Fluctuant Subcutaneous Nodule in the Axilla of an Adolescent Female

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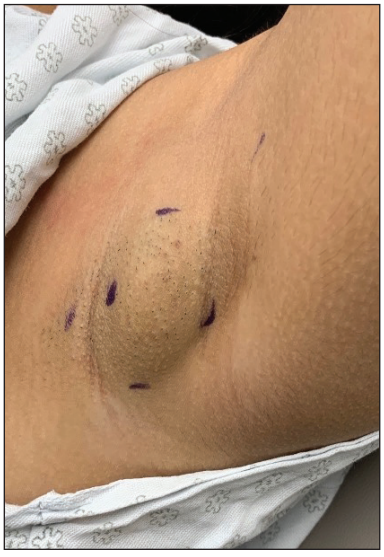

A 15-year-old adolescent female with an unremarkable medical history presented to the dermatology clinic with a mass in the left axilla of 2 years' duration. The patient reported that there was no drainage of the lesion nor did she have any other similar lesions. She reported tenderness of the lesion during menstruation that resolved after this phase ended. Dermatologic examination revealed a solitary 4.4-cm, flesh-colored, poorly defined, boggy, fluctuant subcutaneous nodule with no central punctum or surface changes. Ultrasonography of the axilla showed a 6.4-cm hypoechoic heterogenous mass. A biopsy of the lesion was performed.

WHAT'S YOUR **DIAGNOSIS?**

a. accessory breast
b. epidermoid inclusion cyst
c. lipoma
d. lymphadenopathy
e. soft tissue sarcoma

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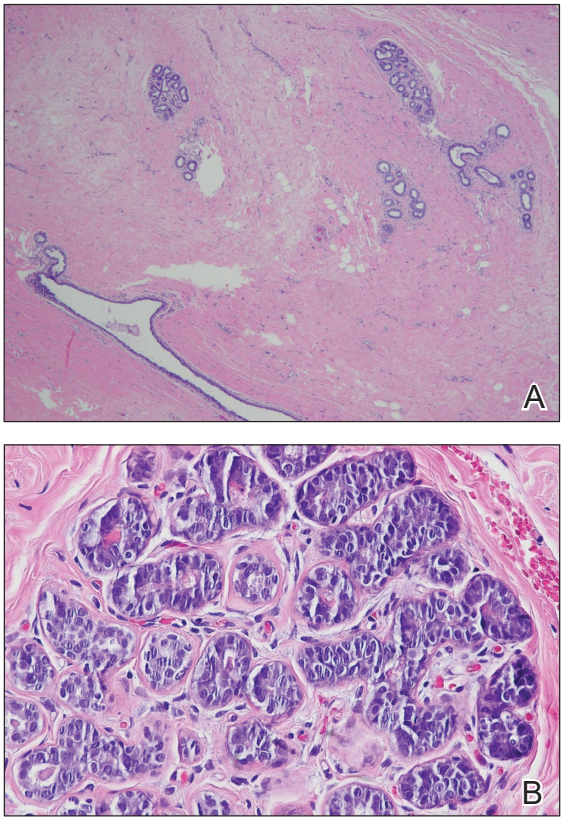
THE **DIAGNOSIS:** Accessory Breast

A diagnosis of accessory breast was confirmed on histopathology, which demonstrated a slightly hyperplastic and hyperpigmented epidermis. The dermis contained an increased number of smooth muscle bundles with the presence of apocrine glands and mammary lobules (Figure). Tenderness of the mass fluctuated according to the patient's menstrual cycle, which supported a diagnosis of accessory breast over lipoma. The patient had no signs of infection or other systemic symptoms that were suggestive of lymphadenopathy. Unlike an epidermoid inclusion cyst, our patient's mass presented as poorly defined and boggy in texture. Biopsy results were not consistent with malignancy, ruling out soft tissue sarcoma.

Accessory breasts are characterized by the presence of breast tissue outside the breast and can be found anywhere along the milk line from the axillae to the vulva.[1] The prevalence of accessory breasts is 2% to 6% of women, with an average age of presentation for treatment of 42 years.[2] Ninety percent of accessory breasts are found in the thorax, 5% are found in the abdomen, and 5% are found in the axillae.[3] Incidence is uncommon in adolescents; however, in addition to our patient, there are several cases in the literature of adolescents with accessory breasts in the axillae.[4,5]



A, Histopathology of the accessory breast revealed ducts and lobules within a fibrous stroma, which confirmed the diagnosis (H&E, original magnification ×2). B, Myoepithelial cells lined a stratified columnar epithelium, characteristic of breast tissue (H&E, original magnification ×40).

Ectopic mammary tissue is divided into 8 classes based on the Kajava classification system (Table). In a retrospective study of adolescent females with accessory breasts, 91% (10/11) of patients were classified as class IV, and 1 was class II.[6] Similarly, our patient was classified as class IV since her accessory breast was composed entirely of glandular tissue and did not include an areola and nipple.

Supernumerary breast structures such as areolas and nipples typically are diagnosed at birth, whereas supernumerary breast tissue is not diagnosed until after hormonal stimulation typically seen during puberty, pregnancy, or breastfeeding. Common symptoms include cyclic pain with menstruation, fluctuation in the size of the mass, and tenderness of the ectopic tissue. There also can be restricted range of motion and increased irritation from clothing. Ultrasonography generally shows a hypoechoic septate indicative of mammary tissue.[6] Diagnosis is confirmed by histopathologic studies that show mammary lobules in the dermis with smooth muscle, mammary ducts connected to the nipple, and connective stroma.[6]

If bothersome, ectopic breast tissue can be surgically removed, either by direct excision or suction lipectomy depending on the size of the mass.[2] Postoperative complications are low but can include seroma, bleeding,

Kajava Classification of Ectopic Mammary Tissue[1,2]

Category	Constituting tissue elements
Class I	Glandular tissue, nipple, areola
Class II	Glandular tissue and nipple without areola
Class III	Glandular tissue and areola without nipple
Class IV	Glandular tissue only
Class V	Nipple and areola without glandular tissue
Class VI	Nipple only
Class VII	Areola only
Class VIII	Patch of hair only

infection, remnant tissue, or undesired cosmetic results. As with normal breast tissue, ectopic breast tissue can manifest with benign and malignant pathologies.

In conclusion, accessory breast is a benign condition that can cause cyclical pain with menstruation, restricted range of motion, discomfort, anxiety, and cosmetic problems. It is important to keep this diagnosis on the differential when evaluating a soft tissue mass that appears in the axillary region.

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