



Medical Imagery

Necrotizing Fasciitis in an Elderly Diabetic Patient

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ARTICLE INFO

Accepted 13 December 2021

A 70-year-old woman with a history of diabetes mellitus, visited emergency department for left leg erythematous swelling below the knee for 2 days. Her consciousness was clear with stable vital signs. Physical examination discovered a warm erythematous soft tissue swelling with crepitus over the left leg. Laboratory tests were as follow: white blood cell count 22090/ μ L, C-reactive protein 18 mg/dL, creatine phosphokinase 185 U/L, hemoglobin 11.5 g/dL, serum creatinine 1.69 mg/dL, serum sodium 129 mEq/L, blood glucose 247 mg/dL, with LRINEC score was 11. Plain radiograph of left leg (Figure 1A) revealed subcutaneous air, which was a diagnostic criteria for necrotizing fasciitis. Computed tomography revealed subcutaneous fat stranding, fascial thickening, intermuscular fluid and air collection (Figure 1B and C). The patient received broad-spectrum antibiotics with emergent fasciotomy. Pus culture showed *Klebsiella oxytoca*, *Enterococcus faecalis*, and *Streptococcus agalactiae*. She was discharged with relatively stable condition.

Necrotizing fasciitis is a progressive life-threatening infection, which extends to the subcutaneous tissue and fascia.¹ It commonly affects the lower extremities, with involvement of the perineum or scrotum, known as Fournier's gangrene.^{2,3}

Predisposing factors including old age, diabetes mellitus, renal failure, respiratory failure, old stroke, malignancy, heart disease, and cirrhosis, with mortality rate was 32%. Delayed treatment may result in extensive loss of soft tissue associated with limb loss.⁴ The dissecting gas along fascial planes in the absence of trauma is a specific sign, but is only seen in 24.8–55.0% of patient, and may not be seen until late stage.⁵ CT might informed us the possibility of necrotizing soft tissue infection, but emergent fasciotomy should not be delay once history taking and physical examination revealed high risk of such a critical condition.

Funding sources and related paper presentations

None.

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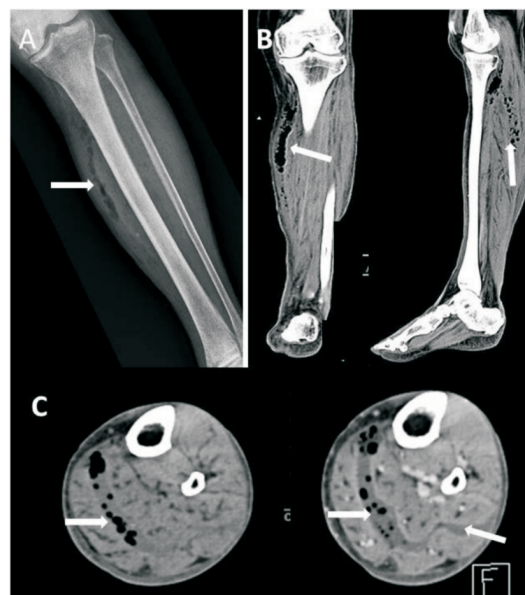


Figure 1. A. Radiograph of left lower leg showing subcutaneous air pocket tracking along fascial planes (arrows). B and C. Sagittal and axial CT of lower extremities showing subcutaneous fat stranding, fascial thickening, intermuscular fluid and air collection (arrows).

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