COMPOUND FRACTURE OF THIRD METACARPAL BONE OF RIGHT HAND, THE RESULT OF A DIRECT PICK-STROKE.

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I THINK the following case may be of interest, as the fracture is rather a peculiar one.

On March 1st, 1909, Sapper S., Royal Engineers, aged 25, was admitted to Imtarfa Hospital with a small wound over the head of the third metacarpal bone of the right hand. This wound bled freely and his hand was much swollen. There was little or no pain, and when the wound was probed nothing abnormal could be detected. Sapper S. stated that: "while sapping down at Ghan Tuffieha camp a comrade accidentally drove a pick into his hand: at the time he was using a spade and his right hand was on the handle." The wound was dressed by a Royal Army Medical Corps orderly, but the bleeding becoming rather profuse, the man was sent to Imtarfa. As the man had received a severe blow and there was a good deal of bleeding the case was treated as one of fracture, although on careful examination no fracture could be detected. Major Master, R.A.M.C., kindly saw the case in consultation. The wound was cleaned, aseptic dressings were applied, and the hand being placed on a splint the arm was then put in a sling. The wound healed in seven days. Major Pollock, R.A.M.C., kindly X-rayed the case for me, and the accompanying X-ray photograph shows a small triangular piece chipped off just below the head of the metacarpal bone, also the place where the point of the pick entered. The man was discharged quite fit for duty on March 23rd, 1909. I am indebted to Major Master, for his assistance and permission to publish this case, and to Major Pollock for the excellent X-ray photograph.

A CASE OF MALIGNANT TUMOUR, TREATED BY TRYPsin.

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The pathological changes in the tumour seem interesting enough to merit the publication of the following abridged notes:—

History.—In April, 1908, the patient, Walter G., aged 51, was first seen in consultation. He was then suffering from a small aneurysm of the left common carotid artery which had come on some three months previously. In November, 1908, he came to me a second time, and I found he had in the meanwhile developed a large tumour in the neck, the result of the X-ray treatment of the aneurysm which he had undergone between May and August, 1908.

Condition before Treatment.—Markedly debilitated in health and
Clinical and other Notes

depressed in spirits, appetite poor, nights sleepless. He had laryngeal stridor and a troublesome, brassy cough. The tumour extended across the median plane in front, distorting the trachea, behind it reached to within 2 inches of the vertebral spines. Above it extended to the angle of the mandible, and below to within 1½ inches of the clavicle. The skin over the growth was ulcerated over a small area the size of a sixpence.

Clinical diagnosis of lymphosarcoma of the superficial cervical glands was made, but the patient's condition forbade a general anaesthetic, so operation was contraindicated.

On November 5th the enzyme treatment of Beard was begun, 1,000 units of trypsin (Squire Standard III.) being injected daily, not into the growth, but subcutaneously into the flanks and buttocks.

On November 13th, 1908, the tumour showed signs of softening, and fluctuation was detected on its anterior aspect. Skin adjacent to tumour was congested.

On November 25th, 1908, the tumour was found to be softening all over, there was much local reaction in the adjacent tissues, and skin over it was intensely injected.

On November 30th, 1908, the tumour was soft and flaccid; individual glands could be felt.

On December 8th, 1908, the tumour was soft and dusky red, surrounded by an area exactly comparable to the "area of demarcation" seen in a gangrenous limb.

On December 15th, 1908, the tumour was sloughy in the centre and inclined to bleed. Trypsin was discontinued.

On December 28th, 1908, tumour exhibited all the signs of gangrene.

On January 6th, 1909, the tumour was cast off piecemeal through sloughy centre.

On January 20th, 1909, there was a slight oozing of blood through sloughing tumour.

On January 22nd, 1909, sudden and severe hæmorrhage occurred from tumour.

On January 30th, 1909, sloughing tumour was found to be separating, severe hæmorrhage set in, controlled with difficulty.

On February 5th, 1909, very severe and uncontrollable hæmorrhage set in from separating sloughy tumour.

On February 7th, 1909, the patient died from exhaustion after repeated hæmorrhages.

Post-mortem Examination.—The tumour cut like cartilage, having a dense fibrous structure, and an immense amount of purulent fluid escaped from the interstices of its fibrous stroma. Naked eye inspection of the tumour showed no gland tissue whatever. It was a dense fibrous stroma pent up with purulent fluid; the stroma had a very abundant blood supply, small arteries appearing as red spots in the scraped section.
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A portion of the tumour was submitted to the Royal Army Medical College, and the following report was received:

"The tissue consists of a fibrous stroma among which are embedded epithelial cells. In a great many cases the epithelial masses have apparently undergone necrosis and are infiltrated in the centre with haemorrhage. The tumour appears to be a squamous-celled epithelioma."

In the microscopical sections prepared the malignant cells were seen to have been destroyed by the treatment and were in process of removal by leucocytes. All that remained of the malignant cells were keratinous masses in which the individual cells were unrecognizable. The adjacent connective tissue reacted to these dead keratinous masses as to a foreign body and responded by the proliferation of fibroblasts and the formation of excess of fibrous tissue—scar tissue.

SYNOPSIS OF OPERATIONS DURING THE YEAR 1908 AT THE CAMBRIDGE HOSPITAL, ALdershot.

By Captain J. G. Churton.
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Operations on Tumours.—Several non-malignant tumours, such as lipomata, fibromata, angiomata, and papillomata, were excised.

Operations on Cysts.—A patient with hydatid cysts in the spleen and liver was operated upon. The cyst in the spleen was about the size of a child's head; it was cut down upon through the abdominal wall and aspirated, then drawn up into the wound and incised, the lining membrane being removed; finally the parietal peritoneum, together with the margins of the opening in the cyst, were stitched to the skin, a drainage tube being inserted. The cyst in the liver, which was considerably smaller than the one in the spleen, was incised and drained. The patient did very well.

Excavation of Abscesses.—Amongst these were two cases of liver abscess. One was a small superficial abscess in the left lobe, in a patient who had been recently invalided home from India for hepatitis, probably the result of malaria and alcohol, there being no history of dysentery. The abscess was incised and drained with satisfactory results; the pus was found to be sterile. The other case was one of multiple abscesses following dysentery, operated upon by Captain Greenwood, R.A.M.C. The patient eventually died of septicæmia.

Two chronic tuberculous abscesses were incised, scraped, and stitched up, small drains being removed after forty-eight hours. The abscesses healed by first intention.

Removal of Foreign Bodies.—Lieutenant Heslop, R.A.M.C., after localising with the X-rays, successfully removed a small revolver bullet from the thigh of a patient.