

Necrotizing fasciitis of breast

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Necrotizing fasciitis is an uncommon and rapidly progressive, life-threatening soft tissue infection. Necrotizing fasciitis of breast is even rarely encountered. We managed one such 32 years old nondiabetic, obese lady who developed necrotising fasciitis of right breast after lumpectomy. Management involved wide debridement, antibiotics and wound care.

Case Report

A 32 years old female reported after eight hours of having undergone excision of lump in the left upper quadrant of right breast. The patient had felt reddish discoloration and increasing pain of the right breast after 2-3 hours of the procedure. The patient had no significant past medical or surgical history. On examination, the patient was uncomfortable due to pain, was febrile with a temperature of 38.2 °C and a pulse of 114/minute. There was erythema and warmth over the upper inner and outer quadrants of right breast with marked tenderness. His BMI was 33.33. The laboratory parameters on admission showed a haemoglobin of 10.4mg/dl, leucocytosis (WBC count – 14200/cc with Polys 79%, lymphocytes 19% and eosinophils 2%), C- reactive protein level of 124mg/dl, normal serum Sodium and potassium. The random blood sugar level was 107 mg/dl and The blood urea was 11mg/dl and serum creatinine was 1.2mg/dl.

The patient was started on intravenous antibiotics and analgesic but even after 10 hours, there was no relief in symptoms and the tender area over the breast increased. Sonography revealed increased echogenicity of the fatty tissue with multiple small fluid collections in deeper tissues. MRI study was planned but the patient could not afford it as it had to be done in private sector due to non availability in the hospital and hence it was decided to explore the breast under general anaesthesia. A wide incision was made over the area of maximal tenderness and erythema. The sternal fascia was found to be necrotic and there was a copious greyish foul smelling, dishwater pus. The underlying pectoralis muscle was healthy and the overlying breast parenchyma was viable and therefore preserved. (Fig 1) Necrotising fasciitis was diagnosed on the basis of these operative findings.



Figure 1. Necrotic Fascia with Minimal Bleeding and Healthy Pectoral Muscles

The necrotic fascia, nonviable skin, and subcutaneous tissue were excised completely. After twentyfour hours , a second look exploration under general anesthesia did not reveal any further progression of disease and the wound was further managed with regular dressings and antibiotics were administered on the basis of microbiological analysis of the pus which grew streptococcus pyogenes and E.coli. Healing occurred by secondary intention leaving a depressed scar about 4 cms in length. The histopathology report of the excised lump did not reveal features of fibroadenoma or carcinoma.

Discussion

Necrotising fasciitis is an uncommon infection of subcutaneous tissue and superficial fascia that is associated with systemic toxicity , fulminant course and high mortality and long term morbidity rates¹. Necrotising fasciitis can occur after surgical procedures, minor trauma, in the setting of a chronic wound , drug injections or may occur spontaneously². It is often associated with advanced age, chronic renal failure, obesity, malnutrition, alcoholism, postpartum state, steroid intake, immune-compromise, peripheral vascular disease or diabetes³ but may be initiated in an otherwise healthy person. A number of bacteria in isolation or as a polymicrobial infection can cause this condition⁴. The microbes most closely linked to necrotising fasciitis are group A beta-hemolytic streptococci, although the disease may also be caused by other bacteria like enterobacteriaceae or different streptococcal serotypes.

Necrotising fasciitis of the breast is a rare entity and only a few cases have been reported in the literature^{2,5-9}. The most consistent feature is pain out of proportion to the visible local signs like erythema and warmth, as was the presentation in our case. The disease usually gets initiated by some surgical intervention like biopsy and due to paucity of signs, may get misdiagnosed as cellulitis, abscess or even as a carcinoma. In our case, cyst aspiration had triggered this condition and obesity was the only identifiable comorbidity. As far as the diagnosis is concerned, the key factor lies in awareness and early suspicion of this condition. Imaging modalities like ultrasonography and MRI can aid in reaching the diagnosis⁹⁻¹⁰.

Treatment is wide and earliest possible debridement with parenteral antibiotics . Cases getting diagnosed later may require mastectomy but if condition is managed early, breast can be salvaged due to its robust blood supply^{10,11}.

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