ORIGINAL RESEARCH PAPER

Oncology

NON-HODGKIN LYMPHOMA IN A MALE BREAST:A CASE REPORT

KEY WORDS:

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INTRODUCTION

Breast lymphoma is a rare clinicopathological condition and can affect both sexes. Around 1% of all malignant breast tumours occur in males. The most common tumors of breast are ductal and lobular carcinomas. Extranodal presentation can be seen in around one-third of patients of NHL.[1] Breast involvement is a rare finding of extranodal lymphoma because of paucity of lymphoid tissue in breast. Breast lymphomas comprise about 0.4-0.5 % of all malignant tumors of breast, 0.38-0.7 % of all lymphomas and 1.7- 2.2 % of all extranodal lymphoma.[2] Breast lymphomas might present either as a primary presentation or as expression of systemic lymphoma. Around 44% of breast lymphomas are primary, 22% present with disseminated disease and 29% comprise recurrence of pre-existing lymphomas.[3]

Incidence of lymphoma in male breast is extremely low and less than 30 cases have been reported so far.[3] Herein, we report a rare case NHL of male breast with B-cell phenotype (low grade) , diagnosed by computed tomography and confirmed by histopathological examination.

CLINICAL REPORT

A 56 years old male patient presented with 3 months history of painless swelling of left breast which had increased in size in last 2 months. Patient was a known case of schizophrenia, undergoing treatment for the same. His family history was negative for breast cancer. He was married and had 2 children. He gave history for weight loss but his history was negative for fever and night sweats. On physical examination, the patient appeared conscious and oriented but was pale and cachexic. His vitals revealed blood pressure of 110/70 mmHg; pulse 72/min; temperature 98 F and respiratory rate 16/min.

There was a diffuse, erythematous swelling in the left breast with no nipple retraction or peau'd' orange appearance. Skin redness was present. On palpation, there was no tenderness. Right breast was normal.

His laboratory investigations revealed, total leucocyte count of 3.61 X 10^9 / L and haemoglobin of 12.3 grams/dl. Lactate dehydrogenase levels were raised to 1140 U/L. Fasting blood glucose was 88 mg/dl and serum creatinine was 1.0 mg/dl.

Contrast Enhanced Computed Tomography (CECT) chest revealed well-defined heterogeneously enhancing soft tissue mass ms 7.7 x 5.5 x 13.4 cm (AP x TR x CC) with few hypodense non-enhancing areas involving the left anterior chest wall with involvement of left pectoralis minor muscle and inferior parts of left pectoralis major muscle. Well-defined , lobulated, enhancing soft tissue density lesion ms 2.9 x 3.2 cm could also be seen in the prevascular space in the anterior mediastinum.

CECT neck and abdomen was also performed which revealed large, homogeneously enhancing ill defined mass lesion with epicentre in the prevascular compartment of retroperitoneum measuring approximately 4.1 x 12.1 x 10.6 cm (APxTRxCC) extending from upper border of L3 to lower border of T12 vertebra with surrounding fat stranding and nodularity, causing encasement of aorta, IVC and bilateral renal veins and arteries with attenuation and irregularity of renal vessels and IVC with no cervical lymphadenopathy.

Histopathological findings confirmed the diagnosis with stage IV low grade Non-Hodgkin's lymphoma; B-cell type. Immunochemistry illustrated positivity for CD45 and CD20. However, the tumor cells were negative for CD3, cytokeratin and Cd99.

After the diagnosis of B-cell NHL, chemotherapy was initiated using tablet chlorambucil.

In summary, the patient had B-cell NHL, stage III, having single extranodal localization (i.e., breast) and multiple enlarged lymph nodes.

DISCUSSION

Breast lymphoma is a very rare entity, hence clinicians should be aware of this finding in order to differentiate it from breast carcinoma in terms of clinical presentation, management and prognosis. It is predominantly (95%-100%) reported among female patients and is very rare finding in male patients.[3] Breast lymphomas occur in less than 1% of all non-Hodgkin lymphoma cases. Frequency of primary and secondary cases is similar.[4]

The age range of incidence is between 9 and 85 years and the maximum frequency is in sixth decade.[2] Malignant lymphoma is rare in breast. Association of breast lymphoma has been portrayed with various different processes, like estrogen and autoimmune diseases, but none of these were found in our patient so far.[5]

Breast lymphoma can be classified on the basis of presenting symptoms as Type A and Type B. Type A presents with atypical symptoms whereas Type B presents with fever, night sweats and weight loss.[3] Clinical presentation of breast lymphoma is same as other mammary neoplasia. Self-examination or clinical breast examination might reveal a palpable breast mass. More than 90% patients having breast lymphoma present with a palpable lump.[3] The most common presenting symptom of breast lymphoma is enlarging, painless mass and pain is reported in 4-25% of patients. Patient can present with other local signs, such as nipple retraction or discharge and skin changes.[3] However, in a study only 24% of breast lymphomas were clinically asymptomatic and were identified on mammograms.[1]

Diagnostic evaluation for lymphoma is similar to breast carcinoma. Even if an abnormal finding is present clinically and on radiographic studies, histologic confirmation is required. The increased use of screening mammography has neither increased the rate of diagnosis of primary breast

lymphoma proportionally nor has it helped earlier detection of breast lymphoma in patients.[3]

There are various modalities of management for breast lymphoma, ranging from surgical intervention to combination of radiotherapy and chemotherapy. However, there is no updated standard guideline. Excision of the lesion was the typical management of primary breast lymphoma in the past. Patients being treated with only surgery or only radiation therapy were reported to have poor prognosis by Wiseman and Liao. Surgery has been the gold standard for management of breast lymphomas.[6] This perception has been challenged presently, resulting in surgery losing its importance.[7] Mastectomy for breast lymphoma has neither revealed improved survival nor reduced risk of recurrence in several studies. Minimally invasive surgery is more appropriate than extensive surgery and should be done for diagnostic purpose only. There is no therapeutic advantage of performing axillary dissection.[8] Cytotoxic chemotherapy with or without radiotherapy is used in patients with high or intermediate grade lymphoma. Radiation therapy alone is inadequate in managing breast lymphoma.[8] So far this is a novel case report from our region, as no studies have been published yet regarding breast lymphoma in male patient involving multiple lymph nodes.

CONCLUSION

This is a rare case of B-cell type NHL in a male breast with a painless diffuse swelling in the left breast involving multiple lymph nodes in mediastinum and retroperitoneum. Radiological investigations play an important role in diagnosis of breast lymphoma. To prevent potentially injurious surgical intervention, it is important to make an early and accurate diagnosis and select appropriate treatment strategy. This case report can help to build awareness regarding early diagnosis, appropriate treatment and favourable outcomes of breast lymphoma.

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