passed behind the uterus and both ovaries were found to be the seat of tumours about 4 inches in diameter, the two tumours lying side by side in the bottom of the pouch of Douglas. They were removed without difficulty, being easily delivered out of the abdomen with little disturbance of the uterus. The abdomen was closed in three layers, closure being reinforced with three figure-of-8 tension sutures of silk-worm-gut. Morphine was given during the next few days, but the patient showed no sign of aborting, and was discharged in three weeks. She had a spontaneous delivery at term, the child weighing $7\frac{1}{2}$ lb.

The right ovarian tumour proved to be a dermoid, with the usual contents of hair, fatty fluid, and several teeth. The left tumour was a single cyst containing clear fluid. Both together would have been sufficient to cause obstruction during labour.

Case II

A primipara aged 29 had been attending the ante-natal clinic from the second month of pregnancy. I first saw her at the end of the fourth month, when she was in considerable pain and had a slight vaginal loss. There was a very tender swelling in the right iliac fossa, which she stated had increased considerably in size during the past few days. She was admitted to Mayday Hospital and operated upon the same day. A fibroid tumour the size of a tennis ball was found in the right side of the uterus, its upper limit being just below the round ligament. It was enucleated after making elliptical incisions above the edges. The cavity was obliterated by mattress sutures and the uterine incision closed with continuous catgut. Closure of the abdomen was again reinforced with three figure-of-8 silk-worm-gut tension sutures. There was again no attempt at abortion, and she was discharged twenty days later. She gave no anxiety during the remainder of her pregnancy and had a spontaneous delivery at term, the child weighing 7 lb. 13 oz. The uterus involuted normally, but she had a small thrombosis in a vein of the right leg. She was discharged at her own request on the sixteenth day, and when seen at the post-natal clinic a month later was found to be normal in every way.

Case III

A primipara aged 31, married nine years, was admitted to Mayday Hospital with a history of three and a half months' amenorrhoea and pain in the right side for two days, which had become acute on the day of admission. There was no vomiting or vaginal discharge. On examination a tender, slightly mobile swelling was found in the right iliac fossa, apparently separate from the uterus. She was kept under observation for the next twelve days, with opiates to relieve pain. There was, however, no improvement, and the swelling remained acutely tender. Laparotomy was therefore carried out, and on exposing the uterus a fibroid of about the same size as that found in Case II was seen. It had a short but broad pedicle, which had undergone partial torsion, there being about one and a half twists. An incision was made into the uterine wall enclosing the pedicle and the tumour resected. Some troublesome bleeding from the uterine walls occurred, and several vessels were separately tied. The uterine muscle was then brought together by mattress sutures, the peritoneal coat being closed with continuous No. 0 catgut. The abdomen was closed as in the previous cases.

The patient had severe pelvic pain for the whole of the second night and third day after operation, and was given morphine and corpus luteum extract. After this her convalescence was normal. She was readmitted to Mayday Hospital two weeks before term, and was delivered a week later, the child weighing 6 lb. 10 oz. On discharge the uterus was noted as slightly bulky, but there was no loss, and when she was seen at the post-natal clinic a month later involution was complete.

All three uterine tumours on being cut proved to be myomata, and each had small areas of haemorrhage in the centre.

Points of Interest

In all three cases the chief complaint was acute abdominal pain.

Case I, in addition to the uterine tumour, had bilateral ovarian tumours, which might have caused obstruction of labour. In one sense it was fortunate that the patient developed acute symptoms from the uterine tumour, as this occurrence led to the discovery and removal of the ovarian tumours, which might otherwise have been missed, giving trouble only after labour had started. In view of the extensive operative measures it is remarkable that this uterus remained quiescent.

Case II had a vaginal loss when first seen, and would probably have aborted if myomectomy had not been carried out.

Case III undoubtedly threatened to abort after operation. This is not surprising when it is remembered that torsion of the pedicle had begun, which must have rendered the uterus irritable, and that there was superadded the excision of the tumour. This patient was also the least advanced in pregnancy.

All three patients were operated upon in the second trimester. This is the period of pregnancy when the uterus is often sluggish, as shown by the occasional difficulty encountered in inducing therapeutic abortion. I have several times had to insert laminaria tents, after dilatation, rupture of the membranes, and cervical packing had failed to stimulate uterine action. In two cases I have had to empty the uterus by vaginal hysterotomy.

All three cases went on to term and had spontaneous deliveries of live babies, involution being satisfactory in each case.

A MANŒUVRE TO FACILITATE ABDOMINAL PALPATION

BY

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Palpation holds pride of place among the routine methods of physical examination of the contents of the abdomen, owing to the fact that this cavity, unlike others in the body, is enclosed more by muscles than by bones, but it is obvious that the amount of information to be gleaned from the use of this method must necessarily depend upon the degree of muscular relaxation which can first be obtained. It is true that it is impossible to overcome that involuntary or reflex rigidity of the abdominal musculature which is associated with certain acute abdominal diseases and which is in itself a valuable indication of the presence of one of these conditions; but my purpose in this paper is to describe a method whereby it is possible to diminish the voluntary contraction of the abdominal musculature frequently observed in nervous and apprehensive patients. The method is also valuable in those patients in whom, owing to pronounced lumbar lordosis or to increased intra-abdominal tension, the abdominal wall is tense and stretched.

The customary routine, before abdominal palpation, is to attempt to obtain a maximum degree of relaxation by placing the patient in the supine position, with the arms at the sides and the head and neck comfortably elevated upon a pillow. The lower limbs are drawn up by semiflexing the hip- and knee-joints, and the

examination then proceeds. Relaxation of any muscle is obtainable only by approximation of its points of attachment. The composite nature of the points of attachment of the abdominal muscles seems, at first sight, to preclude any possibility of this manœuvre, but in reality the two major attachments of this whole group of muscles are the lower ribs at the cranial end and the bony and ligamentous structures of the anterior aspect of the pelvis at the caudal end. Approximation of these points will automatically relax these muscles. The orthodox posture of flexion of the neck and semi-flexion of the thighs, already described, fails to procure this approximation or to obliterate the normal lumbar lordosis (Fig. 1), though it is true that the tension exerted

FIG. 1

by the fascia lata on the inguinal ligament of Poupart is relaxed, thus diminishing the normal downward convexity of this structure. This is not sufficient, in most instances, to make any appreciable difference in the tensesness of the abdominal wall. In order to accomplish this object it is necessary to rotate the pelvis on a horizontal axis which passes through both hip-joints. This rotation entails movement of the anterior aspect of the pelvis to an appreciable extent in a cranial direction and also some flattening of the normal lumbar curve. The amount of this movement of the pelvis varies in different patients, as it must depend upon the degree of lumbar flexion obtainable in each individual. The desired posture may be secured quite simply by first placing the patient in the orthodox position, with the knees drawn up and the feet firmly placed, and then asking him to "raise his tail bone one inch from the couch" (Fig. 2). This

FIG. 2

instruction is usually easily understood, and enables the patient to avoid the error of lifting the whole lumbar spine off the couch. This position can be maintained with perfect ease, and if the hand of the examiner be placed on the abdominal wall while it is being assumed a noticeable diminution in the amount of muscular resistance will be felt immediately. By this simple manœuvre, therefore, it is possible materially to increase the knowledge obtainable by palpation of the abdomen.

The rotation of the pelvis and flattening of the lumbar curve are produced mainly by contraction of the ham-

string group of muscles, together with the ischio-femoralis portion of the adductor magnus, which act with the flexed knee as a fixed point, though the posterior fibres of the glutei muscles also assist to some extent.

Similar relaxation may be obtained by other means, as, for example, by elevating the thorax on pillows or by placing a pillow under the sacrum, or by both these measures, but such steps are neither as simple nor as effective as that which I have described. The "dangle" position, described by C. Jennings Marshall (1933), attains the desired objective by the use of the sitting position; but it is useful only in the examination of the upper part of the abdomen, and is therefore not universally applicable.

REFERENCE

Marshall, C. Jennings (1933). *British Medical Journal*, 1, 413.

Clinical Memoranda

Spontaneous Hypoglycaemia : Familial Incidence

The paucity of published cases of the above syndrome in this country, and the interesting paper by Price and Raper (1938) in a recent issue, prompt me to record the following cases.

CASE I

Miss S. was referred to me by her brother, a physician. Since the age of 14 she has suffered from peculiar "fainting" attacks. In the last few years she has been living with her brother, to whom I am indebted for the description of the attacks. These are usually preceded by a smell of acetone in the breath, vertigo, headache, and sometimes vomiting: apart from confusion and a drunk feeling, the patient could not give a clear account of them. The attacks were accompanied by mental confusion, with euphoria, ataxic movements, and slurred speech. The symptoms would pass off in a few hours, leaving the patient weak for a few days. On several occasions she had collapsed whilst out, and was considered to be drunk, although a teetotaler. On some occasions collapse would occur, leaving her almost pulseless. The attacks formerly occurred with or near the periods, but for the last few years there have only been a few during the year. Every night for as long as the patient can remember she has awakened between 12 and 2 a.m. feeling weak and very hungry, and this is relieved by food left at the bedside. The patient has always had a marked distaste for sweet things. Since the age of 14 there has been intermittent urticaria.

Examination.—The patient was aged 52, of heavy build, and looked a few years older. The facies were plethoric, with a growth of hair on the lip. The general appearance was a little suggestive of pituitary basophilism, but the distribution of fat and sexual hair was normal. The blood pressure was 140/105 when flat, and 170/125 on standing, with the pulse unaltered. To eliminate a sensitive carotid sinus as a cause of the condition pressure was made on both sides of the neck without result. Although there had not been any attacks for several months, a glucose-tolerance test was done in the hope that this might throw some light on the condition. The following figures were obtained: resting level, 70 mg.; after 45 minutes, 134 mg.; after 90 minutes, 138 mg.; after 135 minutes, 94 mg. The urine was normal in each instance. Figures much lower than these are probably present during the attacks. A fact to be considered in this respect is that hypoglycaemic symptoms may occur at relatively high levels, and may yet be absent at very low levels, as shown in Price and Raper's case. The patient was given ephedrine 1/4 grain twice daily, and a glucose drink before retiring. In spite of marked antipathy the glucose was taken, and the nocturnal attacks