

Clinical and Other Notes.

NEUROMATA OF PALMAR FASCIA SIMULATING DUPUYTREN'S
CONTRACTURE.

By Major D. LL. GRIFFITHS,
Royal Army Medical Corps,
Orthopædic Specialist,

AND

Major T. CRAWFORD,
Royal Army Medical Corps,
Specialist in Pathology.

[Received February 23, 1944.]

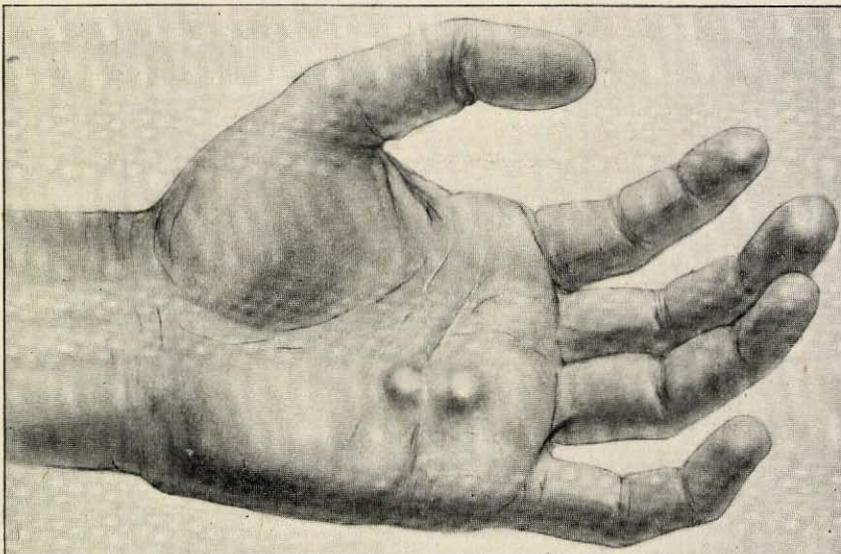
DUPUYTREN'S Contracture is not very common in military surgical practice. It is essentially a disorder of older life. Its occurrence in a young man, and in one hand only, should always lead to speculation as to the accuracy of the diagnosis and, therefore, as to the most appropriate method of treatment.

CASE REPORT.

Private A. C., aged 31, serving in the Worcestershire Regiment, was admitted to a Military Hospital in England on January 8, 1943. He had two-and-a-half years' service.

He gave a very long history of two tender lumps in the palm of his left hand, near the base of the ring finger. These had given him no real disability in civil life as a general labourer but, being tender to pressure, they caused pain during rifle drill. He had not noticed any tendency for the ring finger to contract into flexion, neither had he noticed any increase in the size of the nodules. There was no family history of any similar disorder.

He was a healthy man of good average physique.



Condition of left hand on clinical examination.

The left hand (see fig.) showed two well-marked nodules above and below the distal palmar crease in the line of the ring finger. The nodules were hard, adherent to skin, quite definitely tender to pressure and, apparently, arising from the palmar fascia. There was no actual

contracture of the ring finger but full passive extension of that digit was not easily obtained and stretching the finger backwards produced pain in the nodules.

The right hand was absolutely normal.

The lesion in the left hand was regarded as an early case of Dupuytren's Contracture. The tenderness, which was really quite striking, was regarded as exaggerated and the opinion was expressed that the patient was making the most of his complaint. The wrongness of this view was demonstrated later in the laboratory.

Operation.—After two days' skin preparation the nodules were carefully excised through a transverse palmar incision. They were found to arise from the palmar fascia and they were dissected from the skin with some difficulty. The fascia around the nodules was considered to be a little thickened. No nerve fibres were seen in contact with or in connexion with the nodules.

The operation wound healed cleanly and the patient was discharged to a Convalescent Depot on January 27.

HISTOLOGY.

The specimens, which were two small, roughly spherical pieces of tissue 6 and 8 millimetres in diameter, each consisted of a circumscribed tumour separated from the skin layers by a well-defined fibrous capsule. This capsule was rich in small arterioles and in fine nerve fibres.

The tumours themselves were composed of interlacing hyaline collagen fibres producing a typical fenestrated arrangement. In the meshes of this network lay the tumour cells. These had large vesicular nuclei with well-defined nuclear membranes and single, small, dense nucleoli. The cytoplasm of the cells was scanty. The only muscle fibres included in the tumours were those in the walls of the small arterioles which passed in from the capsule.

The general histological features were those of benign neurofibromata.

COMMENT.

The association of neurofibromata with Dupuytren's Contracture and with conditions simulating that contracture has long been recognized (Ewing, 1940). It does not, however, appear to be widely known. The usual view taken is that Dupuytren's Contracture is an "active benign hyperplasia of the palmar fascia" (Horwitz, 1942), and interest in the cellular elements found in the sclerosed tissue of the palm has mainly centred about their possible inflammatory origin. These cellular elements are, however, very variable and Ewing (1940) considers that they and their arrangement so frequently resemble those of hyaline neurofibromata that he actually discusses Dupuytren's Contracture as part of the section on neuro-mata in his book on tumours. It is seldom, however, that two *encapsulated* neuromata, such as are here reported, are found in the fascia of the palm.

The truth is that Dupuytren's Contracture is probably a very variable and diverse condition. Certain French authors (Laignal-Lavastine and Nogues, 1918, and Noica and Parvulesco, 1932) have been struck by its development following various nervous disorders though, unhappily, they do not appear to have studied the histology of any of the cases they report.

The practical bearing of the case reported here is obvious. Nodules in the palmar fascia of young soldiers are not common. If present they may be of a neurofibromatous type. If so they will be tender and they may cause pain during arms drill. Their rational treatment then will be excision and a study of their histology should prove interesting.

ACKNOWLEDGMENT.

We wish to thank the Officer Commanding the Military Hospital concerned for his kind permission to forward this case.

REFERENCES.

- EWING, J. (1940). "Neoplastic Diseases," Philadelphia.
 HORWITZ, T. (1942). *Arch. Surg.*, **44**, 687.
 LAIGNAL-LAVASTINE, M., and NOGUES, G. (1918). *Rev. Neurol.*, **25**, 475.
 NOICA, D., and PARVULESCO (1932). *Ibid.*, **1**, 703.