Clinical and other Notes.

FOUR YEARS' SURGERY IN GIBRALTAR.

By MAJOR H. V. PRYNNE.
Royal Army Medical Corps.

In this paper I propose to give a short account of the major surgical operations which were performed during my four years' tour in Gibraltar, as also of some of the more interesting cases which occurred in the garrison. Some of these cases present certain features of interest, but the paper was written mainly with a view of showing how much surgical work may fall to one's lot even in a moderate-sized garrison. Altogether 233 operations were performed, but I only propose to notice those of special interest.

Hernia, Radical Cure of.—Thirty-six cases were successfully operated on by Bassini's method; two of these subsequently showed slight bulging of the scar owing to a too early return to duty.

One case of femoral hernia was operated on; a flap of the pectineus muscle being carried up and secured over the femoral canal.

Appendix.—In five cases the appendix was successfully removed.

Case 1.—Operation sixteen days after onset. There was a short mesoappendix producing kinking and vascular changes. The distal end was bulbous, and purplish-black in colour, and the lumen was constricted ½ inch from the tip.

Case 2.—Operation twenty-third day after onset. Appendix pelvic. Very few adhesions.

Case 3.—Operation forty-two days after onset. Appendix adherent and swollen; pus escaped while in process of removal.

Case 4.—Operation twenty-one days after onset. Apex of appendix adherent to abdominal wall. Lumen showed stricture ½ inch from distal end.

Case 5.—Operation five days after onset. Appendix swollen, congested, and bound down by soft adhesions.

Appendicular Abscess. Case 1.—Operation ten days after onset. Previous to the operation the pulse-rate had decreased, but the temperature gradually rose and iliac resistance increased. Leucocytosis. Retrocecal abscess.

Case 2.—Operation fifty-eight hours from onset. Collapsed on admission. Pulse 90. Very large retrocecal abscess.

Case 3.—Operation seven days after onset. A swelling in the right iliac fossa, extending towards the left side. Pus thick, viscid and greenish. He developed cough with expectoration containing pneumococci; complicated by phlebitis of both legs.
Clinical and other Notes

Case 4.—Operation ten days after onset. Collapsed on admission. Purulent sputum developed five days after admission, and contained pneumococci. An exploratory aspiration for empyema, or subphrenic abscess, was performed before the appendix region was explored. Pus appeared to track behind colon. The last two cases had faecal fistula, which healed readily under irrigation with hydrogen peroxide.

Case 5.—Admitted with a history of abdominal pain of seven days' duration, accompanied by pyrexia, which persisted after admission, while the pulse-rate increased and an iliac swelling developed. The illness was attributed by the patient to repeated blows in the right iliac region from the handle of a bit which he used at his work. Operation nine days after onset. Large and very extensive abscess evacuated, the pus was thin and very offensive. Swelling not markedly affected by operation. Temperature fell, but pulse continued rapid. Five days after the operation the temperature rose somewhat, and his pulse increased to 166; the following morning slight haemorrhage was present on the dressings. Wound explored under ether, and a large amount of clot evacuated from pelvis; several thrombosed veins felt. Wound packed as no bleeding point was found. For some days the cavity was daily irrigated under an anæsthetic, and offensive, disintegrating clot removed, apparently permeated with Bacillus coli. Six days after the bleeding the temperature rose slightly and the pulse-rate increased, but no accumulation of pus was found. The pulse continued rapid, but no abdominal pain or distension was present. At 4 p.m. next day, after using a bed-pan, the patient was seized with severe pain in right hypochondrium. His pulse became small and thready, and the respiration shallow. Transfusion, saline enemata, hypodermic injections of strychnine, and adrenalin by mouth all proved unavailing.

Post-mortem Appearances.—Fluid blood and clot in large quantities in the peritoneal cavity. The abscess cavity on the right side communicated with a large purulent collection behind the sigmoid flexure, extending into the pelvis on that side. Pus was also present behind the peritoneum in the epigastric region. The appendix was embedded in dense adhesions behind the caecum. Several caseous mesenteric glands had broken down to form small localised abscesses. The source of the haemorrhage was not found. With all these conditions present the patient’s temperature was normal for four days, and he was able to enjoy his food.

Psoas Abscess.—Admitted with red and tender swelling in the groin, simulating bubo. This was incised and only straw-coloured albuminous fluid escaped. Transferred to surgical division, where the opening was enlarged under ether, and a cavity full of offensive sloughs found. This cavity extended from the iliac fossa to the inner side of the thigh. The cavity was scraped and irrigated. No dead bone was felt. The sinus healed and the patient was discharged to light duty. He was readmitted.
on account of a persistent discharge from the sinus, which was explored under ether, scraped and packed. Secondary hemorrhage from a branch of the superior epigastric artery occurred, but could not be located when the case was explored under anesthesia, as the vessel had apparently thrombosed, pressure having been previously applied for forty-eight hours. The sinus failing to heal, an incision was made in the abdominal wall parallel to Poupart's ligament. The peritoneum was then stripped inwards from the iliac fossa. The cavity was found to lead towards the iliac fossa, and to the spines of the lumbar vertebrae, but no evidence of bone disease was found. The cavity being so extensive, no attempt was made to excise the abscess, but the track was freely enlarged and scraped. The sinus did not heal and the man was invalided. I have since heard a rumour that he died after an operation at home, but have not been able to verify the statement.

Stricture of Intestine.—In this case there was a history of chronic obstruction, with six or seven acute attacks. The lower part of the ileum was found surrounded by adhesions. The bowel showed some diminution of lumen with dilatation above. The adhesions were freed, but the patient's condition would not allow of a resection. The bowel subsequently ruptured above the site of stricture, and general peritonitis supervened.

Gunshot Wound of Bowel.—Admitted with gunshot wound of abdomen. The original shock having passed off, an attempt was made to suture two wounds in the ileum. The patient was, however, moribund at the time, and died under the anesthesia, before the second wound could be sutured.

Laparotomy.—One for lodgment of bullet.

Case 2.—Transferred from medical division with pain in right hypochondrium, pyrexia, enlargement of gall-bladder, and clay-coloured stools. It was originally intended to aspirate for possible liver abscess. On the morning of operation patient passed a dark stool almost entirely bilious in nature. The result of the operation was negative, as the gall-bladder was found to be normal, but the temperature remained raised, and bronchitic rales, present from the outset, increased. Eight days after operation the man began to expectorate purulent sputum containing no tubercle bacilli. Three days later friction sounds over the right base became evident, with impaired breath sounds, followed a few days later by an area of dulness at the right base, with absence of the breath sounds. The breath sounds remained absent for several days, and slowly returned. For a few days sputum ceased, and temperature rose, but subsided as expectoration was re-established, and ceased when sputum was no longer expectorated.

Case 3.—This case was admitted with a history of having fallen 60 feet on his face and abdomen. On admission the patient was blanched, pulse 118; respiration entirely thoracic; general abdominal rigidity and tenderness. Bruising over both iliac and hypogastric regions. The urine was
drawn off and found free from blood. A motion passed was also free from blood, but pain persisted in the right loin, and seventeen days after admission he complained of abdominal pain on movement and micturition. Five days later increased resistance was present in the right iliac fossa and his temperature commenced to rise. This condition culminated in redness, and great tenderness with marked swelling in the right iliac region, but neither melana nor pain on defaecation were present. Under ether an incision was made over the swelling, and on opening the abdominal cavity several coils of inflamed bowel were found adherent to the anterior abdominal wall. There was a small slough in one place, but no faecal or purulent matter found in any other region. The following day faeces and bile escaped freely from the wound. Ten days later pain was felt in the left iliac fossa, and down the left thigh, and both these regions were swollen and tender. The skin of the right groin became reddened and tender, and a faecal fistula developed, while the original incision tended to close. Boric enemata escaped freely and rapidly from the incision. A week later, a tender swelling developed in the left iliac fossa and apparently contained gas and fluid, so on the succeeding day, under chloroform, an incision was made over the right rectus, and the abdomen opened. The artificial anus was found to be situated in the lower ileum, about 6 inches from the ileo-cecal valve. A lateral anastomosis of ileum to ascending colon was performed by suture. The left iliac fossa was found to contain a number of enlarged iliac glands. Resection was judged inadvisable owing to the man's weak condition. He rallied well from the operation, but had to be fed by nutrient enemata, as he refused nearly all food by the mouth. The wound from the second operation became infected, owing to the close proximity of the artificial anus, which was only 1½ inches away. The patient gradually grew weaker, as he refused food by the mouth, and nutrient enemata were discharged through the artificial anus, or returned without being altered. He died seven days after the operation.

The autopsy showed extensive infection of the cellular planes, extending from the artificial anus at the site of the first operation, down each thigh, and over the front of the abdomen on both sides. No leakage had occurred from the side of the intestinal anastomosis, and no septic peritonitis was present. No second opening in the bowel was found to account for the escape of the enemata at the external wound.

Case 4.—Admitted in a state of collapse, with a history of sudden abdominal pain, followed by collapse. He was very restless and complained of pain, which he referred to the umbilicus. The left rectus muscle appeared slightly rigid. The patient was very blanched, with a small and rapid pulse, 118. As the case was clearly one of internal hemorrhage, arrangements were made for immediate laparotomy. The patient died, however, before anything could be done, and the autopsy
Figs. 1 and 2.

To illustrate "Four Years' Surgery in Gibraltar."

By Major H. V. Pryne, R.A.M.C.
showed rupture of an aneurysm of the transverse aorta, in front and beyond the origin of the left subclavian artery.

**Empyema.**—This was a very extensive left-sided empyema. Despite free drainage after resection of rib, the pus tracked among the lumbar muscles, and a secondary abscess had to be opened above the crest of the ilium. At the autopsy the lung was found collapsed and compressed against the spine and pus had gravitated below the drainage opening.

**Tuberculous Cavity of Lung.**—This case was one simulating empyema, but on exploration there was found to be a large suppurating cavity in the lung. This was successfully drained, but the patient died of exhaustion.

**Fractures of Long Bones and their Treatment.**—One case of fractured olecranon, and one of fractured patella, were wired. The former was an old case, in which the fibrous union had snapped owing to the man testing a battery and receiving a very severe electric shock. The patella case, in which the upper fragment was small, left hospital with free movements. I have since heard from another station that the wire cut out, but I have not seen the skiagram. All other cases were treated by immediate massage and early movements, with the limited use of splints during the first few days and to prevent injury when the man was restless or asleep.

The matter of the operative treatment of fractures is at present under discussion. Many writers draw attention to the deformity and disability resulting from non-operative lines of treatment, but results must not be judged merely from X-ray appearances, but from the degree of utility and function obtained. The upper limb injuries do not, in my opinion, call so imperatively for operative interference, as do many fractures of both bones of the leg. It should not be forgotten that in these cases bone may have to be removed in order to secure apposition of the ends. Until the functional results of operation can be shown to be better than those of other lines of treatment, the question cannot be said to be settled. Three cases of fracture of both bones of the leg returned to duty in periods of sixteen weeks, twelve weeks, and eight weeks. These periods of inefficiency are no doubt very considerable, but depend so largely on the man's reflex inability to use a leg that is painful and weak, that it is doubtful to what extent it can be reduced by operation. One case of fracture of the upper third of the shaft of the humerus returned to duty in ten weeks, the cause of delay being weakness due to paresis of the deltoid, supra-spinatus and infra-spinatus muscles, which could not have been lessened by any operative treatment.

The skiagrams (1 and 2) of a bad fracture of both bones of the leg, treated by massage, &c., show the condition before and after treatment. Two fractures of the olecranon showed no displacement, and so operation was not needed.

Amongst the fractures of hand were two examples of Bennett's fracture of the base of the first metacarpal bone, and several cases of impacted fractures occurring during boxing. No fracture or dislocation
of any carpal bones were seen, though all cases of injury were examined by X-rays. Undoubted cases of such injuries occur, but without a skiagram of the sound hand, it is possible to frequently mistake other injuries, such as impacted fractures of metacarpal bases, for them.

The two cases of fractured femur returned to duty; one was an impacted fracture of the femoral neck, resulting in \( \frac{1}{2} \) inch of shortening; the other, a fracture of the shaft, led to \( \frac{3}{4} \) inch of shortening. One case of patellar fracture was explored with a view to operation, but as there was no evident separation, no operation was considered necessary.

Many of the fractures of the fibula were of the fissured variety, and only involved the external malleolus. A large number of these were only discovered on X-ray examination. When in temporary charge of X-ray work at Woolwich, a number of cases of apparent sprain were found to present similar injuries. These fissures are often so slight that the screen will not show them, but they can be plainly seen in the skiagrams 3, 4, 5, and 6.

Of the shoulder dislocations two were recurrent cases. These were dealt with by the operation of reefing the capsule. I have since learned that this operation is unscientific, as the looseness of the capsule depends on the want of tone in the muscles. Both cases were without recurrence some months after operation. One dislocation of the interphalangeal joint of the thumb, and one of the interphalangeal joint of the little finger, were compound. The former returned to duty with limited movement of the joint, and the latter with an ankylosed joint.

General anaesthesia was preferred to local in most cases. The latter is a lengthy business, and unless one is absolutely single-handed, is no saving. Further, one's experience with eucaine and adrenalin was that wounds did not suppurate certainly, but yet did not heal cleanly and securely. The gaping of the wound, and the escape of fluid, were common features in these cases. There is the additional difficulty of securing anaesthesia in the deeper layers of tissue. Both spinal and local analgesia may have their uses in cases of extreme shock and in cases where general anaesthesia is inadvisable, but one feels that the ability of the patient to hear the conversation or watch the expression of operators is often very much to be deprecated: in cases of difficulty some discussion may be necessary, or trivial accidents or complications happen, and for the soldier to be made cognizant of any details of his case, such as these, is highly objectionable. Spinal and local analgesia have, I believe, been used chiefly in planned operations, and the extent of their usefulness under Service conditions has yet to be gauged.

The skin preparation of the patient has lately been carried out entirely by painting with tinct. iodi the previous day, and applying sterile compresses, the operation area being again painted before the operation commences. The results have proved most satisfactory. Ligatures have usually been of silk, or catgut prepared by soaking in iodine solution.
Figs. 3 and 4.

To illustrate "Four Years' Surgery in Gibraltar."

By Major H. V. Prentke, R.A.M.C.
Figs. 5 and 6.

To illustrate "Four Years' Surgery in Gibraltar."

By Major H. V. Phyurne, R.A.M.C.
The sutures usually employed have been silk or silkworm gut. Kirkpatrick's method of carrying patients from the stretcher to the operation table, and the reverse, has been employed.

I should like to enter my plea for the addition, to each hospital establishment of over one hundred beds, of an orderly who has been trained as a masseur. Massage is now so generally used in cases of injury that his time would be well employed, and cases would benefit greatly by systematic treatment. Untrained massage is a danger.

LANDRY'S PARALYSIS AND MALTA FEVER.

By Surgeon-Major R. Samut.
1st K.O.M.R. of Militia.

This case is of interest, inasmuch as it proves that acute ascending, or Landry's paralysis may arise during an infection by the Micrococcus melitensis.

E. G., aged 25, coachman, was admitted to the Central Hospital, Floriana, in a semi-comatose condition. He answered questions with the greatest difficulty, so that little could be known with regard to the onset of the disease. The information elicited from his friends was meagre and incomplete, as the man was a bachelor and lived alone. The patient had complained of feeling weak and of being easily tired for about a week prior to his admission to the hospital, but he was able to attend to his duties without difficulty. On the day of admission he had been to church in the morning, and had knelt for some time, when he felt that his knees "were giving way." He tried to stand up, but was unable to do so, and after repeated efforts to raise himself he had to call for help and was carried home, where he remained till the afternoon, and was then transferred to hospital for treatment.

On admission, the patient was suffering from complete paralysis of the lower extremities; the upper extremities were affected to a less degree. Sensibility to ordinary touch was normal throughout the body. The knee, plantar, and cremasteric reflexes were completely abolished; all other reflexes were greatly diminished. The pupils reacted to light and accommodation. Speech was slow and the patient articulated with difficulty. The sphincters were normal. The urine was loaded with phosphates, but contained neither albumin nor sugar. The temperature ranged between 101° and 102° F.

Signs of diaphragmatic paralysis became manifest on the second day after admission; and respiration was intercostal and laboured. The patient became comatose and died of asphyxia forty-eight hours after admission to hospital.

The case was clearly one of acute ascending or Landry's paralysis,