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International Journal of Infectious Diseases

journal homepage: www.elsevier.com/locate/ijid

Letter to the Editor

Tibial chronic osteomyelitis due to *Propionibacterium acnes* in a patient with sickle cell anemia

We report a case of tibial chronic osteomyelitis due to *Propionibacterium acnes* in a patient with sickle cell anemia (SCA) without any local aggression.

A 29-year-old man from the West Indies with homozygous SS SCA was admitted in September 2008 for a painful mass of the left leg, evolving over two months. He had developed pneumococcal meningitis in 1982, pneumococcal pneumonia in 1999, and aseptic osteonecrosis of the right hip requiring replacement in 2006. On examination, the patient was healthy, afebrile, and reported slight pain of the left leg. An abscess, 4-cm in diameter, with a fistula, was found at the anteroexternal aspect of the left leg. No other cutaneous lesions were present. A blood cell count revealed hemoglobin of 8.1 g/dl and a normal white cell count. C-reactive protein was 22 mg/l (normal <10). The lactate dehydrogenase level and liver function tests were normal. Blood and fistula fluid cultures were negative. X-ray showed condensation and lacuna in the upper third of the left tibia, typical of chronic osteomyelitis on magnetic resonance imaging (MRI). X-ray of the right hip showed no sign of infection. Osteomyelitis was confirmed perioperatively with the presence of an intramedullary abscess, requiring bone and soft tissue debridement. Four of five intraoperative samples grew only *P. acnes* in 7 days. Cardiac echography was normal. Treatment with intravenous cefazolin and rifampin was given for 6 weeks, followed by oral clindamycin and rifampin for 6 weeks.

P. acnes is a Gram-positive anaerobic bacillus, commensal on human skin and commonly isolated from sebum-rich areas of the skin. *P. acnes* has been found to be involved in postoperative and post-traumatic infections, including endocarditis, meningitis, and brain abscess.^{1,2} Recently, interest in this pathogen has increased due to its role as an agent of prosthetic joint infection.^{1,2} Conversely arthritis, osteomyelitis, and spondylodiscitis are rare in the absence of surgery or percutaneous puncture, rarely reported in patients with SAPHO syndrome (synovitis, acne, pustulosis, hyperostosis, and osteomyelitis), palmoplantar pustulosis, and acne.^{3–6} The chronic osteomyelitis in our patient, with no local trauma or cutaneous lesions, is unusual, but a percutaneous route of entry is likely.

Bacteriologic diagnosis of osteomyelitis due to *P. acnes* may be difficult to establish since the bacterium is a fastidious organism with slow growth, taking from 5 to 15 days.^{1,2,7} Moreover, pure cultures from at least two or three intraoperative samples are required to establish its pathogenicity in arthritis or osteitis.^{1,2}

Patients with SCA are prone to osteomyelitis and septic arthritis involving the long bones, mostly due to *Salmonella* species, but also to *Staphylococcus aureus* and other Gram-negative enteric

bacilli.⁸ However, other pathogens, including those regarded as non-aggressive, may be involved.

Conflict of interest: No conflict of interest to declare.

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30 January 2009