

Septic Arthritis Without a Clear Focus Due to *Eikenella corrodens**



Artritis séptica sin foco por *Eikenella corrodens*

To the Editor,

Eikenella corrodens is a small, Gram-negative coccobacillus or bacillus that is a component of normal human flora; it is primarily detected in the oral cavity and upper respiratory tract, although it can also be found in the gastrointestinal and urogenital tracts.¹ This microorganism is considered an opportunistic pathogen and has been described as the causative agent of infections affecting the head and neck, sinusitis and arthritis.²

We report the case of a 31-year-old man, with no significant personal medical history, who presented at the emergency department of our hospital with a 2-week history of gonalgia involving left knee. We obtained a sample of articular fluid and the patient was discharged to be seen thereafter by his primary care physician who, in turn, consulted with the rheumatology department. Anti-inflammatory therapy was prescribed, because the microbiological culture of the sample had been negative. Given the persistence of the clinical signs and symptoms, the patient returned to the emergency department 8 days later, and underwent arthrocentesis, which yielded a viscous, yellow fluid, that was neither cloudy nor purulent. It was injected into an aerobic blood culture bottle, and the patient was discharged and was asked to continue taking the anti-inflammatory therapy. Days later, the patient was examined in the rheumatology department, where he insisted on the persistence of pain and commented on the progressive swelling; he mentioned noting a feeling of chilliness during the evening (not measured by thermometer). He was admitted to the hospital and began to take cloxacillin (2 g/4 h) plus ceftriaxone (2 g/24 h), and arthrocentesis was again performed. The culture of the 2 samples resulted in the isolation of Gram-negative bacilli, which grew in blood agar and chocolate agar forming convex colonies, with rounded borders, but not in MacConkey agar; Gram staining revealed small, Gram-negative coccobacilli. The microorganism was not identified by manual means (API 20 NE[®]) or by automatic techniques (MicroScan[®]). The samples were sent for identification to a referral center (*Instituto de Salud Carlos III*, Madrid). The patient improved and was discharged 17 days later. He began to take oral levofloxacin (500 mg/12 h) plus rifampicin (300 mg/24 h), a treatment that was replaced by amoxicillin/clavulanic acid (500 mg/8 h) after the identification of *E. corrodens*, which was maintained for 1 month. The patient remained asymptomatic until the treatment had been completed.

The major causative agents of septic arthritis are *Staphylococcus aureus* and streptococci (60%–80% of cases depending on the series), followed by 20%–25% of cases due to Gram-negative bacilli (extreme ages of life, immunosuppression, etc.) and 5% of cases produced by anaerobic organisms (injuries, extension of abdominal infection, etc.).³

E. corrodens is rarely isolated as a cause of septic arthritis; in the review by Nolla et al.⁴ on pyogenic arthritis affecting native joints,

the prevalence of infection by this microorganism was 1/268. Due to the presence of *E. corrodens* in the human oral cavity, most cases of septic arthritis and osteomyelitis produced by this microorganism are directly related to human bites or dental infections⁵; in the literature, there are also reports of cases of osteomyelitis secondary to a prick with a used toothpick.⁶ Our patient reported no recent injury or bite, but he had lost some teeth. This led us to suppose that the origin of the infection could have been a bacteremia that could be traced to his own oral cavity, although he had not had any dental treatment of late. He mentioned having been pricked by a rosebush days before the onset of the clinical signs, but there are no reports in the literature of transmission of this microorganism by that route.

E. corrodens is resistant to metronidazole, cloxacillin, oral first- and second-generation cephalosporins, clindamycin and macrolides, and β -lactamase-producing strains have been reported; the strain isolated in our patient was sensitive to amoxicillin/clavulanic acid and was β -lactamase-negative. The treatment of choice was considered to be amoxicillin/clavulanic acid or ceftriaxone.

Conflicts of Interest

The authors declare they have no conflicts of interest.

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