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CASE REPORT / OLGU SUNUMU

Primary testicular lymphoma: a case report

Primer testis lenfoması: Olgu sunumu

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ABSTRACT

Primary testicular lymphomas are rare malignancy. We discussed the patient who had referred with mass into left testis at 73 years old diagnosis as diffuse large B-cell testicular lymphoma. Systemic chemotherapy (R-CHOP) was given to the patient. Prophylactic radiotherapy was performed for the contralateral testis and central nervous system. Complete remission was achieved in the patient.

Key words: Testis, lymphoma, treatment.

ÖZET

Primer testis lenfomaları nadir görülen malignitelerdir. Biz 73 yaşında sol testiste kitle şikayeti ile başvurup, diffuse büyük hücreli B-hücreli lenfoma tanısı alan bir olgu sunduk. Hastaya sistemik kemoterapi (R-CHOP) verildi. Karşı testis ve santral sinir sistemine proflaktik radyoterapi uygulandı. Hastada komplet remisyon sağlandı.

Anahtar kelimeler: Testis, lenfoma, tedavi

INTRODUCTION

Primary testicular lymphoma (PTL) composes 1-9% of all testicular tumors and 1% of non-hodgkin lymphomas. Despite this, it is the most common testicular malignancy in men elder than 65 years[1-6]. It is usually in type of diffuse large B cell lymphoma (DBCL)[7]. Testicular lymphoma may be initial presentation of primary or systemic malignant lymphomas or may appear during clinical follow-up of the patients with lymphoma[8]. Testicular involvement is more common in clinical course of widespread nodal lymphomas although PTLs are rare. This case is presented here with purpose of discussing clinical features in this rare malignancy.

CASE REPORT

A 73-year-old man was accepted to our center a firm and painless mass in his left testes. On physical examination of the patient, he had swelling in the left groin and a mass in the left testis. He had no lymphadenomegaly or hepatosplenomegaly. Examination of the oronasopharynx was normal. His laboratory values were as follows: Hemoglobin 15.3 g/dL, WBC count 12.1 X 10^9/L (39.2% neutrophil, 44% lymphocyte, 9.8% monocyte), platelets 335 X 10^9/L, RBC sedimentation rate 40 mm/h, Lactate dehydrogenase 431 IU/L (normal range: 240 – 480 IU/L). Urinary and other biochemical values were normal. A hypoechoic mass lesion with lobulated contours of 8 x 4 cm completely filling the left testis was seen on scrotal ultrasound examination. Epididymis cysts of which the biggest was 6 mm were seen on both epididymides. Appearance of the right testis was normal. On computed abdominal tomography, no finding was observed except for inguinal hernia containing intestinal loops on the left. Thoracic computed tomography was found to be normal. The patient underwent diagnostic high inguinal orchiectomy. On histopathological examination, a tumor formation covering the whole testis was observed in 7.5 x 4 x 3.8 cm size and of which the section was solid, beige to dark red in colour and containing hemorrhagic punctuations. Tumor was positive in the epididymis. Tumor infiltration was positive in the tunica albuginea. Tumor was negative in the tunica vaginalis. Staining with LCA and CD20 was observed on immunohistochemical examination. No staining was observed with vimentin, CD3, cytokeratin, CD117, AFP, desmin,

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actin, CD34, S100, PLAP, and CD30. The patient was diagnosed as having non-hodgkin diffuse large B cell lymphoma (Figures 1-2). He was considered as stage IE according to Ann-Arbor staging system because he has a primary mass lesion of up to 4 x 8 cm in testis and no extratesticular involvement. Six cure systemic chemotherapy R-CHOP (rituximab, cyclophosphamide, hydroxydaunorubicin, vincristine, prednisone) was given to the patient. Prophylactic radiotherapy was performed for the contralateral testis and central nervous system. Complete remission was achieved in the patient. Patient was followed for three months.

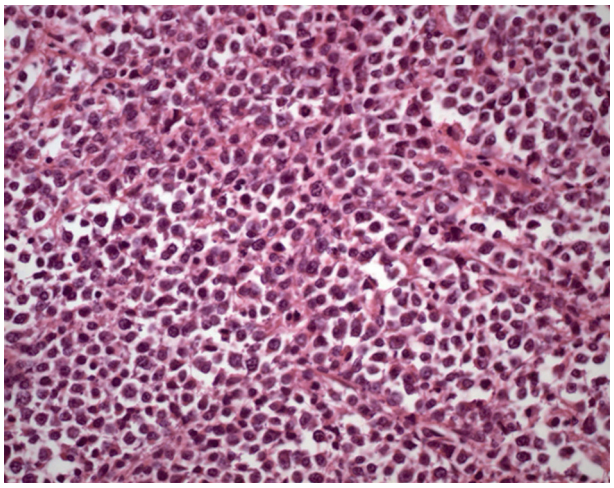

Figure 1. Atypical lymphoid cells which are narrow cytoplasm, hyperchromatic enlarged nucleus which completely destroy normal testicular structure (HE&400)

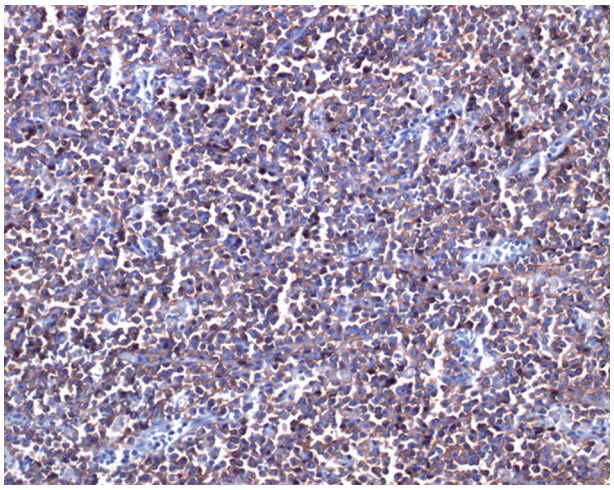

Figure 2. Diffuse membranose staining with CD20 in atypical lymphoid cells (CD20&200)

DISCUSSION

Testicular tumors are the most common malignant tumors in men between 15 and 35 years old although they are rare. They make 1-2% of all malignant tumors in men. General incidence of the testicular tumors has been reported as 2 to 3 per 100.000 although they show an increase in incidence albeit being slow. Life-long incidence of testicular tumor in men is about 0.2%. Ninety to ninety five per cent of the tumors originate from germinal tissue[9]. Lymphoma becomes more frequent in men above 60 years old. The first case of testicular lymphoma was reported by Malassez et al[10].

More than 90% of testicular lymphomas are diffuse large B cell lymphomas[7]. Involvement is usually unilateral in cases of primary testicular lymphomas. It has been reported in the literature that the bilateral testicular involvement may be seen in 19.5% of the patients at the time of diagnosis and the other testis may be site of recurrence during follow-up[1-6]. In our patient, as well, diffuse large B cell lymphoma was found. The most common sign in the testicular lymphoma is painless scrotal swelling. Constitutional symptoms such as fever, weight loss, anorexia, night sweating and fatigue are seen in 25 to 40% of the patients[1-6]. Scrotal swelling, however, was not the presentation finding in our patient and he had no B symptoms such as fever and night sweating. Inguinal hernia and left testicular mass had been found in the hospital he presented with complaint of swelling in his groin. Hypoechoic mass lesion was found in our patient on diagnostic scrotal ultrasound examination. Ultrasonography is a usefull methods in diagnosis of scrotal masses with normal testicular tissue being observed as hyperechoic and involvement of lymphoma being observed as hypoechoic. Lymphoma may invade epididymis, spermatic chord and scrotal skin locally[1-6]. Tumor was positive in epididymis in our patient. Tumor infiltration was positive in tunica albuginea and tumor was negative in tunica vaginalis.

Trauma, chronic orchitis, cryptorchidism and philariasis of the spermatic chord are potential risk factors in development of testicular lymphoma although predisposing factors are unclear. Another risk factor is immunosuppression for development of extranodal lymphomas including testicular lymphoma[1-6]. Our patient had none of the known risk factors.

Extranodal metastasis may be seen at the time of diagnosis or develop during clinical course of the disease. Most commonly involved sites are the central nervous system, Waldeyer's ring, skin and the lungs, and prostate, however the kidneys, liver, bone marrow, pleura and bones are more rarely involved[1-6].

The most important factors determining the prognosis are stage and histological grade. Insufficient organ functions due to advanced age, presence of the constitutional symptoms, tumor burden higher than 9 cm, spermatic chord and bilateral testicular involvement, vascular invasion, degree of sclerosis and high level of LDH affects the prognosis negatively[1-6]. Of the known poor prognostic factors, our patient had involvement of the epididymis and spermatic chord.

Our patient was in stage IE according to Ann-Arborr staging system. According to the data of International Extranodal Lymphoma Working Group 57% of the cases with PTL is seen in stage I, 22% in stage II and 21% in stage III – IV 3. Overall survival or disease-free survival is prolonged in this disease with combined chemotherapy with anthracycline (± radiation therapy) following orchiectomy in early stages. Therefore, systemic chemotherapy should be used in the patients in early stages, as well. On the other hand, the available data indicate that using prophylactic therapies because of high possibility of relapse in the contralateral testis and cranium may be a suitable approach although efficiency of prophylactic intrathecal chemotherapy and/or radiation therapy and scrotal radiation therapy couldn't be demonstrated because of low number of the patients[11,12].

In conclusion, primary testicular lymphoma is a rare disease and no consensus exists on its therapeutic modalities.

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