World Journal of Advanced Research and Reviews
eISSN: 2581-9615 CODEN (USA): WJARAI
Cross Ref DOI: 10.30574/wjarr
Journal homepage: https://wjarr.com/

(CASE REPORT)

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Testicular lymphoma: A case report

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World Journal of Advanced Research and Reviews, 2023, 20(02), 656–659

Publication history: Received on 22 September 2023; revised on 05 November 2023; accepted on 07 November 2023

Article DOI: https://doi.org/10.30574/wjarr.2023.20.2.2220

Abstract

Primary testicular lymphoma (PTTL) is a rare and aggressive form of extraganglionic malignant non-Hodgkin's lymphoma (NML). It accounts for 1% of malignant non-Hodgkin's lymphomas, 2% of extranodal lymphomas and 5% of malignant testicular tumours. LTP is the most common form of testicular malignancy in men over 60. An enlarged inguinal orchiectomy should be performed for diagnostic and therapeutic purposes(1). Adjuvant treatment is based on systemic chemotherapy, administration of rituximab in the presence of CD20+ cells and intrathecal injection of methotrexate for neuro-meningeal prophylaxis.

In this article, we report a case of testicular lymphoma in a 73-year-old patient who underwent inguinal orchiectomy followed by systemic and intrathecal CHOP chemotherapy.

Keywords: Testicular lymphoma; Chemotherapy; CHOP; Adjuvant treatment; Methotrexate.

1. Introduction

Primitive testicular lymphoma is a rare and aggressive form of extraganglionic LMNH, particularly in people over 60. Recurrences are often systemic, involving the contralateral testis or the central nervous system. An enlarged inguinal orchiectomy should be performed for diagnostic and therapeutic purposes. Adjuvant treatment is based on systemic chemotherapy, administration of rituximab in the presence of CD20+ cells, and intrathecal injection of methotrexate for neuro-meningeal prophylaxis. This form of LMNH requires multidisciplinary management. [1]

2. Observation

This 73-year-old patient, with no notable pathological history, presented with a large bursa that had been present for 3 months.

Clinical examination: the patient was in good health, with a hard, swollen left testicle; the rest of the examination was unremarkable.

Laboratory tests: HB: 13.3; WBC: 5370; Creat: 6.6; Urea: 0.39; NA: 132; K3.5; PT 100%; LDH: 511; HCG less than 0.8; alpha feto protein (AFP): 1.16.

Scrotal ultrasound: heterogeneous hypoechoic left testicular mass 60*90mm suspicious in appearance.

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Abdomino-pelvic scan: large suspicious-looking left testicular mass measuring 65 x 95 mm, suspicious lumbo-aortic adenopathies measuring 20 mm in minor axis for the largest, suspicious-looking bilateral adrenal nodules measuring 28 and 38 mm on the left.
The patient underwent a left inguinal orchiectomy, followed by systemic and intrathecal CHOP chemotherapy.

2.1. Anatomopathology:

Resection border at spermatic cord level infiltrated by tumour proliferation, peritesticular tissue and epididymis infiltrated by tumour, histologically,it is a tumour proliferation arranged in a diffuse sheet largely necrotic. The tumour cells are round, small to medium-sized with a round hyperchromatic nucleus which is sometimes nucleolated. The cytoplasm is eosinophilic and sparse. Tumour cells express CD20 intensely and diffusely and do not express CD5, CD10, CD23, cyclin D1, CD117 or PLAP. Ki67 is around 100%.
Histological and immunohistochemical appearance of a high-grade B lymphoma.

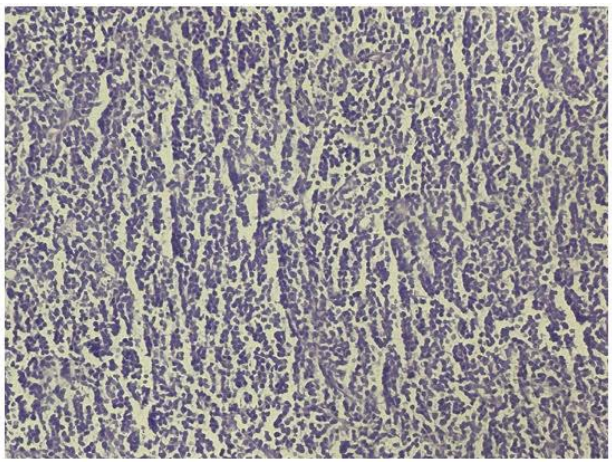

Figure 1 Lymphoid proliferation of diffuse architecture made up of small to medium-sized cells with rounded nuclei and eosinophilic cytoplasm.

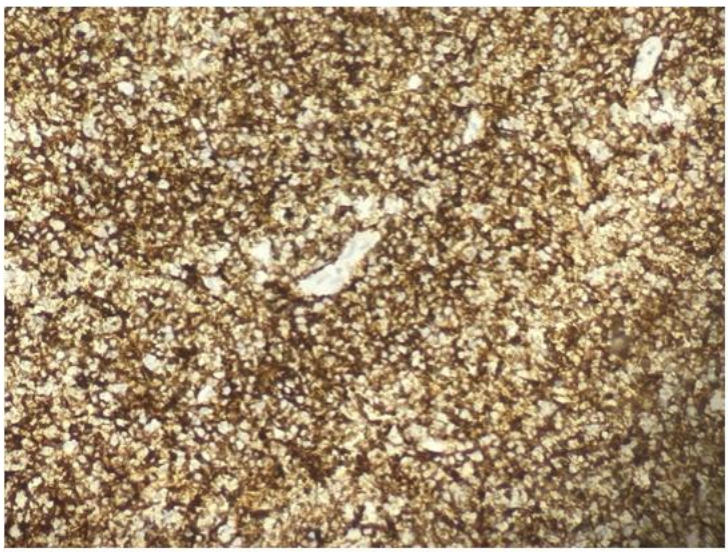

Figure 2 Tumour cells express the anti-CD20 antibody diffusely and intensely (IHC*20)

3. Discussion

The first observation of testicular LMNH was reported in 1877 by MALASSEZ. It is a relatively rare tumour, representing only 1 to 9% of all malignant tumours of the testis [3,4,5], and mainly affects elderly patients. Other risk factors such as heavy cannabis use, pesticides, organic solvents and morphometry are debated. One study has reported a link (odds ratio [OR] 3.32, p =0.04) between germ cell tumour and first-degree maternal family history of ovarian cancer. However, this study does not agree with a Swedish registry study[2].

Testicular involvement is often unilateral; it may be bilateral in 5 to 20% of cases. Involvement of the contralateral testis may be of a different histological type[4].

The most frequent warning sign is the generally painless increase in testicular volume. This painlessness is a source of delay in diagnosis. WESCOTT reported the case of a patient who presented with an increase in testicular volume that progressed for 22 years before the diagnosis was made [6].

Testicular involvement may be isolated or it may be the first manifestation of a generalised lymphoma. In our case, the testicular involvement appears to be primary, given its size (65*95mm diameter), the absence of superficial adenopathies and the existence of small deep adenopathies.

Pulmonary involvement is common during the course of testicular LMNH. In an autopsy series of 38 patients, pulmonary involvement was found in 89% of cases [7].

Orchiectomy is the rule because the testis is not easily accessible to chemotherapy [8, 9]. However, even in localised stages, orchiectomy alone is insufficient. In fact, more than 60% of patients treated with orchiectomy alone will have a recurrence within 5 years, especially in the central nervous system [8]. For this reason, most authors suggest adjuvant anthracycline-based chemotherapy.

The prognosis for LMNH of the testis remains poor, with a median survival of 12 months and a 5-year survival estimated at between 15% and 50% [8], despite poly-chemotherapy. Early-stage treatment is based on orchiectomy followed by chemotherapy (CT) with a monoclonal antibody directed against the CD20 antigen and scrotal irradiation with or without radiotherapy (RT) to the iliac and/or para-aortic lymph nodes. In advanced stages, chemoimmunotherapy is the treatment of choice. Intrathecal CT (ITC) is justified whatever the stage of the disease, in order to prevent relapses in the central nervous system (CNS).

4. Conclusion

LMNH of the testis is a rare disease that mainly affects the elderly. It has a poor prognosis. Its diagnosis is exclusively anatomopathological, always requiring immunohistochemistry to rule out a seminomatous germ cell tumour. Diagnosis of testicular lymphoma requires a full extension work-up to look for other sites, mainly cerebral, nasopharyngeal or pulmonary. The combination of surgery and adjuvant systemic and intrathecal chemotherapy appears to be associated with good specific long-term survival.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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