



Visual Case Discussion

Accompanying pseudoaneurysm and distant necrotizing fasciitis in an IV drug user



Najmeh Abbasi^a, Alireza Baratloo^{b,*}

^a Resident, Emergency Medicine Department, Sina Hospital, Tehran University of Medical Sciences, Tehran, Iran

^b Associate Professor, Emergency Medicine Department, Sina Hospital, Tehran University of Medical Sciences, Tehran, Iran

ARTICLE INFO

Keywords:

Aneurysm
False
Drug users
Fasciitis
Necrotizing
Soft tissue infections

The patient was a 52-year-old man was referred to the emergency ward due to right foot pain and large skin lesion. According to his history the lesion presented with a small blister appeared 10 days ago was out growing. He was an intravenous drug user since one year ago that abuse heroin via a tract in his right inguinal area. He had no history of recent trauma or fracture, and his past medical and drug history was negative for any hospitalization or known disease. On physical exam, he was in pain but completely alert and awake. His vital signs were as follow: blood pressure 130/85 mmHg, pulse rate 110/min, axillary temperature 38°C. There was a black blister with green margin on dorsal aspect of his right foot (Fig. 1). There was also another outgrowing white small blister with black margin on his thigh which appeared one day before. Crepitation was palpable throughout the right leg and the anterior part of the foot. The lesion had a very bad smell. A pulsatile 2 × 2 cm mass was palpable in his right groin. Other physical exam revealed no positive findings. Broad spectrum antibiotics were administered and vascular and orthopedic surgeons were asked for consult. In progress, the patient underwent X-ray (Fig. 2), Doppler sonography and computed tomography angiography of lower limbs, revealed that he had pseudo-aneurysm (Fig. 3) in his right femoral artery and also necrotizing fasciitis in right foot and thigh. He was undergoing a vascular surgery for the pseudo-aneurysm and amputation of lower limb above the knee. He left the hospital 10 days later in well-being.

Questions

1 What is the preferred empiric antibiotic regime for patients with

necrotizing fasciitis?

- a Penicillin G + Aminoglycoside + Clindamycin
- b Meropenem + Vancomycin + Clindamycin
- c Ceftazidime + Vancomycin
- d Ciprofloxacin + Clindamycin
- e Meropenem

2 What is the most important primary treatment for dealing with necrotizing fasciitis?

- a Surgical Debridement
- b Surgical Debridement
- c Antimicrobial Therapy
- d Hyperbaric Oxygen Therapy
- e Intravenous Immunoglobulin (IVIG)

Answers

- 1 Penicillin G + Aminoglycoside + Clindamycin. *Explanation:* Antibiotic therapy is a key consideration to cover streptococci, staphylococci, gram-negative bacilli, and anaerobes. The regimen for treatment should include a carbapenem or beta lactam beta lactamase inhibitor AND MRSA coverage AND Clindamycin (i.e.: Meropenem, Vancomycin, Clindamycin); If allergy to carbapenem, can use aminoglycoside instead.^{1,2}
- 2 Surgical Debridement. *Explanation:* Surgery is the primary treatment for necrotizing fasciitis. Surgeons must be consulted early in the care of these patients, as early and aggressive surgical debridement of necrotic tissue can be life-saving. In addition, early surgical

* Corresponding author.

E-mail address: arbaratloo@sina.tums.ac.ir (A. Baratloo).

<https://doi.org/10.1016/j.visj.2019.100602>

Received 10 February 2019; Received in revised form 1 April 2019; Accepted 8 May 2019

2405-4690/© 2019 Elsevier Inc. All rights reserved.



Fig. 1. Patient's right foot lesion appearance.



Fig. 2. Patient's right foot and leg X-rays representing considerable air via the soft tissue.



Fig. 3. Patient's CT angiography revealed a pseudoaneurysm in his right femoral artery.

amputation of the infected extremity.^{1,2}

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.visj.2019.100602](https://doi.org/10.1016/j.visj.2019.100602).

References

1. Hong SC, Choi HJ, Kim YB. Pseudoaneurysm leading to necrotizing fasciitis at the femoral arterial puncture site. *Arch Plast Surg*. 2014;41(Jan. (1)):81.
2. Li ZW, Hu GH, Yang YC. A case of cervical necrotizing fasciitis with pseudoaneurysm of the cephalic artery. *Chinese J Otorhinolaryngol Head Neck Surg*. 2008;43(Sep. (9)):706.

treatment may minimize tissue loss, eliminating the need for