

Fibroadenoma of the Axillary Tail: A Common Lesion in an Uncommon Location

KAUNTEYA ASHISH KALE¹, AVINASH PARASHURAM DHOK², SURESH VASANT PHATAK³, PRASHANT MADHUKARRAO ONKAR⁴, KAJAL MITRA⁵

CC BY-NC-ND

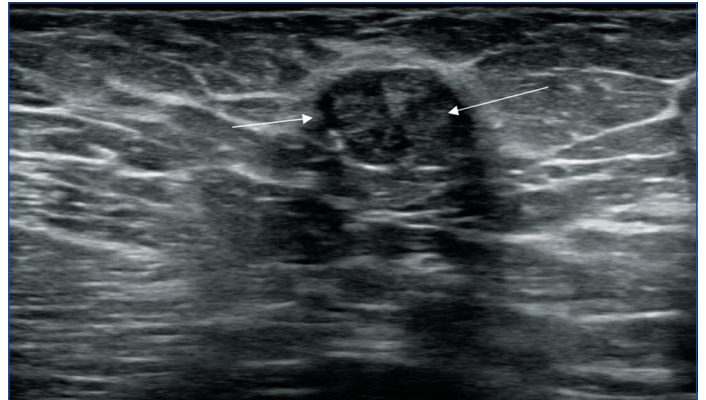
Keywords: Benign axillary tumour, Axillary ultrasonography

Dear Editor,

A 49-year-old female patient presented with a complaint of a palpable lump in her right axillary region for two months. The lump was gradually increasing in size and associated with slight discomfort. On palpation, it was a smooth, mobile, non-tender lump of approximately 2x2cm in size in the right axilla [Table/Fig-1]. On sonomammography, the lump appeared well-defined and encapsulated, wider than taller, solid, with a nodular, hypoechoic, ovoid mass measuring 1.9x1.3 cm, showing minimal peripheral vascularity [Table/Fig-2]. X-ray mammogram also revealed a well-defined, oval, dense lesion without any calcification in the axilla, suggestive of fibroadenoma. Various differentials such as lymphadenopathy, lipoma, and sebaceous cyst were considered [Table/Fig-3]. Fine-needle aspiration cytology (FNAC) of the lesion was performed, confirming the diagnosis of fibroadenoma. No similar lesions were noted in the bilateral breast parenchyma or contralateral axilla. The lesion was surgically removed.

DISCUSSION

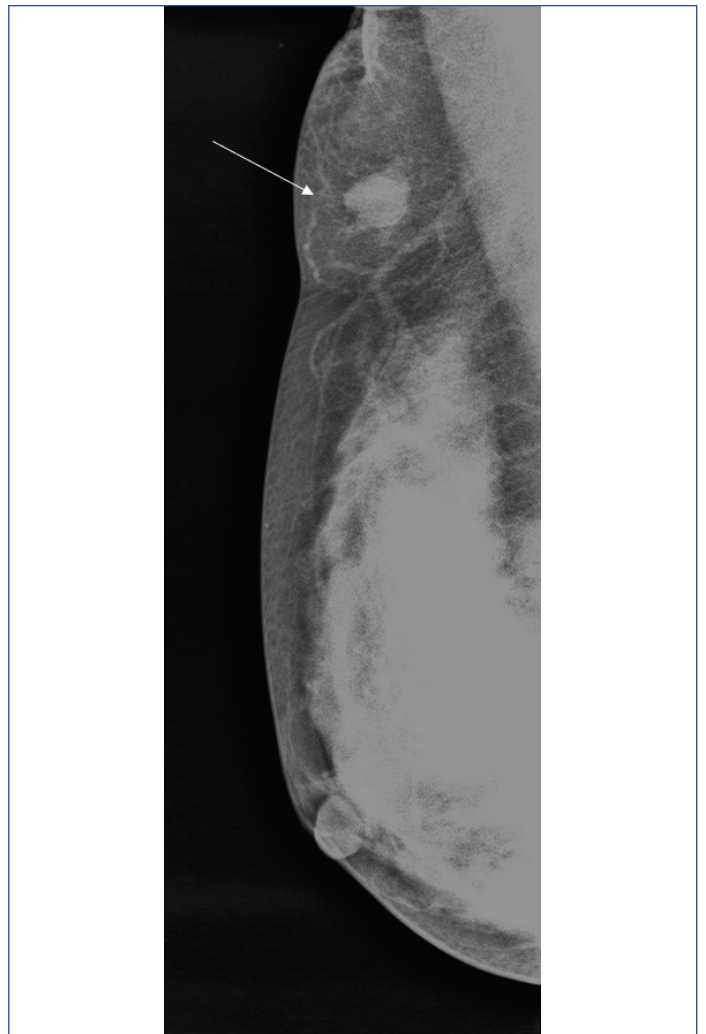
The embryonic development of the breast begins in the 5th-6th week with the formation of two ectodermal thickenings on the



[Table/Fig-2]: Sono mammography showing well-defined, encapsulated, wider than taller, solid, hypoechoic, ovoid mass suggestive of fibroadenoma.



[Table/Fig-1]: Clinical photograph showing smooth, well-defined, oval lump of approximate size 2cm in the right axillary tail.



[Table/Fig-3]: X-ray mammogram showing well-defined oval, dense lesion with circumscribed margin, in the right axillary tail suggestive of fibroadenoma.

ventral surface of the embryo known as “milk lines.” These extend bilaterally from the mid-axilla to the groin. Accessory breast tissue is tissue that develops anywhere other than the two pectoral regions, and its incidence is very rare, ranging from 0.4% to 6% [1]. It most commonly occurs along the milk lines. The “axillary tail of Spence” is an accessory breast tissue arising from the axilla, connected to the upper outer quadrant of the normal thoracic breast [1].

Masses in the axilla pose a significant challenge for diagnosis due to several differentials that need to be ruled out, such as lipoma, hidradenitis, follicular cyst, lymphadenopathy, hamartoma, and phyllodes tumour. This task is further complicated by the limitation of ultrasound in differentiating normal breast tissue from ectopic breast tissue. Hence, initial mammography/sonomammogram evaluations in such cases must be followed up with FNAC/biopsy to confirm the diagnosis [2].

Fibroadenoma constitutes the most common diagnosis of a palpable mass in the breast. It is more often seen in young women but can affect any age group. However, the incidence of fibroadenoma occurring in the accessory breast tissue is quite rare. The overall incidence of fibroadenoma is around 2.2%, accounting for approximately 68% of all breast masses. However, less than 40 cases of fibroadenoma occurring in accessory breast tissue have been described in the literature worldwide [3]. Clinically, fibroadenoma is a painless palpable lump commonly found in the subcutaneous tissue of the breast. On palpation, it is a smooth and highly mobile lump that moves away when pressed between the examiner's fingers, aptly named “Mouse in the breast” [4]. Histology showed an encapsulated tumour composed of proliferative stroma with fibromuscular tissue compressing the ducts in between like slits. Papillary, fibro-collagenous, and fibro-myxoid changes may also be present [5].

Ultrasound reveals a well-defined, encapsulated, smooth, solid, hypoechoic, nodular mass resembling a benign lesion. It shows minimal to no peripheral vascularity on colour Doppler, consistent with the clinical examination that predicts a benign pathology. Intralesional sonographically detectable calcification may or may not be evident in the mass. Even if present, the calcification seen in fibroadenoma corresponds to those of a benign variety. There is no evidence of any architectural loss in the lesion. On mammography, fibroadenomas appear oval and may have a circumscribed or obscured margin. Calcifications may form within involuting fibroadenomas, particularly in post-menopausal women. Typically, calcification starts at the periphery and takes on various morphologies, such as round, coarse, or pleomorphic, most commonly exhibiting a typical “Popcorn” type calcification [6].

Axillary lumps may contain a vast number of pathologies, one of which is fibroadenoma of the axillary tail, which resembles a typical benign lesion. Although rare, it must be considered as an important differential diagnosis in such cases. Ultrasound and mammography are quick and effective modalities that help in the diagnosis and management of these patients.

REFERENCES

- [1] Gajaria PK, Maheshwari UM. Fibroadenoma in axillary ectopic breast tissue mimicking lymphadenopathy. *J Clin Diagn Res.* 2017;11(3):ED01-02.
- [2] Ravikanth R, Majumdar P. Fibroadenoma in ectopic breast tissue of axilla: A rare entity. *J Med Ultrasound.* 2020;28(1):50-51.
- [3] Yefter ET, Shibiru YA. Fibroadenoma in axillary accessory breast tissue: A case report. *J Med Case Rep.* 2022;16(1):341.
- [4] Egwuonwu OA, Anyanwu SN, Chianakwana GU, Ihekwoaba EC. Fibroadenoma: Accuracy of clinical diagnosis in females aged 25 years or less. *Niger J Clin Pract.* 2016;19(3):336-38.
- [5] Ansari JN, Buch AC, Pandey A, Rao R, Siddique A. Spectrum of histopathological changes in fibroadenoma of breast. *IJPO.* 2018;5(3):429-34.
- [6] Klinger K, Bhimani C, Shames J, Sevrukov A. Fibroadenoma: from imaging evaluation to treatment. *J Am Osteopath CollRadiol.* 2019;8(2):17-30.

PARTICULARS OF CONTRIBUTORS:

1. Junior Resident, Department of Radiodiagnosis, NKP Salve Institute of Medical Sciences and Research Centre, Digdoh Hills, Nagpur, Maharashtra, India.
2. Professor and Hod, Department of Radiodiagnosis, NKP Salve Institute of Medical Sciences and Research Centre, Digdoh Hills, Nagpur, Maharashtra, India.
3. Professor, Department of Radiodiagnosis, NKP Salve Institute of Medical Sciences and Research Centre, Digdoh Hills, Nagpur, Maharashtra, India.
4. Professor, Department of Radiodiagnosis, NKP Salve Institute of Medical Sciences and Research Centre, Digdoh Hills, Nagpur, Maharashtra, India.
5. Professor and Dean, Department of Radiodiagnosis, NKP Salve Institute of Medical Sciences and Research Centre, Digdoh Hills, Nagpur, Maharashtra, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Suresh Vasant Phatak,
Professor, Department of Radiodiagnosis, NKP Salve Institute of Medical Sciences and Research Centre, Digdoh Hills, Nagpur-440019, Maharashtra, India.
E-mail: suresh_phatak@yahoo.com

PLAGIARISM CHECKING METHODS: [Jain H et al.]

- Plagiarism X-checker: Jun 15, 2023
- Manual Googling: Sep 14, 2023
- iThenticate Software: Oct 09, 2023 (5%)

ETYMOLOGY: Author Origin

EMENDATIONS: 5

AUTHOR DECLARATION:

- Financial or Other Competing Interests: None.
- Was informed consent obtained from the subjects involved in the study? Yes.
- For any images presented appropriate consent has been obtained from the subjects. Yes.

Date of Submission: Jun 14, 2023

Date of Peer Review: Aug 29, 2023

Date of Acceptance: Oct 11, 2023

Date of Publishing: Jan 01, 2024