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Olgu / Case

Primary Bladder Lymphoma: Case Report

Primer Mesane Lenfoması: Olgu Sunumu

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Özet

Mesane karsinomu üriner sistemin en sık görülen tümörüdür. Malign mesane kanserlerinin % 90'dan fazlası, transizyonel hücreli tümörlerdir. Mesanenin transizyonel olmayan tümörleri tüm mesane tümörlerinin %5-7'sini oluşturur. Bunların da yaklaşık %3'ü skuamöz hücreli karsinom, %2'si adenokarsinom, %1'i undiferansiye karsinom ve daha nadiren küçük hücreli karsinom ve lenfomadır. Mesanenin primer lenfoması çok nadir görülür. Nadir olmasına rağmen, bu tümörler üroloğlar tarafından akılda tutulmalı ve sıradışı mesane kitlelerinde düşünülmelidir. Bu yazıda mesane tümörü ön tanısı ile ameliyat edilen primer mesane lenfoması olgusunu sunuyoruz.

Anahtar Kelimeler: Marjinal zon lenfoması, Mesane kanseri, Pozitron emisyon tomografisi

Abstract

Bladder carcinoma is the most common tumor of the urinary system. More than 90 % of malignant bladder cancers are transitional cell tumors. Non-transitional tumors of the bladder account for 5-7 % of all bladder tumors; 3 % squamous cell carcinoma, 2 % adenocarcinoma, 1 % indifferentiated carcinoma and, more rarely, small cell carcinomas and lymphoma. Primary lymphoma of the bladder is very rare. Although rare these tumors should be kept in mind by urologists and should be considered in unusual bladder masses. In this article, we present a case of primary bladder lymphoma who was operated with a preliminary diagnosis of bladder tumor.

Keywords: Marginal zone lymphoma, Bladder cancer, Positron emission tomography

INTRODUCTION

Bladder carcinoma is the most common tumor of the urinary system. More than 90 % of malignant bladder cancers are transitional cell tumors. Non-transitional tumors of the bladder cancer account for 5-7 % of all bladder tumors; 3 % squamous cell carcinoma, 2 % adenocarcinoma, 1 % indifferentiated carcinoma and, more rarely, small cell carcinomas and lymphoma (1). Primary bladder lymphoma is very rare. Publications on this subject are mostly reported as case reports. Lymphomas rarely involve the bladder extranodally and are more common in older women (2). Malignant lymphomas may involve the lower urinary tract in advanced cases but rarely begin primarily from this region. In this article, a case who was operated in our clinic with a preliminary diagnosis of bladder tumor and diagnosed as primary bladder lymphoma after pathological and radiological examination is presented.

CASE REPORT

86 years old male who had operated with transurethral resection 2 years ago because of benign prostatic hyperplasia and last 1 months increased complaints of urinary frequency, nocturia, and significant difficulties initiating a stream, was admitted to our hospital. On our physical examination, the general condition was presented normal and digital rectal exam ++ soft consistency adenoma. Other system examinations were also normal. There was microscopic hematuria in urine test. In the urinary ultrasonography 2 pieces of neoplasms, each one approximately 10x10 mm size with irregular margins and papillosolid formation was reported posterior wall of the bladder. In this situation cystoscopy was done to our patient. During cystoscopy, on the posterior wall of the bladder 2 pieces of neoplasms were detected. Each one was approximately 10x10 mm size with irregular margins and papillosolid formation. Also a pathological area, suggesting carcinoma in situ, was observed in a hyperemic, erythematous area of approximately 20x20 mm. Transurethral resection was performed to these tumoral formations. Pathological examination of the transurethral resection material was reported squamous epithelial metaplasia, mild to moderate dysplasia and glandular metaplastic changes (Brunn islands, cystitis cistica). Due to the findings chronic cystitis was diagnosed and also no evidence of invasive malignancy.

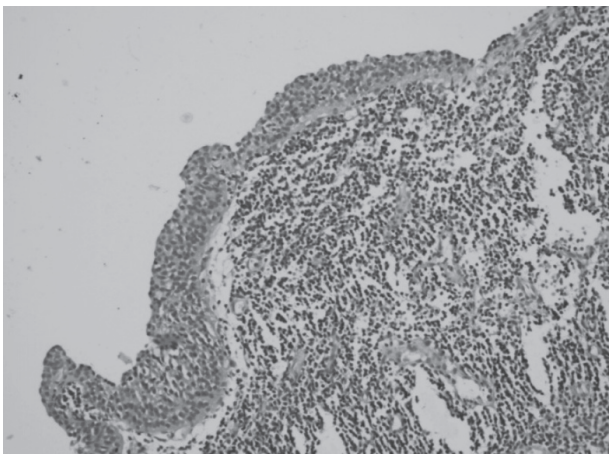

Figure 1: Atypical lymphoid cells under transitional surface epithelium (H&E X200)

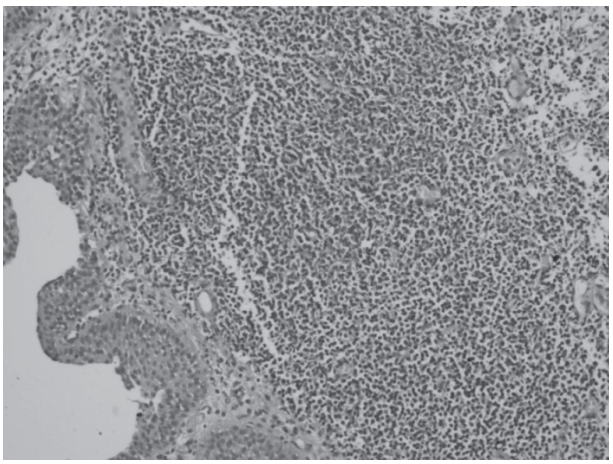

Figure 2: Atypical lymphoid cells under transitional surface epithelium (H&E X400)

In the post-operative 3rd month cystoscopy the resection scars which are right around the orifice and the posterior wall of bladder were viewed. And also erythematous mucosa suggested that precancerous lesions which are on the posterior of trigon were viewed. From this area 10 mm lesion resected for biopsy and pathological examination. After that these lesions were fulgurated. Immunohistochemical evaluation of pathological material showed CD20 (+), CD3 (+) and diffuse CD5 (+) staining and small cell lymphocytic lymphoma can not be ruled out. Pathological speci-

men was consulted again. The immunohistochemical expression of CD20 (+) and bcl (+) were showed and after that extranodal marginal zone lymphoma of mucosa-associated lymphoid tissue (MALT lymphoma) was diagnosed (Figure 1 and 2).

The patient's serum levels of urea, creatinine and electrolytes were normal, as was her peripheral blood test. In addition, at computed tomography of the chest and abdomen, multiple number of lymphadenopathies (bilateral cervical region the largest one 15x 8 mm, para-aortic area the largest one 13x12 mm and bilateral inguinal region 15x12 mm) were observed. Then, the whole body PET-CT (Positron Emission Tomography) scan study (to determine this lymphadenomegalies nature and other involvement areas) viewed hypermetabolic bilateral hilar, interlobar, and lobar regions and abdomen, celiac, paraaortic, retrocaval, mesenteric nodes but FDG (fluorodeoxyglucose) uptake was not showed. Then the patient was consulted with radiation oncology and 4 cycles of radiotherapy with a total of 30 Gy were applied. No recurrence was observed in the routine control cystoscopies performed in the following 2 years. Patient died of heart attack after 2 years.

DISCUSSION

Bladder carcinoma is the most common tumor of the urinary system. When it comes to the overall incidence of cancer, it ranks 7th among males and 17th among females (3). More than 90 % of malignant bladder cancers are transitional cell tumors. Non-transitional tumors of the bladder account for 5-7 % of all bladder tumors; 3 % squamous cell carcinoma, 2 % adenocarcinoma, 1 % indifferentiated carcinoma and, more rarely, small cell carcinomas and lymphoma (1). Although the bladder is secondarily involved in 10–20% of terminal non-Hodgkin's lymphoma cases, primary lymphomas of the bladder are very uncommon and represent less than 1% of vesical tumors and less than 0.2 % of extranodal lymphomas (4,5). The most common sites of primary extranodal malignant lymphoma are the stomach, connective tissues and skin (6).

If a high-grade lymphoma of the bladder is diagnosed by pathological examination, systemic lymphoma should be excluded via clinical and radiographic examinations, including CT of the abdomen and chest. In our case radiological and pathological examinations of our patient caused the diagnosis of primary bladder lymphoma.

Primary lymphoma of the urinary bladder is very rare, with MALT lymphoma being the most common type lymphomas (7). The first case report of MALT lymphoma of the urinary bladder was described by Kuhara et al. in 1990 (5). The etiology of primary lymphoma of the bladder has not been elucidated, partly because of the rarity of the condition. While a study indicates that history of chronic cystitis was reported in 20% of cases and it usually affects female patients (8) in another study it was reported that 2/3 of these tumours which was thought to be originated from chronic inflamation was developed in chronic cystisis background (9). As stated in literature; cystisis cystica was also determined in first pathology in our case and at the 3. month pathology transformation to MALT lymphoma was monitored. There is no naturally occurring lymphoid tissue in the bladder, so one explanation for MALT pathogenesis at this site is that repetitive recurrent infection results in the accumulation of extranodal lymphoid tissue that can eventually undergo malignant alteration (10). The most effective therapeutic procedure for primary MALT lymphoma of the urinary bladder is still debated. Increasing evidence indicates that eradication of Helicobacter pylori with antibiotics can be effectively used as the sole initial treatment for gastric MALT (11). Localized gastric MALT lymphoma was previously treated mainly by surgery and radiotherapy (12). Unfortunately, no specific treatment has been identified for non-gastric location of MALT lymphoma. The treatment of non-gastric MALT consists of radiotherapy if the disease is localized, or chemotherapy if disseminated (13).

As stated in literature chemotherapy was planned for our patient but because of paitent's age and comorbidities kemotherapy was cancelled and local radiotherapy applied after transurethral resection. It is reported that primary bladder lymphoma starts in the trigone zone of bladder and diffuse wall involvement

ratio is %3. İt is also reported Non-hodgkin lymphma (NHL) is originated from submucosal lymph follicules of bladder and the most common type of NHL is diffuse big cell lymphoma (14). In the study of Simpson et al. determined primary lymphoma of bladder only 2 of 68 NHL patient and reported disuria and hematuria are the most common sympthoms (15). Bates et al evaluated 11 patients who has bladder lymphoma.6 of them was primary bladder lymphoma. They reported that 3 of 6 primary baldder lymphoma patients were MALt(mucosa associated lymphoid tissue) and the other 3 were diffuse bigB cell lymphoma (4). In the study of Al-Magrabi et al 4 primary bladder lymphoma patient were evaluated, all of four were older than 60 and had history of cronic cystisis. Patients were treated with only radiotherapy and reported that all of four patient had complete remission 2 year to 13 year follow up (16). In our case; patient was diagnosed marginal zone lymphoma pathologically after transurethral resection procedure and used PET-CT to determine possible other involvement regions and designate the nature of lymph node seen in the PET-CT (FDG-PET) scan using florodeoksiglucose is highly beneficial to diagnose and treatment of several malignancies including lymphomas. Hodgkin lymphomas and agressive non-Hodgkin lymphomas(tipically diffuse B cell lymphoma) usually usually show high FDG uptake. It is reported that FDG-PET is more sensitive in B cell lymphomas as seen this case. (17). Apropriate doses of radiotherapy treatment has perfect results on prognosis of localised malt lymphomas(18). As mentioned in the several studies; in this case report we also have implemented radiotherapy treatment in the patient and as a result of 1 month therapy disease has become clinically remitted.

As a result; primary lymphoma of bladder is very rare comparing to other urethelial bladder cancers and and it is more common specially in women and older ages. It is neccesary to examine sistematically to distinguish from seconder lymphomas which has bladder involvement for the diagnose of primary lymophoma of bladder. Most common symptom is disuria and also hematuria as seen in the other types of bladder cancers. There is no consensus regarding the treatment of primary lymphoma of the bladder, owing to the lack of large patient series. Well responded to chemotherapy and radiotherapy. It differrantiates from other types of rethial bladder tumours by fully remission rates and very good prognosis.

Ethical Approval

Not applicable.

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Conflicts of Interest

None declared. The authors have no financial, consultative, institutional, and other relationships that might lead to bias or conflict of interest.

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