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CASE STUDY

IDIOPATHIC GRANULOMATOUS MASTITIS MIMICKING CARCINOMA BREAST- A CASE REPORT

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ABSTRACT

Idiopathic granulomatous mastitis is rare entity of breast simulating carcinoma clinically and its aetiology being unclear. We report this case as how idiopathic granulomatous mastitis can mimic other breast disease, correct diagnosis , treatment may prevent recurrence and avoid various iatrogenic complications.

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INTRODUCTION

Idiopathic granulomatous mastitis (IGM) is rare breast disease often mistaken for carcinoma clinically. The diagnosis once made helps in proper management of patient. The etiology being not well understood, but a immune mediated response has been implicated. The final diagnosis is established by histopathology. We report a case of IGM with clinical presentation, diagnosis and treatment outcome of this overdiagnosed breast lesion.

Case report

A 28 years presented to surgical oncology outdoor department with complains of lump in left breast where she was examined and was referred to cytopathology for fine needle aspiration. On getting further information the patient was operated for the same 2 years back but no histopathological report was available with her. On examination a lump 3x2 cms on left breast was noted, firm in consistency and was tender just below the nipple area. A scar mark was seen in inner upper quadrant.

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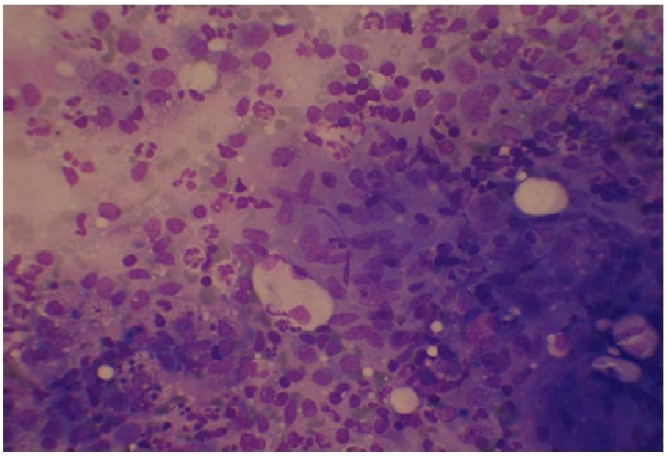
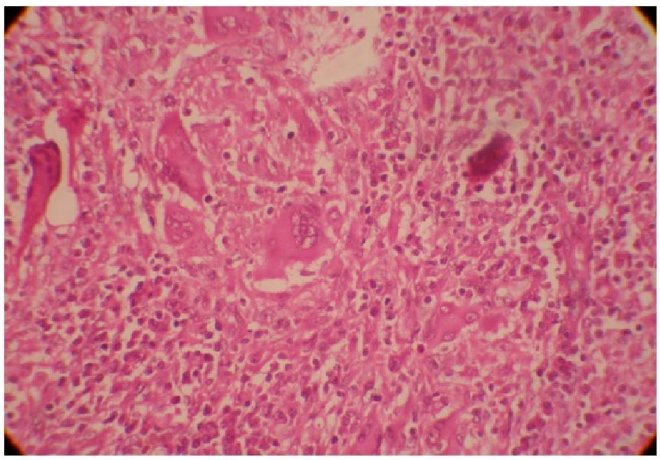
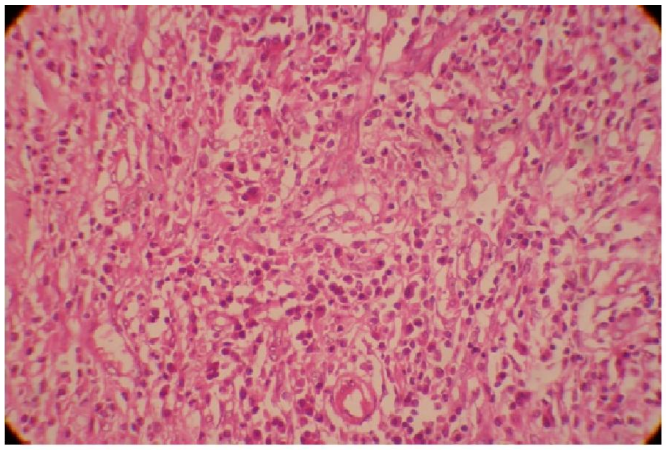
FNAC was performed which revealed neutrophils, histiocytes, plasma cells admixed with epithelioid cells and multinucleated giant cells (Figure 1). Diagnosis of inflammatory pathology was offered. Patient was given fifteen days of antibiotic course and was asked to visit the outdoor after fifteen days. Meanwhile, taking the medicine she presented just five days after FNAC procedure with complaints of increased unbearable pain in same breast. She was posted for lumpectomy after pre-anaesthetic check up. Lumpectomy specimen was received which was measuring 4x3x2 cms, yellow-white areas were seen. Various sections were taken and was subjected to H& E staining with special stains like ZN and grocott stain. Histopathology showed numerous, discrete non-caseating granuloma composed of epitheloid cells and Langhan's type of giant cells centered on lobular units. Lymphocytes and polymorphs were also seen at places. Few of the ducts were damaged and atrophied. (Figure 2 and 3) AFB and Grocott stains were non-contributory. So diagnosis of idiopathic granulomatous mastitis after ruling out other conditions of granulomatous mastitis like sarcoidosis, Wegner's granulomatosis, tuberculosis, foreign body reaction, syphilis, parasite and mycotic infection. The patient was put on sterioid for six months and henceforth after one year she has no similar complains.



MGG stain showing polymorphs , plasma cells amidxed with histiocytes, epithelioid cells and multinucleated giant cells (40 x)



H&E showing non-caseating granuloma composed of epitheloid cells and langhan type of giant cell centered on lobular units amidst of polymorphs and lymphocyte. (40 x)



H&E showing Few of the ducts were damaged and atrophied with inflammatory cells. (40 x)

DISCUSSION

IGM is immunologically mediated chronic inflammatory disease and requires expertise in diagnosis.[1] This type of condition was described first by Kessler and Wollock in 1972 but later in 1987 was known as granular lobular mastitis by Going et al based on histological findings.[2,3] IGM being chronic inflammatory condition the etiology remains unclear but oral contraceptive pills reaction, infection with pathogens unidentified. [4-5] Conditions such as breast feeding, pregnancy, breast trauma, hyperprolactinemia and alpha-1-antitrypsin deficiency have been implicated with increased risk for IGM. [6-8] The presentation being a firm mass with tenderness involving one breast but in 25% cases both breasts may be involved.[9] Frequently IGM is seen in premenopausal women, but the age of presentation may vary. Diagnostic investigation like mammography, fine needle aspiration, trucut biopsy along with contrast-enhanced MRI are helpful. A true-cut biopsy is suggested in case of doubt[10]. Other condition should be excluded like exclusion of conditions like sarcoidosis, Wegner's granulomatosis, tuberculosis, foreign body reaction, syphilis, parasite and mycotic infection which was done in our case too. The IGM is a mimicker of carcinoma breast, so proper histopathological assessment is necessary which shows numerous, discrete non-caseating granuloma composed of epithelioid cells and Langhan's type of giant cell centered on lobular units with inflammatory cells a long with damaged and atrophied ducts. As patients with IGM the initial presentation leads to the use of antibiotics as was seen our case patient developed symptoms suggestive of infective mastitis or abscess. The condition of patient worsened, so she was subjected to lumpectomy. The treatment for IGM initially is conservative. Systemic antibiotics, anti-inflammatory medications, immunosupressors like methotrexate, colchicine, local infiltrations are also helpful. In our case, patient was put on sterioid with tapering dozes for six months and henceforth year later she has no similar complains.

Conclusions

Idiopathic granulomatous mastitis is a rare entity. Pathological assessment is required for its diagnosis and management. During the process it is important to rule out carcinoma and other granulomatous conditions. Optimal care and expertise needs to be drawn on different aspect of this disease and prognosis.

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