Clinical Characteristics and Treatment Patterns in Idiopathic Granulomatous Mastitis

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Background: Idiopathic granulomatous mastitis (IGM) is a rare, benign inflammatory breast condition that often mimics malignancy. Due to variability in presentation and etiology, management strategies for IGM differ widely, and there are no widely accepted treatment guidelines. We aimed to summarize our center's recent experience with this challenging condition to better understand trends in presentation and treatment.

Methods: We conducted a single-center retrospective cohort study of adult patients (≥18 years) with a suspected diagnosis of IGM at the University of Colorado Hospital from 2015 to 2025. A pathologist and surgeon reviewed cases and agreed upon inclusion/exclusion based on clinical and pathologic criteria. Data collection included patient demographics, medical history, symptoms, and pathology characteristics. Outcomes included treatment details, IGM recurrence, and complications. Descriptive statistics were utilized. Continuous variables were summarized as means with standard deviations, and categorical variables as frequencies and percentages.

Results: 67 subjects were eligible based on clinician consensus regarding a likely diagnosis of IGM (n=67). The median age at diagnosis was 34 and the majority of patients identified as white (n=36, 53.7%) and Hispanic/Latino (n=39, 58.2%). The median size of the index breast mass was 3.4 cm at presentation (interquartile range 1.9-4.9).

The most prevalent treatment was oral medications (n=, 73%), followed by steroid injection (n=14, 20,6%) and surgical excision (n=2, 4.4%). Medication therapy typically included antibiotics (n= 39, 81.3%) and/or steroids (n=21, 43.8%). Interestingly, of patients receiving antibiotics, the majority (n=20, 51.3%) received 3 or more different drugs. Of patients who received triamcinolone injections, the median number of injections was 2.0 (IQR 1.0-3.0). The maximum number of injections was ten. Of the two patients who underwent surgical excision, one underwent resection for recurrent abscess formation and one for definitive diagnosis after benign core biopsy findings were discordant with imaging findings.

33 patients (48.5%) developed abscesses, 24 of which underwent drainage procedures. Culture data was available for 33 patients. Among culture-positive specimens, Corynebacterium was most frequently isolated (n=17, 51.5%) followed by Staphylococcus lugdunensis (n =2, 6.1%) and Staphylococcus aureus (n=2, 6.1%). Disease relapse occurred in 37 (56.9%) patients, and 26 (70%) of recurrences occurred at the same site.

Conclusion: In this single institution cohort study, the treatment strategies for IGM were heterogenous, and a majority of patients suffered a reoccurrence of disease. This study highlights the importance of optimizing and standardizing treatment modalities for IGM. Future direction includes developing a prospective cohort to further characterize patient reported outcomes and better define treatment effectiveness.