A Case of An African American Female Presenting with Idiopathic Granulomatous Lobular Mastitis

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Background

- Idiopathic granulomatous mastitis (IGM), also known as nonpuerperal mastitis or granulomatous lobular mastitis is a rare benign chronic inflammatory breast disease that was first characterized in 1972.
- In a study done by Baslaim et al., histopathological confirmed cases of IGM represented 1.8% of cases out of 1.106 women with benign breast disease.
- Disease has been found worldwide and in all races, but higher incidence amongst Hispanics, Asians, and African American females

Case Presentation

- A 38-year-old African American female with a medical history significant for asthma, and obesity class III presented to our continuity clinic complaining of a painful right breast mass discovered during a self-breast examination.
- Her physical examination was remarkable for a ~4cm tender, erythematous, firm, and immobile mass on the right breast at the 12 o'clock position.
- Empirical antibiotic treatment for mastitis with Sulfamethoxazole/Trimethoprim 800/160 mg twice daily for 10 days; without significant improvement in her symptoms
- The mammogram described a suspicious indeterminate large hypoechoic region or mass with angular margins measuring 5.1 x 1.7 x 3.7 cm and slight internal vascularity.
- Ultrasound-guided stereotactic biopsy, was consistent with extensive mixed inflammatory and focal granulomatous lobular mastitis and was negative for malignancy.
- Therapeutic therapy with Prednisone 40mg daily for seven days was initiated. During a subsequent follow-up visit, breast mass was noticed to be decreasing in size and symptomatology had improved significantly.
- Steroid taper was initiated and she was advised to continuously follow up every three months.

Imaging

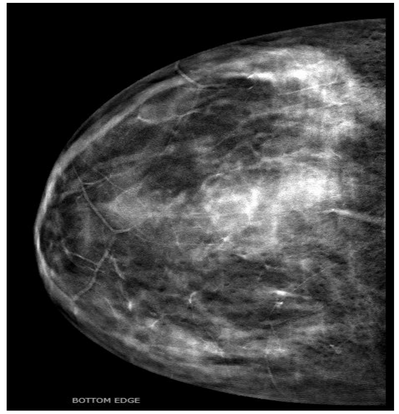

Figure 1- Right Breast 3D Mammogram showing the area of increased density and coarsening at the 12 o'clock position. A 7cm from the nipple, 5.1 x 1.7 x 3.7 cm large hypoechoic mass with angular margins

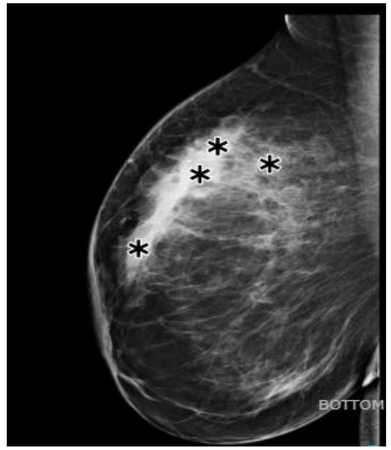

Figure 2 - Right Breast US-guided biopsy showing extensive mixed inflammatory and focal granulomatous lobular mastitis. Negative for malignancy.

Discussion

- IGM is characterized by sterile noncaseating lobulocentric granulomatous inflammation usually affecting parous premenopausal women with a history of lactation.
- Mechanisms that have been proposed as etiologic factors include chemical reactions associated with OCPs, autoimmune phenomenon, infection with unidentified pathogens, and the localized immune response to extravasated secretions from lobules.
- Usually presents with progressive painful breast, lesions variable in size, usually firm, tender and ill-defined, and unilateral.
- IGM is a diagnosis of exclusion after adequate microbiological and histopathological analysis of the breast tissue.
- Treatment modalities for IGM include close observation, immunosuppressant with steroids, with or without methotrexate, and/or surgical therapy.

Conclusion

- Idiopathic granulomatous mastitis (IGM) is a rare disorder that often mimics breast malignancies and infectious processes.
- IGM etiology is not fully understood however literature proposes multiple theories about its pathogenesis.
- We need further research to understand IGM, which will prevent unnecessary life-altering therapeutic efforts such as mastectomy.

References

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