Pressure of an organ like the spleen on the uterus not only mechanically interferes with the uterus but seriously disturbs menstruation.

DANGER TO LIFE.

It will be gathered from what has been stated in the foregoing sections that a wandering spleen may, and occasionally does, jeopardise life. The dangers are:

- (1) Rupture of stomach or duodenum.
- (2) Intestinal obstruction.
- (3) Abscess of spleen.
- (4) Rupture of spleen.

DIAGNOSIS.

In writings dealing with the diagnosis of abdominal tumours, enlargement of the spleen is always taken into account, but wandering spleens are not mentioned. As a consequence a misplaced spleen is rarely recognised until the abdomen is opened in the operating theatre or *post-mortem* room.

Wandering spleens have been confounded with many kinds of abdominal tumours, such as ovarian cysts, renal tumours, malignant tumours of the omentum, movable kidneys, and uterine myomata. The tendency of such spleens to seek the pelvis, their shape and firmness, combined with the disturbance their presence in the uterus causes to menstruation, has led them to be mistaken for uterine myomata in many instances. Perhaps the most curious of all is a case reported from Spain, in which coeliotomy was performed for the relief of trouble due to the presence of a tumour in the pelvis. The tumour was successfully removed under the impression that it was a uterine myoma, impacted and adherent to the pelvis and adjacent structures. When fragments of the supposed myoma were submitted to microscopic examination it proved to be a spleen.

Körte reported a case in which a woman was seized with pelvic pain after a lying-in. The physician in charge of the case detected a tumour low in the belly, and as the urine was diminished in quantity, he regarded the tumour as a "wandering kidney." Signs of internal strangulation arose, and Körte saw the case and punctured the tumour, but only blood escaped. The patient died with signs of intestinal obstruction and peritonitis. At the *post-mortem* examination a spleen was found in the pelvis; it had obstructed a loop of intestine.

It is necessary to bear in mind that ovarian and uterine tumours may closely simulate wandering spleens. For instance, a married woman, 35 years of age, was admitted into the Chelsea Hospital for Women complaining of a swelling which she had noticed eight years. The tumour was in shape like a spleen minus the notches. It occupied the right iliac region, but could be transported into every region of the abdomen without causing pain or discomfort. No area of splenic dulness could be made out in the normal situation of the spleen. The pelvic viscera were apparently normal. The blood corpuscles were normal in shape and in their numerical proportions. The tumour was liable to variations of volume. After deliberate consultation operation was decided upon. When the abdomen was opened a dark red mass, with a wrinkled capsule and in shape like a spleen, was exposed, and it was not until I had passed my hand into the left hypochondrium that I satisfied the on-lookers that it was not a spleen. It proved to be a pedunculated uterine myoma; its stalk was no bigger than my index finger, and contained a very large vein. I have little doubt that the variations in volume of the tumour were due to partial tension and torsion of the pedicle. The myoma (weighing $2\frac{1}{2}$ kilograms) was removed, and the patient recovered.

Three months later a girl, aged 14 years, was admitted with a very large abdominal tumour, associated with free fluid. She was kept in bed for several days, and as the fluid slowly absorbed the tumour became more defined. It floated on the intestine, and lay obliquely across the left side of the belly, its upper end reaching to the left hypochondrium. Nothing abnormal was made out on pelvic examination. The splenic area was resonant, and the tumour had the shape and presented the notched border so characteristic of the spleen. The blood corpuscles were normal in number and proportion. It was regarded as an enlarged and wandering spleen. An incision was made in the left linea semilunaris, and a multi-

locular ovarian cyst was found, partially collapsed from rupture of its largest loculus, floating on the bowels. The secondary cysts gave rise to the deceitful sensation of splenic notches. The tumour, which originated in the right ovary, was removed through the incision in the left linea semilunaris. The girl made an uneventful recovery.

REMARKS.

Splenectomy for wandering spleen is not only justifiable but it is a highly successful operation, the rate of recovery being equal to that of ovariectomy in skilled hands. I have succeeded in collecting a score of cases performed within the last twenty years without a death. It has, of course, occurred to many that it would be desirable if it were possible to secure the spleen in the left hypochondrium by means similar to those adopted for movable kidney. Pouwer has endeavoured to carry this out in two instances, but his results show clearly that the patients ran much greater risks and had a longer confinement to bed than if he had removed their spleens.

Ridgier has conceived and carried out, apparently with success, an ingenious and simple method which seems full of promise.

The great difference between splenectomy and splenopexy is that in the former case the individual is deprived of an organ, and, although we do not know with any degree of precision what its real use is, we are nevertheless bound to display caution in dealing with it.

So far as my own cases go I have failed to find any evil manifestations. I regard the spleen as a highly developed and specialised lymph gland, and at present there seems to be no reason for hesitating to remove it when "wandering" and troublesome in so far as remote consequences are concerned, than in excising a crowd of enlarged glandulæ concatenatæ.

It is a fact that many, if not all, individuals with a wandering spleen are very thin and often gaunt, and as far as my observations go, they retain this character when spleenless.

SPLENECTOMY FOR PROLAPSE OF THE SPLEEN THROUGH A PERFORATING WOUND OF THE ABDOMEN: RECOVERY.

By E. HAROLD BROWN, M.D.,

Surgeon-Captain, I.M.S., Civil Surgeon, Darbhanga.

PREVIOUS HISTORY.

ON May 7th, when inspecting a dispensary in the Darbhanga District, the assistant-surgeon in charge drew my attention to a patient who had been under treatment for three weeks. I was told that the man in question, a powerful, well-built Rajput, aged 35, had been attacked by a wild boar, who knocked him over, and ripped open the left side of the abdomen. On being brought to the dispensary a few hours later he was found to have a large oblique wound extending in the axillary line from just above the tenth rib to a point half an inch above the crest of the ileum. Through this a solid organ had prolapsed, which the assistant-surgeon considered to be the liver, though on the left side; but, he said, the size, shape, and colour of the organ left no doubt in his mind as to its identity. He attempted to reduce it, but failed, so left it outside the body, and, three weeks later, I saw the case. I differed from the opinion which had been expressed, having no doubt that the spleen, much enlarged, was the organ which had prolapsed; but the assistant-surgeon defended his original diagnosis, maintaining that, having seen the case a few hours after the accident, he had no difficulty in recognising the liver as the organ which had prolapsed, its right and left lobes being perfectly characteristic, while the size and colour of the organ were distinctive. I adhered to my own opinion, however, especially as percussion revealed the fact that the liver was in its normal position on the right side, while the heart's impulse was visible in the fifth left interspace; and explained to my assistant that we were examining an enlarged and congested spleen; but he refused to be convinced.

I accordingly directed him to send the patient to the Raj

Hospital for operation, and he arrived four days later none the worse for the journey. Assistant-Surgeon Nobin Chunder Dutt and myself then made a careful examination of the patient, and were perfectly convinced that we had to deal with the spleen, and not the liver; and further, that the only treatment advisable was removal of the prolapsed organ.

CONDITION OF THE PARTS.

The spleen projected from the side of the body like a huge fungus, completely overlapping on all sides the opening through which it had escaped. It was about two and a-half times its normal size, having contracted greatly during the past fortnight; the splenic notch was well marked, though compressed somewhat, so that it appeared more like a fissure or depression than a notch on the inner side of the organ, and it was this appearance which in all probability misled the surgeon who saw the case originally.

The internal surface of the mass was dark-red and granular in patches where slight ulceration had occurred; the margins were thick, rounded, and hard, and below the under surface had, by its middle, formed a firm attachment to the skin, this central adhesion being about 6 inches in circumference; the whole mass bore a striking resemblance to a "Tam o' Shanter" cap. The union of the spleen with the cutaneous surface was very firm all round, except at one spot at its upper part, where there was an ulcerated opening which admitted the finger and led to the tenth rib, which was fractured, the broken edges being sharp and bare. In the immediate neighbourhood of this opening the adhesions between the skin and the spleen were soft and very vascular, bleeding on very slight manipulation; elsewhere they were extremely firm, so that their separation would have been a matter of great difficulty, and would probably have resulted in free hæmorrhage. Hence, I decided not to attempt to free the organ by attacking the adhesions from without, but to undermine them from within.

OPERATION.

The patient was prepared for operation, and chloroform having been administered on the morning of May 16th, I proceeded to operate, assisted by Assistant-Surgeon N. C. Dutt, and Hospital Assistants Shama Charan Tapadar and Kali Das Ghose. The mass and its vicinity having been rendered surgically clean, I made an oblique incision 2 inches to the inner side of, and parallel to, the original wound, and gradually dissected down to the pedicle (the splenic vessels), which was found without difficulty, and which was free on all sides. Round this a ligature was passed which would command the vessels in the event of hæmorrhage occurring from above. Dr. N. C. Dutt took charge of this. I then passed my index finger from within outwards, reaching the spot which led to the fractured rib, and proceeded to break down the adhesions and free the organ from the point of least attachment. This led to brisk hæmorrhage, but the ligature was tightened and restrained the bleeding, and I then rapidly separated the adhesions all round, some of them being extremely firm. Separation being completed, a second stout silk ligature was applied just above the first for greater security, and the mass was removed with scissors. Having satisfied myself that the pedicle was thoroughly secured, I removed the sharp and bare ends of the broken rib with bone forceps, being careful not to wound the pleura, which was in unpleasant proximity to that bone.

The wounds were then lightly washed with carbolic lotion; the lips of the recent incision were brought together with horsehair sutures; and the margins of the original wound, which were hard and callous, were freely scraped with a sharp spoon and brought into approximation with wire sutures; but I had very little hope of their remaining in coaptation. The parts were then dusted with iodoform, covered with salicylic wool, and a broad bandage was applied round the body. The operation lasted about half an hour, and the patient rallied very satisfactorily; he made no complaint of pain, was in very good spirits, and was not sick.

AFTER-HISTORY.

Before the operation he had had daily accession of fever, the temperature rising to 103.5°, or higher every evening; but the temperature fell after the operation, and ceased to rise above the normal point after three days. There was a good

deal of discharge for the first week, necessitating a change of dressings twice a day; but this gradually diminished till, a fortnight after the operation, there was scarcely any. The recent wound healed by first intention, the other by granulation, contracting rapidly. The ligatures came away on June 11th, twenty-six days after the operation.

The absolutely uneventful after-history of the patient was remarkable, for, after the spleen was removed, his progress towards recovery was unmarked by any complaint of pain or discomfort, except on one occasion, when he had a sharp attack of diarrhœa, the result of his friends having given him forbidden articles of diet.

REMARKS.

The above case was interesting in many ways. The enlarged spleen prolapsed through the long rent in the side of the abdomen without receiving any injury. It was examined, within a few hours, by an experienced man, who mistook it for the liver, and whose attempts to reduce it were unsuccessful. It slowly contracted, becoming, within a month, less by half in size, and contracted very firm adhesions to the skin, the peritoneal cavity, meanwhile, being completely shut off. As there had been a compound fracture of the tenth rib, with subsequent necrosis of the broken ends of the bone, a sinus remained, leading from the prolapsed organ to the bone, and here the adhesions were very vascular. The pleura, fortunately, escaped injury, otherwise the case might have been seriously complicated.

My line of action—namely, working down to the pedicle from below, instead of simply breaking down the adhesions from above—was, I think, justified by the result, there being absolute command over the vessels, and the operation being thus rendered simple and expeditious.

I am greatly indebted to Dr. Nobin Chunder Dutt for his skilled and intelligent assistance, and to Hospital Assistants Shama Charan Tapadar and Kali Das Ghose, who rendered valuable help.

EUCAINÉ AS A LOCAL ANÆSTHETIC IN THE SURGERY OF THE THROAT, NOSE, AND EAR.

[PRELIMINARY COMMUNICATION.]

BY

W. JOBSON HORNE, M.A., and MACLEOD YEARSLEY,

M.B.Camb., M.R.C.P.Lond.,

F.R.C.S.Eng.,

Physician in Charge

Surgeon in Charge

of the Department for Diseases of the Throat, Nose, and Ear,
Farringdon General Dispensary and Lying-in Charity.

SINCE the discovery of the anæsthetic action of cocaine by Niemann and its introduction into practice by Koller that alkaloid has held its own among the more valuable drugs of the *Pharmacopœia*, despite its disadvantages. But the untoward effects which have unexpectedly followed the use of cocaine have led those constantly using it to realise that its action is uncertain, and that it is therefore as well to keep antidotal remedies at hand.

Quite recently a rival has been introduced in the shape of eucaine, which is said to possess the anæsthetic action of cocaine without producing any of the toxic effects. The importance of a drug which could make good its claims to those properties it would be difficult to overrate, and, in order to arrive at its clinical value, we have lately used eucaine exclusively in throat, nose, and ear surgery.

Eucaine was first investigated by Dr. Gaetano Vinci, under the direction of Professor Liebreich. At the same time that Vinci's results were communicated to the Hufeland Society in Berlin,¹ Professor Emile Berger,² in Paris, was engaged in an extensive clinical examination of the drug. Both Vinci's and Berger's investigations, however, deal chiefly with eucaine from its ophthalmological aspect, one which is not within the province of this communication to deal with. A third observer in this branch of surgery is Professor Deneffe,³ of the University of Gand, Belgium. Dr. Hal Foster⁴ recently published some short notes on the Use of Eucaine

¹ April 16th, 1896.

² *Revue de Thérapeutique Médico-Chirurgicale*, 1896, No. 12.

³ *Le Scalpel*, 1896, No. 11.

⁴ *Lancet*, August, 1896.