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Case Report

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PRIMARY BREAST LYMPHOMA: A CASE REPORT

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ABSTRACT

Primary breast lymphomas represent a very rare anatomo-clinical entity. Diagnosis may be difficult in the absence of specific clinical or radiological criteria. Histological confirmation is therefore essential for establishing the diagnosis. The treatment is essentially based on chemotherapy alone or associated with radiotherapy for the early stages. We report the case of a 47-years-old patient with primary breast lymphoma, followed at the National Institut of Oncology of Rabat (Morocco). We will discuss the epidemiological, clinical and therapeutic characteristics.

KEYWORDS: Breast lymphoma, rare entity, chemotherapy, radiotherapy.

BACKGROUND

Primary breast lymphoma (PBL) is a rare anatomo-clinical entity.

It is defined as primary breast involvement in the absence of other lymphomatous locations previously detected.[1]

Occurring mainly in women, diffuse large B-cell lymphomas are the most common histological type of breast lymphoma.[2]

We report the observation of a patient followed in our hospital for a PBL. We will discuss the epidemiological, clinical and therapeutic aspects of this pathology.

CASE PRESENTATION

It's a 47-years-old patient, without any significant medical history, who came in our Hospital for a rapid increase of right breast volume with diffuse redness.

The initial clinical examination revealed a right breast enlargement without nipple retraction and no associated axillary lymph nodes.

CT scan showed the presence of a large right breast mass associated with sub-diaphragmati adenomégaly.

The histological and immunohistochemical study of the breast biopsy revealed a primary diffuse large B-cell non-Hodgkin lymphoma (CD 20 positive; CD10, CD5 andCD138 negative) (Figure1,2).

The complete pre-therapeutic assessment including the evaluation of cardiac function and blood test (tumor markers, viral serologies) was normal. The patient refused to do the osteomedullary biopsy.

The patient received six cycles of systemic chemotherapy treatment (RCHOP protocol) and intrathecal injection of methotrexate.

After 3 courses of systemic treatment, the evolution was favourable with a particular clinical benefit and partial radiological response of 80%.

The evaluation at six cycles found disease progression. We start a second line treatement.

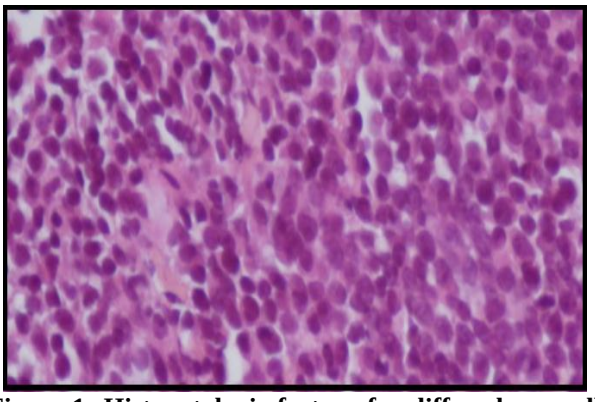

Figure 1: Histopatologic feature for diffuse large cell lymphoma.

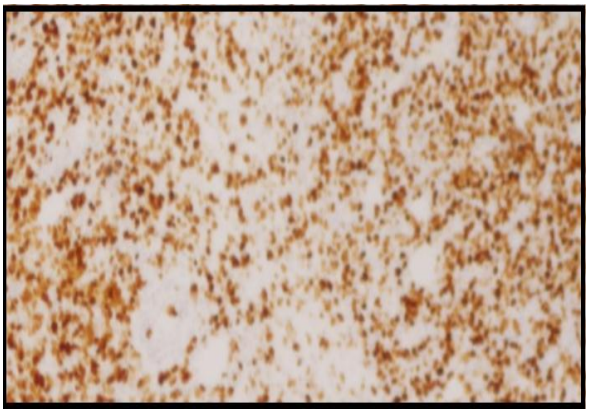

Figure 2: Ki 67 immunostain.

DISCUSSION

PBL is a rare ententy and represents less than 0.5% of all breast tumors and between 1.7 and 2.2 % of all extranodal non hodgkinien Lymphoma (NHL).[1,3]

Occurring almost exclusively in women, the median age of diagnosis is between 60 and 65 years old. However, some cases of early diagnosis, especially during pregnancy, have been reported.[1,4]

The clinical presentation of PBL may **imitate** breast carcinoma. Thus, it often appears as painless lump. More rarely, an inflammatory breast aspect or nipple retraction can be noticed.[5,6]

There are no specific mammographic criteria for the diagnosis of a PBL. Mostly, there is a solitary mass with irregular margins. If it is not visible in Mammograghy, ultrasound helps to confirm the presence of a solid and hypoechoic mass without associated calcifications,[5,8,9]

Wiseman-Liao classification defines diagnostic criteria for PBL based in 4 main criteria:
Mammary tissue and lymphomatous infiltration must be in close association;

No widespread disease or preceding diagnosis of extra-mammary lymphoma; adequate quality of histopathological specimen, homolateral axillary node involvement acceptable.[9,10]

These criteria are considered as standards and allow differentiation between primary and secondary breast lymphomas.

The prognosis of PBL is difficult to establish because of the rarity of this pathology: A limited number of patients in each study and a very wide therapeutic range.[6,10] The main prognostic factors are the stage disease and the histological subtype; MALT Lymphomas would be associated with a better prognosis than diffuse large B-cell lymphomas.[10,11]

Treatment of PBL is essentially based on chemotherapy and radiotherapy. Surgical excision can establish the diagnosis or confirm it after a biopsy.[6,12]

Several chemotherapy protocols have been reported in the literature. Currently, the majority of authors are recommending multidrug chemotherapy with CHOP regimen.[7,13,14]

Regarding the optimal number of cycles, the CISL study showed that treatment with less than 4 cycles of chemotherapy had a negative impact on overall survival and progression-free survival.[15]

Rituxamab is approved in the treatment of diffuse large B-cell non-Hodgkin lymphoma.

The two prospective studies that evaluated the addition of rituximab did not demonstrate a benefit in overall survival or progression-free survival.[16,17] Only a retrospective study has shown a benefit in 5-year survival of chemotherapy combination with CHOP plus Rituximab.[18]

Despite this limited data, Rituximab remains widely used in practice in order to increase the chances of cure and decrease the rate of centrale nervous system (CNS) relapse.[2,19]

The place of radiotherapy at localized stages was largely studied but still debated. Several studies have shown its positive impact especially in case of absence of lymph node involvement.[2,20]

Data on the place of radiotherapy in the era of Rituximab is still immature. However, based on current data, radiation therapy is still recommended as adjuvant treatment to systemic therapy.[2]

Conclusion

PBL is a rare entity but it remains important to know because of the difference in teatement with ductal carcinoma.
The management must be multidisciplinary. The treatment is mainly based on chemotherapy combined with radiotherapy for the localized stages.
The identification of new prognostic factors may allow better management of these lymphomas

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