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Group A streptococcal necrotizing fasciitis of right arm and hand

Skin and soft tissue infection is one of the most common infections found in clinical practice. Necrotizing fasciitis is a deep tissue infection that spreads across the fascial plane within the subcutaneous tissue. It may be classified as type I (polymicrobial) and type II (monomicrobial) infections.^{1,2} Group A *Streptococcus*, Gram-positive cocci in chains, is the most common causative pathogen of type II infection.³ The infection begins locally, most often after trauma. Patients usually complain of intense pain. The involved skin and soft tissue becomes swollen, often within hours. In the early stages, the signs of inflammation may not be apparent but the skin colour may turn purplish or violet and blisters may form, with subsequent necrosis of deep tissue. Patients typically have high fever and are very toxic. These clinical features are usually diagnostic. The fluid from skin lesions or blebs may reveal Gram-positive cocci in chains. Blood cultures are frequently positive.

Treatment must be given promptly. Aggressive surgical debridement is always necessary, and amputation of the affected limbs may be needed.⁴ Antibiotics should be started as soon as this condition is suspected. Initial treatment often includes a combination of intravenous antibiotics including penicillin G or cefazolin. Some experts recommend clindamycin as an adjunctive

antibiotic therapy regarding to its ability to act under anaerobic condition of necrotic tissue, against stationary phase of bacteria, and toxin inhibition.⁵ Hyperbaric oxygen treatment can be a valuable adjunctive therapy, but is not widely available.⁶ The mortality rates have been noted as high as 70 percent.

References

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Figure 1. Hemorrhagic blebs over right arm of the patient.

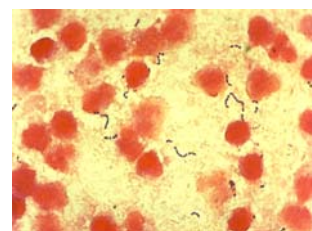


Figure 2. Gram stain of the bleb aspirate.

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