CASE REPORT

A rare case of fibrocystic disease in axillary accessory breast: a case report

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Abstract

Accessory breast is seen in 0.4 to 6% of women and its most common location is axilla. Normal breast diseases like fibrocystic disease, fibroadenoma, and carcinomas can also be seen in accessory breast. However, the true prevalence of fibrocystic changes in the accessory breast is not known. We present the case of a woman with right sided axillary swelling which was initially thought to be a lipoma but on histological examination, it was diagnosed as a case of accessory breast with fibrocystic changes. Thus, while dealing with patients having swelling in axilla, accessory breast with its diseases must be considered in differentials for timely diagnosis and management. When the mass is symptomatic, has poor cosmetic appearance, or there is uncertainty related to its diagnosis, excisional biopsy should be considered.

Keywords: Fibrocystic changes, Accessory breast, Axilla.

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Introduction

Accessory breast tissue is defined as the residual breast tissue that remains after embryologic development. Its prevalence in the general population is variable and depends on different factors which include gender, genetic disposition, geographical location, and race. Its prevalence is high in Japanese population, while it is lowest in white individuals. In general, its prevalence ranges from 0.4 to 6% and it is less common in males as compared to females.[1]

Accessory breast tissue includes both supernumerary breasts and aberrant breast tissue. Supernumerary breasts form anywhere along the ectodermal ridges (milk line) which runs bilaterally from axilla to inguinal region. However, aberrant breast tissue is devoid of secretory system. The most common location of accessory breast is axilla but it can also be seen in other locations such as face, shoulder, chest, flank, hip, and thigh. Also the diseases of the normal breast such as infections and benign and malignant lesions can also be seen in the accessory breast tissue.[2]

As many as 50% of women suffer from fibrocystic changes of the breast during their lifetime.[3] However, the true prevalence of fibrocystic changes in the accessory breast is not known and only a few cases of fibrocystic changes in accessory breast have been reported in the literature. Thus, we are reporting a case of accessory breast with fibrocystic changes.

Case Report

A 37-year-old female presented to the Surgery Outpatient Department of Tehsil Headquarter Hospital, Kharian, on April 4, 2024, with history of swelling in the right axilla first noticed six years back which progressively increased in size. Initially, it was asymptomatic, but the patient started experiencing mild pain and discomfort since four months. Her past medical history, family history, and personal history were not significant. On examination, there was an approximately 15 x 8 cm swelling in the right axilla (Figure 1). It was soft in consistency, mildly tender to touch, mobile, having smooth surface, and completely separated from the right breast. The skin over the swelling was normal and there was no areola, nipple, ulceration, or colour changes. The rest of the examination, including both the breasts and contralateral axilla, was unremarkable. Based on clinical examination, lipoma was suspected. Ultrasound was performed which showed an accessory breast tissue in the right axilla having cystic lesions, with the largest measuring 2.4 x 2.1cm with no flow on colour Doppler imaging. In view of the discomfort and cosmetic concerns, excisional biopsy was carried out. Intraoperatively, the swelling was superficial with no infiltration noted in the local tissue and was easily excised by achieving the surgical plane. The macroscopic examination revealed skin covered section of fibro-fatty tissue measuring 12 x 7 x 3 cm without nipple and areola. The procedure was uneventful. Biopsy report showed scattered dilated ducts lined by double layer of epithelium. The intervening stroma showed fibrosis. Scattered peri-ductal infiltration by lymphocytes, plasma cells, and macrophages was seen as well. Scattered areas of fat necrosis with infiltration by foamy histocytes were

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Figure-1: A) The anterior view and B) The right oblique view showing swelling in axilla with no skin changes

Table-1: Kajava classification of Accessory Breast Tissue

Class I	Complete breast with nipple, areola and glandular tissue
Class II	Nipple and glandular tissue but no areola
Class III	Areola and glandular tissue but no nipple
Class IV	Glandular tissue only, no nipple or areola
Class V	Nipple and areola but no glandular tissue
Class VI	Nipple only, no areola or glandular tissue
Class VII	Areola only, no nipple or glandular tissue
Class VIII	Patch of hair only

also seen. There was no evidence of malignancy in the histological examination of the specimen. These histological features were consistent with fibrocystic changes with fat necrosis. Thus, a histological diagnosis of accessory breast with fibrocystic changes was made. The patient did not report experiencing any discomfort on follow-up examinations after one month and six months nor any signs of recurrence were observed on examination. Moreover, the cosmetic appearance was satisfactory.

Discussion

The accessory breast tissue undergoes changes like the normal breast due to the hormonal influences of the menstrual cycle, pregnancy, and lactation. Thus all diseases of the normal breast can also be seen in the accessory breast tissue. The most commonly reported cases in accessory breast are cancers followed by mastopathy, mastitis, fibroadenoma, and fibrocystic disease.[4]

Kajava[5] classified accessory breast into eight classes based on their structure (Table 1). As the present case lacked areola and nipple, it was classified as Class IV lesion. Buowari[6] reported a case involving fully developed nipple and areola in bilateral axially accessory breast which is classified as Class I lesion.

Vaithiya[7] reported a case of accessory breast in a male which was initially considered a lipoma. However, based on histological examination, it was diagnosed as accessory breast with fibrocystic changes which is similar to the present case. Similarly, Mazine reported a case of bilateral accessory breast which were clinically diagnosed as lipoma.[1] Bello and Omotara[4] reported case series of accessory breast which include eight cases. Three of these cases showed invasive ductal carcinoma, three showed fibrocystic changes, and two showed normal breast tissue on histological examination. Also, Das[8] in his study reported a case where a 40-year-old woman had vulval accessory breast tissue with fibrocystic changes.

Other breast lesions like fibroadenoma in the accessory breast have also been reported in the literature.[9] Benign breast lesions are classified based on their risk of malignant transformation into no increase, small increase, and moderate increase.[10] According to this classification, the present case shows no increase in the risk of developing cancer. Hence, due to cosmetic nature and symptoms like pain or discomfort, most cases of benign lesions in the accessory breast are managed with excisional biopsy. On the other hand, malignant cases will need wide local excision combined with radiotherapy

and/or chemotherapy.[4]

Thus, the diagnostic and treatment modalities for diseases in the accessory breast are similar to normal breast diseases. However, these are not common and in most cases they are less suspicious and asymptomatic which delays the timely diagnosis and effective management similar to our case.[9]

Conclusion

The present case shows that the accessory breast tissue like normal breast also undergoes same physiologic and pathologic changes such as fibrocystic disease, fibroadenoma, and carcinomas. Therefore, it is important to consider accessory breast and its diseases in the differential diagnosis for patients presenting with axillary swelling to ensure timely diagnosis and management. Also excisional biopsy should be considered if the mass is causing pain or discomfort, is cosmetically concerning, or if the diagnosis is uncertain. Further research is needed to identify the true prevalence of accessory breast diseases and their long-term implications.

Disclaimer: The authors certify that they have obtained appropriate patient consent form. In the form the patient has given his/her written consent for his/ her clinical information to be reported in the journal. The patient understands that his/her name will not be published and due efforts will be made to conceal their identity.

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