Case Report

Giant Phyllodes Tumor in Ectopic Breast Tissue

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INTRODUCTION

Ectopic breasts have been described as both supernumerary and aberrant breasts. Supernumerary breasts result from a specific process occurring during the embryologic development beginning between the 4th and 5th weeks of gestation. Regression of the mammary ridge occurs at all the places other than the pectoral regions. A supernumerary breast will have a ductal system communicating with the overlying skin, usually located along the “milk line.” This form of ectopic tissue is subject to similar physiological changes of the reproductive cycle as well as diseases and alterations, whether malignant or benign, that affect the orthotopic breasts. The second form of ectopic breast tissue, the aberrant breast, is characterized by an unorganized secretory system without any connection between inside and outside. Axillary location is the most frequently described; however, parasternal, subscapular, and vulvar locations have also been reported. Unlike supernumerary breasts, aberrant breasts have no organized secretory system and do not bear any relationship to their overlying skin. In ectopic breast tissue, malignant transformations have been reported to occur more frequently than the benign diseases.

Breast masses are uncommon in children and adolescents, with a prevalence of 3.2% in teenage girls. Ninety-five percent of the operated masses in pediatric breast are benign fibroadenomas, whereas only 0.02% are malignant. Ectopic location of breast tissue in retropectoral plane and phyllodes tumor occurring in the ectopic breast tissue have not been described earlier.

CASE REPORT

A 12-year-old female child presented with gradual enlargement of the right breast for the past 2 months. There was no history of breast cancer in the family, and the menarche had not been attained yet. On examination, the breasts were asymmetrically enlarged, and there was no nipple discharge, ulceration, cutaneous edema, or nipple retraction. On palpation, a deep-seated, slightly tender, hard lump with restricted mobility was felt within the soft superficial breast tissue, measuring approximately 10 cm × 9 cm. Ultrasonogram of the right breast and axilla showed an oval, well-circumscribed, homogenously isoechoic mass lesion with smooth margins, measuring 9 cm × 7 cm, occupying all the four quadrants and normal breast tissue being seen superficial to it. Fine-needle aspiration cytology showed staghorn clusters of benign ductal epithelial cells and scattered bipolar nuclei in fibromyxoid background suggestive of fibroadenoma.

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risk of breast cancer increases significantly even before the age of 35 years. Phyllodes tumor manifests as a painless breast mass, as also seen in this index case, or patients may have a history of sudden enlargement of a previously stable mass, causing thinning of the overlying skin and increased vascularity. These are difficult to distinguish clinically from the giant fibroadenomas. Ultrasonography may not usually distinguish between fibroadenoma and a phyllodes tumor; however, the differentiation can be made by histologic examination, with phyllodes tumors having more cellular stroma, nuclear atypia, and mitotic figures. As many as 25% of the phyllodes tumors are considered malignant. In large tumors, the heterogeneity in cellularity across the spectrum of fibroadenoma and phyllodes tumor can be seen and therefore, excision is indicated. High-grade tumors have increased mitotic rate and show similarity to sarcomas. Despite histologic classification, all phyllodes tumors (benign, intermediate, and malignant) have potential to metastasize and recur locally. Adult 5-year survival rates for benign, intermediate, and malignant phyllodes tumors are 96%, 74%, and 66%, respectively; however, these incidences are unknown in adolescent and pediatric patients. Phyllodes tumors should be treated with complete surgical resection. In adults, a 1-cm surgical margin is recommended. However, adolescent phyllodes tumor seems to be less aggressive, and a smaller surgical margin may be acceptable.

**Discussion**

Ectopic breast, also referred to as “accessory breast,” has been classified into eight types according to the presence of a nipple, areola, and/or glandular tissue. Copeland and Geschickter proposed a more convenient classification; they referred to the persistent or atrophic glandular tissue with a nipple or areola as supernumerary breast, and the aberrant breast to be mammary tissue alone without a nipple or areolar complex.

Benign or malignant degeneration of ectopic breast tissue has been reported to be highly probable. Phyllodes tumor is a rare lesion of the breast (0.3% of all breast tumors) and has bimodal prevalence between the ages of 30 and 50 years. The tumor generally occurs only once, and if it occurs in a high-risk population, the risk of breast cancer increases significantly even before the age of 35 years. Phyllodes tumor manifests as a painless breast mass, as also seen in this index case, or patients may have a history of sudden enlargement of a previously stable mass, causing thinning of the overlying skin and increased vascularity. These are difficult to distinguish clinically from the giant fibroadenomas. Ultrasonography may not usually distinguish between fibroadenoma and a phyllodes tumor; however, the differentiation can be made by histologic examination, with phyllodes tumors having more cellular stroma, nuclear atypia, and mitotic figures. As many as 25% of the phyllodes tumors are considered malignant. In large tumors, the heterogeneity in cellularity across the spectrum of fibroadenoma and phyllodes tumor can be seen and therefore, excision is indicated. High-grade tumors have increased mitotic rate and show similarity to sarcomas. Despite histologic classification, all phyllodes tumors (benign, intermediate, and malignant) have potential to metastasize and recur locally. Adult 5-year survival rates for benign, intermediate, and malignant phyllodes tumors are 96%, 74%, and 66%, respectively; however, these incidences are unknown in adolescent and pediatric patients. Phyllodes tumors should be treated with complete surgical resection. In adults, a 1-cm surgical margin is recommended. However, adolescent phyllodes tumor seems to be less aggressive, and a smaller surgical margin may be acceptable.

**Declaration of patient consent**
The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient’s guardian has given his consent for his child’s images and other clinical information to be reported in the journal. The patient’s guardian understands that the child’s name and initial will not be published, and due efforts will be made to conceal the child’s identity, but anonymity cannot be guaranteed.

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**Conflicts of interest**
There are no conflicts of interest.

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