Severe cutaneous hand infection: *Mycobacterium marinum* in an immunosuppressed patient

Sir,

A 48-year-old male professional underwater diver, with a history of ankylosing spondylitis treated with infliximab for eight years and thereafter with adalimumab for the last three years, developed, five months before consulting us, a progressively worsening swelling of his left hand, causing pain and restriction of hand joint movements. He consulted different physicians without proper diagnosis or appropriate therapeutic intervention. Oral corticosteroids were prescribed for presumable “arthritis”, which caused a paradoxical worsening of the pain and swelling. At presentation to our outpatient clinic, the patient was afibrile and in intense distress due to pain. A diffuse dorsal and palmar swelling of his left hand along with large erythematous plaques and nodules over all hand joints was evident (Fig. 1A, arrows). After taking a careful and detailed history, we noted that several days before onset of symptoms, while working on an underwater ship repair, he accidentally punctured his left index finger over the dorsal proximal interphalangeal area. Shortly thereafter, painful swelling and erythema developed over the injured area. Upon presentation, laboratory testing revealed elevated C-reactive protein. Left hand magnetic resonance imaging (MRI) showed extensive soft tissue swelling, not affecting joints or skin. The diagnosis of human *Mycobacterium marinum* infection, also called aquarium granuloma, swimming pool granuloma or fish tank granuloma is an uncommon disease that mainly affects the immunocompetent and immunocompromised patients. We present this case to emphasise that a) in order to avoid significant delay in diagnosis of *Mycobacterium marinum* infection, a high index of suspicion should further be increased if the individual has trouble with immunity when you had none. (1)

When the immune system begins to recover, it responds overwhelmingly to the infection, a high index of suspicion is required, especially if the individual has been traumatised while working in fresh or salty water or while holding fishes but the suspicion should further be increased if the individual is intensively immunosuppressed and c) in mycobacterial infections affecting immunosuppressed patients under anti-TNF treatment, halting of the therapeutic intervention and subsequent rapid restoration of TNF signalling may result in a transient paradoxical exacerbation of the inflammatory process (3).

**Fig. 1.** (A) At presentation a diffuse, painful and restrictive swelling of the dorsal and palmar aspects of the left hand was evident, while erythematous nodules (arrows) were noted over all hand joints (B) left hand MRI revealed extensive soft tissue swelling, without bone erosive lesions, and multiple subcutaneous nodules in a sporotrichotic distribution (arrows), (C) marked improvement was achieved after treatment with combination of antibiotic drugs and a short course of oral methylprednisolone.

**References**

