COEXISTING TRANSITIONAL CELL CARCINOMA AND LEIOMYOSARCOMA IN THE URINARY BLADDER: A CASE REPORT

Çetin Yeşilli* † Bülent Akduman* † Ilker Seçkiner*
Gamze Numanoğlu** † N. Aydin Mungan***

SUMMARY
Smooth muscle neoplasms of the urinary bladder are rare, and the majority of them are leiomyosarcomas followed by leiomyomas of conventional histopathological type. Simultaneous occurrence of transitional cell carcinoma and sarcoma as two separate primary tumors in the bladder is very rare. A new case of coexisting leiomyosarcoma and transitional cell carcinoma of the urinary bladder is presented.

Key Words: Transitional Cell Carcinoma, Multiple Primary Tumors, Composite Tumor, Leiomyosarcoma.

ÖZET
Karsinom-leiomyosarkom Birlülalletli 1

Anahtar Kelimeler: Transisyonel Hücreli Karsinom, Multiple Primer Tümörler, Leiomyosarkom.

Smooth muscle neoplasms of the urinary bladder are rare, and the majority of them are leiomyosarcomas followed by leiomyomas of conventional histopathological type. Simultaneous occurrence of transitional cell carcinoma and sarcoma as two separate primary tumors in the bladder is very rare. A new case of coexisting leiomyosarcoma and transitional cell carcinoma of the urinary bladder is presented.

Case Report
A 65-year old man presented with a three-month history of painless gross hematuria, dysuria, urinary frequency and nocturia. An intravenous pyelography revealed normal upper urinary tract and a filling defect on the left lateral wall of the bladder. Pelvic computed tomography (CT) showed two solid papillary masses measuring 4x5 cm and 2x2 cm on the postero-lateral wall of the bladder. No retroperitoneal adenopathy or metastases were found. Cystoscopic examination revealed a 4x5 cm polypoid, broad-based tumor on the left-posterior wall of the bladder. In addition, a 2x2 cm smooth polypoid mass with intact surface was determined above this tumor. These tumors were resected transurethrally and intravesicle mitomycin–C was administered as a single instillation. Pathological examination revealed T1, grade 2 papillary transitional cell carcinoma and focal muscle invasive leiomyosarcoma, respectively (figure 1 and figure 2). Transitional cell carcinoma was composed of a central fibrovascular core that is covered by 8-10
number of transitional cells. They had hyperchromasia of nuclei and crowding of cells. Leiomyosarcoma was composed of spindle cells that is blunt-ended, pleomorphic and had a prominent mitotic rate (3/40xHPF). The cells grew in long directional streams or fascicle and in immunohistochemical study it was painted positive with smooth muscle actin antibody (SMA Ab1 Clone 1A4-Neomarkers) and negative with cytokeratin 8 (Keratin 8 Ab3 Clone 35βH11-Neomarkers). This component infiltrated in normal muscle tissue. Based on this pathological finding, a radical cystoprostatectomy with ileal conduit diversion and pelvic lymphadenectomy was performed. Pathological examination of the cystectomy materials showed tumor-free bladder, granulomatous inflammation of the bladder and prostate, reactive hyperplasia of the lymph nodes. He was in good health 6 months after the cystectomy.

**Discussion**

The coexistence of two or more primary urinary bladder tumors of different histologic types are very rare. To our knowledge, 7 cases of coexisting sarcoma and transitional cell carcinoma of the urinary bladder have been
reported in the literature (1-6). Of these 7 cases, the carcinomas were transitional cell carcinoma in all cases and the sarcomas were leiomyosarcoma in 6 cases and osteogenic sarcoma in 1 case. These cases differ from cases of carcinosarcoma in that the sarcomatous element and carcinomatous element do not admix (6). Karl T.K. Chen suggested that “unlike the dismal outcome of most cases of bladder carcinosarcoma the prognosis of cases with multiple primary tumors may be favorable especially if the coexisting tumors are all well differentiated” (6). Because of T1, grade 2 transitional cell carcinoma and focal muscle invasive leiomyosarcoma a radical cystectomy was performed in our case. Sarcomas of the bladder may arise in patients with a history of radiation therapy and cyclophosphamide therapy (7,8). We could not discern any aetiologic or predisposing factor. Leiomyosarcomas may sometimes be amenable to treatment with partial cystectomy, but survival results may be compromised when conservative operations are performed for large or extensive tumors (9). Alabaster et al reported urethral recurrence after excision of leiomyosarcoma of the bladder (10). Our patient is under periodic control by urethral wash cytology at 3-monthly intervals.
REFERENCES


