

Staphylococcus Lugdunensis: A Rare Pathogen for Osteomyelitis of the Foot, Kear, et. al. *The Journal of Foot & Ankle Surgery* 55 (2016) 255–259

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Level of Evidence: 4

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Described in this case report is a 66 y/o diabetic male admitted to hospital with a diabetic foot ulceration to the left sub 5th metatarsal head. The patient developed a severe skin and soft tissue infection at the ulcer location that was initially benign on radiograph and MRI evaluation (no septic joint, osteomyelitis or soft tissue emphysema); he was also treated with empiric IV antibiotics.

Within 24 hours, the patient's infection worsened with new radiographic imaging revealing erosion of the 5th metatarsal head, consistent with osteomyelitis. The patient subsequently underwent incision and drainage with 5th metatarsal head removal. Bone culture grew *Staphylococcus Lugdunensis* - sensitive to Vancomycin, Clindamycin, Bactrim and Rifampin. The patient continued with local wound care and intravenous Vancomycin until his ulcer had healed.

Staphylococcus Lugdunensis is a coagulase-negative, anaerobic, gram positive organism that can be particularly virulent and aggressive. This organism has usually been considered a skin contaminant in the past, however, if isolated through culture, should be considered a destructive pathogen with high risk of patient mortality. Although there are few case reports for this organism causing osteomyelitis (more so vertebral), it has been known to cause sepsis and severe endocarditis. *Staphylococcus Lugdunensis* is generally less antibiotic resistant than other coagulase-negative staphylococci, with therapy dictated by culture and sensitivity and/or PCR testing methods. Similar to *Staphylococcus Aureus*, *Staphylococcus Lugdunensis* can also form biofilms, making it especially difficult to eradicate when combating medical device-related infections.



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