Research Paper

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# Granulomatous Mastitis – A Case Study with Review of Literature

Medical Science

**KEYWORDS :** Granulomatous mastitis, breast abscess, TB breast, recurring breast abscess, corticosteroid therapy

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## ABSTRACT

*We report a case of idiopathic granulomatous mastitis in a 26 year old female who presented to us with a fluctuating tender mass in left breast. Considering it to be a breast abscess due to history of breast feeding, an incision and drainage was done. The lesion recurred after two weeks. A biopsy was taken and histopathological examination revealed it to be a case of granulomatous mastitis.*

**Introduction**

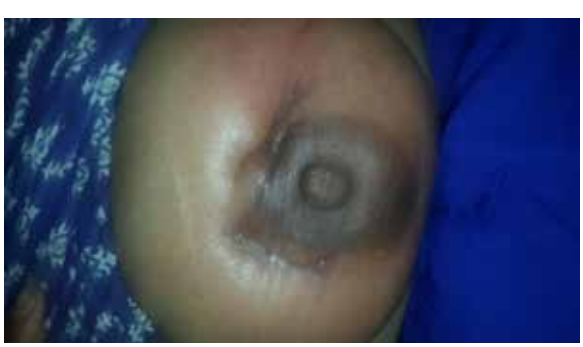
Idiopathic granulomatous mastitis is a rare benign breast disease, first described by Kessler and Wolloch in 1972. It is characterized by chronic, necrotizing granulomatous lobulitis of unknown etiology, and its clinical features mimic those of mammary carcinoma. There is no standard treatment, but excisional biopsy, with or without corticosteroid therapy, has often been used

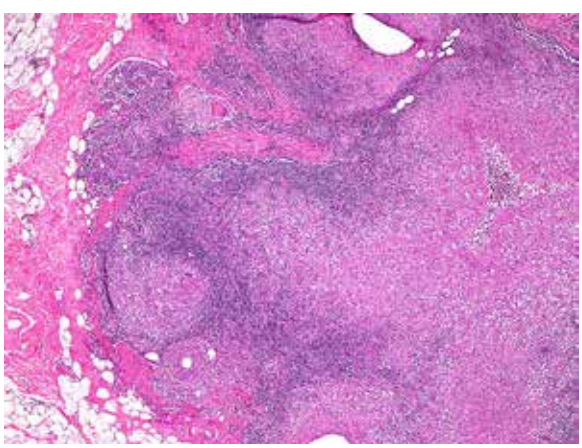
**Case Summary**

A 26 year old female patient presented to the surgical OPD at Osmania General Hospital with the complain of a tender mass in her left breast. The mass was erythematous, tender and fluctuant. There was history of similar complaint one month back for which an I&D was done in a private hospital. She was breast feeding at the time of presentation. Considering it to be an unresolved breast abscess, another I&D was done and aspirate sent for culture and sensitivity. The patient was sent home on empirical antibiotics. She returned to the OPD two weeks later with similar complaint at the same site. Her previous aspirate was reported to be sterile.

On investigation, her Hb was 11gm%, TLC was 7000/mm3 and ESR was 18mm. Ultrasound revealed a mass in the upper outer quadrant with an overlying subcutaneous collection. Culture of aspirate showed no growth. AFB staining was negative.

**Gross appearance of the inflamed breast**





**Histopathological appearance**

Under general anaesthesia, exploration was done. A hard mass was found underneath an erythematous skin patch with minimal discharge. An incision biopsy was taken.

The histopathology report revealed a picture of granulomatous mastitis i.e polymorphonuclear leukocytes, epithelioid cells, plasma cells and giant cells such as the Langhans type or foreign-body type.

The patient is currently started on steroid therapy and is being followed up for improvement.

**Discussion**

Idiopathic granulomatous mastitis should be differentiated from other chronic inflammatory breast diseases such as mammary duct ectasia (plasma cell mastitis, subareolar granuloma and periductal mastitis), Wegener's granuloma, sarcoidosis, tuberculosis and histoplasmosis. This condition is characterized by chronic lobulitis with granulomatous inflammation. The inflammatory lesion consists of polymorphonuclear leukocytes, epithelioid cells, plasma cells and giant cells such as the Langhans type or foreign-body type.

The etiology of idiopathic granulomatous mastitis is still unknown. Keller and Wolloch proposed an autoimmune pathogenesis. A localized immune response to extravasated secretions from lobules has been suggested, since many patients had

previously given birth or were lactating at the time of the initial symptoms. In a recently reported case, immunohistochemical staining showed that the lesion contained predominantly stromal T lymphocytes. It is possible that damage to the ductal epithelium produced by local trauma, a local "chemical" irritant, or viral infection caused a localized immune response, and induced lymphocyte and macrophage migration. However, there has been no evidence of systemic immune abnormalities such as the formation of autoantibodies or antigen-antibody complexes.

The recommended treatment for granulomatous mastitis is complete resection or open biopsy with corticosteroid therapy. Granulomatous mastitis is sometimes complicated by abscess formation, fistulae, and chronic suppuration

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## REFERENCE

1. D. Diesing, R. Axt-Fliedner, D. Hornung, J. M. Weiss, K. Diedrich, and M. Friedrich, "Granulomatous mastitis," Archives of Gynecology and Obstetrics, vol. 269, no. 4, pp. 233–236, 2004. View at Google Scholar • View at Scopus 2. E. Kessler and Y. Wolloch, "Granulomatous mastitis: a lesion clinically simulating carcinoma," The American Journal of Clinical Pathology, vol. 58, no. 6, pp. 642–646, 1972. View at Google Scholar • View at Scopus 3. K. L. Brown and P. H. L. Tang, "Postlactational tumoral granulomatous mastitis: a localized immune phenomenon," The American Journal of Surgery, vol. 138, no. 2, pp. 326–329, 1979. View at Google Scholar • View at Scopus 4. Y. Erhan, A. Veral, E. Kara et al., "A clinicopathologic study of a rare clinical entity mimicking breast carcinoma: idiopathic granulomatous mastitis," Breast, vol. 9, no. 1, pp. 52–56, 2000. View at Publisher • View at Google Scholar • View at Scopus 5. S. Akbulut, Z. Arikanoglu, A. Senol et al., "Is methotrexate an acceptable treatment in the management of idiopathic granulomatous mastitis?" Archives of gynecology and obstetrics, vol. 284, no. 5, pp. 1189–1195, 2011. View at Google Scholar • View at Scopus 6. E. C. H. Lai, W. C. Chan, T. K. F. Ma, A. P. Y. Tang, C. S. P. Poon, and H. T. Leong, "The role of conservative treatment in idiopathic granulomatous mastitis," Breast Journal, vol. 11, no. 6, pp. 454–456, 2005. View at Publisher • View at Google Scholar • View at Scopus 7. K. Schelfout, W. A. Tjalma, I. D. Cooremans, D. C. Coeman, C. G. Colpaert, and P. M. Buytaert, "Observations of an idiopathic granulomatous mastitis," European Journal of Obstetrics Gynecology and Reproductive Biology, vol. 97, no. 2, pp. 260–262, 2001. View at Publisher • View at Google Scholar • View at Scopus 8. J. Kim, K. E. Tymms, and J. M. Buckingham, "Methotrexate in the management of granulomatous mastitis," Australia and New Zealand Journal of Surgery, vol. 73, no. 4, pp. 247–249, 2003. View at Publisher • View at Google Scholar • View at Scopus 9. G. B. Taylor, S. D. Paviour, S. Musaad, W. O. Jones, and D. J. Holland, "A clinicopathological review of 34 cases of inflammatory breast disease showing an association between corynebacteria infection and granulomatous mastitis," Pathology, vol. 35, no. 2, pp. 109–119, 2003. View at Publisher • View at Google Scholar • View at Scopus 10. K. E. Bani-Hani, R. J. Yaghan, I. I. Matalka, and N. J. Shatnawi, "Idiopathic granulomatous mastitis: time to avoid unnecessary mastectomies," Breast Journal, vol. 10, no. 4, pp. 318–322, 2004. View at Publisher • View at Google Scholar • View at Scopus