INTRODUCTION

Multiple zoonosis including Mycobacterium marinum can be transmitted from domestic animals through bites, scratches, feces or contact with bodily fluids. *M. marinum* is a naturally occurring organism found in freshwater and salt water. It predominantly causes skin and soft tissue infections following exposure to contaminated water. The majority of cases have a preceding injury to the hand (bites, abrasions, puncture etc.) prior to the exposure that allowed entry of the mycobacterium through the dermis and into soft tissue.

CASE SUMMARY

52-year-old Caucasian male was referred to Infectious Diseases clinic for evaluation of persistent pain and swelling of his right ring finger. Approximately a year ago, a point of a crab had stuck the knuckle of his right ring finger while he was getting his crab-pot out. After 2-3 days, he developed pain, swelling and redness on his right ring finger. The redness extended from the PIP to the right wrist, associated with pain but no associated fever. He was seen in the emergency room and by his Primary Care Provider who treated him with antibiotics and steroid for 2 weeks. The swelling recurred within few days after completion of treatment. He was referred to a surgeon who had performed a biopsy of the lesion. Histopathology showed chronic synovitis with focal autolysis and fibrinoid necrosis. Bacterial, fungal and AFB cultures were negative. Patient was given intermittent short courses of clarithromycin, trimethoprim/sulfamethoxazole (TMP/SMX) and doxycycline with no improvement.

Occupational exposure is often neglected part of a medical history with both patients and health care professionals sometimes being unaware of the potential risks of zoonotic diseases like in our patient. In terms of identification and culture of *M. marinum*, the organism has an optimum growth temperature that is lower than that of other mycobacteria. Skin biopsy specimens of suspected *M. marinum* should be inoculated into slopes containing pyruvate Lowenstein Jensen medium and then incubated at 28-30 degree Celsius. Failure of multiple short courses of antibiotic therapy should lead to suspicion of mycobacterial infection.

DISCUSSION

Initial presentation after multiple rounds of antibiotics

s/p ring finger exploration, PIP joint synovectomy and extensor tendon synovectomy

After 2 months of treatment

2 months after discontinuing treatment

REFERENCE