

Something fishy

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CASE REPORT

A 57-year-old man with erythematous papulo-nodular lesions on the right hand and right underarm was referred to our hospital by his general practitioner (*figure 1*). At presentation the lesions had been present for approximately six weeks. The patient could remember having a splinter in his right hand prior to the start of the skin symptoms. He worked in the financial department of the city sanitation department, had three cats and a tropical aquarium.

There were no relevant comorbidities. The nodules were painful and there was a purulent discharge.

WHAT IS YOUR DIAGNOSIS?

See page 359 for the answer to this photo quiz.

Figure 1. Erythematous papulo-nodular lesions on the right hand (A) and right underarm (B) with sporotrichoid distribution



DIAGNOSIS

The typical sporotrichoid distribution of these skin lesions in combination with the tropical aquarium that this patient possessed pointed to the diagnosis of 'fish tank granuloma'. The diagnosis was confirmed by positive culture of *Mycobacterium marinum* from the purulent discharge, and a positive polymerase chain reaction of the tissue.

This type of granuloma is caused by infection with *M. marinum*, an atypical *Mycobacterium* that can be found in fresh and salt water. Infection usually occurs through contact with contaminated water from an aquarium, a nonchlorinated swimming pool or otherwise infected water following minor skin trauma.¹ Diagnosis is often delayed because of the rarity of the disease. Differential diagnoses of this type of lesion include sporotrichosis (infection of the skin with the fungus *Sporothrix schenckii*), other mycobacterial infections, *Nocardia brasiliensis* infection, cat scratch disease and *Leishmania braziliensis* infection.²

Isolates of *M. marinum* are susceptible to clarithromycin, sulphonamides, tetracyclines, rifampicin and ethambutol. Azithromycin can be used as an alternative to

clarithromycin. Guidelines of the American Thoracic Society recommend treatment with two active agents for one to two months after resolution of symptoms, with a typical duration of treatment of three to four months. Susceptibility testing should not be performed routinely, but can be done in cases of treatment failure.³

Our patient was successfully treated with azithromycin 500 mg/day and ethambutol 2000 mg/day for five months.

REFERENCES

1. Petrini B. *Mycobacterium marinum*: ubiquitous agent of waterborne granulomatous skin infections. *Eur J Clin Microbiol Infect Dis.* 2006;25:609-13.
2. Adhikesavan LG, Harrington TM. Local and disseminated infections caused by *Mycobacterium marinum*: an unusual case of subcutaneous nodules. *J Clin Rheumatol.* 2008;14:156-60.
3. Griffith DE, Aksamit T, Brown-Elliott BA, et al. An official ATS/IDSA statement: diagnosis, treatment, and prevention of nontuberculous mycobacterial diseases. *Am J Respir Crit Care Med.* 2007;175:367-416.