

## RARE CASE REPORT ON GIANT LIPOMA OF BREAST- A DIAGNOSTIC CONCUNDRUM

Ayushi Bansal<sup>1</sup>, Ajit Singh<sup>2</sup>, Hemlata kamra<sup>3</sup>, Upender Sharma<sup>4</sup>, Ankit Mittal<sup>5</sup>, Harvinder Singh<sup>6</sup>

<sup>1</sup>Senior Resident, Department of Pathology, Kalpana Chawla Government Medical College, Karnal, Haryana, India

<sup>2</sup>Assistant Professor, Department of Pathology, Kalpana Chawla Government Medical College, Karnal, Haryana, India

<sup>3</sup>Professor and Head, Department of Pathology, Kalpana Chawla Government Medical College, Karnal, Haryana, India

<sup>4</sup>Associate Professor, Department of Pathology, Kalpana Chawla Government Medical College, Karnal, Haryana, India

<sup>5</sup>Senior Resident, Department of Pathology, Kalpana Chawla Government Medical College, Karnal, Haryana,

<sup>6</sup>Senior Resident, Department of Pathology, Kalpana Chawla Government Medical College, Karnal, Haryana, India.

**Article Info:** Received 25 June 2021; Accepted 03 August 2021

**DOI:** <https://doi.org/10.32553/ijmbs.v5i8.2075>

**Corresponding author:** Ajit Singh

**Conflict of interest:** No conflict of interest.

### Abstract

**Introduction:** Lipomas are benign, encapsulated tumors arising from mature adipose tissue. They are usually small and slow growing.<sup>1</sup> Though lipomas can arise anywhere in the body, breast still remains an uncommon site for occurrence of lipomas.<sup>2</sup> Lipoma of breast is a rare site with incidence of approximately 16% of all mesenchymal tumors.<sup>3</sup>

**Presentation of case:** We present a case of a 52 year old woman who presented with a right breast lump which on ultrasound was reported BIRADS IV that is suspicious for malignancy. FNAC and histopathology confirmed it to be a lipoma and spared the patient from both psychological burden and surgical trauma.

**Discussion:** Breast lipomas are rare. The smaller ones are missed on mammography due to similar texture to normal breast and larger ones raise suspicion of malignancy. Thus they need to be meticulously evaluated.

**Conclusion:** The diagnosis of breast lipoma is challenging but can be confirmed by FNAC and histopathological examination. Complete excision with capsule is essential to avoid recurrence, thus saving patient from psychological and surgical consequences.

**Keywords:** Giant lipoma, Breast, Fine Needle Aspiration Cytology

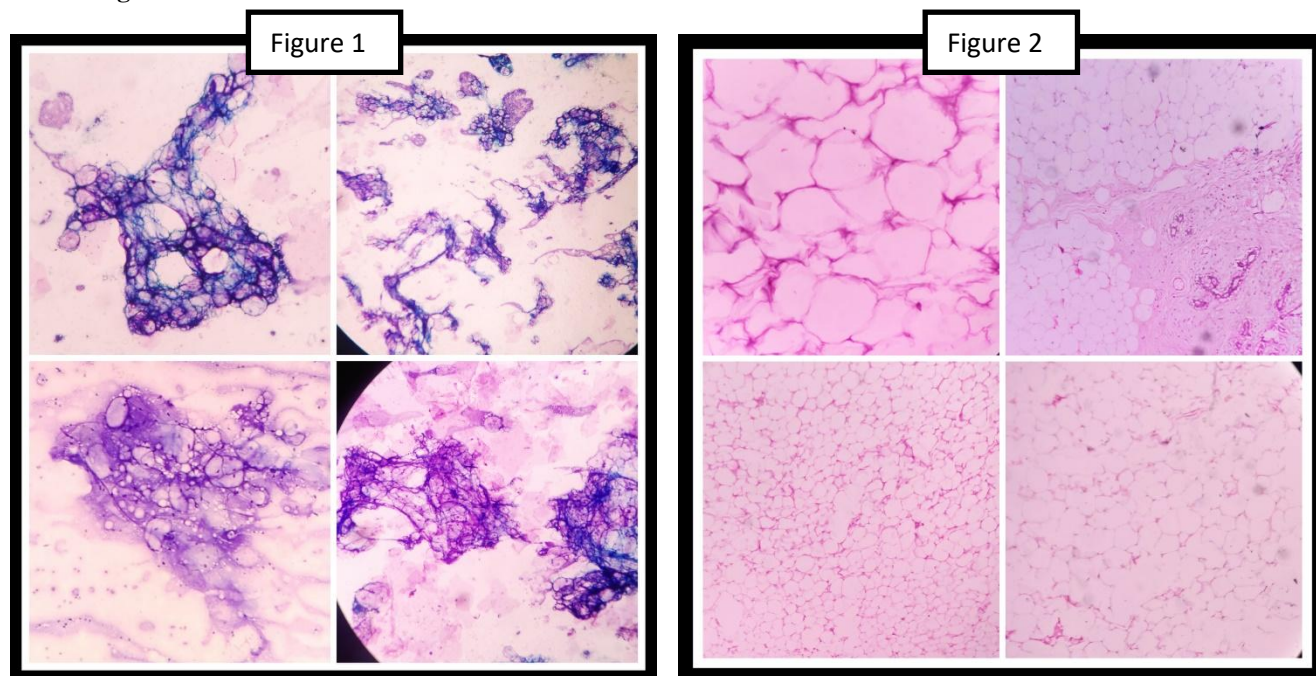
### Introduction

Lipoma is the most common mesenchymal tumor.<sup>4</sup> They are benign, encapsulated tumors arising from mature adipose tissue and are usually small and slow growing.<sup>1</sup> Lipoma of breast still remains an uncommon diagnosis due to diagnostic confusion which results in ambiguity in the treatment strategies. They have similar texture as that of the normal breast parenchyma which makes clinical and radiological diagnosis of lipoma breast sceptical. Not only it has to be differentiated with other benign lesions of breast but also from malignant tumors of breast ;with their increasing cases, it is very important to meticulously evaluate a breast lump under high degree of clinical suspicion until unless proved benign specifically in woman of age group of 50-65 years of age. Early diagnosis and aggressive treatment of malignant breast lesion is associated with better survival rates. The work has been reported in line with the SCARE criteria.<sup>5</sup>

**Case report:** A 52 year old woman presented in surgery OPD with a lump in the upper inner quadrant of the right breast since last 5 years. On examination the lump was 5x4 cm in size, non-tender, soft to firm and mobile. The overlying skin was normal. The ipsilateral axilla and contralateral breast and axilla were examined which were unremarkable. There was no history of chronic fever, weight loss, loss of appetite, previous surgery, trauma drug

allergies and no family history. The lump was increasing in size slowly and was painless. All the haematological, biochemical and serological tests were within normal limits. The ultrasound and mammography revealed a right lump measuring 4.2x4 cm with features suspicious of malignancy and BIRADS score of IV. The patient was advised Fine needle aspiration cytology (FNAC). Fine needle aspiration was done from the lump using a 23 gauge needle. The air dried, alcohol fixed, giemsa stained smears were evaluated. The smears showed numerous benign fibroadipose tissue fragments in a lipo-proteinacious background. No ductal epithelial cells were seen and a diagnosis of benign lipomatous lesion was offered on FNAC. The lumpectomy was done under general anaesthesia and sent for histopathological examination. Grossly the lump was globular, soft to firm and 5.2x4x4 cm in size. External surface was encapsulated and grey yellow in colour. The cut surface was homogenous and grey yellow with no hard areas. The sections were taken and processed as per the standard procedure. The haematoxylin and eosin stained smears were evaluated and were reported as Lipoma, thus confirming the cytological diagnosis. Patient was followed up after six month and there was no lump observed clinically and radiologically owing to complete excision of breast lipoma.

## Case Images:



**Figure 1:** Microscopy of the FNAC smears showing numerous adipose tissue fragments in absence of ductal epithelial cells.  
**Figure 2:** Microscopy of the breast lump sent for histopathological examination. Hematoxylin and eosin stained smears showing encapsulated tumor composed of benign, mature adipocytes with periphery showing normal breast ducts.

## Discussion:

Lipoma is the most common mesenchymal tumor.<sup>4</sup> 20% of all lipomas are located around the chest wall.<sup>6</sup> Lipoma of breast is rare with incidence of approximately 16% of all mesenchymal tumors.<sup>3</sup> Donegan WL et al, in their study have mentioned breast to be a rare site for lipoma.<sup>7</sup> Ohene-Yeboah Mo et al did a 6 year prospective study on 443 cases of excised breast lump and reported no case of breast lipoma.<sup>8</sup> Lipoma of breast can eventually increase in size causing asymmetrical breast alignment, disfigurement and low confidence. When the lipoma is either 5cm in one of the dimensions or weighs more than 500 grams, it is labelled as a giant lipoma.<sup>9</sup> C. Lanng et al in their study have mentioned that mammography failed to show lipoma in 97.2% of their total cases.<sup>3</sup> Although there are descriptions in literature of diagnostic features of lipoma on mammography,<sup>10</sup> still they are either too small, resemble normal breast parenchyma and are missed or too large raising the suspicion of malignancy.<sup>11</sup> The rarity of the entity also creates confusion in diagnosing on mammography. FNAC and histopathological assessment was able to establish and confirm the diagnosis of lipoma in nearly 86% of total cases in their study.<sup>3</sup> The same was observed in our case. The rare occurrence and large size raised the suspicion of malignancy clinically and radiologically. Cytological and histopathological evaluation was able to establish the diagnosis of giant lipoma of breast. Thus FNAC and histological examination of lump have proved to be the most reliable tool in arriving at the correct

diagnosis of breast lumps. C. Lanng et al provide us with the following diagnostic criteria:

1. FNAC showing fat cells with or without normal epithelial cells
2. Core biopsy consistent with lipoma
3. Mammogram and ultrasound not showing anything suspicious.

If these are met then it is completely justifiable to offer patient a non-operative management with follow up after 6 months.<sup>3</sup> In our case the breast lump was large and mammography was suspicious for malignancy, so the lump was completely excised and sent for histopathological evaluation and diagnosis of giant lipoma of breast was established. Hamartomas, angioliipomas, liposarcomas and fat necrosis can mimic lipomas.<sup>3</sup> Other common breast lesions which stimulate breast lipoma are fibroadenoma, phyllodes tumor, duct papilloma etc.<sup>12</sup> The diagnosis of breast lipoma is challenging but can be confirmed by FNAC and histopathological examination. Complete excision with capsule is essential to avoid recurrence.

## Conclusion:

Lipoma breast is rare and benign condition which has little mention the literature. Even though it is benign condition but any lump in breast should be thoroughly evaluated and confirmed with FNAC and histopathological examination before deciding the strategy for treatment. We present you this case for its less common occurrence and

misinterpretation as malignant lesion by mammography and ultrasound which was later confirmed and diagnosed be a lipoma of breast thus saving patient from psychological and surgical consequences.

#### References:

1. Alper M, Nusret A. Angiomyolipoma in the breast and review of literature. *Turk J Med Sci.* 2000; 30:615-8.
2. Abita T, Lachachi F, Durand-Fontanier S, Maissonette F, Valleix D, Descottes B. Apropos of a case of bilateral axillary supernumerary breasts. *Morphologie* 2004;88:39-40.
3. Lanng C, Eriksen BØ, Hoffmann J. Lipoma of the breast: A diagnostic dilemma. *Breast* 2004;13: 408-11.
4. Vandeweyer E, Scagnol I. Axillary giant lipoma: a case report. *Acta Chir Belg.* 2005;105:656-7.
5. Agha RA, Sohrabi C, Mathew G, Franchi T, Kerwan A, O'Neill N, Thoma A, Beamish AJ, Noureldin A, Rao A, Vasudevan B. The PROCESS 2020 guideline: updating consensus Preferred Reporting of CasE series in surgery (PROCESS) guidelines. *International Journal of Surgery.* 2020 Nov 12
6. Hall FM, Connolly JL, Love SM. Lipomatous psuedomas of the breast: diagnosis suggested by discordant palpatory and mammographic findings. *Radiol.* 1987;164:463-4.
7. Donegan WL. Common benign conditions of the breast. In: Donegan WL, Spratt JS, editors. *Cancer of the Breast.* 5th ed. Philadelphia: Saunders; 2002. p. 67-74.
8. Ohene-Yeboah MO. An audit of excised breast lumps in Ghanaian women. *West Afr J Med* 2005;24:252-5.
9. Ribeiro RC, Saltz R, España Quintera LF. Breast reconstruction with parenchymal cross after giant lipoma removal. *Aesthetic Plast Surg* 2008; 32: 695-7.
10. Pui M, Movson IJ. Fatty tissue breast lesions. *Clin Imaging* 2003;27:150-5.
11. Rodriguez LF, Shuster BA, Milliken RG. Giant lipoma of the breast. *Br J Plast Surg* 1997;50:263-5.
12. Gazioglu E. Surgical biopsies. In: Gazioglu E, editor. *Essentials in the Management of Breast Diseases.* Bucarest: Celcius Med Publications. 2005;51-60.