Case Report

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An Uncommon Case of Primary Breast Lymphoma

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ABSTRACT

Primary breast lymphoma is a very rare histological entity of breast cancer. The clinical and radiological aspects do not present any particular specificities. Diagnosis is often delayed. Treatment is mainly based on chemotherapy. The prognosis is generally poor. We report a case of primary non-Hodgkin's malignant lymphoma of the breast in a 42-year-old female patient. We discuss the different characteristics of this condition and the therapeutic management according to the literature.

Keywords: Primary Lymphoma; Breast; Diagnosis; Treatment

Introduction

Primary breast lymphoma is defined by involvement of one or both breasts. This is the first or predominantly affected site with the exception of ipsilateral axillary involvement. The Wiseman and Liao classification defines diagnostic criteria : adequate histological sampling ; close association between breast tissue and lymphomatous infiltration ; absence of diagnosis of extra-mammary lymphoma and absence of metastases of the disease except ipsilateral axillary lymphadenopathy. This neoplasia generally affects women, however cases in men have been reported. It is a rare condition, accounting for 0.04–0.52% of all breast cancers [1,2]. We report a case of primary breast lymphoma.

Patient and Observation

This is a 42-year-old patient, married, G0P0, with no notable personal or family history. The onset of the disease dates back four months with self-palpation of a nodule in the left breast which gradually increased in size, associated with painful breast tension, without signs of inflammation or nipple discharge. The breast examination reveals an inflamed left breast with significant loss of substance, associated with a nodule covering the entire breast and a crusty areolar appearance (Figure 1). Furthermore, the right breast is unremarkable, and finally there is left axillary lymphadenopathy measuring 5 cm fixed and with signs of inflammation nearby. The patient underwent an ultrasound and a mammography exam which revealed a suspicious 11cm mass occupying almost the entire left breast, associated with left axillary adenomegaly. A surgical biopsy of the left breast shows a dermis largely infiltrated by a clearly malignant tumor process. Immunohistochemical examination revealed malignant large B-cell non-Hodgkin lymphoma. An extension assessment including a thoraco-abdominal CT and an osteomedullary biopsy came back negative. Due to significant loss of substance, the multidisciplinary consultation meeting decided: a mastectomy with breast reconstruction using a flap of the latissimus dorsi muscle and treatment with chemotherapy. The patient is doing very well with very good cosmetic results and a good response to chemotherapy.

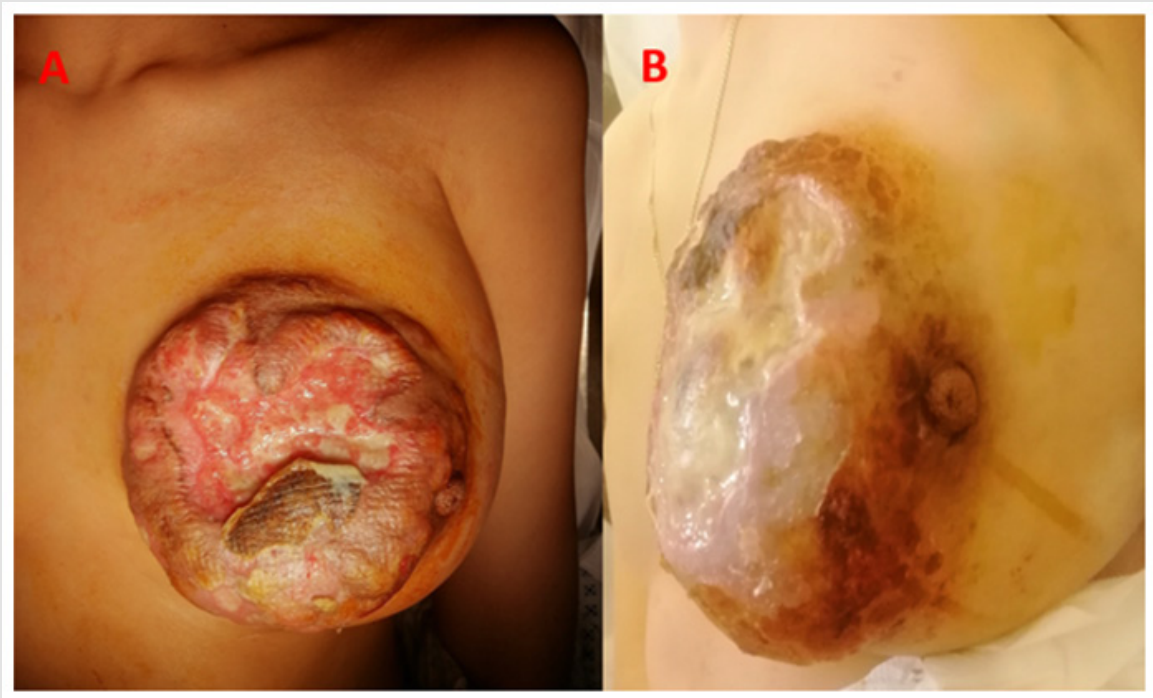

Figure 1: Front view (A) and profile view (B) of the left breast with an inflammatory appearance and significant loss of substance.

Discussion

Primary breast lymphomas are rare. Their frequency is estimated at 0.04 to 0.52% of all breast neoplasias [1,2]. This pathology generally affects women, however cases in men have been reported. Concerning age, two frequency peaks have been noted, a first peak in young women of childbearing age, often during pregnancy, the second is more significant, occurring between 50 and 60 years of age and with a more favorable prognosis [3]. The damage is often unilateral. In 18% of cases. The mode of revelation is almost always the development of a breast tumor [4], very often also by unilateral or bilateral gigantomastia with a state of inflammatory mastitis [2] as was the case in our patient. Axillary lymphadenopathy is found in 20 to 40% of cases [5]. The imaging appearance is non-specific. Mammography often shows a well-defined mass of homogeneous density with a benign appearance, suggesting a cyst, a fibroadenoma or a phyllodes tumor. Less frequently, it is an appearance of mastitis with diffuse increase in breast density, a mass with poorly defined contours or a mass with spiculated contours [6]. Rarely, there is a suspicious appearance of malignancy, but there is never stellar opacity or microcalcifications. On ultrasound the presentation is not specific, most often in the form of a homogeneous hypoechoic mass with clear and regular contours. Rarely an appearance of mastitis is noted on ultrasound. The discrepancy between a worrying clinical appearance and a reassuring mammographic appearance could suggest the diagnosis [3].

The diagnosis is cytological or histological after microbiopsy or surgical biopsy [7]. Extemporaneous examination carries a significant risk of error [8]. The treatment of primary non-Hodgkin's malignant lymphoma of the breast is comparable to that of other lymphomatous locations. Multiple protocols have been proposed in the literature. Currently, the majority of authors recommend chemotherapy, combined with immunotherapy with anti-CD20 antibodies. In our case, we had a significant loss of substance and we were obliged to perform a mastectomy with immediate reconstruction.

Conclusion

Primary breast lymphoma is a rare pathology. Its clinical symptoms are polymorphic. Medical imaging is non-specific. The definitive diagnosis is histological. The prognosis and treatment are similar to those of other lymphoma sites.

Consent

The patient's consent has been received for publishing the personal information for research and studies.

Competing Interests

The authors declare that they have no competing interests.

Author's Contribution

All the authors have read and agreed to the final manuscript.

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