

Image Diagnosis: Foot Pain and Fever



Figure 1. Anterior-posterior view of the right foot.



Figure 2. Lateral view of the right foot.

A 59-year-old man with a history of poorly controlled type II diabetes and hypertension presented to the Emergency Department complaining of 5 hours of severe right foot pain and drainage from the plantar surface. He denied trauma or inciting injury. The patient was unable to walk because of the pain. On physical examination, his temperature was 100.2 F; his heart rate was 105 beats/minute; and he had marked tender erythematous induration with a fluid-filled bulla over the dorsum of his foot. There was foul-smelling exudate draining from the first web space. Palpable crepitus was appreciated.

Anterior-posterior (Figure 1) and lateral (Figure 2) films of the foot demonstrate subcutaneous air originating in the dorsum of his foot tracking both to the plantar surface and the posterior ankle region. The patient was treated with broad-spectrum intravenous antibiotics (vancomycin, gentamicin, and metronidazole) and taken to the operating room where an open transmetatarsal amputation took place because of necrotizing fasciitis. Tissue ischemia and “bubbly tissues in the subcutaneous layer” were noted. Tissue cultures grew *Enterobacter cloacae*, *Streptococcus agalactiae*, and *Staphylococcus aureus*. This patient recovered without further complications and was discharged on hospital day 7.

Necrotizing fasciitis is characterized by widespread necrosis of the subcutaneous tissue and fascia (as evidenced by air on this patient’s plain films). Typical sites for this infection are the lower extremities, abdomen, and perineum.¹ The incidence of such infections in the US is estimated at 500 to 1500 cases per year, with a case-fatality rate of 24% and is more commonly associated with injection drug use, diabetes mellitus, immunosuppression, and obesity.^{2,3} ♦

References

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2. Anava DA, Dellinger EP. Necrotizing soft-tissue infection: diagnosis and management. *Clin Infect Dis* 2007 Mar 1;44(5):705-10.
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