

## Olecranon pathologic fracture by *Mycobacterium chelonae*—a case report

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A 60-year-old man had pain and reduced mobility of his left elbow since 1 month. A radiograph showed a pathological fracture of the olecranon through a cystic lesion (Figure 1).

The patient had been operated on 11 years before because of a tonsil carcinoma with a tongue base excision, which required chemotherapy, surgery, permanent tracheostomy and postoperative radiotherapy and now had no signs of tumor. The second finger of his left hand had been amputated 1 year before due to osteomyelitis of the middle phalanx by *Mycobacterium avium intracellulare* (Figure 2), diagnosed by synovial fluid culture.

During his hospitalization he developed fever. To rule out an infection, a blood culture was taken. It was negative, but associated with a high C-reactive protein which indicated an inflammatory response. The Brucella titer was normal.

In view of the possibility of metastasis, a biopsy of the injured area was done. The histopathology showed granulomatous rounded formations with a necrotic center surrounded by

multinuclear cells. The Ziehl-Neelsen stain showed acid-fast bacteria.

*Mycobacterium chelonae* quickly grew in the biopsy culture, resistant to standard drugs and only sensitive to clarithromycin which was prescribed, 0.5 g/12 h. The lesion was curetted, including a soft tissue abscess.

3 weeks later he returned with dysphagia. Endoscopy showed an esophageal tumor with a tracheoesophageal fistula. This tumor was diagnosed as esophageal carcinoma (second primary). The patient died after 5 days.



Figure 1. Fracture through a cystic lesion.



Figure 2. Osteomyelitis of the middle phalanx.

## Discussion

Since the mid-1980s, there has been an important increase in mycobacterium infections as a consequence of the increase in the number of immunodeficient and elderly patients, emigration from countries on the verge of development and the development of treatment resistance (Watts and Lifeso 1996, Bernard and Perronne 1997). Bone involvement is uncommon, occurring in only 3-5% of the locations (Pertuiset et al. 1997)

*Mycobacterium chelonae* is an opportunistic pathogen in immunocompromised people. Typically, it grows rapidly in cultures, between 48 and 72 hours, being resistant to traditional antituberculosis drugs and to most antibiotic treatments. It should be distinguished from *Mycobacterium fortuitum*, because of its different susceptibility to drugs (Pring and Eckhoff 1996).

In general, *Mycobacterium chelonae* infection is found in invasive surgical procedures like hip or knee arthroplasty, porcine heart valve implants, injection abscesses or catheter infections (Pring

and Eckhoff 1996). Once the diagnosis has been made, aggressive treatment must be prescribed according to the germ's sensitivity together with debridement and curettage of the affected tissues (Wallace et al. 1992).

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