



Letters to the Editor

Septic Arthritis of the Shoulder due to *Corynebacterium striatum*[☆]

Artritis séptica de hombro debida a *Corynebacterium striatum*

Dear Editor,

Corynebacterium species are part of the normal flora of skin and mucous membranes. *Corynebacterium striatum* (*C. Striatum*) is a gram-positive bacillus, which is usually classified as a pollutant. The frequency of infections by this pathogen has increased in immunocompromised patients^{1,2} and is considered an emerging nosocomial agent.³ We report the first case of shoulder arthritis due to this bacterium in an immunocompetent patient. The patient was a 59 year old woman who presented pain and swelling of the right shoulder lasting for 48 h and who had a history of mechanical sporadic joint pain, so she initially received a corticosteroid infiltration of the shoulder 4 days before the onset of symptoms. Her history included hypercholesterolemia. On examination she had fever (37.5 °C) and loss of function on shoulder abduction and rotation, with swelling and increased local temperature, the rest being normal. Her laboratory studies showed CRP 150 mg/dl and ESR of 54 mm/h. On plain radiographs, we observed an increase in torque and ultrasound soft parts was evident in the subacromial bursa effusion and posterior recess of the glenohumeral joint. A bursocentesis was performed, obtaining an inflammatory synovial fluid with glucose <5 mg/dl and Leukocytes 111.9 × 10⁹/l. Gram-positive bacilli were evident, so empirical antibiotic therapy was started with ceftriaxone 2 g intravenously daily and cloxacillin 2 g intravenously every 6 h. After 24 h of synovial fluid culture, *C. striatum* was identified (sensitive to penicillin and vancomycin, and quinolone and rifampicin-resistant), so we continued with ceftriaxone alone. Magnetic resonance imaging showed signs of shoulder arthritis, bursitis and tendon, muscle and bone involvement, muscle and bone on the anterior shoulder, with a probable partial tear of the supraspinatus. The trauma service refused surgical intervention. The condition resolved within 15 days after starting the antibiotic, with normalization of acute phase reactants, and ceftriaxone was maintained up to a month. A control MRI at 2 months demonstrated the resolution of the process.

There have been several cases of infections with *C. striatum*, being more frequent in immunocompromised and hospitalized patients,⁴ and after reviewing the literature, we found cases of respiratory infections, peritonitis, endometritis, chronic ulcers,^{4,5} endocarditis, septicemia, osteomyelitis, a breast abscess, urinary tract infections, eye infections and central catheters infections,⁶

as well as person to person transmission in intensive care units^{7,8} meningitis and infections of prosthetic joints.⁹ In recent years, various forms of antibiotic resistance have been described and for this reason, vancomycin is often used with no demonstrated resistance to it. In endocarditis, *C. striatum*, plus gentamicin or vancomycin alone³ has been used and penicillin and some patients have shown a good response to daptomycin alone or associated with rifampicin.⁶ There are only 2 cases described in the literature of native joint infections by *C. striatum*,^{4,10} both in patients with an compromised immune status. One was an elbow arthritis after injury adjacent skin,¹⁰ which was treated with intravenous vancomycin, aztreonam and surgery, with change to ciprofloxacin due to side effects, and another was a spontaneous knee arthritis that resolved with vancomycin and surgery.⁴

This is the first published case of shoulder arthritis by *C. striatum* in an immunocompetent patient without risk factors, probably secondary to a local injection with corticosteroids. It showed sensitivity to penicillin and the condition resolved with ceftriaxone intravenously after one month, without surgery.

References

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