

THE MISSED THORN

M. BARRY, N. MAFFULLI, C. GOOD

Following surgical exploration, a swelling on the back of a boy's hand was thought to be a tuberculous granuloma and was treated as such. Eleven months later, when the lump was re-explored, a plant thorn was retrieved from the middle of a foreign body granuloma. Even though a definite history of trauma is not given, an organic foreign body lesion should be considered in the differential diagnosis of a lytic lesion of bone.

Keywords : organic thorn ; tuberculous granuloma.
Mots-clés : épine végétale ; granulome tuberculeux.

INTRODUCTION

The effects of plant thorns in soft and bony tissues include foreign body cysts, bursitis, tenosynovitis, synovitis, monoarthritis, and bone lesions that may mimic a tumor (2, 4, 5, 7). We report the case of a boy suffering from a thorn-induced lytic lesion of the metacarpal. This was originally thought to be of tuberculous origin.

CASE REPORT

A 6 year old Pakistani boy was referred to the orthopaedic clinic with a 3-month history of a lump on the dorsum of his left hand. No history of trauma was given, and he was otherwise well. On examination, there was a soft, nontender, fluctuant swelling 2 cm in diameter over the ring finger metacarpal. Radiographs revealed a lytic lesion in the ring finger metacarpal with a marked periosteal reaction (fig. 1).



Fig. 1. — The ring finger metacarpal at the first operation.

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At operation, purulent material was curetted out and sent for histology. At follow-up 3 weeks after the operation, the wound had healed without complication. Histology showed a mixed inflammatory infiltrate of neutrophils, plasma cells and giant cell granulomata. Ziehl-Neelsen stain was negative, but the report was suggestive of tuberculosis. The boy was referred to a chest physician, and a 9-month course of anti-tuberculous chemotherapy was started.

At the end of this course, the lump was again increasing in size, and the patient was therefore referred back to our care.

On examination, there was a well-healed scar and a soft fluctuant swelling deep to this. A further operation was carried out. More of the same purulent material was found and, in the middle of it, a 10-mm long plant thorn. This material was sent for histology. The specimen proved to be a foreign body granuloma. When the first histological specimen was reviewed, this was also confirmed to be a similar granuloma.

On closer questioning, the father remembered that the boy had fallen into a thorn bush while in Pakistan a few months prior to the development of the initial swelling. He could not say what type of bush it had been.

Further radiographs (fig. 2), 8 months after the second operation, show that the bone lesion is resolving and remodelling is occurring.

DISCUSSION

The degree of bony destruction originally encountered led us to believe that there was a more aggressive pathology, as no history of trauma was given when the patient was first seen. The histology report was suggestive of, but not conclusive for, tuberculosis. As a result, the boy was treated with antitubercular drugs for 9 months. Not surprisingly, there was no clinical response and no improvement in the appearance of the metacarpal on radiographs.

The effects of plant thorn granuloma on bone are protean. There may be osteoporotic changes only (6) or punched out lytic lesions (3, 5). The periosteal reactions may seem to mimic osteomyelitis (1), trauma (2) or even an Ewings sarcoma (5).

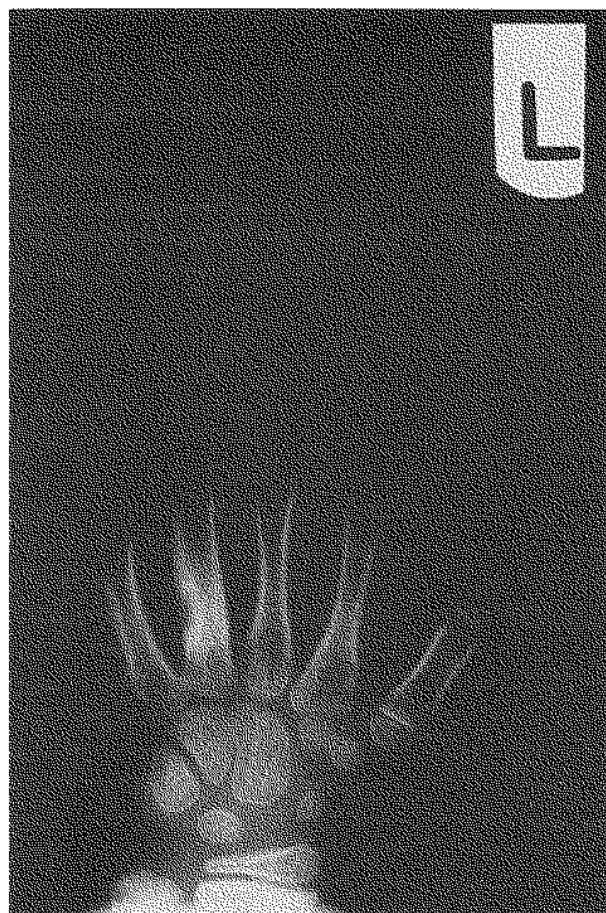


Fig. 2. — The metacarpal 8 months after the second operation.

In conclusion, the diagnosis of plant thorn granuloma must always be considered so that unnecessary delays and potentially dangerous treatment can be avoided. Surgical exploration of a granuloma must include the deeper tissue planes so that a small thorn is not missed.

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SAMENVATTING

M. BARRY, N. MAFFULLI en C. GOOD. De gemiste doorn.

Bij een 6 jarige jongen werd een gezwel t.h.v. de hand-rug heelkundig geëxploreerd. De diagnose werd gesteld op tuberculeus granuloma. Behandeling als dusdanig. Elf maanden later, bij revisie, werd een vegetale doorn

in het centrum van het corpus alienum granuloma gevonden. Zelfs bij afwezigheid van een duidelijk traumatisch antecedent moet de aanwezigheid van een organisch vreemd lichaam steeds weerhouden worden bij de differentiaal diagnosestelling van een lytisch botletsel.

RÉSUMÉ

M. BARRY, N. MAFFULLI et C. GOOD. L'épine passée inaperçue.

Un jeune garçon présentait une tuméfaction de la face dorsale de la main qui fut explorée chirurgicalement, considérée comme un granulome tuberculeux et traitée comme tel. Onze mois plus tard, à la révision, une épine végétale fut retrouvée au centre du granulome à corps étranger organique. Malgré l'absence d'un antécédent traumatique net, la possibilité d'une lésion par corps étranger doit être envisagée dans le diagnostic différentiel des lésions lytiques de l'os.