

Original Research Article

Axillary accessory breast: presentation and treatment

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ABSTRACT

Background: The axillary accessory breast tissue develops as part of polymastia along the milk line. This is of common occurrence in women. The clinical presentation can be from asymptomatic to cyclical changes. Enlargement of axillary accessory breast tissue is during pregnancy and lactation. The most common reason for seeking surgical consultation is anxiety for development of carcinoma. Small number of women opted for surgery purely for cosmetic reason.

Methods: A total of 60 women were included in the study. The age of these women was between 19 to 50 years. Fifty women opted for surgical excision.

Results: The most common symptom in these patients was exacerbation during pregnancy and lactation in 30 patients. This enlargement was the also the most common cause anxiety by patients for development of carcinoma. The palpable thickening in 10 patients was another cause of anxiety. Only 6 patients had large pendulous mass and had already made up their mind for removal of this mass. The clinical presentation in rest of the patients represented comparatively small number of patients.

Conclusions: The potential of malignancy in accessory axillary breast is more than normal breast, it is essential to investigate these patients. The surgical excision of these accessory breasts is quite safe and is recommended for all the patients having symptoms.

Keywords: Accessory breast, Axillary breast, Ectopic breast tissue

INTRODUCTION

Accessory breasts can develop in the mammary or milk line. The accessory breast incidence is stated to be 0.4%-0.6% in women.¹ This ectopic breast tissue is commonly present in the axilla. The axillary ectopic breast is quite common in women in Asia. The exact incidence is not available in India. The clinical presentation of accessory breast may be asymptomatic or may present with pain in the premenstrual phase due to congestion. Many women are anxious about presence of swelling in the axilla. The breast cancer awareness programs also bring these women to clinician for lump in the axilla. Most of women present for the cosmetic problem.²

The Indian women wear ethnic dress which covers the axilla, so women are less anxious about this cosmetic deformity. As more women are resorting to sleeveless dress the axillary swelling is a cosmetic problem for them. These accessory breast may be present in either or both the axilla. Occasionally the aberrant breast tissue is seen in axilla, scapula, thigh and labia majora. Axillary accessory breast can present as palpable thickening in the axilla to a pendulous mass. These axillary breasts can become tender and increase in size during premenstrual period. For these symptoms more women are seeking surgeon consultation. These women want investigations to rule out breast carcinoma.³ Reassurance or counseling that the axillary swelling is accessory breast tissue which has enlarged during lactation works only when breast

cancer has been ruled out. Most of these women still want surgical excision for fear of developing carcinoma at a later date. This study was planned with aim of evaluating profile of clinical presentation, diagnostic approach and current management of women presenting with axillary accessory breast.

METHODS

This study was done in department of surgery. All the female patients presenting with axillary swelling were included in this study. A total of 60 women were included in the study. All the women were married and had one child. The accessory axillary breast had appeared in majority these women in postpartum period when they started with lactation. The period between onset of symptoms and presentation to clinician was noted. The predominant symptom for which the patient was seeking surgical consultation was recorded. The various reasons for surgical consultation were swelling and engorgement during menstrual cycle, pain in swelling, difficulty in wearing cloths, restriction of arm movements and many to rule out carcinoma. Clinical examination of breast and axillary tail was done in each patient to diagnose concomitant lesions. It was ensured that axillary breast swelling was separate from the axillary tail of Spence. A record was made whether axillary swelling was unilateral or bilateral. Ultrasound of breast and axilla was done in all the patients. Fine needle aspiration cytology was done in all the patients from axillary swelling. After confirmation of diagnosis patient were advised surgical treatment accordingly.

RESULTS

The age group of these patients was between 19 to 50 years. All the women were married and had one pregnancy. The axillary swelling enlargement was noticed by these patients after pregnancy and lactation (Figure 1). Before pregnancy, forty patients had noticed the swelling in one or both. As these patients were symptom free, enlargements of axillary swelling after pregnancy and lactation made these patients to seek surgical consultation. Out of 60 patients, 14 were having bilateral axillary swellings while remaining 46 were having unilateral axillary swelling either left or right side. The nipple areola complex and areola was seen in only one patient (Figure 2).

The clinical presentations of these sixty patients are depicted in tabular form in Table 1.

The most common presenting symptom in these patients was exacerbation during pregnancy and lactation in 30 patients. This enlargement was the also the most common cause anxiety by patients for development of carcinoma. The palpable thickening in 10 patients was another cause of anxiety. Only 6 patients had large pendulous mass and had already made up their mind for removal of this mass. The clinical presentation in rest of the patients

represented comparatively small number of patients. These causes were premenstrual pain and swelling in 3 patients, restricted arm movements in 2 patients, irritation from clothing in 4 patients and cosmetically bad appearance in 5 patients. None of these patients had presented with benign or malignant lump in this study. Concomitant macromastia was present in 12 patients along with accessory axillary breast.

Table 1: Clinical presentation of accessory breast.

Clinical presentation	N (60)
Palpable thickening in axilla	10
Large pendulous mass	6
Exacerbation during pregnancy and lactation	30
Premenstrual pain and swelling	3
Restricted arm movements	2
Irritation from clothing	4
Cosmetically bad	5
Benign or malignant lump	0



Figure 1: Supernumerary nipples.

These patients were advised excision whether having unilateral or bilateral disease. Out of 60 patients included in this study, 50 underwent excision of axillary breast tissue. The patients suffering from bilateral disease were operated on both sides in the same sitting. Post-operative recovery was uneventful in all the patients. None of these patients had haemorrhage or haematoma formation. Seroma formation was there in one patient which

resolved in about two weeks' time. This seroma formation was due to blockage of negative suction drain. These excised swellings on histopathological examination depicted disorganized breast tissue. On follow up of these patients for two months, residual and remnant tissue was not noticed in any of these patients.



Figure 2: Axillary accessory breast.

DISCUSSION

The breasts develop from thickening of ectoderm called mammary ridge during fifth week of gestational period. The mammary ridge called milk line extends from axilla to groin. In the next few weeks of gestation, the mammary ridge disappears throughout its length except in both pectoral regions which form normal twin pectoral breasts. Persistence of this mammary ridge at any other place along milk line may result in accessory breast tissue. Kajava in 1915 first classified the various forms of accessory breast tissue. However this classification has been simplified as polymastia, polythelia and aberrant breast tissue.⁴ Polymastia is breast tissue containing glands with duct system communicating with overlying skin. Polythelia is presence of accessory nipples or areole or represented by tuft of hairs. Aberrant breast tissue is presence of disorganized secretory glandular tissue which is not related to skin.⁵ Polymastia and aberrant breast tissue is commonly found in axilla while polythelia most common in sternum region. Accessory breast tissue may occur outside milk line at neck, face, arms, hips and back.⁵ The incidence of accessory breast tissue within

milk line is 60 to 70%, out of these 20% are seen as accessory breast in axilla.⁶ The accessory breast tissue is common in Asia with a very high incidence of 5% being reported from Japanese population. Accessory breast tissue in these patients is inconspicuous till pregnancy. The hormones oestrogen, progesterone, prolactin affect the accessory breast tissue and normal breasts simultaneously. This leads to increase in size of accessory breasts and symptoms of cyclical pain.⁷ The differential diagnosis includes axillary lymphadenopathy, lipoma, hyderadenitis suppurative and sebaceous cyst. Ultrasound of axillary swelling can give a preliminary diagnosis but fine needle aspiration cytology gives confirmatory diagnosis. The typical lobules, stroma and duct may be poorly organized in accessory breast tissue.

Accessory breast tissue can develop all the diseases components of ANDI (aberrations of normal development and involution) that may affect the normal pectoral breast like abscess formation, mastitis, milk fistula, cyclical mastalgia, cysts, fibroadenoma, fibroadenosis, hamartomas, phyllodes tumors and carcinoma.⁸ The incidence of carcinoma in axillary breast is 0.2% to 6% which is higher than the normal pectoral breasts. The increased incidence of carcinoma in accessory axillary breast has been attributed to the stagnation in the ducts thereby infiltrating duct carcinoma is the most common variant. The commonest site for accessory breast carcinoma is axilla. The poor prognosis is probably due close proximity to axillary lymphatics and lymph nodes.⁹ Patients with accessory axillary breasts must have screening for benign or malignant diseases by sonomammography. Their normal twin pectoral breasts must also be screened. The tissue diagnosis of accessory breast tissue must be made by fine needle aspiration. These investigations can confirm the diagnosis of accessory axillary breast and alleviate the anxiety of patients for carcinoma. Even when malignancy was not detected in none of the patients, still 50 out of 60 patients opted for surgery. The fear of development of malignancy was the basic reason. Reassurance could work only with 10 patients. The cyclical congestion and associated pain, changes associated with pregnancy and lactation in accessory axillary breast have significant change in quality of life. Due to this change these patients opt for surgical excision of accessory axillary breast tissue. The next most common reason is cosmetic for which the women want surgery. The present trend among women to wear sleeveless clothes is another cause for seeking excision of accessory breast tissue. The present trend is to remove the axillary accessory breast tissue with excision, liposuction or both. A new algorithm has been proposed by American Association of Plastic Surgery in 2011 for the treatment of Axillary Breast tissue using combination of surgical excision and liposuction.¹⁰ Aydogan et al operated 29 patients of accessory breast. In 21 patients excision of accessory breast tissue was done, 5 patients had liposuction while three had both. They commended that in patients with concomitant macromastia, reduction mammoplasty and

excision of axillary breast tissue can be done simultaneously without additional morbidity.¹¹ Lesovoy et al presented a series of 28 patients in axillary breast tissue was excised. Based on these results, they recommended that axillary breast tissue should be successfully removed.¹² Surgical excision of the axillary accessory breast tissue was done in 50 patients as day surgery procedure. Postoperative period was normal. Minor infection occurred in 4 patients only. Down et al in a retrospective analysis of 28 patients with excision of aberrant breast tissue found a high complication rate of 39%, however they recommended the surgical excision of the accessory axillary breast.¹³ However recent aesthetic approach is by liposuction commonly used by plastic surgeons.¹⁴

Axillary accessory breast tissue is a common entity and a cause of anxiety among women for fear of malignant change. Whatever maybe the presenting complaint, this entity must be investigated by radiological and fine needle aspiration cytology. Because of high incidence of benign and malignant changes, the accessory axillary breast tissue must be excised. All other complains of cyclical mastalgia, engorgement, and enlargement after pregnancy and lactation, cosmetic problem can be resolved by surgical excision.

CONCLUSION

The presence of axillary accessory breast tissue is a common cause of anxiety for women particularly if it has enlarged during pregnancy and lactation. The clinical symptoms may be absent but can cyclical changes and symptoms do occur in some patients. This axillary accessory breast tissue can have all the changes as they do occur in normal twin pectoral breast. The clinician may dismiss cyclical changes as insignificant and presence of small swelling as trivial pad of fat. These clinician may not investigate these problems. The malignant change is a real possibility and most common cause of anxiety for the patient. As the potential of malignancy in accessory axillary breast is more than normal breast, it is essential to investigate these patients. The surgical excision of these accessory breasts is quite safe and is recommended for all the patients having accessory axillary breast tissue.

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REFERENCES

1. Grossl NA. Supernumerary breast tissue: historical prospective and clinical features. *South Med J.* 2000;93(1):29-32.
2. Shultz M, Vatsayan A. Accessory breast tissue. *O and G Magazine.* 2013;15(2):64-7.
3. Loukas M, Clarke P, Tubbs RS. Accessory breasts: a historical and current prospective. *Am Surg.* 2007;73(5):525-8.
4. Kajava Y. The proportions of supernumerary nipples in the Finnish population. *Duodecim.* 1915;1:143-70.
5. Velanovich V. Ectopic breast tissue, supernumerary breasts and supernumerary nipples. *South Med J.* 1995;88(9):903-6.
6. Sahu S, Hussain M, Sachan P. Bilateral accessory breast. *Internet J Surg.* 2007;17(2);1-4.
7. Lakkawar NJ, Maran G, Srinivasan S, Rangaswamy T. Axillary breast tissue in the axilla in a puerperal woman-case study. *Acta Medica Medianae.* 2010;49(4):45-7.
8. Solanki R, Choksi DB, Duttaroy DD. Accessory breast tissue presenting as a large pendulous mass in the axilla: a diagnostic dilemma. *N Z Med J.* 2008;121(1277):76-8.
9. Jung H, Jung SH. Accessory breast carcinoma. *Breast care.* 2009;4(2):104-6.
10. Bartsich SA, Ofodile FA. Accessory breast tissue in the axilla: classification and treatment. *Plast Reconstr Surg.* 2011;128(1):35-6.
11. Aydogan F, Baqhaki S, Celik V, Kocael A, Gokcal F, Cetinkale O, et al. Surgical treatment of axillary accessory breasts. *Am Surg.* 2010;76(3):270-2.
12. Lesavoy MA, Gomez-Garcia A, Nejdil R, Yospur G, Syiau TJ, Chang P. Axillary breast tissue: clinical presentation and surgical treatment. *Ann Plast Surg.* 1996;36(6):661-2.
13. Down S, Barr L, Baildam AD, Bundred N. Management of accessory breast tissue in axilla. *Br J Surg.* 2003;90(10):1213-4.
14. Fan J. Removal of accessory breasts: a novel tumescent liposuction approach. *Aesthetic Plast Surg.* 2009;33(6):809-13.

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