation with rupture, and the fact that three labours had been passed through without the cyst giving rise to trouble, or even being discovered. This last was probably due to its free mobility and the length of the pedicle.

The two previous attacks of pain were probably caused by slight torsion. The coincidence of the catastrophe with the menstrual period is what one would expect, but apart from this it is difficult to assign any cause for the very acute torsion which must have been required to rupture the pedicle in the manner described. There was no history whatever of violent exercise or a sudden strain. Whether a varicose condition of the veins in such a situation has been described, or ever exists, I do not know. It seems unlikely. In any case the rupture of a vein *per se* would not account for the three tears found at operation.

My thanks are due to Mr. Madden both for his help and for most kindly supplying me with details of the patient's previous illness and confinements.

LIGATURE OF THE FIRST PART OF THE RIGHT SUBCLAVIAN ARTERY FOR TRAUMATIC ANEURYSM OF THE SECOND AND THIRD PARTS.

BY

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EVEN in the recent war, in which almost every conceivable injury due to direct violence has been met with, lesions of the subclavian artery, requiring ligation of the first part of the vessel, seem to have been comparatively rare, and possibly on this account there is some justification for the publication of this case.

The lesion was accompanied by damage to the brachial plexus, either directly or by concussion, and the later history of this damage is not without interest.

Private B., aged 20, was hit by a piece of shell between the vertebral border of the right scapula and the spine at the level of the third dorsal vertebra, at Arras on April 22nd, 1917. The missile made its exit by a small wound about one inch above the junction of the middle and outer thirds of the right clavicle. The patient was sent to England and reached the base hospital on May 19th with the wounds mentioned soundly healed.

He stated that he had coughed up small quantities of blood for about a fortnight after his injury, and he complained of pain in his chest occasionally, and severe pain and loss of function in his right arm. His voice was hoarse, his right pupil distinctly larger than his left, and his right hand and fingers presented trophic lesions. His arm hung limply at his side and he was unable to move it; wrist-drop was, of course, present. There was considerable wasting of all the muscles of the limb, and this increased while he was in hospital. He had no cutaneous sensibility in the forearm and hand, and only a very limited amount over the upper part of his arm.