

Case Report

Malignant Non-Hodgkin's Lymphoma of the Breast and HIV

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Abstract: Malignant non-Hodgkin's lymphoma (NHL) accounts for 0.5% of all breast cancers. Diagnosis is essentially based on histology. We report the case of a 42-year old female patient with MNHL of the breast and positive HIV serology. This study aimed to highlight the clinical, radiological and therapeutic aspects of this disease and to emphasize the importance of HIV testing in patients with extraganglionar MNHL.

Keywords: Breast, lymphoma, HIV

INTRODUCTION

Primary non-Hodgkin's lymphoma (NHLN) of the breast is a rare entity and accounts for 2.2% of all extra-ganglionic lymphomas and less than 0.5% of mammary tumors [1]. Risk factors are likely to favor the occurrence of this disease: HIV, HCV, EBV. We report a new observation of non-Hodgkin lymphoma with breast location in a patient with positive HIV serology.

OBSERVATIONS

This is a 42-year-old divorced patient with no notable personal and family history. The beginning of the disease dates back to 02 months by the appearance of a swelling of the left breast gradually increasing in volume, associated with a painful breast tension.

On inspection: very enlarged left breast, red with orange peel appearance and slight nipple retraction (Fig-1).

On palpation: a voluminous mass, hard, regular, occupying almost the whole breast, making 13cm / 10cm associated with ipsilateral axillary adenopathies. The contralateral breast is unscathed, examination of other ganglionic areas found bilateral inguinal lymphadenopathy; the rest of the somatic examination is normal.

Mammography: Short, dense, type 1 right breast, generally dense, type III left breast, with excessively poor opacity of the retinal nerve complex with architectural disorganization associated with subcutaneous thickening and incipient nipple retraction without microcalcification on the various incidences (Fig- 2).

Ultrasonography: Straight breast without abnormality, presence of hypoechoic, heterogeneous hypervascular vascular Doppler lesion process associated with numerous left axillary adenopathies with thickening of the skin and subcutaneous tissue (Fig- 3).

Histological examination of a tricut biopsy of the left breast shows a malignant tumor process made of large cells with a scanty and poorly defined cytoplasm. Nuclei are rounded or oval, hyperchromatic and often nucleolar (Fig- 4). There are some abnormal mitoses. The immunostaining of these cells is negative for the anti-cytokeratin antibody (AE1-AE3, DAKO) and for the anti-CD3 antibody it is frankly positive for the anti-CD20 antibody. The whole thing evokes a malignant lymphoma with large B cells. An extension assessment including a thoracoabdominal CT, an abdominal ultrasound and an osteomedullary biopsy was negative. The AIDS test came back positive. The patient is referred to the oncology department for treatment.

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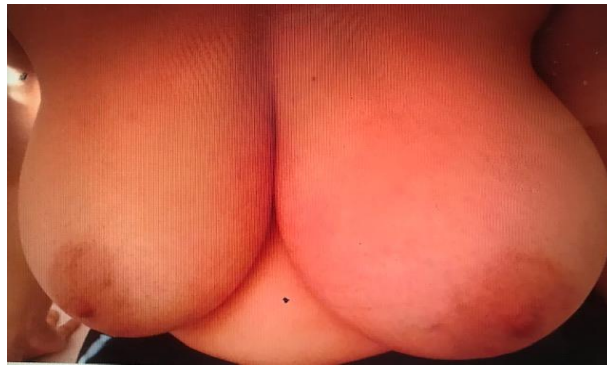


Fig-1: Left breast increased volume and inflammatory appearance.

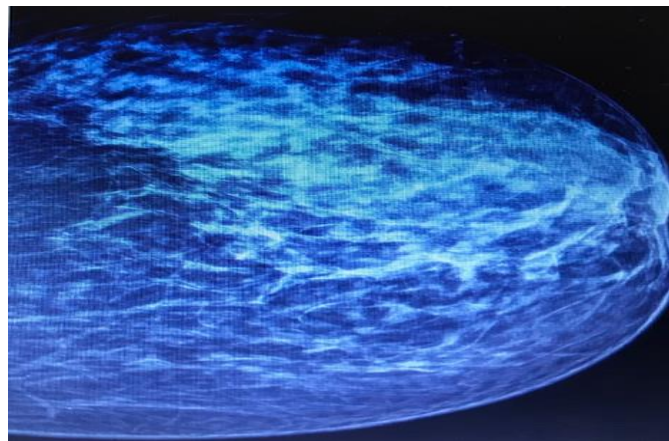


Fig- 2: Profile picture showing a retromelular opacity of the left breast with architectural disorganization

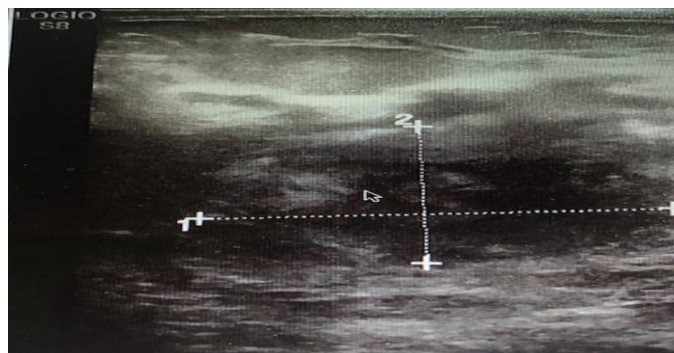


Fig-3: lesional, hypochoic and heterogeneous process of the left breast.

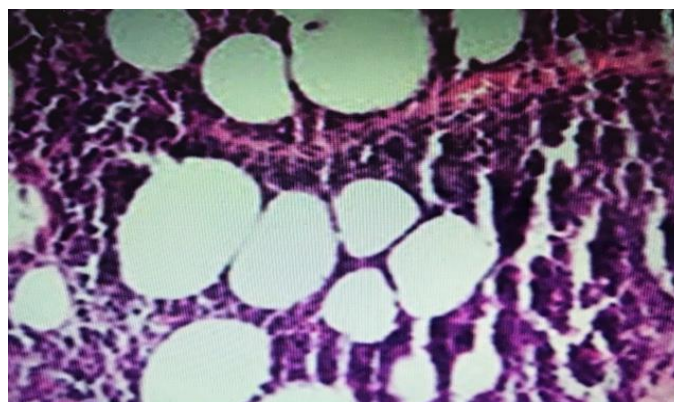


Fig-4: Histological appearance of a large B-cell non-Hodgkin's lymphoma

DISCUSSION

Breast LMNH are very rare and account for 0.5% of all mammary tumors (Duncan, V. E. *et al.*, 2006). This neoplasia usually affects the woman; however, cases in humans have been reported (Fatnassi, R., & Bellara, I. 2005). The risk factors for non-Hodgkin's lymphoma (NHL) are still poorly known, but multiple factors are implicated: some viruses (HIV, Epstein-Barr, hepatitis C ...), immunodepression, autoimmune diseases and certain exposures. such as dioxin (Score santé). Clinically it is most often a single nodule, bulky, well limited without associated inflammatory phenomena (Duncan, V. E. *et al.*, 2006; Cohnen, M. *et al.*, 2002). More rarely, it can be an inflammatory breast tumor simulating a carcinomatous mastitis (Cohnen, M. *et al.*, 2002) (this was the case of our patient). Axillary lymphadenopathies are often found when they involve unusual ganglionic areas such as inguinal, they should make suspect the diagnosis of NHL. Mammography systematically performed in front of any breast nodule is nonspecific (Cohnen, M. *et al.*, 2002). It often shows a well-defined mass of homogeneous density of benign appearance, evoking a cyst, a fibro-adenoma or a phyllode tumor. Ultrasound often shows a hypoechoic, homogeneous lesion with clear and regular contours. Rarely an inflammatory ultrasound syndrome is found. Only the histological examination of the operative specimen, preferably by echo-guided biopsy, asserts the diagnosis of NHL (Levine, P. H. *et al.*, 2004).

Generally, the diagnosis of NHL is easy, but still some points are worth highlighting: mammary lymphoma offers no histological feature because of its location; the extemporaneous study of the operative specimen carries a high risk of error (Moujahid, M. *et al.*, 2011); Mastectomy immediately is to be avoided. Once the diagnosis is made, it is necessary to perform a number of biological tests including HIV serology, imaging (radio, CT scan, MRI), endoscopy and biopsy, to clarify the diagnosis, assess the extent of lymphoma, the clinical impact, and the general condition of the patient. In HIV-positive women for the human immunodeficiency virus (HIV), various studies have not shown an increase in the incidence of breast cancer (ARS, P.C. 2011; I.N.D.C. 2009). Breast cancer, however, has some peculiarities in the context of the HIV / AIDS disease: it appears for CD4 lymphocyte counts of less than 200 cells per mm³, in younger women; it is often bilateral with unusual histology and is more aggressive with early metastatic progression and poor prognosis; Management is often the same as that of seronegative patients regardless of lymphomatous localization. Currently, the majority of authors recommend chemotherapy containing Endoxan®, Oncovin® and Prednisone® or combined with anti-CD20 antibody immunotherapy that neutralize cancer cells (Sokolov, T. *et al.*, 2000). Anti-HIV treatment is systematically associated, there is often a

form of resistance to chemotherapy in HIV carriers, which is related to the presence in the cell membrane of a glycoprotein (gp120), which acts as a pump that tends to get the anticancer molecule out of the cell. The prognosis of breast LMNH is particularly poor. The histological type and the clinical stage of the disease are the two main prognostic factors (Moujahid, M. *et al.*, 2011; Boudhraa, K. *et al.*, 2009).

CONCLUSION

Non-Hodgkin's breast lymphoma is a rare anatomoclinical entity. The radiographic and clinical aspects are not specific, the diagnosis is made only on the histology. The lymphomas that HIV-positive patients suffer from are generally of high malignancy. The study of larger series could help to better codify their treatment and improve their management.

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