

# Granulomatous Mastitis – A Single Center Experience

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## Introduction

Granulomatous mastitis (GM) is a rare chronic inflammatory breast condition that mimics inflammatory breast cancer and is often underdiagnosed or misdiagnosed. The exact etiology of this condition remains unclear, though autoimmune and hormonal factors have been implicated.

## Methodology

We performed a retrospective analysis of a case series of 42 patients with granulomatous mastitis diagnosed histologically in the period of July 2018 to December 2024.

Demographics	<ul style="list-style-type: none"><li>All females</li><li>Median age: 37 years (29-71 years)</li><li>Majority race: Chinese (41/42)</li></ul>	Patient Characteristics	<ul style="list-style-type: none"><li>9.5% were nulliparous</li><li>Median parity: 1 (Range: 0-3)</li><li>50% had history of recent breast-feeding in the last 2 years</li><li>Two patients had a history of prolactinoma but had defaulted</li><li>1 patient had associated PCOS, 1 had newly diagnosed erythema nodosum, 1 had lung cancer, 1 rheumatoid arthritis, 1 psoriasis, and 1 sjogren’s syndrome</li><li>35.7% received Pfizer or Moderna vaccination prior to presentation</li><li>Median age of patients presenting after covid vaccination was 41 years (range 28-53 years)</li><li>2 got pregnant during this study of which one was terminated due to personal reasons</li></ul>
Presentation	<ul style="list-style-type: none"><li>66.7% presented with pain; Median: 7 days (3-60 days)</li><li>78.6% developed unilateral breast lump or swelling</li><li>14.6% developed fever at presentation</li><li>42.9% had redness at involved breast</li><li>Median size of widest dimension is 3.4cm (0.7-8.6cm)</li></ul>		
Laboratory and Culture results	<ul style="list-style-type: none"><li>All patients had a biopsy to exclude breast cancer and were diagnosed with granulomatous mastitis using histology</li><li>Median total white count is 8.44 x 10<sup>9</sup>/L (Range: 5.97-20.66 x 10<sup>9</sup>/L)</li><li>Median C-reactive protein is 4.3mg/L (0.6-165.5mg/L)</li><li>2 patients had positive tuberculosis quantiferon and referred to ID</li><li>1 had positive fungal smear</li><li>21.4% had positive bacterial growth</li></ul>	Treatment	<ul style="list-style-type: none"><li>57.1% were treated with various types of immunosuppressant therapy including prednisolone, methotrexate, azathioprine or anti-TNF injections</li><li>Ultrasound guided aspiration or surgical drainage of abscess or surgical excision</li><li>The remaining were managed conservatively with lifestyle changes</li><li>Patients with other diseases were managed appropriately</li></ul>

## Conclusion

Typically granulomatous mastitis affects women of childbearing age. We have found patients with other associated autoimmune disorders as well as identified a subset of older patients whose granulomatous mastitis appear to stem from recent covid vaccination. As our study is small, a longer and larger trial is required to provide more information.

## References

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