

Breast lymphoma

M.H. Saeed¹, H.S. Khayat²

1 Registrar in General Surgery, Basrah General Hospital, Iraq.

2 Consultant surgeon, Head of surgical department., Basrah General Hospital, Iraq.

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Abstract

Primary breast lymphoma is a rare entity affecting the breast and needs high index of suspicion. We report a rare case of primary breast lymphoma with unusual scenario concerning the age and mode of presentation.

Introduction

Breast cancer is the most common site-specific cancer in women and is the leading cause of death from cancer for women aged between 20 to 59 years [1].

Primary non-Hodgkin's lymphoma (NHL) of the breast, and its extra nodal spread to the breast as a result of systemic lymphoma, are recognised albeit uncommon conditions [2]. Primary breast lymphoma (PBL) comprises 0.04-0.5% of primary malignant cancers of the breast and 2% of all primary extra nodal lymphoma [3].

This neoplasm may be localised, presumably arising in the breast or a part of disseminated disease, presumably representing secondary involvement of the breast [4].

Case Report

Sixteen year old female presented with a painless lump in the upper outer quadrant of the right breast, small in size and no change in its size over a period of a few weeks. There were no other local or systemic symptoms. Past, family, socio - occupational and drug history were not significant. General and systemic examinations were normal. Breast examination revealed a small non tender lump approximately 3 × 4 cm, mobile, well defined, occupying the upper outer quadrant of the right breast and no palpable axillary lymph nodes. Left breast was normal.

The patient and family were anxious about this lump.

Work - up study

- FNAC was negative for malignancy
- Haematological and Biochemical tests were normal
- Patient and family anxiety as well as discomfort urged the excisional biopsy which showed acute lymphocytic mastitis

Five weeks later, the patient developed an ulcerative lesion as seen in figures (1, 2).

Wide local excision was carried and final histopathological result stated a medium sized B cell lymphoma of the right breast with clear margins. Eventually the patient was referred to oncology for further chemo- and / or radiotherapy.

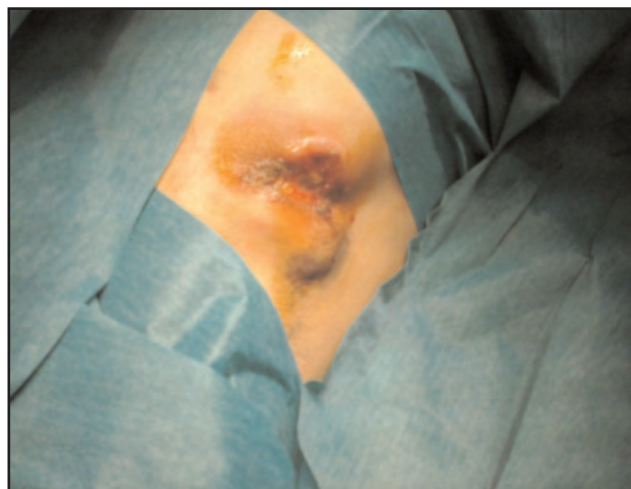


Figure 1. Ulcerative lesion of the right breast

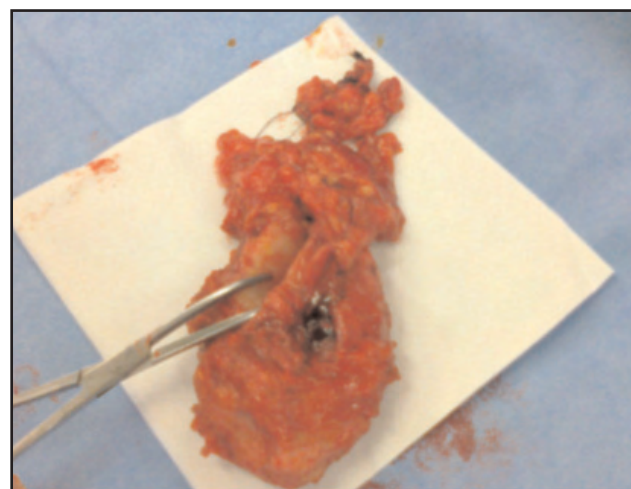


Figure 2. Excised specimen of breast lymphoma

Correspondence: Mohammed H. Saeed , MRCSEd ,
MRCS(Glasg),
Registrar in general surgery,
Basrah General Hospital, Iraq
mhs7855@yahoo.com

Discussion

Breast cancer is worldwide, the most common malignancy among women. The figures of breast cancer incidence from the Middle East have been significantly lower than North America and Europe. However, breast cancer in this part of the world has a highest relative frequency rate amongst all cancer types as compared to western societies [5].

Primary breast lymphoma is a rare occurrence in the younger age groups (less than 18 years) and risk of irradiation from the previous wars in Iraq might be an aetiological factor to be considered in early onset breast lymphoma in a female patient whose history is free of other breast cancer risk factors.

Regarding thyroid cancer, a 20 - 30 years time period after exposure to ionising radiation has proved to be a risk factor. This time duration shortened to four years in relation to the nuclear fallout from Chernobyl in 1986, particularly in children [6]. The concept of irradiation and cancer development in early onset age group necessitate significant exposure to irradiation as in military conflicts especially in patients with no other aetiological factors.

The definition of PBL, established by Weisman and Liao in 1972 [7], limits this unique condition to stage I and stage II lymphomas for the purpose of excluding lymphoma originating at other sites. More than 200 articles have appeared over the decades concerning this uncommon disease. Reports include case studies, institutional reviews, and summary articles with literature review. PBL is uncommon enough that a single publication may include multiple cases collected over many years or decades managed with a variety of treatments.

Predilection to the right breast may exist while bilateral involvement generally indicates systemic involvement [8]. Lymphomatous involvement of the breast should also be considered when a breast mass appears or inflammatory changes occur in a patient previously diagnosed with lymphoma.

Lymphoma involving the breast is usually manifested by a painless mass incidentally detected by self examination or by routine screening. The majority of cases are unilateral and of B-cell histologic lineage as in our case [9]. Reported mammographic review of 33 breasts with lympho-reticular disease showed that there is lack of tumor calcification and secondary changes such as surrounding distortion or localised skin retraction associated with primary breast carcinomas.

The presence of this non-specific appearance compromises the proper diagnosis in the primary clinical presentation [10]. The prevailing opinion is that there are no apparent

imaging criteria to distinguish it from other breast masses or neoplasms. This mandates a needle biopsy or an excision biopsy to reach a diagnosis [11].

Jennings et al have recently published a review on 465 cases described in the literature, and have showed that mastectomy does not afford better results concerning survival or recurrence [12]. Jeanneret-Sozzi et al in a multicentric study on 84 patients treated from 1970 to 2000 showed that surgery is not a negative prognostic factor. On the contrary it turns out to be a positive prognostic index whenever a conservative procedure can be carried out [13].

The prognosis is variable and is dependent on the histologic grade and stage at the diagnosis. Reported outcomes of primary breast lymphoma in some series after 22.5 months of follow up showed complete remission in 67%, partial response and progression of disease in 28% and relapse in 5% [14]. Patients who received chemotherapy and radiotherapy had better survival outcome and a lower relapse rate [15]. Currently, extensive histopathology review is ongoing for tissues obtained in the last decade to exclude the possibility of missed breast lymphoma cases [16].

In conclusion, clinical awareness of this entity of breast malignancy is important as it may mimic a breast abscess and or benign conditions like fibroadenoma. Certain types of this disease carry excellent prognosis if diagnosed early and treated properly.

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