



Contralateral Axillary Metastasis in Breast Cancer: Case Reports

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ABSTRACT: *Contralateral axillary lymph node metastasis is a rare phenomenon in carcinoma breast. It used to represent stage IV disease but new research shows it may be a locally advanced disease due to altered lymphatic drainage.*

Keywords: *Contralateral axillary lymph node metastases, Carcinoma Breast, Chemotherapy*

I. INTRODUCTION

Contralateral axillary lymph node metastasis (CAM) is an uncommon presentation in carcinoma breast. CAM is regarded as distant metastasis (M1), is generally seen in end stage of breast cancer, when metastasis is present in other organ. Incidence of CAM is 3.6 to 6% in stage IV carcinoma breast patients [1]. It can present with primary breast cancer (synchronous CAM) or can present after the breast carcinoma was treated and again the patient present with CAM (metasynchronous CAM). Axillary lymph node metastasis can occur rarely from an occult breast cancer. Hence, clinicians face dilemmas in cases of CAM as they can be due to occult primary in contralateral breast or tumour outside the breast or tumour from treated breast.

This paper aimed to better understand this clinical phenomenon by reviewing the literature on lymphatic drainage of the breast to other sites than the ipsilateral axilla, histopathological tumour characteristics associated with CAM, and treatment and outcome of cases with CAM.

II. CASE REPORTS

Case 1

A 42 year old premenopausal woman presented with (metasynchronous CAM) right axillary lymph node enlargement of 9 months. On ultrasonography enlarged lymph nodes in right axilla were documented, largest being 3cm *2cm in size. FNAC showed metastatic carcinoma in right axilla. Mammography was normal of right breast.

The patient had a history of 4 cycles of CAF neoadjuvant chemotherapy followed by left sided Modified Radical mastectomy with left axillary followed by 6 cycles of CAF chemotherapy 2 and half year back. After which the patient was asymptomatic for 1 year. Previous histopathology examination showed it to be of ductal variety. Immunohistochemistry showed it to be (ER-ve, PR -ve). Right Modified radical mastectomy with axillary dissection was performed. Histopathologically, lymph nodes showed metastatic invasive carcinoma with 3 nodes positive out of 4 nodes sent for HPE. Immunohistochemistry analysis showed estrogen receptor (negative), progesterone receptor (negative). The patient came for follow up at 1 month, 3 month and 6 month after surgery with no recurrence.

Case 2

A 55 year old post menopausal female presented with swelling in left forearm for last 5 year which gradually increased to involve whole of the left arm. 1 year later she noticed a lump in left axilla. The swelling in left axilla gradually increased in size. She developed ulceration on left axillary lump 3 month back (ulcerated left axillary node in fig 1), later; she noticed a lump in upper outer quadrant of left breast 1 year after, which was painless. Breast lump gradually increased in size. 1 year back Patient noticed lump in left supraclavicular region and right axilla. On examination left breast lump size 7cm * 5cm was with skin fixity with left axillary lymphadenopathy and synchronous CAM, left lymphedema and left supraclavicular lymphadenopathy. Figure 2 and 3 are lymphedema of left hand and right axillary lymph nodes respectively as seen on USG. On mammography large lobulated partially indistinct margin lesion noted size 9cm*6cm. Histopathological

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examination showed invasive ductal carcinoma, Grade III, (tubule =3, nuclei=3, mitosis=3). ER -ve and PR -ve. Patient underwent four cycles of chemotherapy with decrease in size of breast and axillary lump.

Fig 1



Fig 2

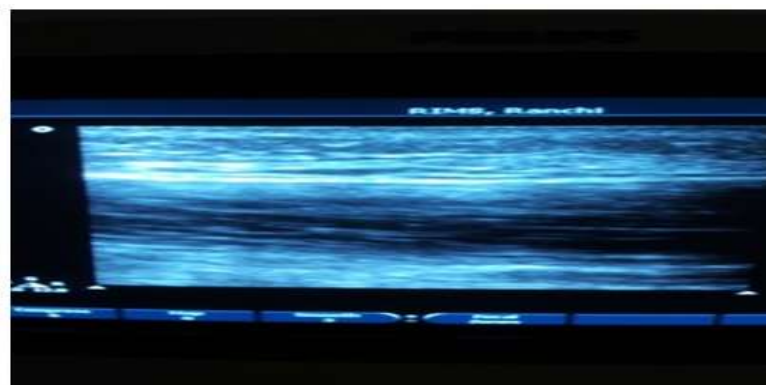


Fig 3



III. DISCUSSION

Lymph node metastases in breast carcinoma generally occur in ipsilateral axilla. In most studies of CAM, metasynchronous CAM is present. Hence, in cases of lymph node metastasis from unknown primary tumour site requires decision regarding primary tumor site. It's very important as therapeutic approaches can differ in different primary tumors [2]. A patient with axillary lymphadenopathy requires whole body work up like ct scan, bone scan [3]. Most common cause of axillary lymphadenopathy is breast carcinoma hence breast specific imaging studies are required like mammography and breast ultrasound [4].

The breast originated cancer cells in axillary and supraclavicular lymph nodes can be treated as evidence of occult primary breast cancer. But, in patient treated earlier for breast cancer, it is more likely to be metastatic lesion of breast cancer treated before.

Contralateral spread to the other side of midline implies hematogenous spread; hence CAM from opposite breast is regarded as systemic disease [5]. Review of related literature indicates that contralateral

regional lymph node can also due to lymphatic spread [1, 6 and 7]. Haagensen used various tracers to demonstrate another possible route. He hypothesized that tumor cells could spread to the contralateral axillary nodes by permeating through the deep lymphatic plexus of the chest wall [9]. Normal lymphatic system can be blocked or damaged which can result in alternate drainage route. Surgery, radiotherapy, even tumor cells in lymphatics can lead to blockage of lymphatics. Many studies that compare lymphatic drainage before and after breast surgery have showed deformed lymphatic system after surgery [6, 8].

No classification for CAM is found in the most recent version of the AJCC Cancer Staging Manual, whereas it used to be classified as distant disease in older versions [10]. Management in patients with contralateral regional metastasis is specified especially in cases where there is absence of metastatic disease. Treatment should be individualized. If CAM is associated with systemic metastasis then systemic treatment is done.

Only a few reports have included treatment outcomes for synchronous CAM. After a median follow up of 27 months, two of Morcos' patients with synchronous CAM were alive without evidence of disease, seven patients were still alive with disease, and one had died, all of whom had both CAM and primary tumor eradicated [7]. Huston et al. describe one patient who is alive without disease after 35 months follow up [1]. 1st patient was treated with curative intent with no recurrence in 6 months. 2nd patient has undergone four cycles of chemotherapy with decrease in size of breast and axillary lumps.

IV. CONCLUSION

This paper draws attention to the diagnostic and therapeutic challenge posed by the rare phenomenon of CAM. Although CAM has been considered as distant disease for several decades, emerging evidence shows that altered lymphatics play a central role in development of CAM. It is this etiology that supports the concept that synchronous CAM occurs by lymphatic spread and not by hematogenous spread. Although compelling evidence is lacking, treatment of CAM without evidence of distant metastases should therefore be of curative intent.

V. ABBREVIATION

Cams:	Contralateral axillary lymph node metastases
Fnac:	Fine Needle Aspiration Cytology
Ct:	Computed Tomography
Hpe:	Histopathological examination
USG:	Ultrasonography
ER:	Estrogen Receptor
PR:	Progesterone Receptor

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