

Case report

Inguinal fibroadenoma of an ectopic mammary tissue

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Abstract:

A 29-year-old presented with right inguinal mass of seven months duration. The mass was rounded, firm and mobile. It was not associated with overlying skin changes or distal limb abnormalities. The clinical impression was inguinal lymphadenopathy. Fine needle aspiration cytology (FNAC) revealed feature consistent with fibroadenoma arising in an ectopically located mammary tissue along the milk line. Histopathological examination confirmed the diagnosis of fibroadenoma. Fibroadenoma in ectopic mammary tissue may add more difficulty to the diagnosis and may be misdiagnosed clinically as lymphadenopathy or lipoma.

Key words: Fibroadenoma, ectopic, mammary, inguinal

Introduction:

Accessory breast tissue results from persistence of a residual breast tissue from normal embryologic development. They can occur at any anatomical site along the line that extends from the axilla to the groin and known as embryonic milk line. (1) Any type of a disease that can occur in normal breast can also develop in these abnormally located mammary tissue. (2) Ectopic mammary tissue in the axilla, vulva and less commonly buttock site have been reported but it is rare in the inguinal site. Other sites like neck, face, flank, arms, hips and back also have been reported. (3) Fibroadenoma is a common benign lesion of normal mammary tissue, however its occurrence in accessory breast tissue is rare. (4)

Case Report:

A 29-year-old presented with right inguinal mass of seven months duration. The mass was slowly growing and was associated with mild pain during movement. The patient had no history of any malignancy and no history of significant illness. Physical examination revealed a rounded mass in right inguinal area, measuring approximately 2cm x 2cm in size. The mass was firm in consistency, mobile and the skin over it was normal. The left inguinal area was unremarkable, and no abnormality detected in the distal extremities. The first clinical impression was inguinal lymphadenopathy. (figure 1)

Fine Needle Aspiration Cytology was performed, and the finding was hypercellular aspirate consisting of dispersed cohesive clusters of benign ductal cells forming staghorn structure with presence of myoepithelial cells and stromal fibrous tissue fragments in a clear background without any evidence of malignant cells. (figure 2) The single right inguinal mass that was clinically visible, well defined and demarcated was totally excised under local anesthesia. The cut section of the surgically excised mass showed a white surface. Histopathological examination of sections

revealed a well circumscribed benign tumor composed of proliferating mammary ducts lined by double epithelial layer and forming intracanalicular and pericanalicular patterns within collagenous stroma and no evidence of malignancy seen. This histopathological picture supported the diagnosis of fibroadenoma arising in an ectopic mammary tissue. (figure 3)

Discussion:

The ectopically located mammary tissue mostly occurs along mammary milk lines that extend from the axilla to the groin. Embryologically they develop from ectodermal thickening along the side of the embryo. There are two theories behind the development of ectopic mammary tissue. The first one relates it to the failure of regression of the milk lines but the other theory attributes its occurrence to development from modified sweat glands.(5) Although ectopic mammary tissue commonly occurs along milk line in the axilla but occurrence in other site like face perineum and vulva have been reported.(5,6)The commonly used classification system for ectopic mammary tissue was developed by Kajava in 1915 ranging from class I up to VIII. Class I given to situation with complete breast with nipple, areola, and glandular tissue, class II shows the same component of class I but without areola. Class III also have same component as class I but missing the nipple. Class IV contain only glandular tissue, while class V contain only nipple and areola without any glandular tissue. The Classes VI, VII and VIII show; nipple only, areola only and only patch of hair respectively. (7,8)The case report we present is a class IV according to Kajava classification, as the skin over the lesion was normal and no any signs indicative of presence of nipple or areola and the microscopic assessment of tissue revealed lesion of benign lesion of glandular tissue.

The ectopic mammary tissue are similarly subjected to the same hormonal influences as normally located breast tissue so they are expected to develop similar pathological changes that can range from benign lesions like fibroadenoma and fibrocystic changes to sarcomatous changes and even carcinoma.(9)

The mammary-like glands of the anogenital region that are mainly located between the labia minora and majora. They have a normal histology that closely resemble breast tissue.(9,10) This actually support the previously mentioned theories regarding origin from either pre-existing mammary like glands or from ectopic mammary tissue. The occurrence of ectopic mammary tissue lesions in the inguinal region are very rare and only few cases have been reported; one case of inguinal hamartoma arising in ectopic mammary tissue has been reported by DWORAK O and et al.(11) Other case of an inguinal cystic benign phyllodes tumor has been reported by Go JH.(9) Here we present a rare entity of benign ectopic mammary tissue lesion arising in the inguinal region.

Fibroadenomas are the most commonly occurring benign neoplasm of the breast, however their occurrence in accessory breast tissue is rare.(4)They are well demarcated painless masses that frequently encountered in young women. (12)Histologically, they consist of epithelial and non-epithelial proliferation; the epithelial proliferation shows variably sized ducts lined by two layers of inner epithelial and outer myoepithelial cells while the non-epithelial part manifest variable degree and collagenization. (2)

Conclusion:

Fibroadenoma should be considered when dealing with any mass arising along the milk line. The diagnostic measures that applied to lesions in normally located breast tissue should be considered in conditions of ectopic

mammary tissue starting from clinical evaluation through radiological investigations, FNAC and histopathological assessment.

Figure (1)



Figure (2)

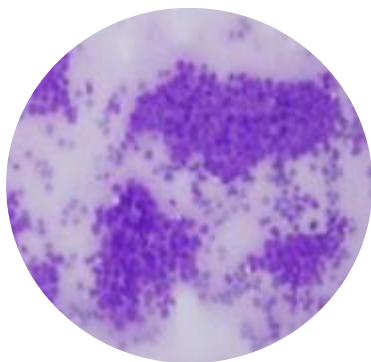
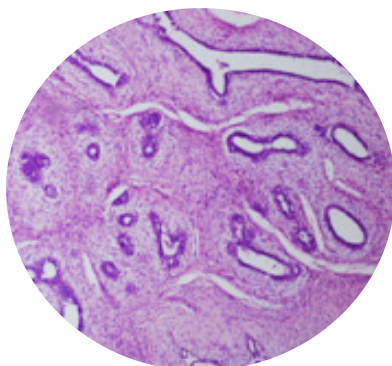


Figure (3)



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