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A Rare Case Report Of Necrotizing Fasciitis As An Early Manifestation Of Tuberculosis

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ABSTRACT

Background: The association between necrotizing fasciitis and tuberculosis is extremely rare. We report a case in which the initial clinical presentation of tuberculosis was that of necrotizing fasciitis proven by histopathology. Repeated adequate surgical debridement was performed and was diagnosed to have pulmonary tuberculosis later on. The diagnosis of tuberculosis should be suspected in patients with necrotizing fasciitis with recurrence or unexpected slow response to surgery.

Keywords: Necrotizing fasciitis, Tuberculosis.

INTRODUCTION

Necrotizing fasciitis (NF) is a fast-progressing deep fasciitis infection with subsequent skin necrosis. A lack of immunity is a key risk factor.[1] Tuberculosis-related NF is uncommon. Because of this uncommon presentation, tuberculosis diagnosis is frequently delayed.[2] Treatment requires early detection, thorough surgical debridement, and the proper use of antibiotics and antituberculous medicines. We discuss a case of tuberculosis that presented as NF at first.

CASE REPORT

A 60 years old male came to the hospital with complaints of ulcer and swelling over the left lower limb for past 4 days. He was apparently normal 4 days back after which he developed swelling of left lower limb, which was insidious in onset and gradually progressed to attain the present state. The swelling was associated with pain and aggravated on walking and standing and relieved on limb elevation. He gives history of admission in outside hospital for the same complaints and underwent wound debridement with fasciotomy under spinal anaesthesia He had no history of trauma, abdominal pain, nausea and vomiting. He is a known case of type II diabetes mellitus for past 5 years and Systemic hypertension for past 10 years on medication. He also gives history of smoking 5 cigarettes for past 20 years and occasional alcohol consumption for past 30 years. On general examination he had left inguinal lymphadenopathy and left pedal edema present. Local examination of left lower limb shows multiple ulcers of sizes 7x4cm ulcer present over the dorsal aspect of left foot, 5x2cm ulcer present over the posterior aspect of leg and 12x5cm ulcer present over the anteromedial aspect of leg. The ulcers margins were irregular, floor of the ulcer is seen, the

ulcer wounds were unhealthy with muscles and tendons exposed, slough was present with foul smelling seropurulent discharge. On palpation Warmth and tenderness was present surrounding skin induration was present, ulcers bases were felt. All routine blood investigations were done and found to have leucocytosis and hyponatremia. He was then taken up for emergency wound debridement with fasciotomy after hyponatremia correction. culture swab demonstrated growth of klebsiella pneumonia e and staphylococcus aureus. histopathological examination showed necrotizing fasciitis involving the soft tissues of the left lower limb. Post operatively, he started developing repeated episodes of raise in temperature and continuous cough with expectoration for which respiratory medicine opinion was obtained.

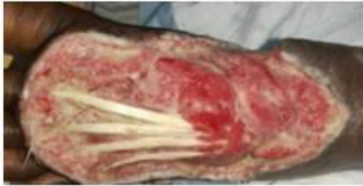

Figure A.1.:Left dorsum of foot before starting ATT

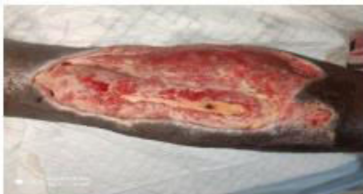

Figure A.2.: Left dorsum of foot before starting ATT

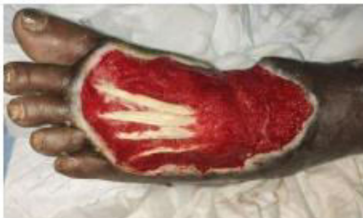

Figure B.1.: Left dorsum of foot after starting dressing

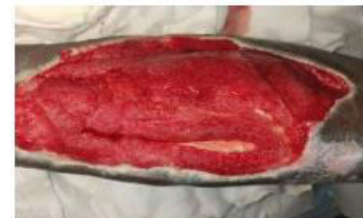

Figure B.2.: Left dorsum of foot after starting ATT

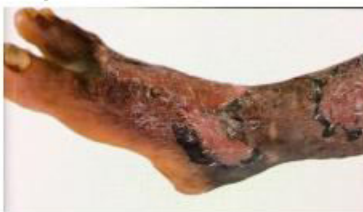

Figure C.1.: Left dorsum of Post Split skin graft

Figure C.2.: Left dorsum of foot before Post Split skin graft

and advised with CECT chest which revealed few centrilobular nodular opacity with tree in bud appearance, involving the anterior and posterior segment of right upper lobe following which sputum AFB was done which was positive. He was then started on antitubercular therapy as per respiratory medicine advice and was on observation for 2 month.
Simultaneously he was on regular dressing. His wound condition was comparatively better after repeated dressings, so was planned for vacuum assisted closure and underwent 3 sitting of vac dressing after which wound turned Healthier, granulating. He was then planned for Split skin graft and underwent the procedure under spinal anaesthesia. On 5th post operative day dressing was opened and found that the graft uptake was nearly 95%, staplers were removed. As his condition improved, he was discharged with antitubercular therapy after obtaining respiratory medicine review. He was on regular follow up in surgery and respiratory medicine department.

DISCUSSION

Necrotizing fasciitis is a dangerous infection that progresses over the fascial plains quickly and progressively.[3] According to its etiology, NF is divided into primary and secondary kinds. In both primary and secondary NF, diabetes mellitus is the most common predisposing condition.[4] Our diabetic patient was one of ours. In rare circumstances, NF might be the first sign of tuberculosis[5] Immune deficiency is a key risk.[4] At first, constitutional tuberculosis symptoms such as low-grade fever, anorexia, and weight loss may be absent.
The first clinical presentation in our patients was that of NF. The results of laboratory tests are usually the same as with other major acute illnesses.[6] All individuals diagnosed with tuberculosis should be tested for HIV.[8,9] Both of our patients had HIV tests that came out negative. Histopathology of the removed tissues confirmed the diagnosis of NF. As illustrated in our patient, a normal chest X-ray does not rule out tuberculosis.[10] Early diagnosis, significant surgical debridement, and effective medication therapy are all important factors in the prognosis of NF.[1]

CONCLUSION

Finally, tuberculosis should be recognised in patients with NF who have recurrence or a poor response to surgery due to weakened immunity, so that proper treatment can be started as soon as feasible.

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