SURGICAL WORK AT THE MILITARY HOSPITAL, CAIRO.

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THE following is an account of the most important of the surgical work done amongst the men of the East Lancashire Division (T.F.) at the Military Hospital Citadel, Cairo, during the five months from the beginning of October, 1914, to the end of February, 1915.

The troops amongst whom this work was done were for the most part cotton or woollen operatives, used to a confined and somewhat sedentary life, who had been hurriedly mobilized and hastened abroad, to a country and climate very different from those to which they were accustomed. There were during five months 406 admissions to the surgical side and 271 operations. We have dealt with 54 cases of herniae, 47 being inguinal and 7 ventral. Of the ventral herniae, 6 were post-operative in origin, and, with the exception of 1, were present on mobilization, while a seventh was umbilical, appearing after mobilization. Of the cases of inguinal hernia, 18 were on the left side, and of these only 2 were accompanied by varicocele. In type they were practically all oblique, only 5 being direct. The method of radical cure of the former was in all cases a modified Bassini operation, consisting of ligature of the sac as high as possible, and fixation of the internal oblique to Poupart's ligament over the cord. In the direct variety it has been our practice to stitch down the oblique beneath the cord, and in one case, where the aperture in the abdominal wall was very large, a flap was cut from the rectus muscle and used to make good the deficiency.

Of the cases of oblique herniae, all except twelve have been of the incomplete funicular variety, and a number, as is usual, gave a very definite history of accident. In one such case, where the patient was admitted on the day of an accident, which, in the mind of the patient at any rate, had caused the appearance of a rupture, and operated upon two days later, the sac was found to be small, about 1 in. in length only, and of an extremely delicate texture.

In one case only was inguinal hernia associated with undescended testicle. In this the right side of the scrotum was undeveloped, and the testicle was situated at the internal ring, but a sac was found running parallel with the ramus of the pubes as far as the margin of the anus.

The number of herniae given here is not the exact total of the number which were found in the division, for some men refused operation, and so were not sent into hospital.

It should be noted that an operation for hernia is, during war time, a very serious interference with the life of a soldier. Thus, though we have discharged all these cases from hospital at the end of three weeks, we have advised that they should continue on "light duty" until the end of the third month after operation.

Lastly, it is perhaps remarkable that we have not met with a single case of femoral hernia, or one of strangulated hernia, though one case was sent in as strangulated hernia but was reduced and operated upon at leisure. In three cases only was the omentum adherent to the sac a short distance distal to its neck.

There have occurred 12 cases of varicocele and 10 of varicose veins requiring operation. The latter, of whatever degree, have been treated by excision, together with ligature of the internal saphenous vein at the saphenous opening. There have been 4 cases of hydrocele, all present before mobilization.

Abdominal surgery has been practically limited to appendicitis, of which we have dealt with 20 cases. The acute cases mostly occurred soon after our arrival in Egypt, when the heat was great, and there was an epidemic of diarrhoea among the troops. Four cases were accompanied by general peritonitis of extreme gravity, and owing to delay in diagnosis due to the prevalence of diarrhoea and abdominal pain, a condition known locally as "gippy tummy," they did not come into our hands until a

week after the onset of the disease. One followed the sudden rupture of a large pelvic abscess, and the whole abdomen from pelvis to diaphragm was found filled with pus. A second was accompanied by gangrene of the caecum. Both these cases died. There were 3 cases of localized abscess, one of which was followed by faecal fistula, which, however, soon cleared up. Of the remainder, in 3 cases the appendix was gangrenous and perforated at the tip, though the surrounding peritonitis was localized; 3 cases were subacute and 7 cases were quiescent. In one quiescent case the straightening of a typical "Lane's kink" was followed by most gratifying relief of flatulence and constipation, from which the patient had suffered for many years.

We have met with one case of liver abscess following amoebic dysentery. This also did not come into our hands until very late, and was drained by the transpleural route. The abscess cavity was of large size and typically placed in the right lobe. A very large quantity of pus was evacuated, but the patient succumbed a day later. It was noteworthy that this patient had spent some years of his life on the West Coast of Africa, where he had had several attacks of dysentery.

A remarkable case of rupture of the spleen and left kidney was met with. The patient, following a fall of 15 ft., was found to be suffering from fracture of the left humerus and collapse. Shortly afterwards he began to pass blood in the urine, and there was some increase of dullness in the left flank. When operation was on the point of being undertaken, the patient rallied, haematuria stopped, and he seemed well on the way to recovery. Seven days later, however, while using the bed-pan, he suddenly became faint and collapsed, showing all the signs of severe internal haemorrhage. There was neither blood in the urine, nor increase of dullness in the left flank at that time. Abdominal exploration showed that the pedicle of the spleen was in great part torn away from the posterior abdominal wall, being attached only at its lower part. The abdomen was full of bright red blood, but around the spleen there were old clots dark red in colour, some already organizing and attached to the diaphragm. Haemorrhage was taking place from the stump of the torn pedicle, and, in addition, from a longitudinal laceration near the apex of the gland. The spleen was removed, though, owing to the shortness of the stump of the pedicle, it was extremely difficult to ligature this satisfactorily. The patient lost a great quantity of blood, and died the following day. *Post-mortem* examination showed that, in addition to the lesion of the spleen, there was a small laceration in the anterior surface of the left kidney, with organizing blood clot within the perirenal capsule. We are of the opinion that the pedicle of the spleen was torn away from the posterior abdominal wall by torsion, and that in this way the vessels were partially closed, only to be opened again by the exertion and straining of using the bed-pan.

Surgical tuberculosis has been rare, and, so far, only five cases have been met with. One was a tuberculous osteitis of the femur, a second a tuberculous elbow, a third a diseased rib, a fourth tuberculosis of the lower cervical spine, and a fifth tuberculosis of the testicles. The latter is worthy of further comment, as excision of the left testicle was followed by rapid involvement of the right, on which epididymectomy was performed. Though both vesiculæ seminales were involved there were no bladder symptoms, no bacilli in the urine, and, as far as could be ascertained, no primary lesion in either kidney or any other organ.

With regard to diseases of the bones, we have met with one large abscess in the head of the tibia in a boy of 19. Practically the whole head of the bone was one abscess cavity, and the pus had just managed to perforate the anterior surface of the bone when the case came into our hands. Bacteriological examination showed it to be staphylococcal in origin, and there was a three months' history of "rheumatism."

As to joints, apart from the tuberculous elbow already mentioned, our experience has been confined to the knee-joint. We have operated upon 12 cases. Of these, 10 were displaced internal, and one displaced external, semilunar cartilage. There was one case of loose body. The case of loose external cartilage was interesting, in that, following a comparatively slight injury, the cartilage was found detached, both in front and behind, being bound down only in its middle third, with its two extremities

rolled up, and thrust outwards between the external lateral ligament and the femur. The case of loose body was one in which a nodule of cartilage as large as a kidney bean was removed from the subcrural pouch, and was of further interest in that, before leaving hospital he showed definite signs of further internal derangement of the same joint, for which we removed a loose internal cartilage. The patient's incapacity had dated from a severe crushing injury to his knee some months previously. Our practice in the treatment of these cases has differed markedly from that which we would adopt in civil life. We have found that under war conditions it is impossible satisfactorily to employ conservative measures, and that the course leading to the quickest return to military efficiency is to operate as soon as a definite diagnosis has been made.

We have seen one curious case of compound fracture of the foot, following a crushing accident. There was a fracture and displacement outwards of the heads of the second, third, and fourth metatarsal bones, with a fracture and upward displacement of the base of the first metatarsal. This fracture, which was treated by toilet and manipulation gave ultimately a very fair functional result.

Cases of enlargement of the lymphatic glands have been frequent, and mostly of venereal or simple septic origin. In addition we have met with 8 cases of unilateral enlargement of the inguinal glands, with no apparent primary focus. When admitted to hospital the glands in all these latter cases were found in parts to be breaking down. We have found that the only satisfactory method of treatment is complete excision of the glands. Though to the naked eye the appearance of the glands removed has been strongly suggestive of tuberculosis, microscopical and bacteriological investigation has shown that this is not the case. The organism present is a staphylococcus, and it would appear that its virulence is not very great, for there has been rarely any fever present on admission, and the wounds granulate quickly after operation, though swabbing out with iodine and immediate closure has not been a success.

There were only 12 cases of bullet wounds admitted to hospital during this period. Of these, 10 were shrapnel wounds received in action. The remaining 2 were accidental wounds. In one, where a wound in the right mid-axillary line was caused by a small-bore pistol, pneumonia and double pleurisy with effusion followed, although examination with x rays failed to show any trace of the bullet in the chest. Indeed, from the appearance of the wound and a consideration of other circumstances, it would appear highly probable that the wound was only a glancing one, and that the bullet, although it lacerated the skin, did not penetrate the chest wall.

Among other cases we have met with one temporosphenoidal abscess following otitis media. Though free drainage was established the patient died two weeks later. Venereal disease has called for no less than 47 circumcisions, while there have been 6 from non-venereal causes.

Among cases of minor importance we have met with a considerable number of small abrasions on the legs, due most frequently, in the first place, to the rubbing of boots. These have been extremely troublesome and slow in healing. We are told that they resemble very closely the Veldt sores met with during the South African war, and, so far, we have been unable to find any special method of treatment which hastens in any way their progress.

On our first arrival in this country the weather was extremely hot, and it would seem that the men had their heat governing centres thoroughly upset, so that comparatively trivial complaints caused immediate rises in temperature. Thus we observed many temperatures of 102° on the night following aseptic operations, and one even of 105°. In all early cases the temperatures were uneven for a few days, but finally settled down without untoward results, though a first experience of these phenomena was not a little disturbing. It was noticeable that in the case of regular soldiers who had been in the country some years these changes did not take place. With the advent of cool weather temperatures once more behaved as they do in England.

In conclusion, we would point out that, though the total number of cases dealt with is small, they are perhaps of special interest in that they include the surgical repairs necessary to fit a division of nominally sound citizen soldiers for the field.

NOTES ON THE TEMPERATURE IN A CASE OF ADVANCED PULMONARY TUBERCULOSIS.

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ON October 26th, 1911, A. R., aged 33, applied to me complaining of cough, much laryngeal irritation, profuse thick yellow, or sometimes greenish-yellow expectoration, loss of flesh, anorexia, headache, and night sweats. She had been under my care for an abscess in the axilla fourteen years previously, and had resided from January to April, 1910, in a sanatorium on account of pulmonary and laryngeal tuberculosis. There was no definite family history. Her height was 5 ft. 6 in., and her weight 6 st. 7 lb., and she had lost over 14 lb. during the past year. She stooped a great deal when walking, and suffered from pains in the back and joints. The finger-nails were clubbed, the right cervical glands slightly enlarged; both ears discharged pus freely, and there had been deafness for four years. The mesenteric glands were not enlarged, and there was no history of haemoptysis or diarrhoea, except recently. The temperature at 3 p.m. was 102° F., at 9 p.m., 103.2° F.

There were all the physical signs of advanced pulmonary phthisis, and the sputum gave a positive result when examined for tubercle bacilli by Gabbet's staining test.

The patient had not undergone tuberculin treatment at the sanatorium, but had been taught there to keep notes of her own condition, her relatives were reminded that her case was hopeless, and nothing more could be done beyond relief of the more distressing symptoms. Absolute rest in bed was advised, and guaiacol with small doses of quinine and sp. vin. rectif. prescribed. At about 3 p.m. she took daily a powder containing phenazone gr. 2½ and quinin. hydrochlor. gr. 3½. On November 15th tuberculin treatment was commenced, a dose being given of 1 c.cm. new tuberculin T.R. dilution containing 800 mg. by weight of bacilli, increased on November 19th to 800 mg. These doses, very gradually increased, were repeated every four days. For a fortnight there was improvement, then the patient would not keep in bed, and ceased to progress.

Afternoon (3 to 4 o'clock) and evening (8 to 9 o'clock) temperatures during first week of tuberculin treatment following two injections of sea-water plasma. (November 15th to 22nd, 1911.)

The tuberculin treatment was followed by a course of subcutaneous injections of radio-active menthol iodine (ampoules Jaboin, Radium Inst. de Lisle). For ten days, half an ampoule at first and then the whole contents of an ampoule were injected daily under the skin of the forearm, the patient being kept strictly to her bed. The temperature, however, increased instead of falling, so that by the tenth day it reached 103° F. at 3 p.m. and 103.4° F. at 9 p.m., and, as none of the symptoms improved, the injections were discontinued. Five grains of aceto-salicylic acid were then given in a tablet at 3 p.m., the dose being repeated in the evening. The temperature fell at once to 99° F., and was normal throughout the next day. The two doses, afternoon and evening, were repeated. For ten days after the cessation of the radio-active menthol iodine treatment the temperature remained almost normal. One afternoon, when the patient got up, it rose to 99.4° F. and

Afternoon (3 to 4 o'clock) and evening (8 to 9 o'clock) temperatures during first week of treatment without tuberculin. (October 26th to November 1st, 1911.)