

Case Report

An axillary mass in the postpartum period: accessory breast tissue confirmed by ultrasonography and milk aspiration: a case report

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ABSTRACT

Accessory breast tissue is a congenital anomaly defined by the presence of more than two glandular breast tissues in addition to the normally developed breasts. This ectopic breast tissue may remain clinically silent for long periods; however, it can become symptomatic due to hormonal influences, particularly during pregnancy, lactation, or menstrual cycles, as it undergoes physiological changes similar to those observed in normal breast tissue. These changes may lead to localized swelling, pain, or discomfort, most commonly in the axillary region. In this report, we describe the case of a 32-year-old woman who presented to our clinic with a unilateral axillary swelling that developed after her second delivery. The clinical presentation, along with the patient's obstetric history, raised suspicion of accessory breast tissue. This case highlights the importance of considering accessory breast tissue in the differential diagnosis of axillary masses, especially in women of reproductive age presenting during hormonally active periods.

Keywords: Accessory breast tissue, Postpartum period, Breast milk

INTRODUCTION

Accessory breast (ectopic or supernumerary breast) is a congenital anomaly characterized by the presence of more than two glandular breast tissues in addition to the normal breast tissue.¹ During the fifth week of embryological development, ectodermal milk lines extend bilaterally from the axilla to the inguinal region. By the seventh week, a mammary ridge develops along the thoracic segment of these lines, which subsequently differentiates into mammary glands. Normally, the remaining portions of the milk line regress and disappear. However, if this regression (involution) fails to occur completely, residual accessory breast tissue may persist unilaterally or bilaterally at any point along the milk line.^{2,3} The reported prevalence of this anomaly ranges from 0.4% to 6% in women and from 1% to 3% in men.⁴ Accessory breast tissue is most frequently observed in the axillary region though cases have been documented in unusual sites such as the knee, outer thigh, hip, face, ear, and neck.^{5,6} All conditions that may affect normal breast tissue can also

occur in ectopic breast tissue. Patients may experience physiological changes such as tenderness, pain, enlargement, or even lactation, similar to those seen in normal breast tissue. These changes typically result from hormonal fluctuations during the menstrual cycle, pregnancy, or lactation.^{7,8} In most cases, patients remain unaware of the anomaly unless the accessory tissue becomes prominent or undergoes a pathological process (e.g., mastitis, fibrocystic changes, or malignancy).

In this report, we present a case of accessory breast tissue without a nipple, detected in the right axilla during the postpartum period.

CASE REPORT

A 32-year-old woman, who had delivered at 36 weeks of gestation, presented to our clinic on the 4th postpartum day with a complaint of a swelling she had noticed in her right axilla (Figure 1). She reported no prior history of axillary swelling. Her medical history was unremarkable, with no

chronic illnesses or regular medication use. Interestingly, her mother had experienced a similar condition during pregnancy, although no definitive diagnosis had been established.

Dermatological examination revealed a 2×3 cm, skin-colored, elastic subcutaneous nodule in the right axilla. Routine laboratory investigations, including complete blood count, biochemistry, and C-reactive protein, were within normal limits. Ultrasonography of the right axilla was performed with preliminary diagnoses including lymphadenopathy, accessory breast tissue, benign or malignant mass, cystic lesion, or abscess. Superficial ultrasonographic imaging demonstrated a 2 cm lobulated, hypoechoic lesion containing millimetric cystic areas located in the subcutaneous soft tissue of the right axillary region, consistent with accessory breast tissue. The mass was located along the topographic line of the milk line, and no accessory nipple was detected.

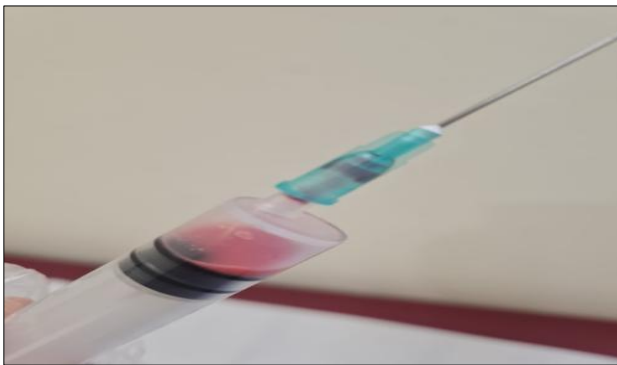


Figure 1: Subcutaneous mass in the right axillary region.



Figure 2: Blood-tinged discharge consistent with breast milk.

The patient denied any previous episodes of pain, tenderness, or discomfort in the axilla during her menstrual cycles. The lesion was assessed as uncomplicated accessory breast tissue. Fine-needle aspiration from the lesion yielded a blood-tinged discharge consistent with breast milk (Figure 2), which strongly supported the diagnosis.

DISCUSSION

Accessory breast tissue refers to the presence of an additional focus of mammary tissue along the embryonic milk line.⁴ It occurs more commonly in women than in men and is most frequently localized in the axillary region, often bilaterally.⁵⁻⁹ In our case, the lesion was located unilaterally in the axilla the most common site of occurrence and the origin of the milk line.

Accessory breast tissue typically remains asymptomatic until puberty, pregnancy, or lactation, when hormonal influences may cause it to enlarge and become clinically evident. During these periods, patients may experience cosmetic and psychological concerns, as well as pain, tenderness, or lactation.^{7,8} Similarly, in our case, a non-tender, nipple- and areola-free mass became apparent in the postpartum period without associated symptoms.

Diagnosis of accessory breast tissue is primarily based on clinical examination and patient history. Benign alterations, benign tumors (such as adenoma or fibroadenoma), and carcinoma have all been documented in accessory breast tissue. Differential diagnosis should include lipoma, lymphadenopathy, hidradenitis suppurativa, sebaceous cyst, and vascular malformation. Accordingly, imaging modalities such as breast and axillary ultrasonography, mammography, fine-needle aspiration, or surgical biopsy may be utilized.⁶⁻⁹

Although some authors recommend early excisional biopsy due to potential malignancy risk, functional symptoms, or cosmetic reasons, treatment is generally conservative. Nevertheless, surgical excision may be considered to prevent potential complications or for cosmetic purposes. Excision can be performed prior to puberty or at any age when the lesion becomes clinically or psychosocially distressing.¹⁰ In our case, since there were no cosmetic concerns and the patient was in the lactation period, surgical intervention was not considered, and annual follow-up was advised.

CONCLUSION

In conclusion accessory breast tissue should be considered in the differential diagnosis of an axillary mass, particularly when it becomes apparent during pregnancy or the postpartum period. Although usually benign and asymptomatic, it may undergo the same physiological and pathological changes as normal breast tissue. Accurate diagnosis through clinical and imaging evaluation is important to distinguish it from other axillary lesions and to determine the need for follow-up or intervention.

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