BRIEF REPORTS

MADURA FOOT OR PLANTAR FIBROMATOSIS

P. G. TURNER

The case reported below demonstrates that a painful swelling in the sole of the foot of an immigrant from a tropical zone should not be accepted as plantar fibromatosis on purely clinical grounds; excision biopsy may be advisable.

Case report A 54-year-old Indian businessman who had been resident in Britain for 20 years presented with a nine-month history of an increasingly painful swelling in the sole of the right foot. He remembered no injury at any time and had visited India only once, six years previously. He was otherwise well. Local examination revealed a firm, indurated and tender swelling 7 cm by 3 cm in the subcutaneous tissues of the medial arch. There was no regional lymphadenopathy.

Plantar fibromatosis was diagnosed and excision biopsy performed. A dense fibrous swelling was found arising in the plantar fascia, extending to surround the medial plantar nerve and into the muscle layers. Several small foci of liquefaction were noted in the tissue. Recovery was uneventful with primary wound healing. Microscopy revealed collagenous tissue with marked inflammatory infiltration containing foci of suppuration and granule formation. The findings were indicative of eumycetoma probably due to infection with *Pseudallescheria boydii*. Empirically, a six-week course of oral itraconazole 100 mg daily was provided. There was no evidence of active disease at one year.

Discussion. Plantar fibromatosis is prevalent in the indigenous population of Britain. Surgical excision has been recommended only if the nodules are large enough to create discomfort (Curtin 1965), or rapid progression gives rise to concern about malignancy. Symptoms have been said to respond to the intralesional injection of steroids (Pentland and Anderson 1985). The prevalence

in immigrants from tropical zones to Britain is unknown, but is likely to be low as with other fibromatous conditions.

Madura foot (mycetoma) is rare in Britain. Hay and Mackenzie (1983) collected only 28 cases involving the foot in 18 years. Infection arises from subcutaneous implantation of fungi. It is virtually always acquired in the tropics – the Caribbean, Indian subcontinent, Middle East or Africa. One of several true fungi or actinomycetes may be the causative organism. The disease begins as a painful nodule in the sole of the foot which forms abscesses and then sinuses which gradually extend throughout the foot and lower leg. The interval between implantation and development of symptoms may be many years and progression is very slow. Chemotherapy has not been particularly successful and amputation may be necessary.

Diagnosis depends upon the demonstration of fungi from sinus fluid or on biopsy. Serology may be useful, but with the development of new systemic antifungal agents, culture and sensitivity testing have assumed much greater importance.

Given the relentless course that this disease usually takes and the difficulty of effective treatment, it seems advisable to perform excision biopsy of painful plantar swellings in this group of patients. A specimen should be provided for microbiological examination after discussion with the appropriate department. Injection of steroids in such a case should be absolutely contraindicated.

I wish to thank Mr J. G. Lemon, FRCS, for permission to present this case.

No benefits in any form have been received or will be received from a commercial party related directly or indirectly to the subject of this article.

REFERENCES

- Curtin JW. Fibromatosis of the plantar fascia: surgical technique and design of skin incision. *J Bone Joint Surg [Am]* 1965;47-A:1605-8.
- Hay RJ, Mackenzie DW. Mycetoma (madura foot) in the United Kingdom: a survey of forty-four cases. *Clin Exp Dermatol* 1983;8:553-62.
- Pentland AP, Anderson TF. Plantar fibromatosis responds to intralesional steroids. *J Am Acad Dermatol* 1985; (1Pt 2) 12:212-4.

P. G. Turner, FRCS, Orthopaedic Senior Registrar
University Hospital of South Manchester, Nell Lane, West Didsbury,
Manchester M20 8LR, England.

Correspondence to P. G. Turner, Manchester Royal Infirmary, Oxford
Road, Manchester M13 9WL, England.

© 1989 British Editorial Society of Bone and Joint Surgery
0301-620X/89/3R14 \$2.00
J Bone Joint Surg [Br] 1989;71-B:531.