Fibroadenoma in axillary ectopic breast tissue: a case report

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Abstract
Ectopic breast tissue is a common anomaly of the breast that generally presents along the embryonic milk line; however, fibroadenoma of ectopic breast tissue is a rare disease. In this article, we report a rare case of fibroadenoma that developed in the ectopic breast tissue of the right axilla in a 25-year-old Japanese woman. Ultrasonography, fine-needle aspiration cytology (FNAC), and core needle biopsy (CNB) were done, and the mass was diagnosed as fibroadenoma of the ectopic breast tissue. As with normal breast tissue, various breast tumors can develop in ectopic breast tissue. In addition to ectopic breast tumors, axillary tumors need to be further differentiated from metastatic lymph nodes, abscesses, lymphomas, and so forth; thus, it is difficult to diagnose such tumors quickly and accurately. Ultrasonography, cytology, and histology are invaluable for determining the diagnosis and treatment.

Keywords
fibroadenoma, ectopic breast tissue

1. Introduction
Ectopic breast tissue (EBT) can occur anywhere along the primitive embryonic milk lines. Ectopic axillary breast tissue is a common variant of EBT that accounts for 60-70% of all EBT cases. The incidence of ectopic axillary breast tissue is 5.19% in women and 1.68% in men. Furthermore, fibroadenoma, malignant tumor, and other diseases that can occur in normal breast tissue can also develop in EBT. However, fibroadenoma of ectopic axillary breast tissue is a relatively rare disease with only a few reported cases. To the best of our knowledge, there are few reports that specifically refer to ultrasound findings of fibroadenoma in ectopic axillary breast tissue.

Here, we report a case of fibroadenoma of the ectopic axillary breast tissue, which was diagnosed via ultrasound, fine-needle aspiration cytology (FNAC), and core needle biopsy (CNB).

2. Case
A 25-year-old woman visited a local doctor with concerns about a mass in the right axilla, clinically suspected of being axillary lymphadenopathy. It had been observed for 3.3 years and had grown slowly. She had no previous medical history or family history of breast cancer, nor a history of pregnancy or childbirth. Laboratory data were unremarkable. She was referred to our hospital for further examination.

On examination, the subcutaneous nodule, isolated from the breast in the right axilla, was 3 cm in diameter. The nodule was firm, well-defined, and movable under the normal skin. No nodules were palpable in the contralateral axilla or bilateral breasts. Ultrasonography showed a relatively well-defined, partially lobulated, solid mass in the right axilla, 27 x 16 x 16 mm in size. Its internal echo pattern was hypoechoic, heterogeneous, and vascular, with no calcification or acoustic shadowing. No obvious mass lesions were found in the bilateral breasts, and the axillary mass was completely separate from the mammary gland (Fig. 1).

FNAC showed no lymphocytes, which is atypical for lymph node enlargement (Fig. 2). It was assumed that the tumor was a benign entity, such as fibroadenoma, in the ectopic breast tissue. Because axillary fibroadenoma is rare, CNB was performed for definitive diagnosis, and the pathological findings were fibroadenoma-like tissue with a double-layered epithelial component and a hypercellular stromal component (Fig. 3). Treatment involved surgical resection of the tumor (Fig. 4), and postoperative pathological findings also led to a diagnosis of fibroadenoma with normal mammary tissue around the mass, which confirmed the diagnosis of fibroadenoma in the axillary breast tissue (Fig. 5).

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