Flexor pollicis longus tenosynovitis caused by *Mycobacterium marinum* infection

Karthikeyan P Iyengar, Hosam E Matar, Ajegbomogum O Jayeola, William Y Loh

Department of Trauma & Orthopaedics, Southport & Ormskirk University Hospital NHS Trust, Southport, Merseyside, UK

Correspondence to

Hosam E Matar,
hematar@doctors.org.uk

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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.

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