Bilateral primary breast lymphoma: A Case Report With Review Of Literature

S Pankaj, S Shalini

Citation

S Pankaj, S Shalini. *Bilateral primary breast lymphoma: A Case Report With Review Of Literature*. The Internet Journal of Oncology. 2007 Volume 5 Number 2.

Abstract

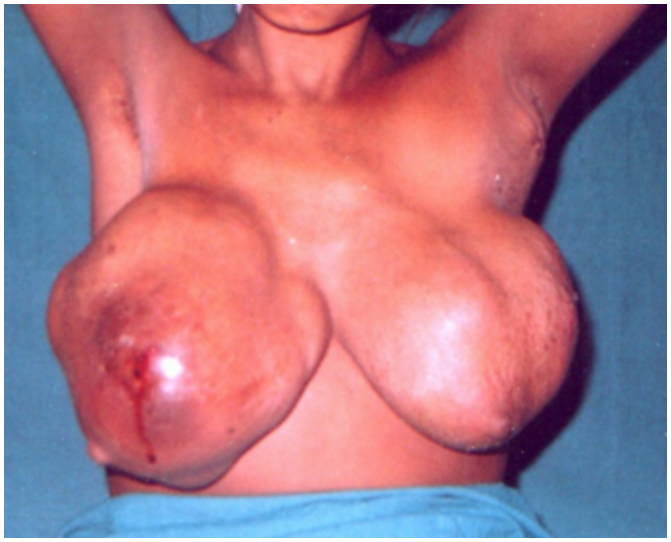
We present a rare case of bilateral primary lymphoma of the breast in a young multiparous woman followed by a brief review of the literature.

CASE REPORT

A 35-year-old multiparous woman presented with massive enlargement of both breasts. She reported that the growth had been slow over many years. The examination revealed multiple firm, hard lumps filling all quadrants of both breasts, with stretched skin, a bosselated surface, dilated veins, and restricted mobility over the chest wall probably due to the size of the tumor (Figure 1). There was a 3.0 x 4.0 cm firm, nontender, and mobile axillary lymph node on the left side. No lymphadenopathy were detected elsewhere in the body. A clinical diagnosis of bilateral phyllodes tumour was made.

Figure 1

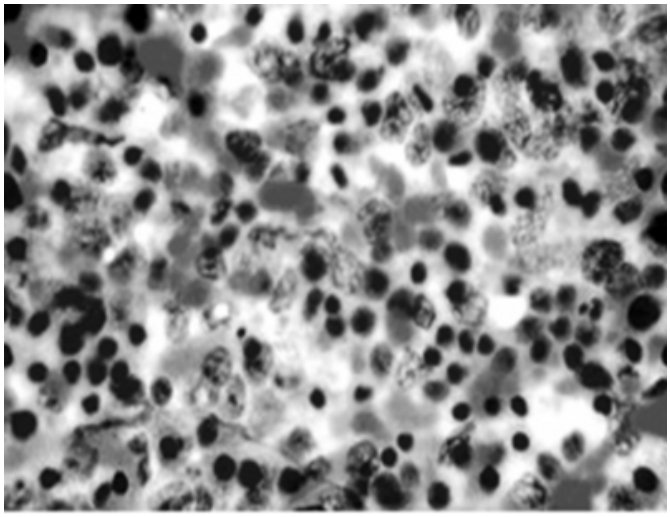
Figure 1: Bilateral primary breast lymphoma



The mammography showed dense breasts and the bilateral breast ultrasonography revealed multiple hypoechoic masses. A fine-needle aspiration biopsy (FNAB) was performed and the diagnosis of lymphoma was rendered (Figure 2). FNAB of the lymph node showed a reactive lymphadenitis but no malignant cells. All other investigations are normal.

Figure 2

Figure 2: FNAB showing atypical lymphocyte-like cells and some small lymphocytes (hematoxylin-eosin, original magnification x 400).



Six courses of chemotherapy combining cyclophosphamide, doxorubicin, vincristine, and prednisone (CHOP) were administered. The masses in both breasts regressed with chemotherapy but the patient died within four months of completion of treatment probably from a poor nutritional status after chemotherapy.

DISCUSSION

Primary breast lymphoma (PBL) is a rare entity accounting for 1.7-2.2% of extranodal lymphomas and 0.38-0.7% of

non-Hodgkin's lymphomas (NHL).[1] The majority are of B cell lineage. There are a few reports of T-cell lymphomas[2,3] in the literature, however bilateral infiltration is extremely rare in these cases.[4] All reported patients are female with a median age of 45-48 years.[1,5] Women usually present with slow growing breast masses that suddenly become enlarged.

It is important to determine whether malignant lymphoma of the breast originated in the breast itself or elsewhere. Wiseman and Liao[6] have developed several criteria that must be established, before a diagnosis of primary malignant lymphoma of the breast can be made. These criteria are: 1) an adequate pathologic specimen; 2) a close association of mammary tissue and lymphomatous infiltrate; 3) no evidence of disseminated lymphoma at the time of diagnosis; and 4) the presence of ipsilateral axillary nodes is acceptable if they occur concomitantly with the primary lesion.

PBLs are not usually detected by screening mammography. However, mammograms obtained after the identification of a palpable mass demonstrate a parenchymal abnormality in most cases. There is no specific mammographic characteristic that can be used for lymphoma diagnosis. The most common mammographic findings include a solitary well-defined mass that may have an irregular border, which is consistent with the finding in the present case. PBLs are rarely calcified and do not have a spiculated appearance on mammography. Ultrasonography evaluation of PBL usually demonstrates a hypoechoic lesion with well-defined borders that lack significant posterior enhancement or acoustic shadowing, which may falsely indicate a benign cyst and occasionally a lobulated mass representing a huge tumor.[7] Thus far, no clear clinical or radiological features that can distinguish PBLs from infiltrating breast carcinomas have been found. FNAB is helpful in making an early diagnosis,[4,8] but adequate tissue biopsy based on histopathological evaluation and immunophenotyping is key in evaluating these patients.

DeCosse et al. reported that localized tumors within the breast had a good prognosis by surgical intervention alone.[9] However, relapses were reported up to 10 years after surgery if adjuvant therapy was not administered.[10] Irradiation alone may also be effective.[10] If the malignant lymphoma is of systemic origin, systemic chemotherapy is definitely needed.

As PBL is rare, clinical management protocols are often based on the treatment of lymphomas in general. The most common chemotherapy combination for NHL is the CHOP regimen.[11] Avelis et al. [12] advocate combined chemotherapy and radiotherapy for treating PBL whereas Lyons et al. [13] recommend CHOP chemotherapy followed by involved field radiation for patients with aggressive NHL of the breast, but involved field radiation alone for patients with indolent lymphoma.

Despite of few encouraging reports,[5,7,11,12,13] breast lymphoma has a poor prognosis and the therapeutic management of breast lymphoma remains controversial. The survival rates of patients with PBL are comparable to those with lymphomas in general and are favorable when compared to the survival rates of those with breast carcinoma. Prognosis depends on the histological tumor grade.[6] The international Prognostic Index considers age, LDH levels, performance status, Ann Arbor staging, and the presence of extranodal tumor in predicting the 5-year survival.[14] Early diagnosis of PBL in patients with slow growing breast nodules will allow appropriate and timely treatment with hopefully improved survival.

CORRESPONDENCE TO

Dr. Pankaj Srivastava, MBBS, MS Consultant Laparoscopic & Thoracoscopic Surgeon SA-17/205, M-6, Ashok Vihar Colony, Phase-1, Paharia, Varanasi (UP) India. PIN Code - 221 007 Phone No.: +91-542-2588849; +91-542-6541520 Mobile No.: +919415226817; +919235695674 E-mail : pankaj_vns@sify.com ; omsurgicalcenter@gmail.com

References

1. Park YH, Kim SH, Choi SJ, Ryoo BY, Kang YK, Lee SS. Primary malignant lymphoma of the breast: clinicopatholigical study of nine cases. Leuk Lymphoma 2004;45:327-30.
2. Aguilera NS, Tavassoli FA, Chu WS, Abbondanzo SL. T-cell lymphoma presenting in the breast: a histologic, immunophenotypic and molecular genetic study of four cases. Mod Pathol 2000;13:599-605.
3. Jonathan H, Briggs OA, Baldassarre S. Primary T-cell lymphoma of the breast: A case report. Cancer Investigation 2003;21:68-72.
4. Vardar E, Ozkok G, Centinel M, Postaci H. Primary breast lympoma cytologic diagnosis. Arch Pathol Lab Med 2005;129:694-96.
5. Choo SP, Lim ST, Wong EH, Tao M. breast lymphoma: Favorable prognosis after treatment with standard combination chemotherapy. Onkologie 2006;29:14-18.
6. Wiseman C, Liao KT. Primary lymphoma of the breast. Cancer 1972;29:1705-12.
7. Suzuki Y, Tokuda Y, Okumura A, Saito Y, Ohta M, Kubota M et al. Three cases of malignant lymphoma of the breast. Japanese Journal of Clinical Oncology 2000;30:33-36.
8. Al Omran S, Mourad WA, Ali MA. Gamma/delta peripheral T-cell lymphoma of the breast diagnosed by fine-

needle aspiration biopsy. Diagn Cytopathol 2002;26:170-3.
9. DeCosse JJ, Berg JW, Fracchia AA, Farrow JH. Primary lymphosarcoma of the breast. A review of 14 cases. Cancer 1962;15:1264-8.
10. Yasuhiro Suzuki, Yutaka Tokuda, Akira Okumura, Yuki Saito, Masatoshi Ohta, Mitsuhiro Kubota et al. Three Cases of Malignant Lymphoma of the Breast. Japanese Journal of Clinical Oncology 2000; 30:33-36.
11. Abdullah N, Behranwala KA, Wotherspoon A, Gui GPH. Adolescent breast lymphoma-apparently aggressive presentation with favourable outcome. J Postgrad Med 2004;50:236-7.
12. Aviles A, Delgado S, Nambo MJ, Neri N, Murillo E, Cleto S. Primary breast lymphoma: results of a controlled clinical trial. Oncology. 2005;69:256-60.
13. Lyons J A, Myles J, Pohlman B, Macklis R, Crowe J, Crownover R L. Treatment and Prognosis of Primary Breast Lymphoma: A Review of 13 Cases. American Journal of Clinical Oncology 2000; 23:334-336.
14. Coffey J, Hodgson DC, Gospodarowicz MK: Therapy of non-Hodgkin's lymphoma. Eur J Nucl Mol Imaging 2003, 30(Suppl 1):28-36.

Author Information

Srivastava Pankaj, MBBS, MS
Om Surgical Center & Maternity Home

Srivastava Shalini, MD
Om Surgical Center & Maternity Home