



Case Report of Breast Gangrene

Authors

Rajashri Kelkar*, Priya Ahire, Mahendra S. Navare, Aditi Agrawal, Tanvi M. Shah

*Corresponding Author

Dr Rajashri Kelkar. MS, FRCS

A-3, Anandchaya, P. Balu Road, Prabhadevi, Mumbai- 400025

Mobile No: 9820570477, Landline No: 022 24366375, Email: rajashri19@yahoo.co.uk

Abstract

Breast gangrene is a rare but possible complication of inadequate breast abscess drainage in a lactating mother. Associated with very devastating physical and psychological consequences. Fulminating infection of the breast can lead to gangrene quickly if breast abscess is treated with inadequate drainage of pus.

We present the case of a young lactating mother who was operated for Breast abscess. Inadequate drainage of the abscess led to breast gangrene within 4 days.

A high index of suspicion of breast abscess is necessary in a lactating mother who complains of breast pain and fever. Breast abscess should be adequately drained with appropriate antibiotics cover.

Keywords: Breast, Gangrene, lactation.

Introduction

Gangrene of the breast is seen rarely in Clinical practice. It can be idiopathic or secondary to different causes. Teeth bite, trauma due to needle aspiration^[1] or inadequate drainage of breast abscess can lead to breast gangrene. Application of Belladonna for superficial breast abscess can also lead to development of breast gangrene^[1]. A spontaneous occurrence of breast gangrene of unknown etiology was reported by Cutter in his case of apoplexy of breast^[3]

Mastitis & breast abscess can lead to breast gangrene if not treated appropriately. Adequate incision and drainage with appropriate antibiotics is necessary to avoid development of breast gangrene

Case Report

A 23 year old lactating primipara, 2 months post-partum, with no co-morbid conditions, came with complaints of blackening of entire left breast & high grade fever since 2 days. She gave history of undergoing incision and drainage of a swelling in the left breast 4 days ago.

On examination, she was febrile & tachycardiac with clinical signs of toxemia. On local examination extensive blackening of the entire left breast including nipple-areola complex was seen. Pus discharge was seen from the incision site over upper-inner quadrant.



She was immediately hospitalized & started on intra-venous fluid resuscitation. Pus was sent for culture & sensitivity, following which intra-venous co-amoxiclav was started empirically & wound was dressed. Investigations showed Hb = 10gm% with leukocytosis; WBC= 18000. Rest of all parameters were normal. Patient was posted for emergency debridement.



On debridement, pus was seen in all the quadrants with necrosis of skin, nipple-areola complex and almost entire breast tissue. Pus was drained and complete debridement was done which amounted to a partial simple mastectomy.



Pus culture showed Methicillin resistant staphylococcus aureus, sensitive to co-amoxi-clav.

Antibiotics, according to culture sensitivity report were continued for 10 days.

Daily dressings were given for first 72 hours and then Vacuum assisted closure dressings were done for 15 days. Wound shrunk in size and secondary suturing could be achieved without tension.



Pus, acute inflammatory exudate, severe necrosis of breast tissue along with venous thrombosis was reported in histopathology.

Patient was discharged after 20 days of treatment & was advised to follow up after 6 months for breast reconstruction.

Discussion

Gangrene is the necrosis of the tissue with added putrefaction. Gangrene of the Breast is a very rare clinical entity. A series of 10 patients of breast gangrene was presented by Wani & Bakshi in 2011. Most common cause of breast gangrene noted in literature is breast abscess progressing to gangrene, in a lactating mother^[1, 4].

Breast gangrene is considered as Fournier type of gangrene caused by massive fulminating type of infection complicated by obliterative arteritis. Histologically Type of necrosis seen is a coagulative necrosis or dry type of necrosis. 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. Breast gangrene is well reported with use of anticoagulant therapy, trauma,

thrombophlebitis, puerperal sepsis, pregnancy, lactation, diabetes mellitus, beta hemolytic streptococci infection & carbon monoxide poisoning.^[1, 2,4-8] Recently it has been reported in association with HIV infection^[8]. Less commonly it can be idiopathic^[3] or, after a core biopsy of breast^[1]. Variations to cutaneous response and hypersensitivity to belladonna application in some rural area for breast abscesses have been reported in a single case series^[1].

Patients often present late with rapidly progression to septic shock & multi-organ failure. Prompt identification & rigorous resuscitation with correction of fluid electrolyte & acid base imbalance, broad spectrum antibiotics & radical debridement of all necrotic tissue is the gold standard in the management.

Conclusion

During lactation many women complain for breast pain while feeding. Inflammation of breast indicating a breast abscess is a late sign. High level of suspicion is necessary. If a lactating woman complains of breast pain, fever, evaluation for breast abscess should be done at the earliest.

Patient education regarding lactation is of prime importance to avoid development of mastitis, breast abscess and subsequent gangrene formation.

Ultrasound should be done for all lactating women complaining of breast pain & fever.

Adequate incision & drainage of the breast abscess should be done as an emergency to avoid formation of breast gangrene. Antibiotics, according to culture sensitivity is also of prime importance.

Conflict of interest: None to declare

The authors declare that they have no competing interests.

No source of funding present from any institute or any agency

References

1. Wani I, Bakshi I, Parray FQ, Malik AA, Wani RA, Shah M, Husasin I, Malik A, Wani S, Syed W. Breast gangrene. *World J Emerg Surg.* 2011 Aug 19;6:29. doi: 10.1186/1749-7922-6-29. PubMed PMID: 21854557; PubMed Central PMCID: PMC3173289.
2. Charles S. Kipen Gangrene of the Breast -- a Complication of Anticoagulant Therapy - - Report of Two Cases. *N Engl J Med.* 1961;265:638-640. doi: 10.1056/NEJM196109282651307. [PubMed] [Cross Ref]
3. Cutter EC. Apoplexy of breast. *JAMA.* 1924;82:1763
4. Breast gangrene: a rare source of severe sepsis Swati Agrawal1, Kumar Jayant2, Rajendra Agarwal *BMJ Case Reports* 2014; doi:10.1136/bcr-2013-203467
5. Helfman RJ. Gangrene of the Breast. *N Engl J Med.* 1962;266:55-56
6. Nudelman H, Kempson R. Necrosis of the breast: A rare complication of anticoagulant therapy. *Am J Surg.* 1966; 111(5):728-733. doi: 10.1016/0002-9610(66)90051-1. [PubMed] [Cross Ref]
7. Sameer R, Quentin N, Ashish R, Abhay N. Breast gangrene as a complication of purperial sepsis. *Arch Surg.* 2002;137: 1441-1442. doi: 10.1001/archsurg.137.12.1441. [PubMed] [Cross Ref]
8. Saira N, Kamran M, Mohsin A, Hasnan Z, Memon A. Necrotising fasciitis of the breast. *The Breast Journal.* 2006;12:168-169. doi: 10.1111/j.1075-122X.2006.00227.x. [PubMed] [Cross Ref].