

## **Background**

Necrotizing fasciitis is an infection of the deep soft tissue and fascia, below the level of the skin. The fascia is a thin layer of connective tissue that provides support to muscles, tendons, ligaments and other vital structures throughout the body. When the fascia becomes inflamed or infected, the condition is called fasciitis. While risk factors are well described, including diabetes, obesity, cancer among others, Necrotizing Fasciitis can also occur in healthy individuals with no past medical history or obvious portal of entry for the bacteria.

## **Clinical Manifestations**

Necrotizing Fasciitis most commonly involves the extremities, with legs being more common than arms, and more often than not develops acutely over a number of hours. Typical symptoms include: skin redness and severe pain out of proportion to findings on physical examination. Skin bullae and skin necrosis are present in a minority of cases and typically occur later in the course of the illness. Of note fever is absent approximately 40% of the time.

## **Diagnosis**

Necrotizing Fasciitis should be suspected in patients who present with a soft tissue infection and signs of systemic illness (fever, low blood pressure, sepsis) associated with clinical deterioration and severe pain. Necrotizing fasciitis commonly progresses rapidly, leading to sepsis, limb loss or death. Early recognition that can lead to proper management is critical. While imaging studies can be helpful in establishing a diagnosis, they cannot rule it out. Surgical exploration is the only way to establish the diagnosis of necrotizing fasciitis, and surgical consultation should not be delayed while waiting for results of diagnostic imaging studies.

## **Therapy**

When the clinical suspicion of necrotizing fasciitis exists, surgical consultation should be requested. Early surgical therapy is associated with improved patient outcomes including a lower risk of death. Initial antibiotic therapy should be broad and often includes an antimicrobial such as clindamycin with anti toxin effects against strains of *Streptococcus* and *Staphylococcus* (both common bacterial causes). Antibiotic therapy can often be de-escalated as results of cultures become available.

## **Outcomes**

Necrotizing infections are associated with high rates of death, even when standard of care is practiced. Factors that increase the risk of death include delay of surgery beyond

24 hours, elevated serum Creatinine >2.0, White Blood Cell count > 30,000, and age over 60 (among others).

### **Necrotizing Fasciitis Expert**

If you seek an expert opinion from a medical expert witness with expertise including necrotizing fasciitis, to render an opinion on causation, or to help determine if standard of care was met, please contact **Expert Infectious Diseases Consulting Services, PLLC** today at **719.470.2766**

### References

UpToDate. <https://www.uptodate.com>. Accessed Nov 22, 2023

Stevens and Bryant. Necrotizing Soft Tissue Infections NEJM 2017;377:23:2253