Journal of Sports Medicine and Allied Health Sciences: Official Journal of the Ohio Athletic Trainers Association

Volume 2
Issue 1 *Ohio Athletic Trainers' Association
Supplementary Edition*

Article 16

May 2016

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Recommended Citation

Donahue, Kacie K.; Johnson, M.; and Huston, Jeffery (2016) "Necrotizing Fasciitis Post-Carpal Tunnel Surgery," *Journal of Sports Medicine and Allied Health Sciences: Official Journal of the Ohio Athletic Trainers Association*: Vol. 2: Iss. 1, Article 16.

DOI: <https://doi.org/10.25035/jsmahs.02.01.16>

Available at: <https://scholarworks.bgsu.edu/jsmahs/vol2/iss1/16>

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Necrotizing Fasciitis Post-Carpal Tunnel Surgery

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Background: 59 year old female reported to the emergency room 2 ½ weeks post operation for left carpal tunnel surgery, with obvious signs of infection: drainage, crepitus, air tracking, pain, and swelling. No previous history of infection.

Differential Diagnosis: Abscess, Infection, Cyst

Treatment: Patient was admitted to the hospital where two surgeries were performed. The first surgery was a debridement of the left forearm in search of any infection. Starting from the initial incision, the cut proceeded proximally in a zig-zag pattern to avoid any neurovascular structures. This first surgery found signs of infection from the initial site through much of the distal forearm. After the conclusion of the first surgery the wound was left open with a wound VAC to help continue to clean the wound for three days. After three days, the patient was placed back into surgery where the tissues were inspected and appeared uninfected. The patient was sutured and placed on broad-spectrum antibiotics.

Uniqueness: This case's uniqueness is that the infection found in the patient's arm was necrotizing fasciitis. However, the strain of staphylococcus aureus is uncommon cause of necrotizing fasciitis. The patient's age and other health related issues (i.e. diabetes and hypertension) made her more susceptible to this infection. Along with the difference of bacteria, the infection liquefied the fat, fascia, and muscles of the ulnar aspect of the anterior forearm. The

patient also has a 30 cm scar running the length of her forearm. Following the surgeries she was in physical therapy for months trying to regain range of motion and strength in the extremity. To this day there is a drastic reduction in strength when compared bilaterally.

Conclusion: Necrotizing fasciitis is a flesh-eating disease that occurs when bacteria enters the body through a break in the skin such as a surgical incision. The condition spreads quickly and can become life-threatening in a very short amount of time. After the doctor dismissed the signs and symptoms as a minor routine post-op infection the patient found herself in the emergency room a week later undergoing another surgery that left her with loss of daily function. If the doctors or other healthcare professionals addressed the infection earlier the patient could have better function in her hand and forearm.

Clinical Application: This case can be applied to athletic training because of the likelihood of infections. It is important to know the signs and symptoms including pain or soreness in muscles, warm red or purplish skin and areas of swelling that spread rapidly. This is a scenario that could occur in a post surgical athlete, and as Athletic Trainers in settings such as colleges and universities or clinics, early recognition is key and referral to doctors is necessary

Key words: infection, necrotizing fasciitis, staphylococcus aureus