

A RARE CASE OF STAPHYLOCOCCUS HYICUS BACTEREMIA

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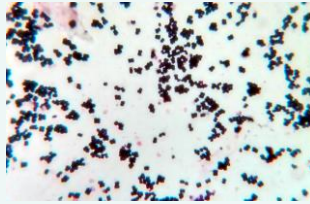


Figure 1⁴

Introduction

Staphylococcus hyicus is a gram-positive facultative anaerobic bacterium that grows as clusters of cocci. It is a known animal pathogen that can cause disease in pigs, poultry, cattle, and horses. Although it is generally not considered to be zoonotic, it can cause bacteremia and sepsis in humans. See figure 1 for microscopy of *Staph hyicus*. Hidradenitis suppurativa is a chronic inflammatory skin condition characterized by recurrent follicular inflammation. Typically it occurs in intertriginous areas. Manifestation typically includes painful skin lesions (nodules and abscesses), draining sinus tracts, and scarring. There are stages of severity (see figure 2). Diagnosis is made with clinical presentation and treatment typically includes wound care and pain management. In more severe cases, antibiotics and escalation of pain control. Surgical interventions may eventually be needed in recurrent disease. Complications include excessive scarring, bacterial superinfection, and in some affected areas, cutaneous squamous cell carcinoma.

Case Details

A 25-year-old male with past medical history of severe hidradenitis suppurativa (complicated by perianal abscesses, chronic sacral osteomyelitis, cellulitis, and sepsis), HFrEF, AVNRT, chronic iron deficiency, right eye marginal keratitis, and HCV presents from home with complaint of 2 days of generalized malaise and subjective fevers in the setting of long-term groin lesion.

Case Details continued

Upon presentation to the ED vitals showed a temperature of 99.7F, blood pressure of 102/60, heart rate of 108, respiratory rate of 23, and spO2 98% on room air. Physical examination demonstrated multiple chronic appearing wounds noted on the perineum, with acute wounds noted on the left groin with thick white purulent discharge. Pertinent labs included a white blood cell count of 25.30, lactate of 2.2, a C-reactive protein of 133, and an erythrocyte sedimentation rate of 89. CT abdomen and pelvis with IV contrast showed soft tissue gas consistent with necrotizing fasciitis. He was admitted to the ICU with diagnoses of severe sepsis and suspected necrotizing fasciitis due to poorly controlled hidradenitis suppurativa. Wound cultures collected on admission grew *Pseudomonas aeruginosa* and *Enterococcus faecium*. Blood cultures collected on admission grew *Staphylococcus hyicus*. The patient was started on IV fluids and IV antibiotics in the ED. Within minutes of starting the Zosyn infusion, the patient began to feel an itching sensation in his groin, and his heart rate increased while his blood pressure decreased (MAP 55-70). Zosyn was immediately discontinued. The patient was treated for 2 days in the ICU before being transferred to the general medicine floor for the remainder of his 8-day hospitalization. During his time at the hospital, he was seen by a multidisciplinary team. The surgery team ruled out necrotizing fasciitis and did not recommend surgical intervention. The infectious disease team recommended an antibiotic regimen including Linezolid, Cefepime, and Flagyl for 14 days.

3 Stages of Hidradenitis Suppurativa



Figure 2⁵

Outcome

The patient's symptoms improved with antibiotic administration. The patient was discharged with home infusions for continued antibiotics. An extensive discussion was had regarding the patient's housing situation. We advised the patient to maintain good hygiene and appropriate wound care. We also treated the patient's lower back pain with OMT including myofascial release and muscle energy. We advised the patient to follow up outpatient for continued

Conclusion

Although many pathogens that primarily infect animals are not considered zoonotic and a threat to people, it is still possible for infections, bacteremia, and/or sepsis due to these organisms to occur. This example of a rare case of *Staphylococcus hyicus* bacteremia demonstrates the importance of obtaining early blood cultures to help guide the clinical treatment of bacteremia and sepsis. Also consideration of social aspects of patient management. The patient was taken care of by his mother in a group home where cleanliness and hygiene may not addressed appropriately. Also, OMT is effective at treating acute and chronic somatic dysfunctions which can provide relief for patients without the need of extensive pain medication management.

References

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