

## BILATERAL PRIMARY BREAST LYMPHOMA: A RARE CASE

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### BİLATERAL PRİMER MEME LENFOMASI, NADİR BİR OLGU

#### ÖZET

Memenin primer Non-Hodgkin lenfoması nadirdir. Bilateral tutulum oranı düşüktür. Lenfomaların bilinen iki türü vardır. Bunlar hodking lenfoma ve non-hodking lenfomadır. En sık alt tip olarak diffüz büyük hücreli non-hodking lenfoma izlenir. Olgumuz 56 yaşında bayan hasta, memede kitle ile başvurdu. Kitleden eksizyonel biopsisi alındı. Histopatolojik ve immunhistokimyasal olarak değerlendirildi. Sonuç Non-hodkin diffüz büyük B hücreli lenfoma ile uyumlu geldi ve primer kemoterapi ile tedavi edildi. Makalede nadir gözlenen bilateral primer meme lenfomalı olguyu klinik özellikleri, tedavi yaklaşımı ve sonuçları ile değerlendirerek sunduk.

**Anahtar sözcükler:** meme lenfoma, kemoterapi, eksizyonel biopsi

### ABSTRACT

Primary non Hodgkin's lymphoma of the breast is rare. Bilateral involvement of the breasts is even rarer. Lymphomas are divided into two groups: Hodgkin's Lymphoma and non Hodgkin's lymphoma. Diffuse large cell non Hodgkin's lymphoma is the most common type. A 56 year old female presented with masses in both breasts. An excisional biopsy was obtained from both tumoral masses. Histopathological assessment revealed diffuse large cell non Hodgkin's lymphoma and chemotherapy was started. Here we present the case of bilateral primary breast lymphoma while discussing clinical characteristics, treatment modalities and the outcomes.

**Key words:** breast lymphoma, chemotherapy, excisional biopsy

### Introduction

Lymphomas are rare entities among the primary malignant tumours of the breast. Most lymphoma cases of the breast originate from metastasis from diffuse lymphomas (secondary lymphoma) whereas primary lymphomas are rare. We present a rare case of bilateral primary lymphoma of the breast followed by a brief review of the clinical characteristics and pathological findings.

### Case report

A 56 year old woman presented with tumoral masses in both breasts. Physical examination confirmed a 5 cm tumoral mass in the left breast and 3x1,5 cm sized mass in the right breast. Bilateral axillary lymph nodes were palpable and 1x1,5 cm sized lymph nodes were detected in the both axillae. Biochemical analysis of the blood was normal. Lactate dehydrogenase levels were in normal ranges. Ultrasound of the breasts revealed a 35 x19 mm sized, heterogenous, lobulised, solid mass located in the middle medial quadrant of the left breast. There were four other solid lesions located in the axillary tale of the left breast of which the biggest was 35 mms. There was a 35x15 mms sized, heterogenous, solid tumoral mass on the inferior lateral quadrant of the right breast. Mammography confirmed the presence of the described lesions in both breasts with axillary lymph nodes (Figure 1). Excisional

biopsy was performed on both breasts under local anesthesia. Histopathologic assessment revealed diffuse non Hodgkin's lymphoma (Figure 2). Whole body scan showed that lymphoma was limited to the breasts and there was no other involvement in any other localisation of the body. So the clinical diagnosis was bilateral primary lymphoma of the breast.

Histopathological assessment of the samples showed atypical lymphoid cells with pleomorphic and hyperchromatic nuclei and significant nucleoli. Tumour cells with atypical mitosis and pleomorphic nuclei surrounded the ducts and acinis. Immunologic examination showed that tumour cells were CD45RA and CD79a (+).

After the diagnosis of diffuse non Hodgkin's lymphoma was made, the patient was started on CHOP (cyclophosphamide- doxorubicin- vin christine- prednisolone) treatment. After two doses of chemotherapy; masses in both breasts and lymph nodes in bilateral axillae grossly disappeared. The patient was uneventful and in control after 6 months.

### Discussion

Primary lymphoma of the breast is a rare entity. Most of the primary lymphomas of the breast are non Hodgkin's lymphoma (1).

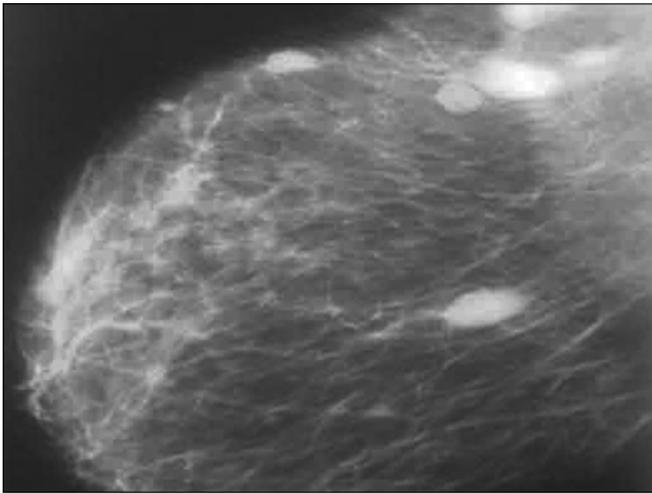


Figure 1. Atypic lymphoid cells HE; x100)

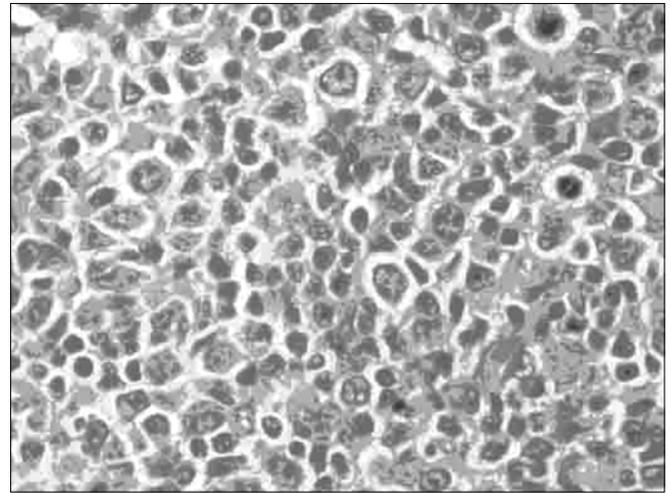


Figure 2. Mammographic image of the left breast

However, among the metastatic malignancies of the breast, lymphomas are the most common group (4,5). Our case is the non Hodgkin's lymphoma of the breast, consistent with most of the primary lymphomas of the breast (10,11,14). Diffuse large cell non Hodgkin's lymphoma, as seen in our case, is the most common subtype and accounts for 40-70 % of all the cases(1,4,5,10). They are likely to have a high grade and poor prognosis. Incidence increases with advanced age. All of the primary lymphomas of the breast are B cell lymphomas (13,14).

To confirm the B cell nature of the tumour, cells should be stained with B cell markers (12). In the present case cells were stained with CD45RA and CD79a, which are known as B cell markers.

Lymph nodes of the breast are located on the upper lateral quadrant, among the lymphatic channels, near the axilla. It is proposed that lymphoid hyperplasia occurred in these lymphoid tissues. In breast lymphomas, involvement of the right breast localisation of the tumour in the upper lateral quadrant is more common. However there is not a precise explanation for the mechanism (7,8).

Clinically the patient presents with solitary or multiple masses in the breast. Axillary lymphatic involvement is possible. Bilateral axillary involvement is detected in 30% of the patients with breast

lymphoma. In some of the patients there may be thickened skin due to retrograde edema. In our case the patient presented with bilateral multiple masses and axillary lymphadenopathies.

Ultrasonography usually shows an irregular, lobulated, homogeneous or heterogeneous mass with high distal acoustic image. Mammography can reveal solitary or multiple, regular masses which can be in different sizes without calcification as in our case.

In breast lymphoma it is not obvious how the size of the tumour affects the prognosis.

Treatment modalities in non Hodgkin's Lymphoma of the breast are chemotherapy, radiotherapy and autologous bone marrow transplantation. Wrong surgical interventions are performed in some cases in which histopathologic diagnosis is not made preoperatively but is made intraoperatively with frozen.

Lymphoma should always be considered in patients with mass of the breast and bilateral axillary involvement (1,8,9) Therefore, before performing radical surgery of the breast tumours, histopathologic diagnosis should be made as much as possible. By this way unnecessary mastectomies can be prevented.

## References

1. Gupta D, Shidham V, Zemba-Palko V, Keshgejian A. Primary bilateral mucosa-associated lymphoid tissue lymphoma of the breast with atypical ductal hyperplasia and localized amyloidosis. A case report and review of the literature. Arch Pathol Lab Med 2000;124:1233-6. (PMID: 10923092)
2. Babovic N, Jelic S, Jovanovic V. Primary non-Hodgkin lymphoma of the breast. Is it possible to avoid mastectomy. J Exp Clin Cancer Res 2000;19:149-54. (PMID: 10965810)
3. Bhele S, Gujral S. Bilateral peripheral T-cell lymphoma of breast: a case report Indian J Pathol Microbiol. 2007 Oct;50(4):816-8. (PMID: 18306567)
4. Ribrag V, Bibeau F, El Weshi A, et al. Primary breast lymphoma: a report of 20 cases. Br J Haematol. 2001; 115: 253-256. (PMID: 11703318)
5. Ryan GF, Roos DR, Seymour JF. Primary non-Hodgkin's lymphoma of the breast: retrospective analysis of prognosis and patterns of failure in two Australian centers. Clin Lymphoma Myeloma. 2006; 6: 337-341. (PMID: 16507213)

6. Lin Y, Guo XM, Shen KW, Wang JL, Jiang GL. Primary breast lymphoma: long term treatment outcome and prognosis. *Leuk Lymphoma*. 2006; 47: 2102-2109. (PMID: 17071483)
7. Gholam D, Bibeau F, El Weshi A, Bosq J, Ribrag V. Primary breast lymphoma. *Leuk Lymphoma*. 2003; 44: 1173-1178 (PMID: 12916870)
8. Gualco G, Bacchi CE. B-cell and T-cell lymphomas of the breast: clinical-pathological features of 53 cases. *Int J Surg Pathol*. 2008;16:407-413.( PMID: 18480397)
9. Guo HY, Zhao XM, Li J, et al. Primary non-Hodgkin's lymphoma of the breast: eight year follow-up experience. *Int J Hematol*. 2008;87:491-497(PMID: 18414980)
10. Cohen PL, Brooks JJ. Lymphomas of the breast. A clinicopathologic and immunohistochemical study of primary and secondary cases. *Cancer* 1991; 67:1359-1369. ( PMID: 1991299)
11. Kirkpatrick AVV., Bailey DJ., VVeizel HA: Bilateral primary breast lymphoma in pregnancy: a case report and literatüre review. *Can.J. Surg* 1996. 39 (4):333-5.( PMID: 8697326)
12. Latteri MA., Cipolla C., Gebbia V., Lampasona G., Amato C., Gebbia N: Primary extranodal Non-Hodgkin llymphomas of the uterus and the breast: report of there cases. *Eur J Surg. Oncol* 1995. 21 (4): 432-4(PMID: 7664916)
13. Wang XQ, Zhang LX, Bi CF, Luo TY, Lin L, Min M, Zhao Y, He GX, Feng J, Liu WP. Primary lymphoma of breast: a clinicopathologic, immunophenotypic and prognostic study of 21 cases. *Zhonghua Bing Li Xue Za Zhi*. 2010 May;39(5):302-7. Chinese. PMID: 20654152
14. Qiu LH, Wang HQ, Qian ZZ, Li W, Hou Y, Meng XR, Cui XZ, Hao XS. Clinical characteristics and treatment analysis of primary breast lymphoma:49 cases report. *Zhonghua Wai Ke Za Zhi*. 2010 May 15;48(10):743-6. Chinese. PMID: 20646489

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