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Tuberculous osteomyelitis diagnosed following an incidental finding on bone scintigraphy

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DESCRIPTION

A 47-year-old Sri Lankan man was diagnosed with diabetic neuropathic ulceration of the left hallux. Technetium-99m scintigraphy showed increased uptake corresponding to the ulcer. However an incidental finding of increased uptake was also noted in the right distal tibia (figure 1). The patient had no localising symptoms on the right. His medical history was significant for type 2 diabetes requiring insulin and vasculitis (managed with prednisone 8 mg daily and mycophenolate 250 mg twice daily). The patient immigrated to Australia 1 year prior to presentation. The right distal tibia was non-tender with minor soft tissue swelling and erythema. T1-weighted post-Gadolinium contrast MRI of the right ankle showed a hyperintense collection in the medial malleolus involving the tendon sheath of tibialis posterior and subcutaneous tissues (figure 2). Biopsy showed granuloma with central necrosis and multinucleated giant cells (figure 3). Ziehl-Neelsen stain and PCR for *Mycobacterium tuberculosis* were negative from the direct sample. A fully sensitive *Mycobacterium* was

Figure 1 Technetium-99m bone scintigraphy showing incidental increased uptake in the right distal tibia.

Figure 2 T1-weighted post-Gadolinium contrast MRI of the right ankle showing a hyperintense collection in the medial malleolus with tendon and subcutaneous tissue involvement.

Figure 3 Bone biopsy showing granulomas with central necrosis and multinucleated giant cells.

grown from culture at 2 weeks. This was identified as *M tuberculosis* by PCR. Chest x-ray was consistent with prior exposure to tuberculosis. Mycophenolate was ceased, prednisolone weaned and the patient was commenced on antituberculosis therapy.

The findings of osseous tuberculosis on bone scintigraphy are not pathognomonic or well defined. False negatives can occur in the setting of caseation. A bone scintigraphy

abnormality in a patient from a tuberculous endemic country warrants thorough investigation for the possibility of tuberculosis. Obtaining bone biopsy for culture and sensitivity is crucial to guide therapy.

Competing interests None.

Patient consent Obtained.

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