

Case Report

Fibroadenoma of axillary supernumerary breast evaluation and treatment

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ABSTRACT

Supernumerary breast is a congenital anomaly of the breast and found in 2% to 6% of the general population. The most frequent site of a supernumerary breast is the axilla (60-70%). We are discussing a case with fibroadenoma in axillary supernumerary breast in a 40 year multiparous lady with history of fibroadenoma in opposite breast. There was diagnostic dilemma due to unusual presentation of common benign breast finding in supernumerary breast. Diagnosis of fibroadenoma confirmed with excision and tissue histopathology. Supernumerary breast tissue may undergo all pathologic changes that occur in normally positioned breasts. Fibroadenoma has been rarely described in supernumerary breast tissues. Any lump in axilla must be evaluated with suspicion as carcinoma arising in the ectopic breast tissue has poorer prognosis due to difficult evaluation, early lymph node involvement and more difficult surgical excision. Fibroadenoma of axillary supernumerary breast is rare condition but its evolution and excision in case for confirm diagnosis is necessary to rule out any malignancy.

Keywords: Axilla, Fibroadenoma, Supernumerary breast

INTRODUCTION

Supernumerary breast is found in 2% to 6% of the general population.¹ It is a congenital anomaly of the breast. They are usually not fully developed and lack an areola or nipple, or both. The most frequent site of a supernumerary breast is the axilla (60-70%).² It is commonly identified either during or before puberty, and is often symptomatic during pregnancy.² Fibroadenoma is common in normal breast tissue and younger age groups but rare in supernumerary breast tissues.^{2,3} Supernumerary breast must be carefully evaluated for symptomatic or palpable swelling for histological proven diagnosis. Here we are discussing a case with fibroadenoma in axillary supernumerary breast in a 40 year multiparous lady with history of fibroadenoma in opposite breast.

CASE REPORT

A 40 years old multiparous female reported at outpatient surgical department with complain of right axillary mass for 6 month. There was history of fibroadenoma excision in her left breast 2 years back. On examination, there was 2×2 cm non tender mass in right axilla (Figure 1).

Ultrasonography showed a 1.76×2.47 cm, well-defined, oval mass with multiple punctate calcifications; suggestive of benign lymphadenopathy. Mammography showed 1.4×1.0 cm mass with elongated, indistinct margins in upper outer quadrant at 9-10 o'clock position (BIRADS II), with axillary rounded mass, contralateral breast showed only post lumpectomy changes and benign calcification. Fine needle aspiration cytology (FNAC) of axillary mass showed features of fibroadenoma. Finally,

excision biopsy of right axillary mass (Figure 2) was done as there was increased risk of malignancy in view of old age.



Figure 1: Right axillary mass.



Figure 2: Intraoperative photograph depicting excision of an encapsulated well circumscribed mass.

Gross examination showed an encapsulated well circumscribed lesion (Figure 3), which on microscopy showed features consistent with fibroadenoma.



Figure 3: Cut section of well encapsulated, solid, greyish white tumour.

Patient assured about present finding and explain about need for regular self-breast and axilla examination in supernumerary breast. Regular follow-up was done for 6 months by clinical breast and bilateral axilla examination. Patient remain asymptomatic during 6-month follow-up period.

DISCUSSION

Fibroadenoma is a frequent cause of nodule in young women with highest incidence between 20 and 30 years. It is rarely described in axillary breast tissue.¹ Axillary breast tissue is a variant of supernumerary breast tissue. Two hypotheses have been proposed on the embryogenesis of the supernumerary breast. One attributes the anomaly to the failure of regression and displacement of the milk line, while the other believes it develops from the modified apocrine sweat glands.³ As per first hypothesis, the mammary gland forms within a ventral epidermal ridge known as the milk line. The milk line appears as a bilateral thickening of the ectoderm that extends from the axilla to the inner aspect of the thigh and dorsally from mid-shoulder to mid scapular region.¹⁻³ Supernumerary breast tissue may be found outside of milkline like buttock, back of the neck, face, flank, upper arm, hip, perineum, vulva, shoulders, and the midline of the back and chest.^{3,4} Along this line, the embryo has approximately 10 to 12 pairs of breasts. In humans, one pair at the level of future breast persists while other pairs involute. Failure of these other breast pairs to involute is responsible for certain congenital abnormalities, the most common of which are accessory breast tissue (supernumerary breasts) and supernumerary nipple (polythelia).^{1,2} Accessory breast has been classified according to Kajava classification system, developed by him in 1915 and still used today.⁵

Table 1: Kajava classification for accessory breast tissue.

Type (class)	Description
Class I	consist of a complete breast with nipple, areola, and glandular tissue
Class II	consists of nipple and glandular tissue but no areola
Class III	consists of areola and glandular tissue but no nipple
Class IV	consists of glandular tissue only
Class V	Consists of only nipple and areola, without glandular tissue (pseudomamma)
Class VI	Consists of only the nipple (polythelia)
Class VII	Consists of only the areola (polythelia areolaris)
Class VIII	Consists of only hair (polythelia pilosa)

According to above classification in the present case, only glandular tissue was found in the axilla and was accordingly classified as class IV type of ectopic breast

tissue (EBT). Although EBT is present at birth, it stays dormant until puberty, pregnancy, or lactation and the presence of EBT is often noticed only during pregnancy or lactation due to hormonal stimulation. Symptoms in axillary breast tissue reportedly worsen with subsequent pregnancies, causing increased pain and local irritation, restriction of arm movement and anxiety.⁶ Most of the patients remain asymptomatic, although frequently a palpable axillary thickening can be observed during monthly premenstrual changes. EBT may undergo all pathologic changes that occur in normally positioned breasts. Mammography, ultrasonography and magnetic resonance imaging can be used for diagnosis. Aspiration cytology or core biopsy of the ectopic breast tissue is important to make the appropriate surgical decision. If it is malignant a wider excision with lymph node dissection must be considered. If it is benign, then simple excision is required for a definite diagnosis and to prevent the future risk of cancer.⁶ Evans and Guyton have stressed that cancer arising in the ectopic breast tissue has poorer prognosis due to difficult evaluation, early lymph node involvement and more difficult surgical excision.⁷ This mandated the need of regular self examination of breast and bilateral axilla for any suspicious swelling and need for visiting breast clinic for any swelling in axilla.

CONCLUSION

Supernumerary breast in axilla is common but fibroadenoma in it is a rare presentation. If a patient presents with axillary mass, always keeps in mind for supernumerary breast tissue in axilla but also evaluate others possibilities. Regular self examination must be done for any suspicious swelling in supernumerary breast. Malignancy of supernumerary breast has poorer

prognosis due to difficult evaluation, early lymph node involvement and more difficult surgical excision.

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