

## Images in Infectious Diseases

### Granulomatous Mastitis

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A 22-year-old woman with no history of pregnancy or comorbidities was admitted to the Infectious Diseases Clinic at Atatürk University Medical Faculty Hospital with a 2-month history of swelling, pain, and purulence in the left breast. Her readings were as follows: leukocyte count, 7300; neutrophil value, 63%; platelet count, 232,000; C-reactive protein, 3; sedimentation rate, 5; aspartate aminotransferase, 26; alanine aminotransferase 24, PPD, 25 mm; and Quantiferon was positive. The patient was diagnosed with pulmonary tuberculosis. Ultrasonography revealed a dense lesion in the lower left breast. Lymphadenopathy (18×7 mm) was observed in the left axillary region<sup>1</sup>. Despite 2 weeks of antibiotic therapy, the magnetic resonance imaging (MRI) of the breast revealed a fistulized, thick-walled abscess formation on the skin, accompanied by skin thickening in the lower inner quadrant of the left breast (**Figure 1**). Biopsy results indicated granulomatous mastitis. Tuberculosis-related mastitis was suspected. Anti-tuberculosis quadruple therapy (isoniazid, rifampicin, ethambutol, and pyrazinamide) was administered for 2 months, while isoniazid and rifampicin were administered for 7 months<sup>2,3</sup>. Post-treatment MRI showed no abscess or fistula tract formation (**Figure 2**). The 6-month follow-up revealed no new findings, demonstrating a complete response to tuberculosis mastitis treatment. It is important for tuberculosis to be considered in cases of mastitis, particularly when differentiating from widely seen idiopathic granulomatous mastitis.

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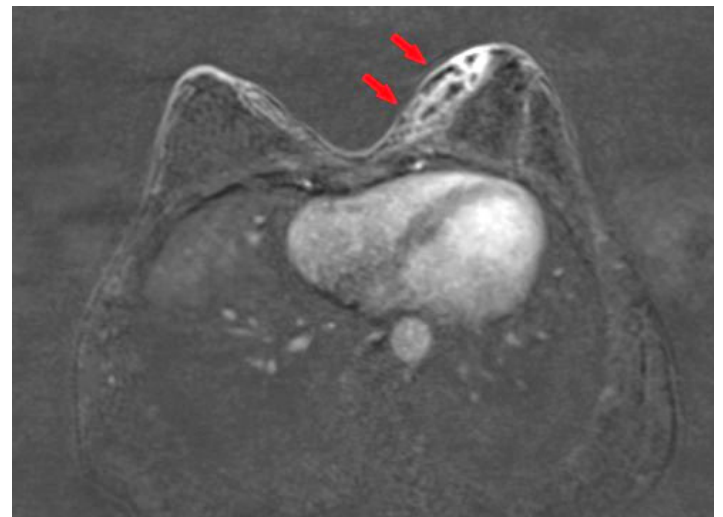
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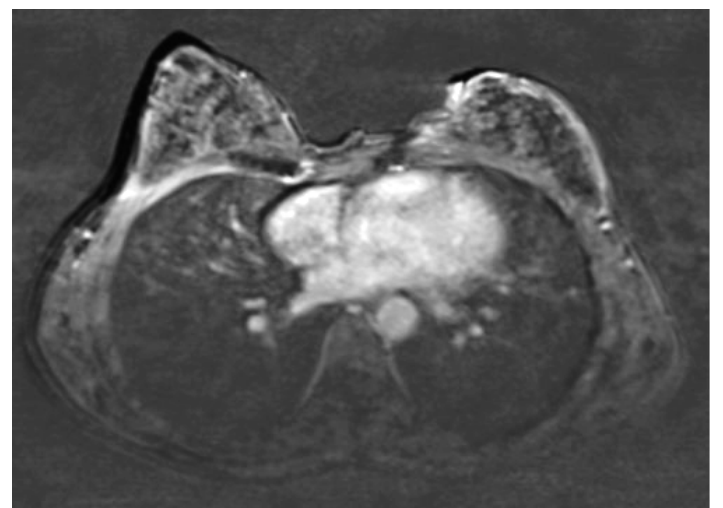
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**FIGURE 1:** Axial T1 weighted MRI image: Pre-treatment image shows fistulized thick-walled abscess formation with thickening of the skin in the lower inner quadrant of the left breast (arrows).



**FIGURE 2:** Axial T1 weighted MRI image: Post-treatment axial contrast-enhanced image shows no inflammation and/or abscess at the left breast.

### **AUTHORS' CONTRIBUTION**

FKC: Conceptualization, Data curation, Resources, Software, Supervision, Validation, Writing-original draft, Writing-review&editing; FG: Conceptualization, Visualization, Writing-reviewing&editing; EK: Conceptualization, Visualization, Writing-reviewing&editing.

### **CONFLICT OF INTEREST**

The authors declare that there is no conflict of interest.

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### **REFERENCES**

1. Freeman CM, Xia BT, Wilson GC, Lewis JD, Khan S, Lee SJ, et al. Idiopathic granulomatous mastitis: A diagnostic and therapeutic challenge. *Am J Surg.* 2017;214(4):701–6. Available from: <https://doi.org/10.1016/j.amjsurg.2017.07.002>
2. Farouk O, Abdelkhalek M, Abdallah A, Shata A, Senbel A, Attia E, et al. Rifampicin for Idiopathic Granulomatous Lobular Mastitis: A Promising Alternative for Treatment. *World J Surg.* 2017;41:1313–21. Available from: <https://doi.org/10.1007/s00268-016-3857-7>
3. Thimmappa D, Mallikarjuna MN, Vijayakumar A. Breast Tuberculosis. *Indian J Surg.* 2015;77(Suppl 3):1378-84. Available from: <https://doi.org/10.1007/s12262-015-1272-1>

