CASE REPORT

Fibroadenoma in axilla: another manifestation of ectopic breast

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SUMMARY

Fibroadenoma of an accessory breast is a rare disease. The clinical significance lies in the fact that a number of cystic, inflammatory, neoplastic diseases similar to those of a normal breast have been reported in accessory breasts as well. Vigilant self-assessment and complete clinical examination are always encouraged to detect earliest malignancy in the axilla. We report two cases of ectopic breast fibroadenoma with the relevant literature.

BACKGROUND

Ectopic breast tissue can occur anywhere along the milk line, from the axilla to the groin. Fibroadenoma of an ectopic breast is a rare disease. The clinical significance lies in the fact that a number of cystic, inflammatory, neoplastic diseases similar to that of a normal breast have also been reported in accessory breasts. We report two cases of ectopic breast fibroadenoma with the relevant literature.

CASE PRESENTATION

An 18-year-old noticed left axillary swelling of 3-month duration. On examination, a 3 cm×2 cm subcutaneous lump with well-defined margins and firm in consistency with marked mobility was noticed in the axilla (figure 1). Fine-needle aspiration cytology (FNAC) revealed it to be a fibroadenoma. Surgical exploration (figure 2) was carried out through axillary incision. The histopathology of an excised specimen (figure 3) confirmed a fibroadenoma. Our second case had a similar clinical picture: a 21-year-old woman presented with right axillary swelling and was diagnosed as having a fibroadenoma, as revealed by FNAC and histopathology after excision biopsy.

We have presented two cases of fibroadenoma of an accessory breast in axilla. Both were young women with cosmetic concerns about asymptomatic axillary masses. Both underwent excision biopsy and histopathology revealed fibroadenoma of ectopic breast. They had no coexistent urinary or cardiac disease. They are presently asymptomatic. This case report underscores the need to consider an accessory breast mass as a possible differential diagnosis for lumps along the milk line, and the need for careful work up and treatment, as there is a risk of malignant transformation.

DISCUSSION

The incidence of ectopic breast is 1–6% in the general population.¹ The axillary breast tissue is a subtype of ectopic breast occurring in 2–5% of women.² It is twice as common in female patients

Figure 1 Clinical photograph of fibroadenoma of accessory breast in axilla.

as in male patients.³ Ectopic breast tissues have been reported even on the face, perineum and vulva.⁴ The clinical significance lies in the fact that a number of cystic, inflammatory, neoplastic diseases similar to those of a normal breast have been reported. Ectopic breasts also indicate presence of an underlying genitourinary and cardiovascular system abnormality.^{4 5} Fibroadenoma is a common cause of breast mass in young women, with highest incidence between the ages of 20 and 30 years. It is rarely described in axillary supernumerary breasts.⁶

The breast tissue develops from the embryonic ectodermal thickenings extending from the axilla to the groin region. During development, the breast tissue develops in the pectoral region and the rest of the milk line (also called Hugh line) undergoes regression. Supernumerary breasts develop either as a result of failure of regression and milk line displacement⁷ or from the modified apocrine sweat glands.⁸ Uncommon locations, also known as 'mammariae erratae', include the buttocks, back of neck, face, flank, upper arm, hip, shoulders and

Figure 2 Surgical exposure of fibroadenoma in axilla.

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Figure 3 Excised fibroadenoma.

midline of the back and chest.⁹ The tissue rest usually increases in size during puberty, pregnancy and puerperium.⁹ Supernumerary breasts are classified as follows: type 1: complete breast with areola and nipple; type II: supernumerary breast with nipple only; type III: supernumerary breast with breast tissue and areola only; type IV: ectopic or aberrant breast tissue only; type V: pseudomamma consists of fat with areola and nipple; type VI: polythelia (nipples only); type VII: areola only (polythelia areolaris) and type VIII: patch of hair only (polythelia pilosa). They are supposed to have a genetic basis.¹¹ Native American women have a higher incidence of accessory breast compared with non-native Americans. Cases are usually sporadic, but familial cases have also been reported.⁹

Differential diagnosis would include other causes of axillary swelling such as enlarged lymph nodes, sebaceous cyst or lipoma. Fibroadenomas of supernumerary breast have cosmetic, psychological as well as clinical implications. They have similar susceptibility to inflammatory, fibrotic, cystic and malignant changes.⁴ They are also associated with underlying urogenital abnormalities such as hydronephrosis, polycystic kidney and ureteric stenosis, although this association has been challenged.^{12–13} Though rare, cardiac problems such as congenital heart anomalies, high-blood pressure and conduction or rhythm disturbances are linked with ectopic breasts. Pardo *et al*¹⁴ described a case of infiltrating ductal carcinoma of an accessory breast. Malignant transformation can occur in an accessory breast. Axillary primary ectopic breast carcinoma should be included in the differential diagnosis of any axillary mass.¹⁵ Contralateral axillae and both breasts should always be

examined, supplemented with supraclavicular fossae and latero-cervical lymph nodes examination, as one should never miss even a single doubtful case of malignancy in axillary masses. In cases of bilateral axillary ectopic breast tissue, work up should be similar to that of unilateral mass.¹⁶ The diagnostic (mammography, ultrasonography, cytology and biopsy) and therapeutic protocol for a supernumerary breast mass is similar to that of a normal breast mass.⁶ The diagnosis is usually delayed because of lack of suspicion of this rare condition.

The presence of an extra breast or nipple also raises the suspicion of an underlying urinary tract abnormality requiring evaluation. Finally, the investigative and therapeutic modalities remain the same with malignant diseases requiring wide local excision.

Learning points

- ▶ Accessory breasts are likely to develop inflammatory and malignant changes similar to normal breasts.
- ▶ Fibroadenoma of accessory breast in axilla is a very rare possibility but may present in young women.
- ▶ Vigilant self-examination of accessory breasts similar to that of normal breasts is encouraged, for earliest detection of lesions.
- ▶ Complete clinical examination of swellings of accessory breasts supplemented with fine-needle aspiration cytology is the basic tool for management.
- ▶ Follow-up after excision biopsy of fibroadenomas in axillae is essential to detect at the earliest any further pathological changes.

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