



# Primary Testicular B-cell Lymphoma

## Testisin Primer B-hücreli Lenfoması

Aykut Buğra Şentürk, Musa Ekici, Hamit Ersoy

Hitit University Çorum Training and Research Hospital, Clinic of Urology, Çorum, Turkey

### ABSTRACT

Primary testicular lymphoma constitutes only 1-7% of all testicular neoplasms and less than 1% of all non-Hodgkin lymphoma. We report a 69-year-old man who presented with a painful right testicular mass. Treatment modalities consist of surgical excision, chemotherapy and radiation therapy, however there are no standardized treatment options.

### Keywords

Testis cancer, B-cell Lymphoma, scrotal mass

### ÖZ

Primer testiküler lenfoma tüm testiküler tümörlerin %1-7'sini oluştururken tüm non-Hodgkin lenfomaların ise %1'den azını oluşturur. Biz bu olguda ağrılı sağ testiküler kitlesi olan 69 yaşında yaşlı bir adamı rapor ettik. Cerrahi eksizyon, kemoterapi ve radyoterapi tedavi modalitelerini oluştursa da standardize tedavi seçenekleri yoktur.

### Anahtar Kelimeler

Testis kanseri, B-hücreli lenfoma, skrotal kitle

## Introduction

Primary testicular lymphoma constitutes only 1-7% of all testicular neoplasms and less than 1% of all non-Hodgkin lymphoma. We report a 69-year-old man who presented with a painful right testicular mass. Radiological findings showed an intrascrotal mass involving both testicle and ipsilateral spermatic cord. The patient underwent right radical orchiectomy for mass reduction. Macroscopically, a tumor measuring 12 cm maximum in diameter, with creamy appearance and involving both the testes and spermatic cord was existed. Immunohistochemical study showed positivity of B-cell marker (CD 20) and leucocyte common antigen (LCA), but placental alkaline phosphatase (PLAP), CD 117 were negative. The patient was treated by chemotherapy. Primary testicular lymphoma is a rare but the most common secondary testicular tumor in elderly men. Treatment modalities consist of surgical excision, chemotherapy and radiation therapy, however there are no standardized treatment options.

Primary testicular lymphoma is not a common disease and it accounts for only 1% to 7% of all testicular malignancies and represents 1% of all non-Hodgkin's lymphomas. Eighty-five percent of cases are observed in men older than 60 years (1,2). Based on current data, histopathologically 80-90% of primary lymphomas of the testis are diffuse large B-cell lymphoma (3). Usually surgical excision followed by chemotherapy and radiation therapy is the first line treatment. After the initial treatment, the central nervous system is the most

frequent site of recurrence. Here, we report a case of primary testicular lymphoma which was found to be stage 1.

## Case Presentation

We report a 69-year-old man with a right testicular painful mass and without past medical history. He was admitted to a urology clinic for painful scrotal swelling which he noticed one month ago and he was treated with antibiotics for epididimorchitis. After the treatment, he was still complaining of the right scrotal swelling. There was no night sweats or fever. Ultrasonography (USG) showed an enlarged heterogenous and hypochoic right testis. Magnetic resonance imaging (MRI) showed a tumor like lesion measuring 13 cm maximum in diameter in the right hemi scrotum.

Serum alpha-fetoprotein (AFP), serum beta human chorionic gonadotropin (hCG) and serum lactate dehydrogenase (LDH) levels were normal. Sedimentation rate was 31 mm\h (0-20 mm\h) and the other laboratory tests were normal.

Radical right orchiectomy was performed. Macroscopically, a tumor measuring 12 mm tumor maximum in diameter, with creamy appearance and involving both testes and spermatic cord was existed. Immunohistochemical study showed positivity of B-cell marker (CD 20) and LCA, but PLAP and, CD 117 were negative. He was enrolled in a chemotherapy protocol of R-CHOP.

### Correspondence

Aykut Buğra Şentürk MD, Hitit University Çorum Training and Research Hospital, Clinic of Urology, Çorum, Turkey  
E-mail: aykutbugra@gmail.com Received: 17.03.2015 Accepted: 09.04.2015

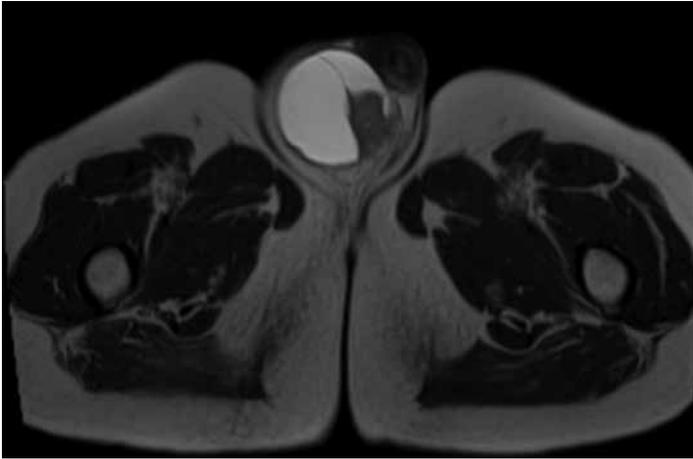


Figure 1. Magnetic resonance imaging image of the affected testicle



Figure 2. Macroscopic view of the surgical specimen (testis with cord)

## Discussion

Primary testicular lymphoma is a rare but the most common secondary testicular tumor in elderly men. For this reason, the urologist must be aware of this condition. Primary testicular lymphoma constitutes only 1-7% of all testicular neoplasms and less than 1% of all non-Hodgkin lymphomas. Most patients complain of a painless unilateral palpable mass in variable size in the inguinoscrotal area, but sometimes it may be painful as in our case. Furthermore, in up to 10% of cases, bilateral involvement is detected (4). Additionally, although not common, B type symptoms, such as fever, night sweating and weight loss can be seen. LDH levels are correlated with tumor aggressiveness but

serum AFP and serum hCG levels are rarely elevated in testicular lymphoma (5). The first radiological assessment is USG of the scrotum and hypoechoic heterogeneous mass is the known appearance of the tumour.

Primary lymphomas of the testis and spermatic cord have the worst prognosis among all extranodal lymphomas, with the 5-year overall survival ranging between 70% and 79% (6). Favorable factors are lymphoma sclerosis, young age and early stage (7). Histological grade and the stage are the most important factors on prognosis. Advanced age, tumor size greater than 9 cm, spermatic cord and bilateral testicular involvement, vascular invasion, degree of sclerosis and high levels of LDH affect the prognosis negatively. Surgical excision is the treatment of choice, but because of its poor prognosis, even in stage 1, it must be supported with chemotherapy followed by radiation therapy. However still there is no consensus on therapy protocol for the treatment of the disease (8).

## Authorship Contributions

*Informed Consent:* Consent form was filled out by all participants, *Concept:* Aykut Buğra Şentürk, Musa Ekici, *Design:* Aykut Buğra Şentürk, Musa Ekici, *Data Collection or Processing:* Aykut Buğra Şentürk, *Analysis or Interpretation:* Aykut Buğra Şentürk, Hamit Ersoy, *Literature Search:* Aykut Buğra Şentürk, *Writing:* Aykut Buğra Şentürk, *Peer-review:* Internal peer-reviewed, *Conflict of Interest:* No conflict of interest was declared by the authors, *Financial Disclosure:* The authors declared that this study has received no financial support.

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