DOI: 10.21276/sb.2017.3.3.3

Scholars Bulletin **ISSN 2412-9771 (Print)**
(A Multidisciplinary Journal) **ISSN 2412-897X (Online)**
An Official Publication of "Scholars Middle East Publishers",
Dubai, United Arab Emirates
Website: http://scholarsbulletin.com/

Relapsed Bladder Cancer with Isolated Penıl Metastases in End-Stage Kıdney Faılure Patıent and Chemotheraphy Treatment

Erhan Bozkurt
Internal Medicine Clinic, Emirdag State Hospital, Afyonkarahisar/Türkiye

***Corresponding Author:**
Erhan Bozkurt
Email: drerhanbozkurt@gmail.com

Abstract: Penile metastasis secondary to primary bladder cancer is a rare entity and represents a challenging problem. The common mode of spread to the penis is by retrograde venous route. In this case report, we presented a case of bladder cancer which was diagnosed 14 years ago, had entered remission after surgery and chemotheraphy and which had developed postrenal kidney failure and only penile metastasis was detected after recurrence.
Keywords: Penile metastasis, bladder cancer, end stage renal failure, chemotherapy.

INTRODUCTION

Almost 70% of the penile metastases are of genitourinary system and rectosigmoid, taking the first two orders of prostate and bladder respectively. Metastases originating from lung, bone, skin and rectum are less seen. Although there are reported cases in the literature, metastatic carcinomas of the penis are rare. Generally, patients are presented with painful priapism. Penile metastasis is a sign of widespread illness and a sign of poor prognosis. In this case report, we presented a case of bladder cancer which was diagnosed 14 years ago, had entered remission after surgery and chemotheraphy and which had developed postrenal kidney failure and only penile metastasis was detected after recurrence.

CASE REPORT

A 74-year-old male patient was referred to our medical oncology polyclinic because of lassitude, lack of appetite and blood in his urine. The patient had hypertension and coronary artery disease in his background. The patient was admitted to the hospital with the same complaint 14 years ago and a bladder tumor of 40x25 mm was detected then. For this reason, transurethral resection of the bladder (TUR-M) was performed. Non invasive in muscle, grade 3, urothelial carcinoma was detected. After TUR-M BCG treatment was given. He had been in remission for 13 years in his follow-ups. A 42x24x27 mm mass was detected at the base of the bladder in a urinal ultrasonography which was performed after devloping of hematuria a year ago. Invasive to lamina propria, high grade urothelial carcinoma was diagnosed after performing of TUR-M, but the patient had not applied for the recommended treatment again. The patient who had no follow-up, applied to the hospital with Progressive nausea,vomiting and painful priapism complaints. Postrenal renal failure was detected in the emergency ultrasonography. Emergency hemodialysis was performed upon detection of mass and postrenal kidney failure, then bilateral nephrostomy catheters were inserted. Hemodialysis program was planned 3 days a week due to underlying chronic kidney failure. The patient was referred to our medical oncology clinic and there was a mass on the physical examination of the penis root.PET-CT was peformed for staging. 1,5x1,5x3,5 cm of pathologic F-18 FDG uptake associated with primary lession was detected in right sight of bladder and corpus spongiosum of penis (Figure 1).

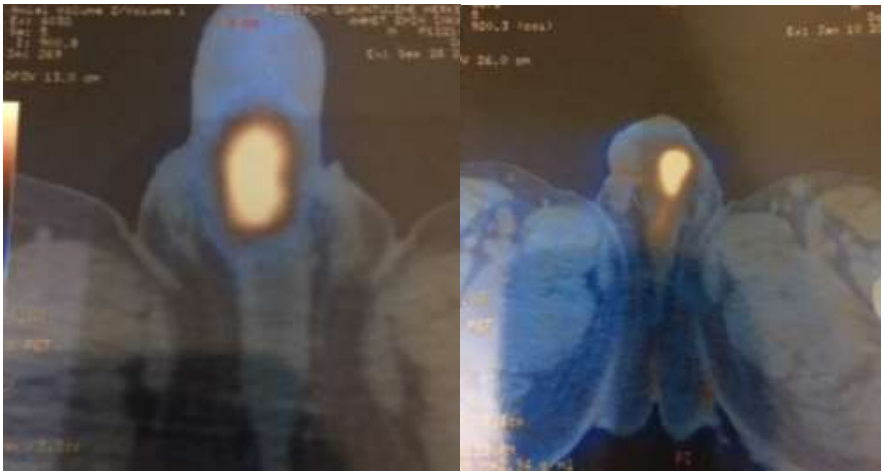

Fig-1: PET-CT images of patient

These results indicated that end-stage renal failure developed in patient because of postrenal obstruction due to recurrence of bladder cancer and delayed treatment.

Just 16 hours before hemodialysis, carboplatin AUC5 (GFR = 0) was given on the first day and gemsitabin 850mg/m2 on the first and eigth day was given to patient with only penile metastasis at the staging . Symptomatic improvement was seen after the first cure. However, after the second cure prolonged pancytopenia had developed. For this reason, the treatment was interrupted for 2 weeks. In subsequent treatment dose was reduced 15% and chemotherapy was given 6 hours before hemodialysis. At the end of 4 cures of CT, the patient underwent control PET / CT. More than 50% decrease was detected in metastasis activity and in the tumor size. Clinically, the bleeding stopped, the urine began to flow as the patient had been anuric. At this stage, the patient was consulted to radiation oncology. It was decided radiotherapy was unsuitable for the penile region and pursuance of palliative CT for treatment was sanctioned. Patient who had 6 cures of chemotherapy still has no active complaints and is continuing his dialysis program three times a week.

DISCUSSION

As fo secondary malignancy penile metastases are very rare. However, due to the vascularity of the penis and the softness of the organ, the blood flow is excessive. Although arterial blood flow is high, penile metastases are rare. Actually, this organ having an extraordinary structure of the arterial and venous system is thought to be a perfect environment for the cancer cells, the mestastases of the penis are rare [1]. Roberts reported penile metastasis in 1872 firstly [2]. Paquin described a number of mechanisms for metastases to penis [3]. However, the most widely accepted mechanisms are the metastatic hypothesis with venous, lymphatic, arterial flow, direct invasion or iatrogenic implantation, respectively [4]. Generally, 1/3 of the patients diagnosed with metastasis can be seen concurrently with the primary tumor, and for 2/3 patients metastasis can be diagnosed 18 months after initial diagnosis [5]. In our patient, penile metastasis was detected 6 months later. The clinician should be alerted when penile metastasis is seen although penile metastasis is not commonly met.Because prognosis of penil metastasis is poor and this situaition accompanies with other organ metastasis. But our case had just penile metastasis. Generally, patients present with painful priapism, penile swelling and lower urinary tract complaints. Treatment options are limited, but palliative and supportive treatment options are available. For penile localized primary tumors while extensive local excision with circumsion is sufficient, treatment is more palliative in metastatic cases like our case. Chemotherapy selection, dose adjustment and timing due to dialysis are controversial in patients with end stage renal failure.

In hemodialysis patients, dosing should be adjusted absolutely for medicines with kidney excretion. Drug clirens during dialysis should be considered in terms of chemotherapy timing. Hemodialysis removes toxic waste products that accumulate in patients while at the same time cleansing drugs from circulation. When chemotherapy is planned for a cancer patient, it is possible to prevent the loss of the effect of the drug by applying the chemotherapeutics after hemodialysis. For drugs that are not removed significiantly, administration can be done before or after dialysis. In fact, hemodialysis of the patient after a certain period of chemotherapy is an effective method because it can reduce side effects in partially excreted drugs [7-9].

In our case, we did not see any side effects when chemotherapy was given 6 hours before hemodialysis. However, when the time between chemotherapy and dialysis is around 24 hours, we have seen grade 4 thrombocytopenia and anemia. As a result penis metastasis of the bladder is rare, but it is a poor

prognostic feature because it does not allow curative treatment like amputation. Our case was characterized by isolated penile metastasis as well as accompanying end-stage renal failure causing difficulty for treatment. In patients with end-stage renal failure, chemotherapy should not be avoided and treatment may be given 6 to 12 hours before hemodialysis. If this time is even longer, the frequency of side effects may increase.

REFERENCES

1. Eberth, C. J. (1870). Krebsmetastasen des corpus cavernosum penis. *Virchows Archiv*, *51*(1), 145-146.
2. Roberts, W., & Maguire, R. (1885). *A Practical Treatise on Urinary and Renal Diseases: Including Urinary Deposits*. Lea.
3. Paquin, A. J., & Roland, S. I. (1956). Secondary carcinoma of the penis. A review of the literature and a report of nine new cases. *Cancer*, *9*(3), 626-632.
4. Abeshouse, B. S., & Abeshouse, G. A. (1961). Metastatic tumors of the penis: a review of the literature and a report of two cases. *The Journal of urology*, *86*, 99-112.
5. Pomara, G., Pastina, I., Simone, M., Casale, P., Marchetti, G., & Francesca, F. (2004). Penile metastasis from primary transitional cell carcinoma of the renal pelvis: first manifestation of systemic spread. *BMC cancer*, *4*(1), 90.
6. Rowland, M., & Tozer, T. N. (1995). *Clinical pharmacokinetics: concepts and applications* (Vol. 3). Baltimore: Williams & Wilkins.
7. Reetze-Bonorden, P., Böhler, J., & Keller, E. (1993). Drug dosage in patients during continuous renal replacement therapy. *Clinical pharmacokinetics*, *24*(5), 362-379.
8. Reetze-Bonorden, P., Böhler, J., & Keller, E. (1993). Drug dosage in patients during continuous renal replacement therapy. *Clinical pharmacokinetics*, *24*(5), 362-379.
9. Launay-Vacher, V., Izzedine, H., Baumelou, A., & Deray, G. (2005). FHD: an index to evaluate drug elimination by hemodialysis. *American journal of nephrology*, *25*(4), 342-351.