



Title

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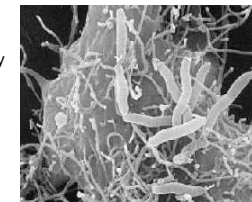
LEARNING OBJECTIVES

- Recognize uncommon causes of soft tissue infection after failure of early antibiotic treatment
- Assess for alternate epidemiologic exposure mechanisms for soft tissue infections

DISCUSSION

BACKGROUND

Aeromonas is an aerobic gram-negative rod usually found in freshwater/marine environments, most prominent in the Northern Hemisphere during the warmer months



Aeromonas not only causes disease in aquatic species, but humans as well, ranging from acute self-limited diarrheal illness to sepsis and death

The skin is the most common site of infection due to *Aeromonas* spp, usually after traumatic exposure to contaminated water or soil and predominantly involves the lower extremities

Aeromonas infection and cellulitis often develop within 8-48 hours. Systemic signs are common and can feature hemorrhagic bullae, subcutaneous bleeding, and purpura

Aeromonas is typically very susceptible to penicillins combined with beta-lactamase inhibitors, second and third generation cephalosporins, aminoglycosides, and fluoroquinolones

The patient had risk factors for cellulitis including prior lymphatic insufficiency and venous insufficiency

Another risk factor implicated for more severe infection from aeromonas is hepatic disease. Our patient had multiple hypodense hepatic lesions on CT scan and, by history, is a presumed "social" drinker of alcohol

CONCLUSIONS

Cellulitis is a common infection with a majority caused by staphylococcus and streptococcus

Presentation of uncommon etiologies can be similar to that of common pathogens

Important to take a thorough history, as it may provide clues to the source of infection, especially when the patient fails early antibiotic therapy

In settings in which patients do not respond to appropriate antibiotics for presumed common cellulitis, it may be prudent to obtain further imaging such as CT or MRI of the affected limb to rule out soft tissue collections, soft tissue emphysema, and necrotizing fasciitis

Aeromonas may be uncommon, but when it causes a soft tissue infection, the provider should be attentive to possible complications such as bacteremia and deep soft tissue infection

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CASE

HISTORY

- 71 year old man with chronic lymphedema
- Presented with a painful, purulent, malodorous, 5 x 5 cm ulcer on the dorsum of his right foot
- Had foot trauma against a radiator a few days prior to admission
- Fevers and chills for the past 24 hours and temperature 101.4°F on admission
- Denied history of diabetes mellitus, hypertension, peripheral vascular disease, or immunosuppression
- Denied recent history of travel outside of urban Philadelphia and no direct saltwater or freshwater exposures

CLINICAL COURSE

- Started on vancomycin 1 gram IV every 12 hours. On the following day, piperacillin-tazobactam 4.5 grams IV every 8 hours was added
- Continued to have low grade fever and persistent right foot swelling
- Definitive surgical debridement and deep tissue wound specimens grew *Aeromonas hydrophila* sensitive to piperacillin-tazobactam



On further history, the patient stated that he was recently cleaning and preparing fresh perch that an acquaintance had caught and delivered from Virginia

LABORATORY DATA / STUDIES

133 | 98 | 15 | 160
3.6 | 23 | 1.5 |
CK: 176 21.4 | 12.8 | 343
 32.5

Hepatitis A, B, C serologies: negative S 48%, B 39%, L 7%

Contrast CT Right Leg: cellulitis without abscess or osteomyelitis

Lower Extremity Venous Dopplers: positive for bilateral below-the-knee deep venous thromboses