



ORIGINAL RESEARCH PAPER

General Surgery

A SPECTRUM OF DISEASE IN MALE BREAST: AN OBSERVATIONAL STUDY OF 22 CASES

KEY WORDS: Male breast disease, Gynecomastia, Breast carcinoma, Simon classification, Surgical management.

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ABSTRACT	Background: Male breast diseases are uncommon and underreported compared to females. The spectrum ranges from benign conditions like gynecomastia to malignant lesions. Early diagnosis and appropriate management are crucial. Methods: This observational study was conducted at a tertiary care hospital in Andhra Pradesh, India, between June 2020 and May 2025. Twenty-two male patients presenting with breast symptoms were evaluated for clinical features, risk factors, diagnostic modalities, and treatment strategies. Results: Of the 22 patients, 17 (77.3%) were diagnosed as gynecomastia, 2 (9.1%) had mastitis and 1 (4.5%) case each of subareolar abscess, lipoma, and breast carcinoma. All patients presented with breast swelling, and 15 patients (71.4%) reported pain. Galactorrhea was observed in 1 case of gynecomastia. Risk factors included obesity (45.5%), medication usage and/or alcohol abuse (27.3%), and diabetes (18.2%). Management strategies included conservative and surgical approaches for gynecomastia, antibiotic therapy for mastitis, drainage for the abscess, excision for lipoma, and MRM with adjuvant therapy for carcinoma. Conclusion: Gynecomastia is the predominant male breast condition, commonly associated with modifiable risk factors. Awareness and timely diagnosis in male breast disease are essential, especially in malignancies, which require a multidisciplinary approach.
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INTRODUCTION Male breast conditions, though uncommon, have a wide range from benign to malignant diseases. Gynecomastia is the most prevalent male breast condition, commonly associated with hormonal disturbances, medication use, alcohol abuse, sedentary lifestyle, obesity, and systemic illnesses such as diabetes and chronic liver disease¹⁻³. Less commonly, males may present with inflammatory conditions like mastitis and abscess⁴ and neoplastic conditions like lipomas and malignancies. Male breast carcinoma, although rare (<1% of all breast cancers), is often diagnosed late.^{5,6} This study encompasses the clinical spectrum, risk factors, investigations, and management of male breast disorders encountered in a tertiary care setting. MATERIALS AND METHODS This observational study was conducted at Dr. Pinnamaneni Siddhartha Institute of Medical Sciences and Research Foundation from June 2020 to May 2025. Male patients presenting with breast-related complaints were included after informed consent. INCLUSION CRITERIA: Male patients with breast lump, pain, discharge, or swelling.	Exclusion Criteria: Patients who did not consent or were lost to follow-up. Clinical history, risk factors (obesity, alcohol/drug use, diabetes), investigations (ultrasound, FNAC, biopsy), and treatment approaches were documented. Descriptive statistics were used to analyze the data. Gynecomastia cases were graded based on Simon classification described below. In 1973, Simon et al¹¹ identified four grades of gynecomastia: Grade I: Small enlargement without skin excess Grade IIa: Moderate enlargement without skin excess Grade IIb: Moderate enlargement with minor skin excess Grade III: Marked enlargement with excess skin, mimicking female breast ptosis RESULTS Of the 22 patients, 17 (77.3%) had gynecomastia, 2 (9.1%) had mastitis and 1 (4.5%) case each of subareolar abscess, lipoma, and carcinoma of the breast. All patients presented with swelling. 15 patients (71.4%) complained of pain, and 1 patient with gynecomastia had galactorrhea (attributed to the use of risperidone, a
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psychotropic medication known to elevate prolactin levels). Obesity was observed in 10 patients (45.5%), 6 (27.3%) had a history of drug or alcohol use, diabetes in 4 (18.2%).

The 17 cases of gynecomastia were stratified using Simon's classification into four grades based on clinical presentation and severity. Grade I was observed in 5 patients, all managed conservatively. Grade IIa comprised of 5 cases in which 3 were managed conservatively and 2 underwent surgical excision. Grade IIb included 4 cases, with 2 managed conservatively and 2 undergoing surgical excision. Grade III was seen in 3 patients, 1 was managed conservatively and 2 underwent surgical management due to significant breast enlargement and ptosis.

Therapeutic strategies were influenced by multiple factors, including the age, grade of gynecomastia, symptom severity, and patient preference. Conservative management was generally preferred in cases with lower-grade presentations (Grade I and IIa), mild symptoms, or minimal aesthetic concern. Surgical intervention was more commonly opted in higher grades (Grade IIb and III), particularly when significant glandular enlargement or cosmetic distress was present. However, treatment patterns did not follow a strict uniform trajectory. While general trends were observed, some patients with higher-grade, but asymptomatic gynecomastia opted for conservative management. Whereas others with lower-grade disease opted for surgical intervention due to persistent symptoms or significant cosmetic concerns. Each treatment approach was determined after a holistic assessment, taking into account both the clinical profile and the patient's concerns.

The 2 Mastitis were managed with empirical broad- spectrum antimicrobial therapy. The subareolar abscess required incision and drainage and the lipoma was excised via local surgical intervention. The breast carcinoma case underwent a modified radical mastectomy followed by adjuvant chemotherapy.

Table 1: Clinical and Demographic Profile of Male Breast Disease Cases (n=22)

Parameter	Number of Cases	Percentage (%)
Risk Factors		
Obesity	10	47.6
Medication/Alcohol	6	28.6
Diabetes	4	19
Presenting Symptoms		
Breast lump/swelling	22	100
Pain	15	71.4
Galactorrhea	1	4.7
Diagnosis		
Gynecomastia	17	77.3
Mastitis	2	9.1
Subareolar Abscess	1	4.5
Lipoma	1	4.5
Breast Carcinoma	1	4.5
Treatment		
Conservative	13	59.09
Surgery	9	40.9

Table 2: Treatment Modalities for Benign Male Breast Disorders

Treatment	Number of Cases (n)	Percentage (%)
Conservative		
Gynecomastia	11	50
Mastitis	2	9.1
Surgical		

Gynecomastia (Excision)	6	27.2
Incision & Drainage	1	4.5
Excision of Lipoma	1	4.5
Modified Radical Mastectomy	1	4.5
Total	22	100

Table 3: Distribution of Gynecomastia Cases According to Simon's Classification and Type of Management

Simon's Grade	Number of Cases	Conservative Management	Surgical Management
Grade I	5	5	0
Grade IIa	5	3	2
Grade IIb	4	2	2
Grade III	3	1	2
Total	17	11	6



Figure 1: A 19 year Male, case of grade III gynecomastia

Metoclopramide, Domperidone), opioids, and H2 blockers, which can elevate prolactin levels.

In our study, the management of gynecomastia was influenced by the clinical grade, with lower grades (I and IIa) typically managed conservatively, and higher grades (IIb and III) more often requiring surgical excision. This pattern supports the practical application of Simon's classification in guiding treatment decisions¹¹. Although less common, conditions such as mastitis, lipoma, and breast abscess were also observed and should remain part of the differential diagnosis when evaluating male breast swellings^{12,13}.



Figure 2: a- preoperative sub-mammary (Galliard Thomas) incision marking; b- intraoperative picture; c- subcuticular skin closure with drain placement.



Figure 3: Excised specimen of breast tissue.

DISCUSSION

Our study reaffirms gynecomastia as the most common male breast disorder, aligning with both Indian and global literature^{1,3}. Hormonal imbalance was a common factor in younger patients, while in older individuals, medication use and hormonal changes were frequently implicated.

Though rare, male galactorrhea may occur due to hormonal disturbances or use of medications such as anti-androgens, psychotropics (e.g., risperidone, haloperidol), SSRIs, prokinetics (e.g., Male breast cancer remains rare but significant due to late presentation. It is often more aggressive in males, with a higher likelihood of lymph node involvement and advanced stage at diagnosis, contributing to a poorer prognosis compared to female breast cancer. This is partly attributed to the relatively small volume of breast tissue in males, which facilitates earlier spread to adjacent structures and lymph nodes. Our case underwent mastectomy and adjuvant therapy, following standard oncologic protocols^{5,6,10}.

Comparison with other Indian studies (e.g., Gupta et al.¹, Sarkar et al.²) supports the consistency in presentation patterns. Furthermore, global studies such as those by Fentiman et al.³ and Giordano⁵ also emphasize the predominance of gynecomastia and the late-stage presentation of male breast carcinoma, corroborating the clinical trends observed in our cohort. Emphasis on modifiable factors and public awareness is critical for early detection and improved outcomes.

CONCLUSION

Male breast pathologies, though uncommon, encompass an array of benign and malignant conditions, with gynecomastia being the most prevalent entity in our study. The 17 gynecomastia cases were stratified using Simon's classification, guiding treatment decisions. Lower-grade lesions (Grade I and IIa) were often managed conservatively, particularly in the presence of minimal symptoms and limited cosmetic concern. In contrast, higher-grade gynecomastia (Grade IIb and III), characterized by greater glandular volume and more pronounced aesthetic impact, more frequently required surgical intervention. Management decisions were guided by symptomatology, clinical severity and patient preference. Early recognition of etiologic factors such as endocrine disorders, pharmacologic agents, and lifestyle changes, paired with this grading-based management strategy and patient's preference led to satisfactory therapeutic outcomes. Inflammatory conditions and benign neoplasia were also seen in our study, but constituted a small percentage. The solitary case of male breast carcinoma highlighted the importance of early diagnosis due to its typically aggressive behavior and tendency for rapid regional spread.

REFERENCES

- Gupta S, Singh M, Singh P, et al. Male breast diseases: a clinical and pathological study of 47 cases from a tertiary care center in North India. *Indian J Surg*. 2018;80(4):336-342.
- Sarkar S, Dasgupta S, Mukhopadhyay M, et al. Male breast cancer: an Indian scenario. *Indian J Surg Oncol*. 2014;5(3):212-217.
- Fentiman IS, Fourquet A, Hortobagyi GN. Male breast cancer. *Lancet*. 2006;367(9510):595-604.
- Bansal M, Valiathan M, Prasad S, Thakur B. Subareolar breast abscess in a male: A rare presentation. *Int J Surg Case Rep*. 2014;5(10):694-6.
- Giordano SH. A review of the diagnosis and management of male breast cancer. *Oncologist*. 2005;10(7):471-9.
- Cutuli B. Strategies in treating male breast cancer. *Expert Opin Pharmacother*. 2007;8(13):1935-45.
- Johnson RE, Murad MH. Gynecomastia: pathophysiology, evaluation, and management. *Mayo Clin Proc*. 2009;84(11):1010-5.
- Deepinder F, Braunstein GD. Drug-induced gynecomastia: an evidence-based review. *Expert Opin Drug Saf*. 2012;11(5):779-95.
- Rao R, Rao S, Krishna A. Subareolar abscess in male breast: an unusual presentation and review of literature. *J Clin Diagn Res*. 2016;10(7):PD01-PD03.
- Yadav S, Yadav N, Gupta N. Male breast carcinoma: a review of clinical,

radiological and pathological features and management. *Indian J Surg Oncol*. 2021;12(1):42-48.

- Simon BE, Hoffman S, Kahn S. Classification and surgical correction of gynecomastia. *Plast Reconstr Surg*. 1973;51(1):48-52.
- Narula HS, Carlson HE. Gynecomastia. *Endocrinol Metab Clin North Am*. 2007;36(2):497-519.
- Mehta V, Mishra A, Goel H, et al. Male breast disorders: a clinicopathological study. *Int J Surg Sci*. 2020;4(3):150-153.