

A case of bilateral breast gangrene in lactating non diabetic young lady

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ABSTRACT

This report describes an unusual case of gangrene affecting the breast in a lactating non-diabetic patient. She was admitted to Minia University hospital complaining of swelling, pain and blackish discoloration of both breasts that was more extensive on the left side. Wound cultures revealed heavy growth of *Styphalococcus aureus* showing sensitivity to linzeolid, Methicillin and Vancomycin. Blood culture was sterile. Examination revealed that both breasts were large, tender and the gangrene involved all quadrants of the left breast and the medial side of the right breast (15x7 cm). Debridement was carried out and then skin graft was carried out for the left breast and primary closure for the right breast. The objective of this case report is to study clinical presentation and management of young female with breast gangrene.

Keywords: Breast; Gangrene; young female

Breast gangrene occurs rarely and its etiology is variable and multifactorial. There are only few cases of breast gangrene reported in the literature [1]. Breast gangrene is considered as Fournier type of gangrene caused by massive fulminating type of infection complicated by obliterative arthritis. Gangrene of breast is usually a unilateral affection, and rarely can occur in both breasts. Preceding mammary mastitis or breast abscess without any mastitis is seen before occurrence of gangrene. Type of necrosis in gangrene of breast is a coagulative necrosis or dry type of necrosis. Breast gangrene is frequently reported with use of anticoagulant therapy, trauma, thrombophlebitis, puerperal sepsis, pregnancy, and lactation. Diabetes mellitus, beta hemolytic streptococci infection, or carbon monoxide poisoning are other causes which can incite gangrene of breast [2,3,4]. Recently there has been seen in HIV infection [5]. Sometimes, they can be idiopathic or, after taking core biopsy of breast or can occur after surgery [6]. Its medico-surgical management is an emergency. Treatment involves

debridement, antibiotics and sometimes mastectomy [7]. The aim of this report was to present clinical presentation and management of young lady with breast gangrene.

CASE REPORT

A 35-year-old married female and has 3 offspring's, was admitted to Minia University hospital complaining of swelling, pain and blackish discoloration of both breasts that was more extensive on the left side. There was no history of trauma, drug intake, immunodeficiency disorder or application of topical agent. She was not diabetic. The patient was lactating for 5 months. She was pale, and in a toxic state on presentation with temperature of 39°C, pulse of 100/min and blood pressure of 90/60 mm-Hg. She had tinge of jaundice and lower limb edema. Examination revealed that both breasts were large, tender and the gangrene involved all quadrants of the left breast and the medial side of the right breast (15x7cm) (**Fig. 1**). Her total leucocyte counts were 23,000/mm³, hemoglobin 8.5

gm/dl, random blood sugar was normal and total serum bilirubin 0.8 mg/dl. Wound cultures revealed heavy growth of *Staphylococcus aureus* showing sensitivity to

linzeolid, methicillin and vancomycin. Blood culture was sterile. Ultrasonography showed that the underlying breast tissue was normal.



Figures: Fig. 1 - Preoperative , bilateral inflamed gangrenous both breasts. Fig. 2 - Right breast after 1st debridement session. Fig. 3 - Both breasts after 2nd debridement session with kept nipple areola complex in both sides



Figure: Fig. 4 & 5 - Immediate postoperative period showing partial thickness skin grafting in left breast (5) and primary closure with interrupted simple stitches in right breast (5). Fig. 6 – 15th day postoperative period



Figures: Fig. 8, 9, & 10 showing breasts at one month postoperative period

The plan of treatment was repeated debridement and twice daily dressing along with intravenous antibiotics and supportive treatment and maintenance of hydration to improve general condition. Debridement was done 3 times (5 days interval between each session) and repeated dressings was done using Bactroban alternative with Apicare ointment and natural honey (**Fig. 2 & 3**).

Then the patient was referred to plastic surgery department where skin graft was carried out for the left breast and primary closure for the right breast (**Fig. 4 & 5**). This was done in one session under general anesthesia, patient was discharged on 4th postoperative day and follow up was done in the outpatient clinic. The right side of breast healed very well and stitches were removed after 8 days. The left breast graft was taken in place in about 75% of the raw area, and rest was left for healing with dressing and there was no need for further grafting (**Fig. 6, 7, 8, 9**).

DISCUSSION

Breast gangrene is rarely seen in surgical practice [2]. Wani et al, in their prospective study in India over 6 years, reported 10 cases of breast gangrene. All were lactating females with breast abscess and initiating factors were teeth bite during lactation, or iatrogenic trauma by needle aspiration of breast abscesses under unsterilized condition [1].

Primary breast gangrene was reported previously in an HIV-positive patient as the first presentation with severe necrotizing infections and ended up with mastectomy [5]. Jody and Sivakumaran reported another case of synergistic gangrene of the breast in a patient with type 2 diabetes [8]. Sameer A et al reported a case of right breast gangrene as a complication of puerperal sepsis in a female patient [9].

Debridement was carried out in our case, while Khalid reported a typical case of warfarin-induced breast necrosis in a 38-year-old obese Saudi female within one week of initiation of high-dose warfarin therapy and an urgent surgical debridement revealed extensive necrosis of the skin and breast substance was carried out. She ended with total mastectomy [10].

Successful surgical outcome is usually expected secondary to expeditious surgical intervention in the form of wide local excision of the gangrenous breast with proper toileting tissue along with broad-spectrum

antibiotics followed by reconstructive procedures. Serial debridement is required in some patients where there is diffuse involvement. Grafting is done where there is large deficit. Sometimes mastectomy is mandatory in extensive involvement [7].

CONCLUSION

Gangrene of breast is rare. Sometimes gangrene of breast can be of idiopathic cause. Debridement continues to be gold standard in gangrene of breast.

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