AN UNUSUAL TUMOUR (GRANULOMA OR MYXO-SARCOMA) OF THE HAND.¹

By JOHN A. C. MACEWEN, M.B., C.M.; B.Sc.; F.R.F.P.S.; *Surgeon to the Elder Hospital; Assistant Surgeon, Glasgow Royal Infirmary; Senior Assistant, Regius Professor of Surgery, Glasgow University.*

(PLATE XV.)

THE patient, a woman *æt.* 66 years, was brought under my notice by my resident at the Elder Hospital, Miss J. Filshill, L.R.C.P., in the employment of whose friends patient had been.

The history was to the effect that a tumour, the size of a pea, first appeared on the back of the hand some ten years ago, and that it continued to increase in size until about six years ago, when it had reached the size of a marble, and was removed at a dispensary. Two years later a similar small swelling appeared in the same situation, which likewise gradually increased in size until January 1913, when it considerably exceeded the former tumour in size, extending over the back of the hand, and part of the wrist-joint. It was removed at the end of January, but, before the wound had entirely healed, nodules had again appeared along the line of incision. A surgeon who now saw her advised amputation, but, as patient was very unwilling to have the limb amputated, as she had to work for her living, suffered practically no inconvenience, and possessed perfect movements of the fingers and wrist, she came to see me, and was admitted to the Elder Hospital on 29th March.

On examination a vertical raised scar was seen, running from near the distal extremity of the middle metacarpal to an inch above the distal end of the radius. At the radial extremity of this raised scar, was a firm, elastic, immovable elliptical tumour, about 1 inch long in its greatest diameter; while, on the ulnar side of the distal extremity of the scar, two smaller masses were present, which were softer and more movable than the radial swelling. The skin was movable over all three.

On the front of the wrist one or two small soft elliptical, freely movable tumours were detected, which appeared to be in the tendon sheaths. Patient did not know of the existence of these latter tumours, until they were pointed out to her. There was no enlargement of the axillary glands, and patient's general health appeared quite satisfactory.

With a view to diagnosis and possible treatment, a long incision was made over the back of the hand, parallel to the previous incision, on 2nd April. It was now found that the upper or radial extremity of the tumour was well defined, making it possible to shell it out after division of the tense fibrous aponeurosis covering it. It was determined, therefore, to endeavour to enucleate the whole tumour, and this was found to present much less difficulty than had been anticipated. As the tumour was shelled out it was found

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necessary to cut the annular ligament, under which the tumour extended, and to which it appeared to possess slight attachment, and at one point it was also necessary to expose the bones of the wrist-joint in dividing a ligamentous adhesion. Thereafter removal was comparatively easy, the tumour appearing as a thickening of the synovial tendon sheaths, which stripped readily away from the tendons, leaving them finally dissected out on the back of the hand. One small tendinous band disappeared in the tumour, but whether this was due to involvement or to fibrous formation after previous cutting was not determined. While removed in several pieces, the tumour appeared to be one mass, with the possible exception of a small nodule growing from dense fibrous tissue of the joint capsule. As a whole the tumour was pale in colour, and soft but firm in consistence. The first impression, that we were dealing with a sarcoma, was altered when it was found that the skin although raised was quite free; that the tumour could be shelled from the surrounding tissues; and that, with one possible small exception, it had not involved the tendons, although it surrounded them. Dr. Dewar, who was assisting, suggested the possibility of tubercular teno-synovitis, and, in many respects, the tumour resembled this condition, although as a rule the tubercular mass is more pulpy.

A second incision made upon the palmar aspect, permitted of the easy enucleation of two small elliptical tumours, which were undoubtedly growing from the tendon sheaths of the flexors. These small tumours, which were about the size of beans, were absolutely circumscribed and freely movable; and possessed no attachment to adjoining structures, with the exception of the small portions of synovial sheath from which they grew. The possibility, therefore, of any connection between the tumour on the back of the hand, which surrounded the extensor tendons, and these small ones which grew in connection with the sheaths of the flexor tendons, would appear to be absolutely negated.

Sections were prepared from—(a) The large tumour from the back of the hand; (b) the small nodule from the joint capsule at the back of the hand; (c) one of the tumours from the front of the wrist, and were carefully examined by the writer, who submitted them to various surgeons and pathologists for diagnosis.

(a) This tumour is largely composed of fibrous tissue, but enclosed in the meshes of this tissue are cells of a different nature. These latter are of moderate size, both nuclei and protoplasm staining deeply with hæmalum and eosin or similar stain, and while in places they lie in groups, somewhat after the manner of cells in scirrhus carcinoma, in others they obviously distend the lymphatic channels, producing an effect similar to what might be obtained by injecting the lymphatics (see Plate XV. Fig. 1). Dr. R. M. Buchanan of the Glasgow Public Health Laboratory, who kindly examined the tumours minutely and gave a written report, says of this one: "Where the cellular proliferation is continuous in extent, it presents the characters of sarcoma. It is seen, however, to be a growth of cells amongst fibrous tissue, the original blood vessels of which give a highly vesicular appearance to the growth. The rich proliferation of cells along the course of the lymph channels is a striking feature, and more like the result of toxic action than sarcomatous extension. It is apparently from the lymphatics, however, that infiltration extends to form sarcomatous-like areas."

Most attention has been devoted to this tumour and to (c), and the practically unanimous opinion is that it is a sarcoma, possibly an

endothelioma. Amputation was also generally recommended, but, on the clinical history being given subsequently, it was agreed that amputation should be postponed, and the patient carefully watched meantime.

(b) The small nodule from the back of the hand is surrounded by a dense fibrous capsule, and consists of fibro-cellular material, with numerous blood vessels. Dr. Buchanan considers this tumour suggestive of a chronic new formation.

(c) The tissue of this tumour is distinctly myxomatous over a considerable area, and the vessels are large and numerous, with thick fibrous walls. While all agreed as to the myxomatous character of part of the tumour, opinions differed as to the nature of the tumour as a whole. Generally it was regarded as myxomatous, but some thought it possible that the tumour was sarcomatous (see Plate XV. Fig. 2).

Up to the present time, June 1914, the patient has been regularly under supervision, and there is no indication whatever of recurrence on the back of the hand, while the movements of the fingers and wrist are good. On the front of the wrist there is a slight thickening which is being carefully watched. There is no evidence, however, of formation of a further tumour in this region.

Two suggestions which might account for the occurrence of the several distinct tumours have been offered.

Dr. Buchanan is inclined to consider the condition as a whole, from a purely pathological standpoint, as suggestive of the toxic expression of a latent tuberculosis, as described by Poncet and Leriche ("*La Tuberculose Inflammatoire*"). Clinically, the age of the patient and her present good health, together with her statement that she has always enjoyed good health, appear to be against this theory, although, on the other hand, the appearances and behaviour of the tumour (a) at operation strongly suggested an unusual tubercular lesion of the tendon sheath.

The other suggestion put forward is that the patient has been the subject of multiple small myxomata of the tendon sheaths, which, growing unequally, have tended to become malignant in their later stages.

It appeared to the writer that the condition was one of sufficient rarity and difficulty to warrant its publication. He regrets his inability to give a definite diagnosis, or to suggest a perfectly satisfactory explanation of the condition.

REFERENCE.

PONCET AND LERICHE . . . "*La Tuberculose Inflammatoire*," *Rev. méd.*, Paris, 1911, tome xxi. p. 464.

DESCRIPTION OF PLATE XV.

FIG. 1.—Large tumour from back of hand, showing sarcoma-like cells distending the lymphatics.

FIG. 2.—Small tumour from flexor tendon, showing myxomatous tissue.

FIG. 1.

FIG. 2.