

Flexor pollicis longus tenosynovitis caused by *Mycobacterium marinum* infection

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DESCRIPTION

Among infections of the hand, *Mycobacterium marinum* accounts for 0.04–0.27/100 000 cases; most are caused by superficial abrasions from water and other environmental sources.¹ *M. marinum* has an extensive habitat and lives in a warm aquatic environment, optimally cultured at a temperature of 25–35°C. There are no pathognomonic features of *M. marinum* infections, with diverse presenting symptoms. These infections are categorised into three types: self-limiting verrucal lesions; subcutaneous granulomas; and deep infections involving the tenosynovium, bursa, bones or joints causing tenosynovitis, septic arthritis or osteomyelitis.² Delay in making diagnosis is common due to a long inoculation period ranging from few days to few months.^{1–3} Initial clinical and radiological findings are often non-specific; diagnosis is confirmed by positive microbiological cultures. Treatment is by antimicrobial and surgical debridement and synovectomy of deep infections followed by an

extensive rehabilitation programme to regain hand function.^{1–3}

We present an interesting case of flexor pollicis longus (FPL) tenosynovitis caused by *M. marinum* in a normally fit and well 38-year-old right handed woman. She sustained a superficial abrasion to her right thumb while filleting salmon at home. This turned into a painful swelling which was mistaken for cellulitis, resisting broad-spectrum antibiotics (oral co-amoxiclav in primary care settings; intravenous piperacillin/tazobactam and metronidazole in hospital care). Plain radiographs (figure 1) demonstrated soft tissue swellings; however, MRI confirmed FPL tenosynovitis (figure 2). The patient proceeded with surgical debridement and extended cultures of tissue specimens confirmed *M. marinum* infection sensitive to azithromycin, clarithromycin, gentamicin and tobramycin. She received a 6-month course of oral clarithromycin 500 mg twice daily and clofazimine 50 mg once daily. A targeted hand therapy programme led to eventual successful functional recovery.



Figure 1 Anteroposterior, oblique and lateral plain radiographs of right hand/wrist demonstrating a soft tissue swelling in the hand with no bony abnormalities.



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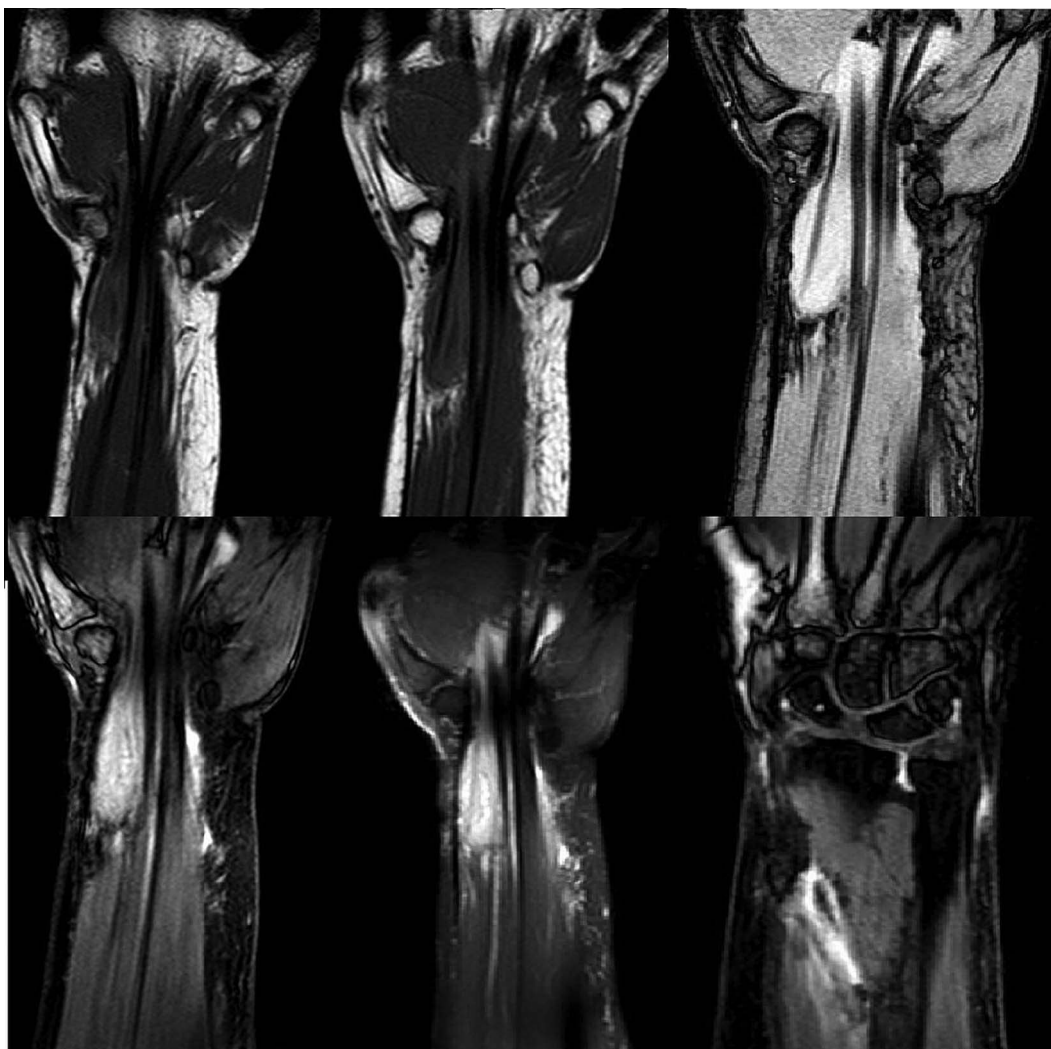


Figure 2 Coronal MRI demonstrating exuberant tenosynovitis of flexor pollicis longus with fluid collections on T1/T2 sequences with postcontrast enhancement of the thickened bursa/synovial sheath.

Learning points

- ▶ Misdiagnosis and delayed treatment of *Mycobacterium marinum* infection is common.
- ▶ Clinicians should have a high index of suspicion of these indolent infections; particularly in those patients with a history of trauma with exposure to marine life.
- ▶ Surgical debridement may be needed to treat these deep infections and obtaining histological and microbiological diagnosis is essential for successful treatment with appropriate antibiotics.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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