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IMAGES IN INFECTION

Refractory tenosynovitis with ‘rice bodies’ in the hand due to *Mycobacterium intracellulare*

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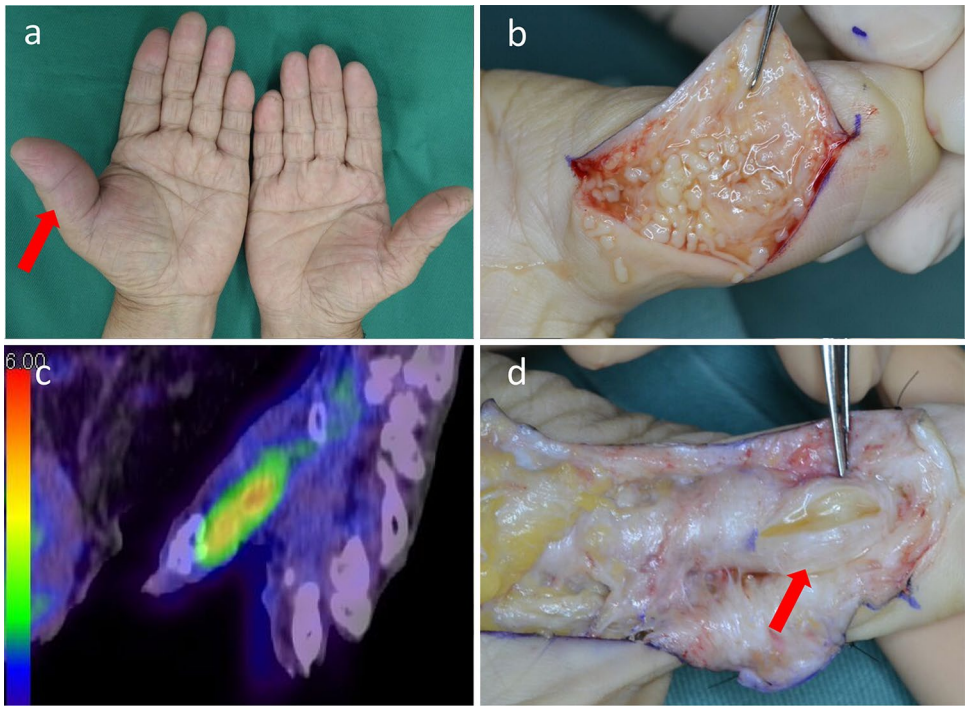

Fig. 1 **a** Swelling and tenderness of the left thumb and thenar before the first operation (*red arrow*). **b** ‘Rice bodies’ were observed during the first open drainage performed for treating tenosynovitis. **c** ^{18}F-fluorodeoxyglucose positron emission tomography/computed tomography showed intense uptake around the metacarpophalangeal joint, before the third drainage. **d** Intraoperative findings at the third drainage showed synovial thickening and synovial fluid retention. By this time, the ‘rice bodies’ had resolved (*red arrow*)

Legend

A 76-year-old man presented with a 2-month history of swelling and tenderness of the left thumb and thenar. The patient had type 2 diabetes mellitus. He had been bitten by a dog on the left hand 1 year previously, and the wound had healed without treatment. He was initially diagnosed with non-infectious tenosynovitis and received steroid injections repeatedly (Fig. 1a). Thereafter, open diagnostic-drainage was performed, and the presence of ‘rice bodies’ was visually noted in the hand (Fig. 1b).

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Based on the pathological finding of granuloma and positive specimen culture for *Mycobacterium intracellulare,* he was diagnosed with tenosynovitis due to *Mycobacterium avium* complex (MAC). While his symptoms initially improved by isoniazid, rifampicin, and ethambutol, the redness and tenderness around the left wrist gradually worsened at 6 months after the first operation. Then therapeutic-drainage was performed again, and the regimen was changed to clarithromycin, rifampicin, ethambutol, and sitafloxacin after the introduction to our department. After 1 year, however, a nodule developed around the metacarpophalangeal joint, associated with an intense uptake on ^{18}F-fluorodeoxyglucose positron emission tomography/computed tomography (Fig. 1c), implying the residual inflammation. Therapeutic-drainage was performed again (Fig. 1d), and he is now in remission under antimicrobial chemotherapy.

MAC tenosynovitis is a refractory infectious disease, reported more commonly in Asians [1–3]. Most patients have an injury history and often require multiple operations as in this case [1–4]. The presence of 'rice bodies' is a characteristic intraoperative finding as well as tuberculosis [3, 5]. Although the appropriate duration of chemotherapy is unclear, past studies recommended a 1–2-year treatment period [4]. When seeing cases present with refractory tenosynovitis, MAC tenosynovitis should be considered in the differential diagnosis.

Compliance with ethical standards

Conflict of interest None.

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