

Clinical presentation and management of axillary tail of breast: Our experience in 52 cases

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Abstract

Introduction: Axillary tail of breast is a narrow part of the breast which is variable in size & extends to the axilla. The present study describes a series of 52 cases presenting with lump at axillary tail of breast. There were three cases of carcinoma of axillary tail of breast, one case of fibroadenoma and one case of tubercular mastitis. 27 cases were benign, asymptomatic and caused little discomfort to the patient. 20 cases were benign in nature but caused premenstrual mastalgia. **Methods:** It is a prospective descriptive study. 52 cases with lump at axillary tail of breast were included & the details related to clinical features, treatment & outcome of patients were described. Carcinoma of axillary tail of breast represented tumours at the axillary tail of breast which were reported as Breast Imaging Reported & Data System i.e. BI-RADS 4 or 5 abnormalities on mammography and/or ultrasonography. Staging was described as per American Joint Committee on Cancer staging system. Diagnosis of fibroadenoma & tuberculosis was confirmed by the reports of Fine needle aspiration cytology. The cases which had a benign lump at the axillary tail of breast and were asymptomatic or complained of premenstrual mastalgia were managed conservatively like that of breast mastalgia. The cases which insisted for removal due to cosmetic reasons were successfully operated upon with an uneventful procedure. (Cosmetic excision as per fig 1 to 4) **Results:** The mean age of patients with carcinoma of axillary tail of breast was 47.3 years. Out of three cases of carcinoma of axillary tail of breast, one case had T1N1 stage disease. It was treated by wide excision of tumour along with radiotherapy of whole breast and also chemotherapy. One case had T2N2 stage disease. It was treated by wide excision of tumour along with radiotherapy of whole breast & supraclavicular fossa and also chemotherapy. One case had T3N1 stage disease which was treated by modified radical mastectomy along with chemotherapy. The age of the patient with fibroadenoma at the axillary tail of breast was 31 years. She presented with a solid, benign, oval breast tumour, 2cm in size, rubbery in consistency, non-tender & mobile. Surgical excision of the mass was done & histopathology showed findings consistent with fibroadenoma of breast. The age of patient with tubercular mastitis at axillary tail of breast was 63 years. She presented with nodular & tense cystic swelling at axillary tail of breast of size around 5 x 4 x 4 cm without any ulceration or sinus. H & E stained smear of aspirate showed enormous fibroblastic & vascular proliferation with infiltration of lymphocytes, macrophages, polymorphs & clusters of ductal epithelial cells of breast in a caseous necrotic background indicating a caseous necrotic granulomatous lesion. Acid fast bacilli were found on ZN stained smear. She was treated with Anti tubercular therapy. The patient recovered & the swelling also subsided. There were 27 cases which were benign, asymptomatic and caused little discomfort to the patient and also there were 20 cases which were benign in nature but caused premenstrual mastalgia. They were managed conservatively similar to the management of breast mastalgia. Cosmetic excision was done in 13 cases. **Conclusion:** In the differential diagnosis of patients presenting with lump at axillary tail of breast, carcinoma as well as fibroadenoma and tuberculosis should be kept in mind.

Keywords: axillary tail of breast, Carcinoma breast, fibroadenoma breast.

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INTRODUCTION

The axillary tail of breast is a narrow part of the breast which is variable in size and extends to the axilla. The axillary tail of breast may show the presence of breast tissue and lymph nodes. Carcinoma arising from axillary tail of breast is a separate entity from that having origin in the upper and outer quadrant of breast. Reports of carcinoma arising from axillary tail of breast are rare^{1,2}. Axillary tail of breast may be affected by pathological

alterations like fibroadenoma.³ In the Indian subcontinent, tuberculosis is a very common disease, however, even in India, primary involvement of the breast is relatively rare and axillary tail involvement is even more rare⁴. The present study describes a series of 52 cases presenting with lump at axillary tail of breast. There were three cases of carcinoma of axillary tail of breast, one case of fibroadenoma and one case of tubercular mastitis. 27 cases were benign, asymptomatic and caused little discomfort to the patient. 20 cases were benign in nature but caused premenstrual mastalgia.

METHODS

It is a prospective descriptive study. 52 cases with lump at axillary tail of breast were included & the details related to clinical features, treatment & outcome of patients were described. Carcinoma of axillary tail of breast represented tumours at the axillary tail of breast which were reported as Breast Imaging Reported & Data System i.e. BI-RADS 4 or 5 abnormalities on mammography and/or ultrasonography. Staging was described as per American Joint Committee on Cancer staging system. Diagnosis of fibroadenoma & tuberculosis was confirmed by the reports of Fine needle aspiration cytology. The cases which had a benign lump at the axillary tail of breast and were asymptomatic or complained of premenstrual mastalgia were managed conservatively like that of breast mastalgia. The cases which insisted for removal due to cosmetic reasons were successfully operated upon with an uneventful procedure.

RESULTS

There were three cases of carcinoma of axillary tail of breast, one case of fibroadenoma and one case of tubercular mastitis. The mean age of patients with carcinoma of axillary tail of breast was 47.3 years. Out of three cases of carcinoma of axillary tail of breast, one case had T1N1 stage disease. It was treated by wide

excision of tumour along with radiotherapy of whole breast and also chemotherapy. One case had T2N2 stage disease. It was treated by wide excision of tumour along with radiotherapy of whole breast & supraclavicular fossa and also chemotherapy. One case had T3N1 stage disease which was treated by modified radical mastectomy along with chemotherapy. The median follow-up period was from 3 years to 7 years. All the three women survived, of which two were cancer-free and one exhibited metastatic disease. The age of the patient with fibroadenoma at the axillary tail of breast was 31 years. She presented with a solid, benign, oval breast tumour which was 2cm in size, rubbery in consistency, non-tender and mobile. Surgical excision of the mass was done and histopathology showed findings consistent with fibroadenoma of the breast. The age of the patient with tubercular mastitis at axillary tail of breast was 63 years. Physical examination reports mentioned nodular and tense cystic swelling at the axillary tail breast of size around 5 x 4 x 4 cm without any ulceration or sinus. Breasts and nipple areola were apparently normal with no discharge from nipple. Chest X-ray was reported to be within normal limits. FNAC was done. H & E stained smear of the aspirate showed enormous fibroblastic and vascular proliferation with infiltration of lymphocytes, macrophages, polymorphs & clusters of ductal epithelial cells of breast in a caseous necrotic background indicating a caseous necrotic granulomatous lesion. Acid fast bacilli were found on ZN stained smear. She was treated with Anti tubercular therapy. The patient recovered and the swelling also subsided. There were 27 cases which were benign, asymptomatic and caused little discomfort to the patient and also there were 20 cases which were benign in nature but caused premenstrual mastalgia. They were managed conservatively similar to the management of breast mastalgia. Cosmetic excision was done in 13 cases.



Figure 1

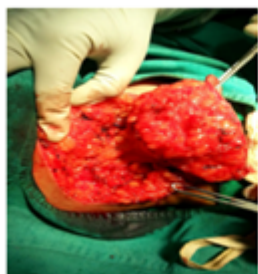


Figure 2



Figure 3

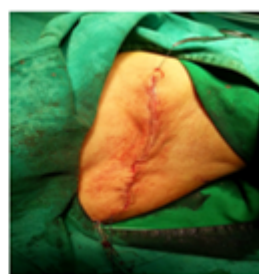


Figure 4



Figure 5

Legend

Figure 1: Axillary tail of breast

Figure 2: Swelling excised for cosmetic reason

Figure 3: After excision of axillary tail of breast

Figure 4: Subcuticular stitches with romovac drain

Figure 5: Swelling in axilla – Tubercular abscess axillary tail

DISCUSSION

The present study describes a series of 52 cases of lump at axillary tail of breast. There were three cases of carcinoma of axillary tail of breast, one case of fibroadenoma and one case of tubercular mastitis. There is scarcity of literature on the carcinoma arising from axillary tail of breast, its presentation and also there are no recommended guidelines mentioned regarding the management of this neoplasm. Okubo M et al ⁷ have described a case of breast cancer in the axillary tail of Spence in their case report and highlighted the significance of magnetic resonance imaging and positron emission tomography for diagnostic differentiation and preoperative decision. Agarwal G et al⁸ reported an occult squamous cell carcinoma of the axillary tail of breast presenting as isolated axillary lymph node mass. Federico Ampil et al² have reported from their case series of 10 cases that treatment of carcinoma arising from axillary tail of breast can be done on the lines of the standards of care management recommendations for histologically similar breast cancer of parallel disease stage. As per the observations and results found from this retrospective study, it can be mentioned that standards of care management recommendations for carcinoma breast can be followed for carcinoma arising from axillary tail of breast. Rizvi G et al ⁹ & Anandi A et al ¹⁰ have reported a case each of fibroadenoma at axillary tail of breast. A case of bilateral tubercular abscess of breast in axillary tail has been described by Karmakar A et al ⁴. Thus, in the differential diagnosis of patients presenting with lump at axillary tail of breast, carcinoma as well as fibroadenoma and tuberculosis should be kept in mind.

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