Case report

Primary Axillary Tail Malignancy with Nodal Metastatic Disease: A case report

Abstract:

The axillary tail of spence, usually variable in size is a narrow part of breast tissue near the anterior axillary fold which extends into the axilla via the opening in clavipectoral fascia. The incidence of malignancy from this tissue is rarely reported in literature. Being in close proximity to axilla, lymph nodal involvement is seen early in the disease process. This may result in axillary lump presentation with no lump in breast. High index of clinical suspicion in absence of breast lump creates a diagnostic dilemma. The aim of present case study is to describe the presentation and management of primary malignancy of the axillary tail of the breast.

Introduction:

The incidence of primary malignancy of axillary tail of spence is 0.1%[(1)] among all the types of malignancy of breast. The clinical presentation in such cases may not reveal any lump in the breast. Primary axillary lymphadenopathy in absence of breast lump is attributed either to tuberculosis or lymphoma especially in absence of inflammation. We present a case of a 39-year-old Indian female who presented with an axillary lump without any symptoms & signs of inflammation. There was no associated lump in main breast tissue. Investigations revealed axillary lymph nodal mass and trucut biopsy showed invasive ductal carcinoma. PET scan revealed Primary in the axillary tail of spence with secondary axillary lymph adenopathy.

A brief case report with review of literature is presented.

Case Presentation:

A 39-years-old female homemaker presented with lump in right axilla for 3 months. There was no history of malignancy in 1st or 2nd degree relatives. On clinical examination a 3x3cm firm, non-tender axillary lymph node was palpable with no lump or swelling palpable in either of the main breast tissue. Examination of contralateral axilla was unremarkable. There were no other significant clinical findings Fig. 1a & b). Patient underwent a sono-mammography which was suggestive of multiple enlarged lymph nodes largest measuring 4.9X2.2X2.8cms

showingeccentric cortical hypertrophy, preserved fatty hilum hypoechoic with no abnormal calcifications or cystic lesions. Largest necrotic node measured 14X16mm, BIRADS 4. with no lesion in main Breast tissue. In the left breast there were incidentally detected two BIRADS 2 lesion one at 1 o'clock position 2 cm from nipple areola complex and other were two discrete simple cyst measuring 4X4mm and 4X3mm at 9 o'clock and 10 o'clock position. A USG guided core tru-cut biopsy was done, histopathological examination revealed invasive ductal carcinoma with Estrogen receptor and Progesterone receptor positive (ER PR +) and Herceptin receptor positive (Her2 positive). Positron emission Tomography (PET) CT revealed primary in axillary tail of spence with few small enlarged FDG avid right axillary nodes.The largest node measuring 4.8X2.5cm with SUV max of 4.2. (Fig. 2) No focal FDG avid lesion seen in either breast. Left breast lesions were benign. There were no distant metastases.

A multidisciplinary approach involving medical oncologist, radiologist and surgeon was adopted. Patient was given a choice of Modified radical mastectomy and Breast Conservation Surgery (BCS) explaining pros & cons of both treatments. Patient preferred BCS as mode of treatment. Hence patient underwent Axillary Lymph node dissection with excision of axillary tail of Spence which confirmed the diagnosis of Invasive ductal carcinoma with free margins. Patient was then given chemoradiotherapy and was regularly followed up. Follow up of 1 year has shown her to be disease & symptom free.

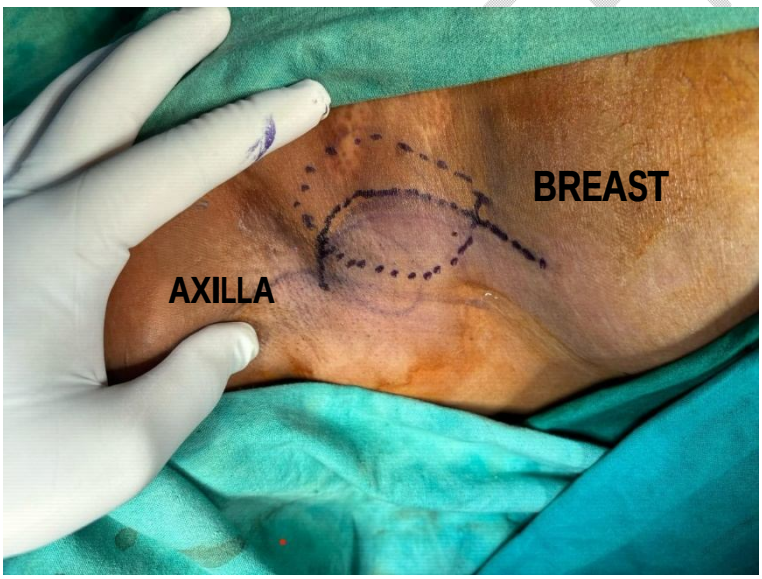

Figure 1a:

Picture depicting a ovoid lump in right axilla. The curvilinear dotted line indicating the incision line, which is a vertical shaped incision; towards the right breast parallel to the anterior axillary fold.

Red arrows depicting the orientation of the breast tissue and axilla.

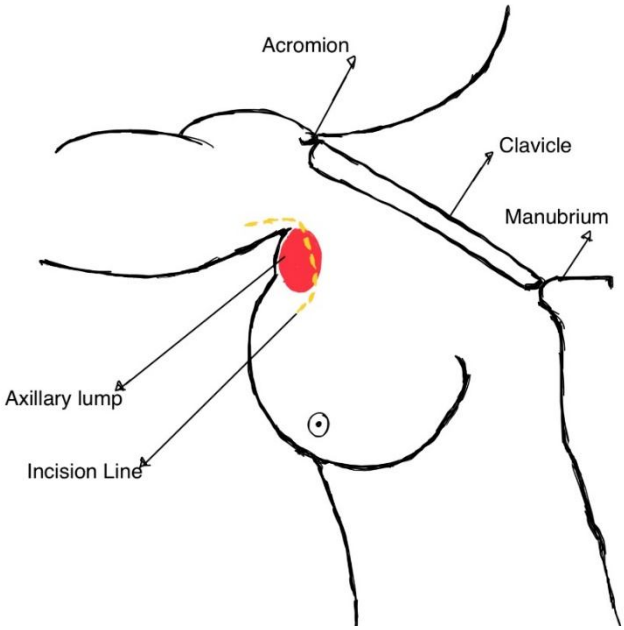

Figure 1b:

Schematic representation of the right axillary lump (red mass) and the incision line (yellow dotted line)

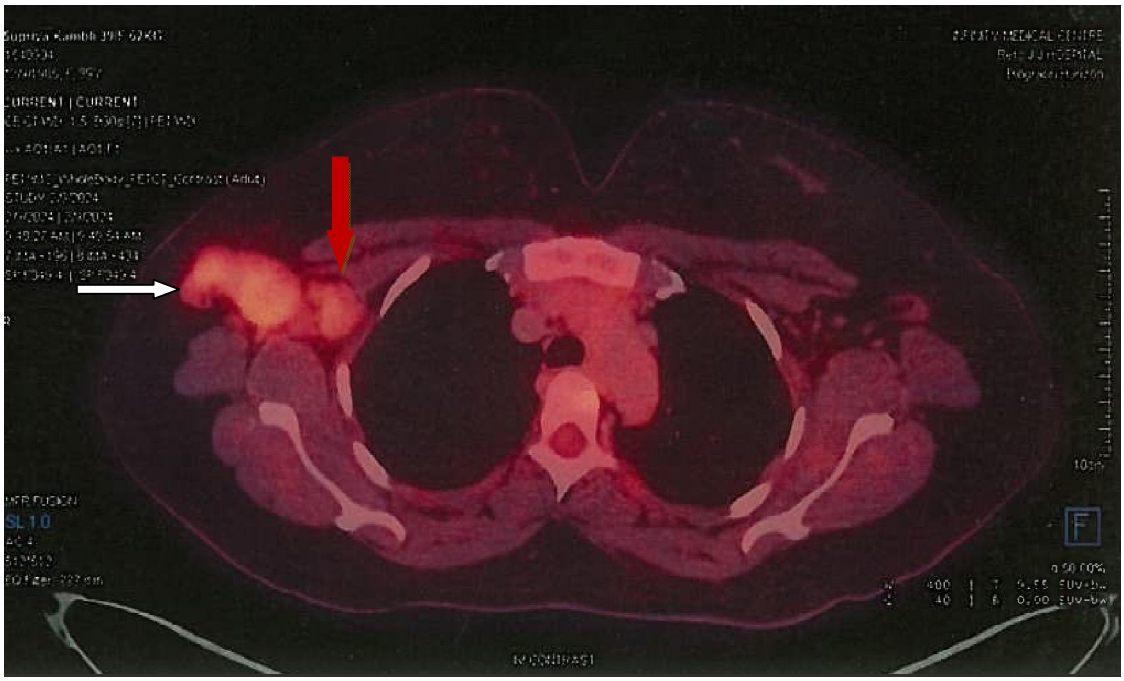

Figure 2:

PET CT of the patient, red arrow depicting Lymph nodal mass in right axilla and axillary tail of spence depicted by blue arrow

Discussion:

Literature has documented the mean age of occurrence of carcinoma of the axillary tail of Spence to be 55.2 years, with a range of 44-79 years [(1)]. Notably, a tendency towards stage II or III disease and estrogen and progesterone receptor-negative neoplasms in individuals older than 45 years has been observed [(1,2,3)]. Present case was a 39-year-old female who was diagnosed with carcinoma of the axillary tail of the breast, presenting with a lump in the right axilla and no lesions in the main breast tissue. This case posed a diagnostic challenge, particularly given the high prevalence of extrapulmonary tuberculosis in the Indian subcontinent, where the axilla is a common site for extrapulmonary tuberculous lymphadenitis after the cervical region[(4,5)].

The early onset of the disease in this patient underscores the importance of considering carcinoma of the axillary tail of the breast as a differential diagnosis in patients presenting with a lump in the axilla, even in the absence of lesions in the main breast tissue. This emphasizes the need for a multidisciplinary approach in such cases.

Additionally, tailoring the appropriate management steps is crucial, as patient preferences must be considered in the planning process. Patient choice is a fundamental pillar of evidence-based medicine[(6)]. In present case, patient gave the option of breast conservation surgery, aligning with her preferences.

Furthermore, breast carcinoma confined to the axillary tail can be effectively managed using the principles of breast conservation surgery, which aims to achieve optimal patient outcomes. These patient have to be kept on regular follow up. The limitation of this study is only 1 year of follow up which is less period to predict the long-term outcomes for patients managed with this approach. However, more studies focussed on this approach will help to establish guidelines for this group of patients.

Conclusion:

Primary malignancy of axillary tail of breast poses a clinical dilemma in diagnosis. Histopathology helps in establishing diagnosis. A localised disease on PET scan can be managed by BCS if patient opts for that approach. Regular follow up is the key for success of this approach. Multicentric studies using this approach will help in establishing a standard management guideline in these patients.

References:

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