Prosthetic joint osteomyelitis due to *Brucella melitensis* fifteen years after knee prosthesis placement

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**Background**

Brucellosis is the most common zoonosis worldwide. There are 500,000 cases reported annually.¹ The major endemic areas are the Mediterranean basin, Persian Gulf, Indian subcontinent, Mexico, and Central and South America.² Acute illness may present with fever, night sweats, myalgias and arthralgias. It is an important cause of fever of un-considered, Mexico, and Central and South America.

**Clinical case presentation**

- A 48 year old male from Central Mexico presented with a two month history of erythema, swelling and increasing pain of the left knee that limited him from standing up or walking, despite surgery; prosthesis was removed and replaced with a medicated cemented prosthesis.
- Worked as a goat breeder and consumed non-curative impact on the clinical outcome and should be considered as a treatment strategy in endemic zones, prosthetic joint infection due to *Brucella*. Every patient should be submitted to an extensive analy-sis for its potential bioterror threat potential. RT-

**Laboratory results**

- **PCR 16s rRNA**: *Brucella melitensis*

**SPECT scan UBI—(99m)Tc**

**Treatment and case evolution**

Amikacin 1 gram OD for 7 days plus Doxycyclin 100 milligrams BID for 8 weeks plus Rifampicin 300 mg TID for 8 weeks

**Discussion**

Searching for epidemiological and risk factors on every patient, like work related or exposure to potentially infected cattle or its dairy products, as well as traveling to en-

demic areas are crucial for the diagnosis.² It should be considered in patients with clinical manifestations of chronic prosthetic joint infection whose microbiological di-
agnosis has been limited by conventional culture methods. MALDI-TOF has shown to be a useful diagnostic tool, however, the database in some countries is restricted and has not incorporated Brucella due to their potential bioterror threat potential. RT-

**Conclusions**

In endemic zones, prosthetic joint infection due to *Brucella* should be considered re-gardless of the prostheses’ age. Every patient should be submitted to an extensive analy-sis screening for other sites of infection. SPECT scan UBI—Technetium 99 is a very helpful tool. In this case, treatment with aminglucidicines for one week plus Doxycycline 100 mg BID plus Rifampicin 300 mg TID for eight weeks and prosthetic removal had a posi-tive impact on the clinical outcome and should be considered as a treatment strategy in cases similar to this case.

**References**


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