CASE REPORT

Non-Hodgkin's Lymphoma of the Breast Presenting as Breast Abscess During Pregnancy

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ABSTRACT

Primary non-Hodgkin's lymphoma of the breast is an uncommon disease. In all patients with breast lump, primary lymphoma of breast should be considered as it is one of the most easily missed pathology. We report a case of a 22 years old lactating mother who presented with the complaint of a painful swelling in the right breast, noticed during the last trimester of her pregnancy, mimicking breast abscess.

Key words: *Breast neoplasm. Pregnancy. Large B-cell lymphoma. Abscess.*

INTRODUCTION

Primary non-Hodgkin's lymphoma of the breast is a rare entity.[1] It presents with a prevalence of 0.04 – 1.1% of all malignant female breast tumours,[2-4] while representing 1.7 – 2.2% of all patients with extra nodal non-Hodgkin lymphomas, and upto 0.7% of all non-Hodgkin's lymphomas. In Pakistan, breast lymphomas represent 1.13% of all non-Hodgkin's lymphomas and 0.5% of all breast malignancies as reported in literature.[5]

This case of a 22 years old young lactating mother misdiagnosed as breast abscess during pregnancy, illustrates the diagnostic difficulties especially in inflammatory lesions of unusual breast masses.[6]

CASE REPORT

A 22 years old lactating mother was admitted with the complaint of painful swelling in right breast for 2 months, noticed during pregnancy. Later on she developed generalized weakness and backache. On admission, patient had delivered one week back, she was unable to walk or sit, because of pain and high grade fever. On further evaluation, patient was found to be severely anaemic and an inflamed lump encompassing the whole of the right breast of size 11.2 x 15.5 cm. *Peau de orange* was present and ipsilateral axillary lymph nodes were palpable, which were discrete, mobile and multiple. Back was tender especially over lumbar vertebrae.

Her Hb was 9.3 g/dl; total leukocyte count was 20,000 cells/µL with severe neutrophilia. Bilirubin was within normal range, but SGPT was raised to 75 IU/L.

On ultrasound examination, a large complex mass almost occupying whole right breast with solid and cystic areas was found, which was likely to be inflammatory. Her initial diagnosis was made as breast abscess. Due to suspicion, FNAC was done before any surgical intervention, which reported neoplastic cells mixed with inflammatory cells. Core biopsy was performed which showed high grade B-cell non-Hodgkin's lymphoma, (Figure 1) and was confirmed on immunohistochemical stain for CD20. For subtype, LCA, CD 20, Ki 67 (Mib 1); confirmed it to be diffuse large B cell lymphoma of the breast. Ultrasound of the liver showed multiple metastatic lesions in both lobes of the liver. The patient became moribund by the time diagnosis was established as she had already presented late and was severely toxic even on presentation. No surgical intervention was possible because of the involvement of entire breast. Therefore, she was referred for chemotherapy to the Oncology Department, but expired after the first cycle.

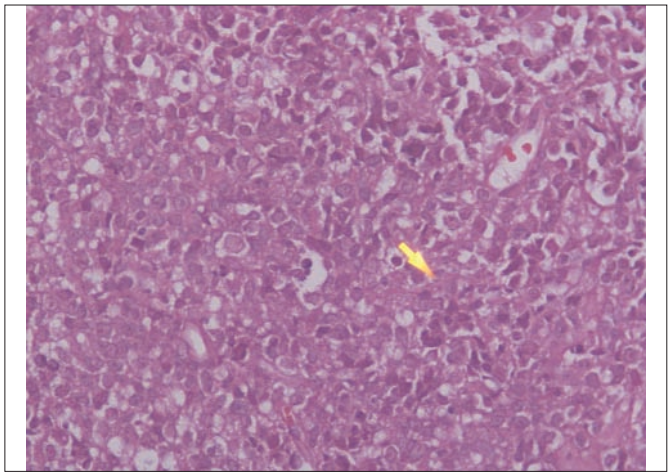

Figure 1: Histologic diagnosis: arrow points to large B cell NHL (CD20+) Magnification 60xs.

DISCUSSION

Primary breast lymphoma was defined by Wiseman and Liao as any lesion that had an adequate pathological specimen; both mammary tissue and lymphomatous infiltrates in close relation to each other; no evidence of

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wide spread disease and no prior diagnosis of extra mammary lymphoma.[7] Primary breast lymphoma is considered to be a disease with the potential of systemic diffusion. In a series of 2632 cases, 1.13% of the patients were found to have lymphomas in the breast.[5] Commonly affected group of patients are young females,[8] as in this patient who was just 22 years old. Lump in the breast is a usual presentation discovered by the patient themselves. However, when presenting during pregnancy, it may mimic mastitis[9] as in this patient. In 2008, Shulman *et al.* reported a case of a patient who presented at 30 weeks gestation with the complaint of painful swelling of the breast for 2 or 3 days. She was also found to have non-Hodgkin's lymphoma of the breast.[9]

In this patient, the tumour started as a painful lump in the breast during last trimester of pregnancy, but presented as lactational mastitis. Mastitis is usually associated with systemic signs of infection[9] which appeared to be present in this patient, hence supporting the initial diagnosis. However, after the initial therapy the breast did not return to a state normal for pregnancy.

The most frequent morphologic type is diffuse large B-cell lymphoma.[6] Both Hodgkin and non-Hodgkin lymphoma occurs in young women and often coincide with pregnancy. The immunosuppressive state of pregnancy is considered to predispose the development of lymphomas.[9] There might be a risk of a development of lymphomas due to the raised levels of pregnancy hormones as well.

Primary breast lymphomas seen in pregnancy are usually aggressive and progress to advanced stage of disease within a short span of time as in this patient who just had a history of 2 months and when presented; the tumour had already involved the entire breast.

Primary and secondary lymphomas of the breast, though rare, should be considered in the differential diagnosis of breast lumps. Non responding mastitis especially in pregnant and lactational females should be investigated for lymphomas of the breast because symptoms are often misleading. Therefore, it is recommended that pregnant women going for their antenatal visits to gynaecologists should have a regular breast examination and monitoring of any breast masses.

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