The Journal of Breast Health
meme sağlığı dergisi

The Journal of Breast Health 2010 Vol: 6 • No: 3
Meme Sağlığı Dergisi 2010 Cilt: 6 • Sayı: 3

CASE REPORT/OLGU SUNUMU

PRIMARY T-CELL LYMPHOMA OF THE BREAST: A CASE REPORT

Evren Fidan[1], Bülent Yıldız[1], Feyyaz Özdemir[1], Abdülkadir Reis[2]

[1]Karadeniz Teknik Üniversitesi Tıp Fakültesi, Tıbbi Onkoloji Bilim Dalı, Trabzon, Türkiye
[2]Karadeniz Teknik Üniversitesi Tıp Fakültesi, Patoloji Anabilim Dalı, Trabzon, Türkiye

ABSTRACT

Breast lymphomas are quite rare extranodal lymphomas. While they represent approximately 0.04-0.5% of the primary cancers of the breast, their prevalence is 0.38-0.7% among all lymphomas. Primary breast lymphomas are usually of B-cell phenotype. T-cell phenotype has been published in the literature as case reports. In this report, a 22-year-old female patient with breast mass is presented. Upon detection of primary T-cell lymphoma of the breast on biopsy, 4 courses of CHOP followed by radiotherapy was administered to the patient. The patient, who entered remission after treatment is under follow-up for approximately a year and is still in remission. A patient presenting with breast mass may have lymphoma and differentiation with breast masses should be made.

Key words: Non-Hodgkin's lymphoma, Primary breast lymphoma, T-cell.

MEMENİN PRİMER T HÜCRELİ LENFOMASI: OLGU SUNUMU

ÖZET

Meme lenfomaları oldukça nadir görülen ekstranodal lenfomalardır. Meme kanseri vakalarının yaklaşık %0.04-0.5'ini oluştururken tüm lenfomalar içindeki prevalansı %0.38-0.7 arasıdır. Memenin primer lenfomaları genellikle B hücre fenotipindedir. T hücre fenotipi literatürde genellikle vaka takdimleri şeklinde sunulmuştur. Biz bu vaka takdiminde 22 yaşında bir bayan hastayı tartıştık. Memede kitle ile başvuran hastaya eksizyonel biyopsi uygulandı ve biyopsi sonucu T hücreli lenfoma olarak rapor edildi. Evrelemesi tamamlanan hastaya 4 siklus CHOP (cyclophosphamide, adriamycin, vincristine, prednisolone) kemoterapisi uygulandı. Ardında radyoterapi verilen hasta bu tedaviler sonrası remisyona girdi. Hasta halen remisyonda takip edilmektedir. Memede kitle ile başvuran bir hastada lenfoma olabileceği de akılda tutulmalı ve ayırıcı tanısının yapılması gereklidir.

Anahtar sözcükler: Non-Hodgkin lenfoma , primer meme lenfoması , T-hücreli.

Introduction

Breast lymphoma may manifest as a primary extranodal breast lymphoma or secondary involvement of the breast. Both types are quite rare. While primary breast lymphoma represents approximately 0.04-0.5% of the primary cancers of the breast, their prevalence is 0.38-0.7% among all lymphomas (1). It's observed at a rate of 1.7% among all primary extranodal lymphomas (1). While most of the patients with primary breast lymphoma have B cell phenotype, T cell phenotype is quite rare (2-4). It's been presented as case reports in the literature (5-7). These cases include subtypes such as lymphoblastic lymphoma, anaplastic major-cell, and peripheral T cell lymphoma (2-7). Primary breast lymphomas are commonly seen between the age of 40 and 67. It may also be observed in young adults and those at 90 years of age; however the peak age is 60 years old (1). A 22-year-old female patient with T-cell lymphoma was presented in this case report.

Case report

A twenty two year old female patient presented with the complaint of swelling and pain in the right breast. On physical examination, a 1 x 1,5-cm hard, mobile, painful mass was detected. No lymphadenopathy was detected in the bilateral axillary region. Hemogram and biochemistry results were normal. On bilateral breast ultrasonography, a solid mass lesion with a diameter of 17 mm was detected in the right breast. Excisional biopsy was performed. The biopsy result was reported as high-grade primary diffuse T-cell NHL. While CD45RO, pancytokeratin and LCA are positively stained in the neoplastic cells, CD20 was stained negatively [Figure 1-3]. Cranial, abdominal, thoracal tomographies, and bone marrow aspiration and biopsy were normal. The patient was considered to have primary T-cell lymphoma of the breast. Four courses of CHOP chemotherapy consisting of cyclophosphamide, adriamycin, vincristine and prednisolone was administered to the patient every 21 days. Subsequently, radiotherapy was administered to the right breast and the axillary region. The patient, following treatment, is still in remission.

Discussion

Breast lymphoma may manifest as primary extranodal breast lymphoma or secondary involvement of the breast (8). The primary lymphomas of the breast have been reported as rare cases for a long time. It is rare so that the pathogenesis of T-cell lymphoma

Gönderilme Tarihi: 27 Ekim 2009 • **Revizyon Tarihi:** 13 Kasım 2009 • **Kabul Tarihi**: 17 Kasım 2009

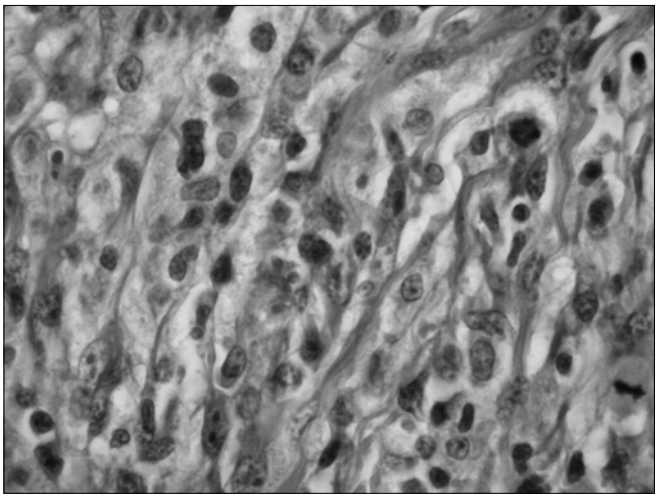

Figure 1. H&E stain, x400

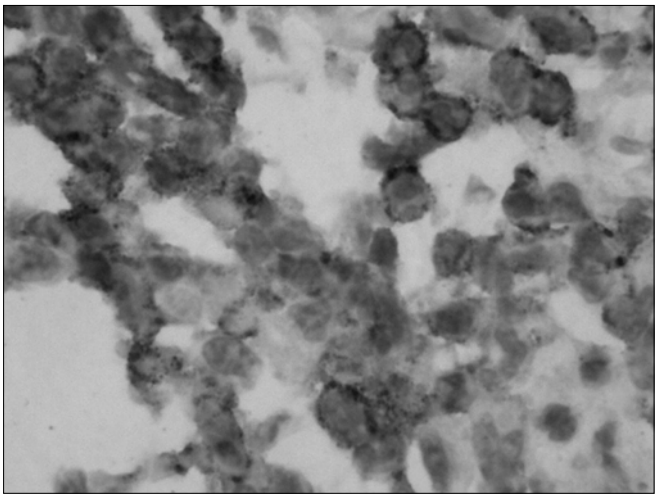

Figure 3. Positive staining of pancytoceratine in destructive ductal epithelial cells, x200

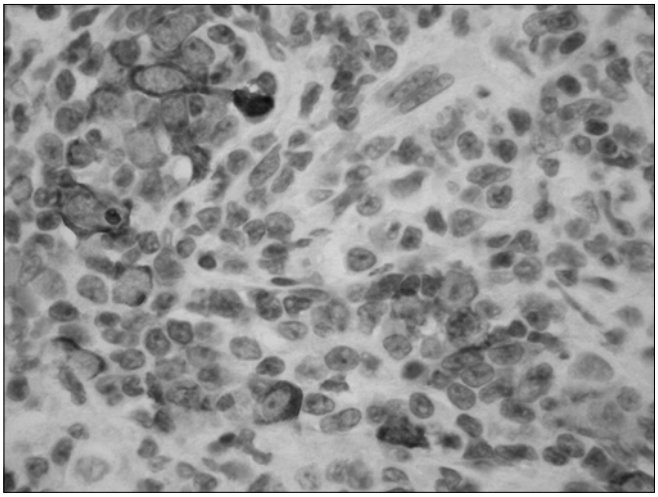

Figure 2. Positive staining of CD45-RO in neoplastic cells, x400

in the breast is poorly understood (9). Various criteria are established to determine presence of primary lymphoma of the breast. These are: 1) pathological assessment, 2) the close association with lymphomatous infiltration of the breast tissue, 3) absence of disseminated lymphoma, and 4) previous diagnosis of lymphoma (10). Our case fulfills these criteria with the pathology, the fact that the disease is limited to the breast, the fact that the breast is not infiltrated by lymphoid cells, and the previous establishment of lymphoma.

The diagnosis of breast lymphoma is performed by biopsy. According to physical examination, laboratory findings, and images, if the diagnosis of lymphoma is thought or the patient was diagnosed with lymphoma before, core biopsy can be applied. By this manner, an unnecessary surgical procedure may not be done. In the literature, there are cases which a core biopsy was performed (11,12).

This disease usually peaks at the 6th decade. However, it may also be observed in young adults and those at 90 years of age (1). Our patient is 22 years old. Therefore, lymphoma should be considered also in young patients presenting with mass in the breast. In these patients, a painless mass is detected in the breast. In a study of 53 cases, a painless mass was detected in the 93% of the cases (13). The fact that the mass in the breast of our patient is painless is contrary to this data. Most of the breast lymphomas are of B cell type. To date, less than 10 cases were reported to be of T cell type in the literature (2-4).

Although breast lymphoma is rare, it's similar to other breast cancers with respect to clinical presentation. This patient group should be treated as other extranodal lymphomas. Since the response of these tumors to chemotherapy and radiotherapy is good, radical operations are not required (6). In our patient, following excisional biopsy and staging, 4 courses of chemotherapy followed by radiotherapy was administered. Prognosis changes depending on the stage of the disease in patients with primary breast lymphoma. In Stage I disease, 5-year survey is 89% (6). Our patient entered remission following the therapies she received and she has been under follow-up for approximately a year, with no recurrence detected.

Conclusion

The primary lymphoma of the breast is rare. As for T-cell lymphoma, a subtype of this disease is detected in the literature as case reports. However, the fact that a patient presenting with breast mass may have lymphoma and differentiation with breast masses should be made.

References

1. Maounis N, Ellina E, Papadaki T, et al. Bilateral primary lymphoma of the breast: a case report initially diagnosed by FNAC. Diagn Cytopathol 32: 114-118,2005. (PMID: 15637680)
2. Loughrey MB, Windrum P, Catherwood MA, et al. WHO reclassification of breast lymphomas.Clin Pathol 57: 1213-1214, 2004. (PMID: 15509687)
3. Hugh JC, Jackson FI, Hanson J, Poppema S. Primary breast lymphoma. An immunohistologic study of 20 new cases. Cancer 66: 2602-2611, 1990.(PMID: 2249200)
4. 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 13: 599-605, 2000. (PMID: 10874662)
5. Vasei M, Kumar PV, Malekhosseini SA, Amirghofran Z. Primary T-cell lymphoma of the breast with lymphoepithelial lesion. A case report . APMIS 105: 445-448, 1997. (PMID: 9236861)
6. Anania G, Baccarani U, Risaliti A, et al. Primary non-Hodgkin's T-cell lymphoma of the breast. Eur J Surg 163: 633-635, 1997. (PMID: 9298918)
7. Kosaka M, Tsuchihashi N, Takishita M, et al. Primary adult T-cell lymphoma of the breast. Acta Haematol 87: 202-205, 1992. (PMID: 1519436)
8. Kelten C, Kabukcu S, Sen N, et al. Secondary involvement of the breast in T-cell non-Hodgkin lymphoma, an unusual example mimicking inflammatory breast carcinoma. Arch Gynecol Obstet 280: 149-152, 2009.
9. Gualco G, Chioato L, Harrington WJ Jr, Weiss LM, Bacchi CE. Primary and secondary T-cell lymphomas of the breast: clinico-pathologic features of 11 cases. Appl Immunohistochem Mol Morphol 17: 301-306, 2009.
10. Kebudı A, Coban A, Yetkın G, et al. Primary T-lymphoma of the breast with bilateral involvement,unusual presentation. Int J Clin Pract 59: 95-98, 2005. (PMID: 15875638)
11. Oya M, Hirahashi M, Ochi M, et al. Spontaneous regression of primary breast lymphoma. Pathol Int 59: 664-669, 2009. (PMID: 19712136)
12. Ogawa T, Tsuji EI, Shirakawa K, et al. Primary non-Hodgkin's lymphoma of the breast treated nonsurgically: report of three cases. Breast Cancer 7, 2009. (PMID: 19350354)
13. Brustein S, Filippa DA, Kimmel M, et al. Malignant lymphoma of the breast. A study of 53 patients. Ann Surg 205: 144-150, 1987. (PMID: 3545107)

İletişim

Evren Fidan
Phone : +90(462) 377 50 23
E-mail : evrenfidan@yahoo.com