

Primary Prostate Lymphoma Managed with Combined Modality Treatment: A Case Report

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Prostate cancer is one of the most common malignancies in men; the main reported pathology is adenocarcinoma while there are few published cases of prostate lymphoma. There is not enough data regarding the natural history and best management of prostate lymphoma. In this paper, we have described a case of prostate lymphoma that managed with combined modality treatment and have survived for three years.

Keywords: prostate lymphoma; R-CHOP regimen; diffuse large B cell lymphoma

INTRODUCTION

One of the rare pathologic entities in prostate cancers is lymphoma (1). Diffuse large B cell lymphoma (DLBCL) is the most common reported primary lymphoma in prostate (2, 3, 4), with no proved standard management.

CASE REPORT

We describe a man at the age of 71, who was complaining of hematuria and dysuria for three months. Familial

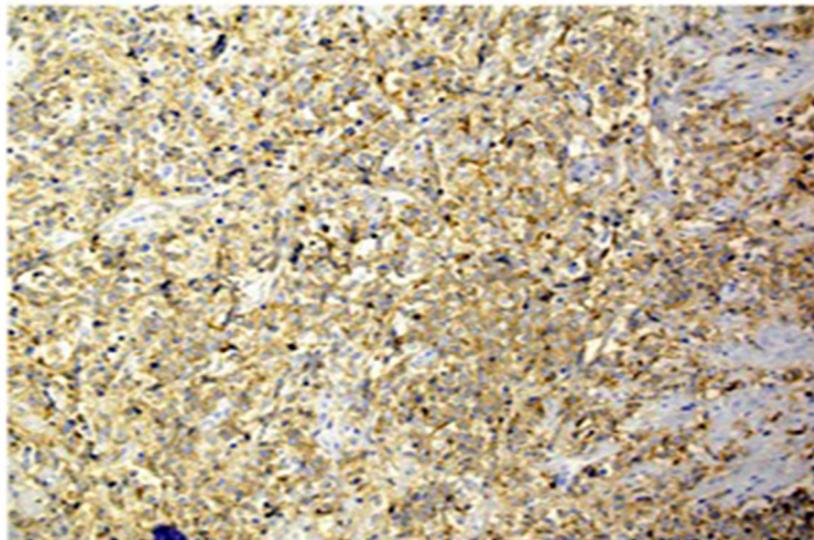


Figure1. Immunohistochemical staining of the tumor cells showing positive CD20.

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Received December 2017& Accepted June 2018



Figure 2. Recent T-2weighted MRI

history was unremarkable. In his past medical history, diabetes mellitus was mentioned. He had no fever, night sweet or weight loss (B symptoms). Physical examination didn't reveal any abnormal finding except of diffusely enlarged prostate during digital rectal examination. His serum PSA, LDH and ESR were 2.1 ng/ml, 263U/L and 24 (mm/hr) respectively. Other laboratory tests were normal. Thoracic and abdominopelvic CT-scan showed a huge mass at the bottom of the bladder and an enlarged prostate with some nonspecific lymph nodes on external iliac veins. With a clinical diagnosis of bladder or prostate malignancies, he underwent cystoscopy, that showed inflamed, obstructive prostatic urethra with active bleeding and normal bladder, some biopsies were taken. Microscopic and immunohistochemical (IHC) features confirmed the diagnosis of DLBCL with positive IHC staining for LCA, CD20, BCL6 and negative staining for CD3, CD34, cytokeratin and NSE (**Figure 1**). Pathologic examination of bone marrow specimen was normal. The patient was treated by R-CHOP chemotherapy regimen at radiation oncology ward. Hematuria and dysuria were diminished at the end of second cycle. Then, he underwent whole pelvic radiotherapy (50 Gy) after eight cycle chemotherapy and was followed up for three years until now. According to a recent thoracic and abdominopelvic imaging that showed only abnormality in prostate (**Figure 2**), biopsy was preformed again, and any local recurrence has been ruled out.

DISCUSSION

DLBCL was the most common type and then small cell lymphocytic lymphoma^(2,3). In the study of Terris et al., of the 1092 radical prostatectomy specimens, they found 13 cases with hematolymphoid pathologies (1.2%).⁽⁴⁾ DLBCL is the most frequent type of prostate lymphomas that have been reported in case reports, until now.^(4,5,6,7) The mean age at presentation was in the seventh decade.^(2,4) The most reported presentations of prostate lymphoma are frequency, urgency and obstructive symptoms. There are usually no systemic or B symptoms.^(2,5,8) There have been only two reported patients with elevated PSA that were returned to the normal range after therapy.^(9,10) It should be mentioned that lymphoma should be considered as a differential

diagnosis of poorly differentiated carcinomas or neoplasms in prostate and IHC would be helpful in these cases. Sometimes we can see non hodgkins lymphoma concurrent with adenocarcinoma.^(2,11) We have some data about treatment outcomes in reported cases. Terris et al. reported more cure rates with aggressive combination chemotherapy followed by radiotherapy to bulky or extra nodal sites.⁽⁴⁾ In France, three cases of primary prostate lymphoma underwent doxorubicin-based combination chemotherapy, and they experienced complete response that last over three years.⁽¹²⁾ There are at least 25 cases of prostate lymphoma with a complete response after chemotherapy with CHOP regimen.^(8,13,14) Combination of chemotherapy with external-beam radiation provided long term local control on a case reported in 2008.⁽¹⁵⁾ The use of anti-CD₂₀ antibody has been employed for the treatment of CD₂₀ positive lymphomas and is considered in combination with CHOP regimen.^(8,16,17) In a series of 22 patients who were treated in Japan, three of five cases experienced progression after surgery or radiotherapy alone, 11 of 16 cases whom received chemotherapy had a complete response.⁽¹⁸⁾ There isn't any standard indication for radiotherapy or surgery but radiotherapy has been used in localized cases after chemotherapy.⁽¹⁹⁾ Finally, it should always be noticed that prostate lymphoma should be in differential diagnosis of prostate neoplasms and combination of chemotherapy and radiotherapy after biopsy could provide long-term survival.

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