

Case Report on Necrotising Fasciitis of Breast

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Abstract: Necrotizing Fasciitis (NF) is a rapidly spreading flesh eating disease of skin & subcutaneous tissue. NF was initially termed "streptococcal gangrene" by Meleney.¹ NF can involve any part of the body mostly perineal region & anterior abdomen wall but involvement of breast is extremely rare.

Keywords: Breast, Necrotizing Fasciitis, Postpartum

I. Introduction

Necrotizing Fasciitis is a potentially fatal condition usually polymicrobial in nature. It can occur after trauma, teeth bites, around foreign body, surgical wound sites, intra venous drug abusers, diabetes, immunocompromised host, iatrogenic trauma by needle aspiration of breast under septic condition, application of belladonna on cutaneous breast abscess or can be idiopathic. It affects mainly the perineum, abdominal wall and extremities, though uncommonly it can occur anywhere in the body and rarely affects the breast. Neglected breast infection in early puerperal period can land up in necrotizing Fasciitis. Delayed diagnosis and incomplete treatment can lead to increased chance of sepsis and MODS (Multiple Organ Dysfunction Syndrome). Acute inflammatory infiltrate, severe necrosis of breast tissue, necrotising arteritis and venous thrombosis is observed on histopathology. We are reporting a case of Necrotizing Fasciitis of breast in early post-partum period.

II. Case Report

A 21 year old patient underwent normal full term vaginal delivery at this institute one month back reported to surgery outdoor with large wound in lower half of her left breast with purulent discharge. The wound was covered with massive slough and overlying nipple areola complex was gangrenous (fig. 1)



Figure 1

She also complains of fever with throbbing pain in her left breast. She has taken treatment for the same from private hospital in form of conservative treatment with no relief and worsening of symptoms. Patient was referred to PGIMS Rohtak for further management. On examination her vitals were stable, she was febrile. Her investigations revealed Hb 10.6, TLC 16000, Platelet count 2.5 lacs, Random Blood Sugar 98 mg/dl. She was taken up for emergency debridement under general anaesthesia (Fig.2) and was put on intravenous antibiotics.



Figure 2

Post operatively regular dressing led to proliferation of granulation tissue as depicted in (Fig.3).



Figure 3

She is being planned for reconstructive surgery after about 6 weeks when the wound is filled with substantial granulation tissue.

III. Discussion

NF of breast is a rare entity. Shah et al. reported the first case of NF of the breast in the English literature.² A thorough search showed paucity of literature on this entity. NF most commonly involves scrotum (Fournier's gangrene), Meleneys ulcer (affecting anterior abdominal wall), extremities and perineal region.³ Breast gangrene is a Fournier type of gangrene caused by massive fulminating type of infection complicated by obliterative arteritis. Micro thrombi are often the cause of this necrosis. Due to extensive thrombosis in subcutaneous vessels the administered antibiotics do not reach the infected regions in sufficient quantity to be effective. It is usually a unilateral infection and rarely can occur in both breasts. Preceding mammary mastitis or breast abscess is seen before occurrence of gangrene but it may rarely occur over without preceding mastitis. Spontaneous occurrence of breast gangrene of unknown aetiology was reported by Cutter in his case of apoplexy of breast.⁴ Type of necrosis in gangrene of breast is a coagulative necrosis or dry type of necrosis. NF affects mostly immune compromised host, diabetes, chronic renal failure, peripheral vascular disease, and advanced age. In developing countries like India, patient often present late and at advanced stage due to illiteracy and low socio – economic status. Patients are often neglected and show up after failed treatment from local remedies and quacks. Diagnosis of NF is mainly based on clinical ground (severe pain disproportionate to local finding along with systemic toxicity) but adjuvants like LRINEC scoring system can lead to precision in diagnosis.⁵ Early diagnosis is not always possible, because signs such as erythema, tenderness, swelling, and fever accompany other inflammatory states of skin and subcutaneous tissue (e.g., cellulitis). Large haemorrhagic bulla, skin necrosis, sensory deficits & crepitus are all late features.^{6,7} There are mainly two types of NF described. Type I-polymicrobial in nature and type II-monomicrobial in nature usually caused by group A Streptococcus (*Streptococcus pyogenes*) either alone or in association with *Staphylococcus aureus*.⁸ Management includes immediate supportive treatment in form of broad spectrum antibiotics and extensive surgical debridement.^{9,10} Grafting is done when there is large deficit sometimes mastectomy is mandatory in extensive involvement.

IV. Conclusion

Though NF of breast is rare and fatal condition, but with help of broad spectrum antibiotics and aggressive surgical intervention morbidity can be decreased.

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