

Fibroadenoma Arising in Ectopic Axillary Breast Tissue Mimicking Lymphadenopathy: A Rare Case Report

¹Dr. Arafath Iqbal, ²Dr. Mohana Vamsi, ³Dr. Sriphanindranath Mutyala and ⁴*Dr. Vivekananda Subramania Nathan

¹Final Year Postgraduate, Department of General Surgery, SRM Medical College Hospital and Research Centre

²Final Year Postgraduate, Department of General Surgery, SRM Medical College Hospital and Research Centre

³Final Year Postgraduate, Department of General Surgery, SRM Medical College Hospital and Research Centre

⁴Professor, Department of General Surgery, SRM Medical College Hospital and Research Centre

¹Email id: arafathiqbal1996@gmail.com, ²Email id :dmv123890@gmail.com, ³Email id:

sriphanindranath.mutyala@gmail.com and ⁴Email id: viveknathan79@gmail.com

Received: 28th Feb, 2026; Revised: 6th March 2026; Accepted: 7th April, 2026; Available Online: 20th April, 2026

ABSTRACT

Introduction: Axillary swellings in women commonly raise suspicion for lymphadenopathy or metastatic breast carcinoma, and tuberculous lymphadenopathy remains a frequent consideration in endemic regions. Fibroadenoma is the most common benign tumor of the breast; however, its occurrence in ectopic breast tissue, particularly in the axilla, is exceedingly rare and may lead to diagnostic confusion.

Case Presentation: A 33-year-old nulliparous woman presented with a painless, gradually enlarging swelling in the left axilla for a duration of one year. Clinical examination revealed a firm, well-circumscribed mass with no associated breast lump or systemic symptoms. Ultrasonography demonstrated a well-defined hypoechoic lesion with internal and peripheral vascularity, raising suspicion of a neoplastic etiology. Core needle biopsy suggested fibroadenoma. The patient underwent surgical excision, and histopathological examination confirmed fibroadenoma arising in ectopic breast tissue with associated adenomyoepithelial adenosis and focal atypical ductal hyperplasia.

Conclusion: Fibroadenoma arising in ectopic axillary breast tissue is a rare clinical entity that can closely mimic axillary lymphadenopathy. Awareness of this condition, along with appropriate imaging and histopathological evaluation, is essential for accurate diagnosis. Surgical excision remains both diagnostic and curative.

Keywords: Axillary swelling, Ectopic breast tissue, Fibroadenoma, Lymphadenopathy

How to cite this article: Iqbal A, Vamsi M, Mutyala S and Nathan VS, Fibroadenoma Arising in Ectopic Axillary Breast Tissue Mimicking Lymphadenopathy: A Rare Case Report. Int J Drug Deliv Technol. 2026;16(68s):523-526. DOI: 10.25258/ijddt.16.68s.61

Source of support: Nil.

Conflict of interest: None

INTRODUCTION

Fibroadenoma is the most common benign neoplasm of the breast, predominantly affecting young women within two decades after puberty [1]. Clinically, it presents as a discrete, round or ovoid, firm, rubbery, and highly mobile mass of tissue. These lesions are usually painless and often detected incidentally. Multiple fibroadenomas and bilateral involvement may also occur [2].

Histologically, fibroadenomas are benign biphasic tumors composed of both epithelial and stromal elements. Their growth is hormonally influenced, particularly by estrogen, explaining their occurrence during reproductive years, enlargement during pregnancy or hormonal therapy, and regression after menopause [3].

Ectopic breast tissue results from incomplete regression of the embryonic mammary ridge (milk line) and is most commonly located in the axilla. Such tissue is susceptible to the same physiological and pathological changes as normal breast parenchyma, including benign and malignant tumors [4]. However, fibroadenoma arising in ectopic axillary breast tissue is exceedingly rare and is frequently misdiagnosed as axillary lymphadenopathy, lipoma, sebaceous cyst, or other soft-tissue tumors. This report describes a rare case of axillary fibroadenoma presenting as an isolated axillary swelling, highlighting the diagnostic challenges associated with this entity.

Case Presentation

A 33-year-old single, nulliparous woman presented with a swelling in the left axilla for the past year. The swelling

*Author for Correspondence: viveknathan79@gmail.com

was incidentally noticed while bathing and had gradually increased in size. There was no associated pain, fever, trauma, discharge, or systemic symptoms. There was no personal or family history of malignancy. The patient had no significant comorbidities.

On physical examination, a firm, well-circumscribed swelling measuring approximately 4×3 cm was noted in

the left axilla (Figure 1a). The overlying skin was normal, and the contralateral axilla was unremarkable. Examination of both breasts revealed no palpable masses, skin changes, or nipple discharge. Systemic examination was within normal limits.



Fig. 1. Pre, Intra, and postoperative images. (a) lump and landmark before surgery, (b) intra-operative section of the lump, and (c) the resected specimen from the left axilla

Ultrasonography of the left axilla demonstrated a well-defined, oval, hypoechoic lesion located in the deep subcutaneous plane, with both internal and peripheral vascularity on Doppler imaging, raising suspicion of a neoplastic etiology (Figure 2a & b). Differential diagnoses

included axillary lymphadenopathy, axillary fat pad, or accessory breast tissue. An ultrasound-guided core needle biopsy was performed, which revealed features consistent with fibroadenoma.

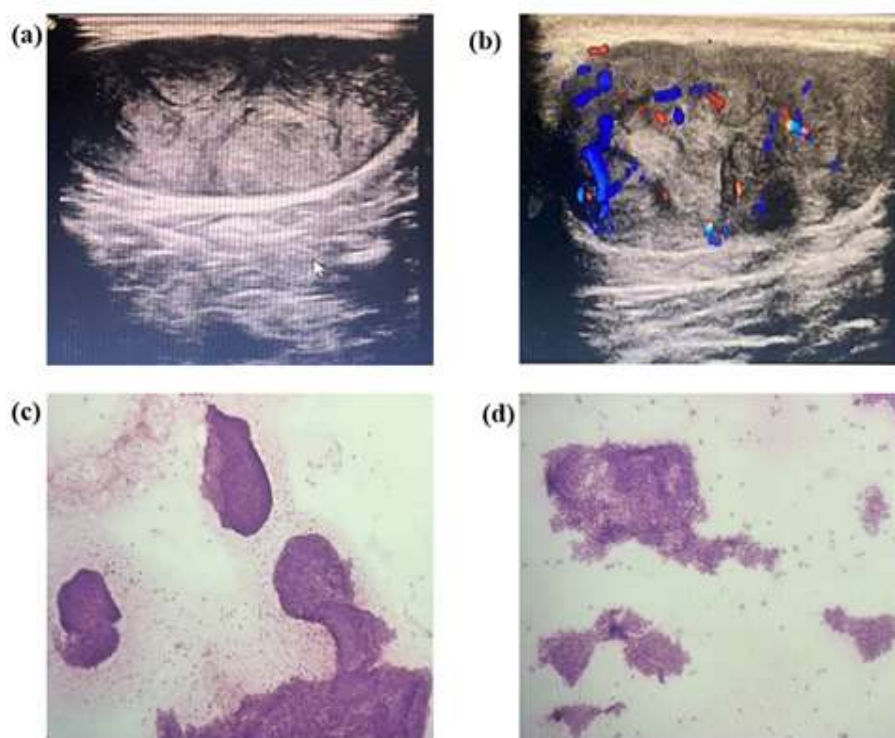


Fig. 2. Ultrasound and Doppler images. (a) The left breast lump ultrasound, and (b) the Doppler, and (c & d) represent Histopathological images of the resected specimen of the left breast lump

After detailed counseling, the patient underwent surgical excision of the lesion under general anesthesia (Figure 1b & c). The postoperative period was uneventful.

Histopathological examination of the excised specimen confirmed fibroadenoma arising in ectopic breast tissue,

with features of adenomyoepithelial adenosis and atypical ductal hyperplasia (Figure 2c, d).

DISCUSSION

Fibroadenoma represents the most common benign tumor of the breast in women of reproductive age; however, its development within ectopic breast tissue is distinctly uncommon. Ectopic (accessory) breast tissue results from incomplete regression of the embryonic mammary ridge and is reported in approximately less than 5 percent of women, with the axilla being the most frequent site [5, 6]. Despite this relatively notable prevalence, neoplastic transformation within ectopic tissue remains rare, and only a limited number of axillary fibroadenomas have been described. This discrepancy suggests that ectopic tissue is either under-recognized clinically or underreported, particularly when presenting as non-specific axillary swellings.

Clinically, axillary fibroadenomas constitute a significant diagnostic challenge. The axilla is a complex anatomical region containing lymph nodes, adipose tissue, sweat glands, and skin adnexal structures; therefore, a solitary axillary mass is more commonly attributed to reactive lymphadenopathy, tuberculous lymphadenitis (especially in endemic regions), lipoma, sebaceous cyst, hidradenitis suppurativa, phyllodes tumor, or carcinoma arising in ectopic breast tissue. In tuberculosis-prevalent settings, axillary lymphadenopathy is frequently the initial working diagnosis, potentially resulting in delayed tissue diagnosis or inappropriate empirical therapy. Our case reinforces this diagnostic dilemma, as the lesion clinically simulated isolated lymphadenopathy without overt features suggestive of accessory breast tissue [7].

Radiologically, ultrasonography typically demonstrates a well-circumscribed, oval, hypoechoic lesion with homogeneous internal echoes, features analogous to fibroadenomas in the orthotopic breast. However, these findings lack specificity in the axilla, where benign lymph nodes may also appear well-defined. Although FNAC and core needle biopsy provide valuable cytological and histological clues, sampling limitations may lead to equivocal interpretation, particularly in lesions with proliferative changes. Therefore, excisional biopsy remains the gold standard for definitive diagnosis and serves both diagnostic and therapeutic purposes [8].

From a biological standpoint, fibroadenomas arising in ectopic breast tissue exhibit histomorphological characteristics and clinical behavior similar to those occurring in the normal breast. Complete surgical excision is curative in the vast majority of cases, and recurrence is uncommon. Nevertheless, the presence of atypical ductal hyperplasia (ADH) in our case adds a significant dimension. ADH is recognized as a proliferative breast lesion associated with an increased risk of subsequent carcinoma in orthotopic breast tissue. Its occurrence within ectopic tissue is exceedingly rare and sparsely documented, underscoring the need for meticulous histopathological evaluation of all excised axillary masses.

This finding also raises important considerations regarding surveillance strategies, as ectopic breast tissue is susceptible to the full spectrum of benign and malignant breast pathologies.

Previously reported cases of fibroadenoma arising in axillary ectopic or accessory breast tissue predominantly involve young to middle-aged women presenting with painless axillary swellings that frequently mimic lymphadenopathy or malignant disease. Amaranathan et al. reported a 31-year-old woman with a right axillary lump in whom FNAC was suggestive of fibroadenoma, with subsequent excision confirming fibroadenoma arising in ectopic breast tissue [9]. Tee et al. described a young woman with a long-standing right axillary swelling clinically suspected to represent lymphadenopathy, where definitive diagnosis was established only after surgical excision and histopathological examination [10]. Goyal et al. documented a case of a left-sided axillary swelling initially suspected to be lymphadenopathy, in which FNAC suggested fibroadenoma, and excision confirmed fibroadenoma arising from accessory breast tissue [11]. More recently, Arushi et al. reported a 39-year-old woman presenting with an axillary mass clinically suspicious for malignancy; core needle biopsy suggested fibroadenoma, which was subsequently confirmed on histopathology following surgical excision [12]. In comparison, the present case involved a 33-year-old woman with a painless, gradually enlarging left axillary swelling that clinically mimicked isolated lymphadenopathy. Unlike several earlier reports, a preoperative ultrasonography-guided core needle biopsy in the present case suggested fibroadenoma, allowing better diagnostic confidence before surgery. Definitive diagnosis was confirmed following complete surgical excision, with histopathological examination demonstrating fibroadenoma arising in ectopic breast tissue with associated adenomyoepithelial adenosis and focal atypical ductal hyperplasia. This case reinforces that, although preoperative cytological or biopsy assessment may aid diagnosis, surgical excision with histopathological confirmation remains essential and curative in axillary fibroadenomas.

In a broader context, this case underscores three critical implications: first, ectopic breast tissue should be routinely considered in the differential diagnosis of axillary swellings in young women; second, tissue diagnosis is indispensable in tuberculosis-endemic and oncologically high-risk settings; and third, ectopic breast lesions warrant the same pathological scrutiny as orthotopic breast lesions due to their capacity for proliferative and potentially premalignant changes. Recognition of these principles is essential to avoid diagnostic delay, ensure appropriate management, and optimize long-term surveillance strategies.

CONCLUSION

Fibroadenoma arising in ectopic axillary breast tissue is a rare but important diagnostic consideration in women presenting with axillary swellings. Clinically, these masses

were frequently misinterpreted as axillary lymphadenopathy or benign soft-tissue tumors, underscoring the diagnostic challenge associated with this condition. Ultrasonography was the primary imaging modality used in most cases, typically demonstrating well-defined hypoechoic lesions; however, definitive diagnosis invariably required histopathological confirmation following FNAC, core needle biopsy, or surgical excision. The present case is consistent with previously reported cases in terms of patient age, location, and imaging characteristics, but is distinguished by the presence of focal atypical ductal hyperplasia within the fibroadenoma, a finding that has been infrequently documented in ectopic breast tissue. This emphasizes the importance of complete excision and vigilant follow-up, as well as the need to consider ectopic breast lesions in the differential diagnosis of isolated axillary swellings in young women.

REFERENCES

1. Zhu L, Zeng X, Jiang S, Ruan S, Ma H, Li Y, Ye C, Dong J. Prevalence of breast fibroadenoma in healthy physical examination population in Guangdong province of China: a cross-sectional study. *BMJ open*. 2022 Jun 1;12(6):e057080. doi: 10.1136/bmjopen-2021-057080.
2. Ajmal M, Khan M, Van Fossen K. Breast fibroadenoma. *InStatPearls* [Internet] 2022 Oct 6. StatPearls Publishing.
3. Salati SA. Breast fibroadenomas: a review in the light of current literature. *Polish Journal of Surgery*. 2021;93(1):40-8. 10.5604/01.3001.0014.5676
4. Salemis NS. Primary ectopic breast carcinoma in the axilla: a rare presentation and review of the literature. *Breast Disease*. 2021 Jun 18;40(2):109-14. 10.3233/BD-201027
5. Lee M., Soltanian H.T. Breast fibroadenomas in adolescents: current perspectives. *Adolescent Health, Med Therapeut*. 2015;6:159–163. doi: 10.2147/AHMT.S55833.
6. Surd A., Mironescu A., Gocan H. Fibroadenoma in axillary supernumerary breast in a 17-year-old girl: case report. *J Pediat Adolesc Gynecol*. 2016;29(5):e79–e81. doi: 10.1016/j.jpap.2016.04.008
7. Rodrigues ML, Shetty P, D'Souza SL. Axillary Fibroadenoma: An Unusual Clinical Presentation. *Cureus*. 2024 Nov 18;16(11). 10.7759/cureus.73888
8. Lieske B, Ravichandran D, Wright D. Role of fine-needle aspiration cytology and core biopsy in the preoperative diagnosis of screen-detected breast carcinoma. *British journal of cancer*. 2006 Jul;95(1):62-6. <https://doi.org/10.1038/sj.bjc.6603211>
9. Amaranathan A, Balaguruswamy K, Bhat RV, Bora MK. An ectopic breast tissue presenting with fibroadenoma in axilla. *Case Reports in Surgery*. 2013;2013(1):947295.
<https://doi.org/10.1155/2013/947295>
10. Tee SW, Tan YH, Jeyabalan D, Selvam D. Fibroadenoma in axillary ectopic breast. *BMJ Case Reports CP*. 2022 Mar 1;15(3):e246838. <https://doi.org/10.1136/bcr-2021-246838>
11. Arushi, Ahuja S, Zaheer S. A Rare Case of Axillary Fibroadenoma in Accessory Breast Masquerading Malignancy. *Indian Journal of Surgical Oncology*. 2024 Dec;15(Suppl 4):650-3. <https://doi.org/10.1007/s13193-024-02110-w>
12. Yefter ET, Shibiru YA. Fibroadenoma in axillary accessory breast tissue: a case report. *Journal of Medical Case Reports*. 2022 Sep 8;16(1):341. <https://doi.org/10.1186/s13256-022-03540-2>