Primary Urethelial Carcinoma of the Prostate Mimicking Benign Prostate Hyperplasia (BPH); A Rare Case Report

BPH'i Taklit Eden Prostatin Primer Üretelyal Karsinomu; Nadir Olgu Sunumu

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ABSTRACT

Primary urothelial carcinoma of the prostate is a rare disease. The definitive diagnosis of this disease is made by histological and immunohistochemical analyzes. It is difficult to diagnose because there are no disease-specific clinical symptoms or imaging features and can be confused with other urological pathologies. In this case report, we present a case of primary urothelial carcinoma of the prostate in a 74 year old male patient who applied to our clinic with symptoms of BPH.

Keywords: Prostate, urothelial carcinoma, benign prostatic hyperplasia, rare disease

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ÖZET

Prostat primer ürotelyal karsinomu nadir görülen bir hastalıktır. Bu hastalığın kesin tanısı histolojik ve immünohistokimyasal analizlerle konur. Hastalığa özgü klinik semptomlar veya görüntüleme özellikleri olmadığı için tanısı zordur ve diğer ürolojik patolojilerle karışabilir. Bu olgu sunumunda BPH semptomları ile kliniğimize başvuran 74 yaşlı erkek hastada prostatın primer üretelyal karsinom vakasını sunuyoruz.

Anahtar Sözcükler: prostat, üretelyal karsinom, benign prostat hiperplazisi, nadir hastalık

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INTRODUCTION

Primary urothelial carcinoma of the prostate is a rare malignant tumor with highly aggressive biologic behavior. Only limited data have been reported on this malignancy (1). The overall prognosis of prostate urothelial carcinoma is poor, due to the high aggressiveness and strong propensity for local recurrence and distant metastasis to organs such as the bladder, seminal vesicles, and ureters (2,3). Due to the lack of specificity, the diagnosis of prostate urothelial carcinoma is mainly based on histopathological examination and immunohistochemistry (4-6). We present the clinical features, histopathological and immunohistochemical findings and treatment results of a case of prostate urothelial carcinoma without stromal invasion in a 74 year old man who presented with lower urinary tract symptoms.

CASE REPORT

A 74-year-old male patient was admitted to our hospital for 5 years of lower urinary tract symptoms. He has a history of using silodosin 8 mg for 3 years after 5 years of tamsulosin. He is followed up in branches related to diabetes mellitus and hypertension. He has a history of coronary bypass surgery. There are no specific findings on abdominal examination. In digital rectal examination, it was evaluated as Grade 1 Benign. In the biochemical examination, kidney and liver function tests were normal. Serum prostate specific antigen and free prostate specific antigen were at normal levels. Abdominal ultrasonography revealed benign prostatic hyperplasia findings. Cystoscopy was recommended to the patient because of obstructive uroflowmetry findings. In cystoscopy, no tumoral lesion was observed in the bladder, but a papillary lesion protruding into the lumen that completely closed the bladder outlet was observed in the right lobe of the prostate (Figure 1). Bladder random biopsy and transurethral resection of the prostate procedure were applied to the patient. In histopathological evaluation; microscopically, patches of carcinoma in situ and areas of high-grade papillary urothelial carcinoma were detected in the surface epithelium of the prostate tissue. In immunohistochemical study, PSA (-) , CK7(+), CK20 (+) , P63 (+) , HMWCK (+) , CK 5/6 were stained in the surface epithelium and some glands (+) (Figure 2). Due to the absence of stromal invasion, the patient was treated with 6 cycles of intravesical Bacillus Calmette-Guérin (BCG) and a 3-month 4th control cystoscopy is followed without recurrence.

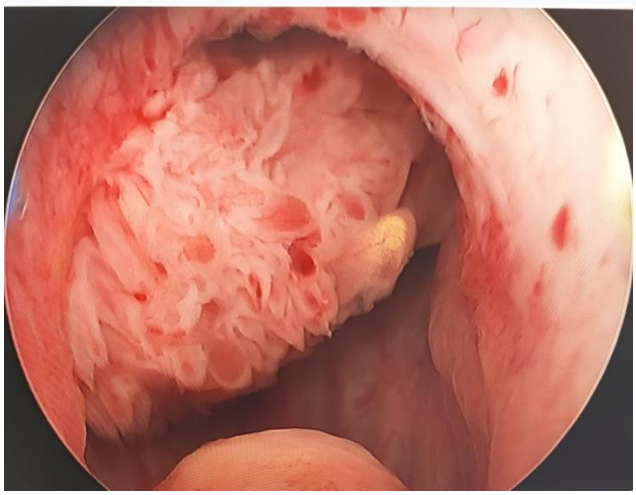

Figure 1. Surgery image

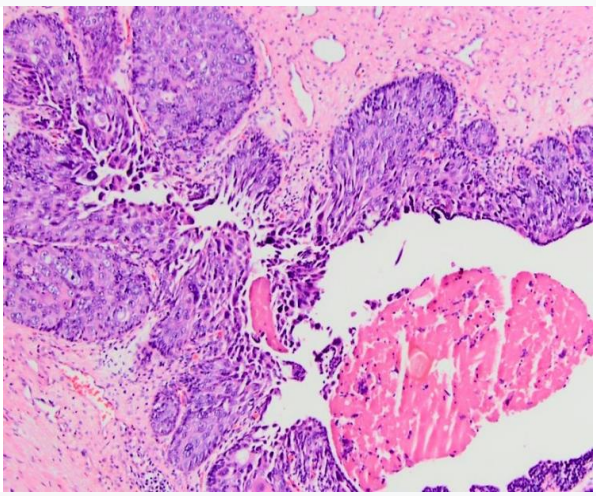

Figure 2. Postoperative prostat pathological examination (HE × 100)

DISCUSSION

Primary urothelial carcinoma of the prostate is an extremely rare tumor, first described by Ende et al. in 1963 (7). Complaints of patients with prostatic urothelial carcinoma are usually nonspecific symptoms such as lower urinary tract symptoms and hematuria (7,8).Donat et al recommend examination of the bladder along with transurethral loop biopsies of the bladder neck, trigone, and prostatic urethra, and ultrasound-guided biopsy of the prostate (9). Immunohistochemically, prostate urothelial carcinoma is frequently positive for CK7 and CK20 (8). In prostate urothelial carcinoma, PSA and P504s are usually negative and this is important in the differential diagnosis (5,13). Also, almost two-thirds of patients have P63 and HMWCK. Other markers such as GATA-3 and uroplakin III have also been detected in pathological diagnosis (6). As primary prostate transitional cell carcinoma is a very rare disease, there is no consensus regarding its treatment. Complete resection of the tumor and administration of intravesical Bacillus Calmette-Guérin (BCG) are preferred in the treatment of those without stromal invasion (10). If prostate stromal invasion is detected radical cystoprostatectomy should be performed. Adjuvant chemotherapy regimens in prostate urothelial carcinoma with stromal invasion; doxorubicin, cyclophosphamide and gemcitabine and cisplatin are recommended (10).

CONCLUSION

Prostate urothelial carcinoma can mimic lower urinary tract symptoms. The gold standard diagnostic method for prostate urothelial carcinoma is histological and immunohistochemical analysis. Involvement of different anatomical sites of the prostate (eg. mucosa, ducts, acini and stroma) affects not only the diagnosis but also the treatment of the disease. Regarding optimal treatment for mucosal involvement. Although there is controversy over the optimal treatment for mucosal involvement, intravesical BCG therapy and close follow-up are the treatment of choice if prostate stroma is not involved.

Conflict of interest
No conflict of interestwas declared by the authors

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