

Case Report / *Olgu Sunumu*

Large Bladder Tumor Radiologically Mimicking Bladder Stone

Radyolojik Olarak Mesane Taşını Taklit Eden Dev Mesane Tümörü

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Bladder cancer is the second most common urological neoplasm of the genitourinary tract, with an increasing incidence in industrialized and developed countries. Massive calcification of bladder tumors are rarely seen on plain radiographs and this appearance may be confused with bladder stones. In this report, we presented a 53-year-old man who was operated on with the diagnosis of a bladder stone seen as a large opacity in the pelvic region on plain radiograph. In exploration, two papillary tumors were found, 10 cm and 2 cm in diameter. The tumors were resected totally. On pathological examination, the tumors were diagnosed as transitional cell carcinoma.

Key Words: Calcinosis/radiography; carcinoma, transitional cell; diagnosis, differential; urinary bladder calculi/diagnosis; urinary bladder neoplasms/radiography.

Mesane kanseri genitoüriner sistemin en sık görülen ikinci neoplazisidir ve endüstriyel olarak gelişmiş ülkelerde giderek daha fazla görülmektedir. Mesane tümörlerinde yaygın kalsifikasyon oluşumu nadirdir ve bu görünüm mesane taşları ile karıştırılabilir. Bu yazıda, düz üriner sistem grafisinde pelvik bölgede görülen büyük bir opasite ile mesane taşı tanısıyla ameliyata alınan, cerrahi eksplorasyonda büyüklüğü 10 cm ve 2 cm olan iki papiller tümör saptanan 53 yaşında erkek hasta sunuldu. Tümüyle çıkarılan tümörlerin patolojik tanısı düşük dereceli geçiş hücre karsinomu olarak kondu.

Anahtar Sözcükler: Mesane tümörü, Mesane taşı, Kalsifikasyon Kalsinoz/radyografi; karsinom, geçiş hücreli; tanı, ayırıcı; mesane taşı/tanı; mesane tümörü/radyografi.

Calcification of bladder tumors are seen rarely with an incidence of 0.5-0.7% in direct X-ray graphs.^[1] Massive calcification in bladder tumors may be confused with bladder stones.^[2] In this report, we present an interesting bladder tumor case referred with large opacity in the pelvic region on plain kidney-ureter-bladder (KUB) film diagnosed as bladder stone.

CASE REPORT

A 53-year-old male farmer who smoked cigarette for 40 years and who had no family history for urinary tumor presented with haematuria without pain for four years and urinary stones for two years and difficulty in voiding. In his digital rectal examination he had prostate with normal consistency. There were many red blood cells in

his urine and his Prostate-specific antigen (PSA) value was in normal ranges. In ultrasonographic examination, a mass 9 cm in diameter with a posterior acoustic shadow was seen in the bladder (Fig. 1). In his KUB film two opacities in the pelvic region were seen (Fig. 2). The bigger one was 10 cm in diameter and was localized in the mid portion of the bony pelvis whereas the smaller one was 1.5 cm in diameter and was localized in the left portion of the bony pelvis. The patient was operated with open surgical technique with the diagnosis of bladder stone. In exploration we found two synchronized papillary tumors apart from each other which were 10 cm and 2 cm in diameter. The tumors were resected totally. In pathological examination, the tumors were diagnosed as transitional cell carcinoma (TCC) (pT₁,

low grade) (Fig. 3). After surgery, the computerized tomography showed no perivesical invasion and no metastasis in the lungs and other sites in the abdomen. Postoperatively the patient was treated with weekly intracavitary Bacillus Calmette-Guerin (BCG) for six weeks. In control cystoscopies performed in the third and sixth months of operation, there was no recurrence.

DISCUSSION

Bladder cancer is the second most common urological neoplasm of the genitourinary tract, and the incidence of which is increasing in industrialized and developed countries. Gross haematuria without pain is the most common symptom for bladder cancer. There are some reports regarding massive calcification of the bladder tumors in literature. Emmett and Witten^[3] stated that urinary salts may be deposited on almost any type of tumor. Calcification in bladder tumors was seen 0.5-0.7% in direct X-ray graphs.^[1] There were only four reported cases of calcified giant TCC.^[2,4-6] The appearance of ring calcification in bladder tumors reminds especially paraganglioma.^[7]

Braband^[8] found an incidence of calcification in bladder tumors only 0.69% in a review of 1000 cases with bladder tumors. Fang et al.^[9] found big echogenic focus in side or surface of the bladder tumor in 84 of 214 cases (39.3%) with ultrasonography (USG). Dibb et al.^[10] evaluated 130 tumoral foci of 109 patients (104 TCC, 3 ade-



Fig. 1- The ultrasonographic appearance of the bladder tumor mimicking bladder stone.



Fig. 2- The appearance of the large bladder tumor mimicking bladder stone and second calcified focus on plain film.

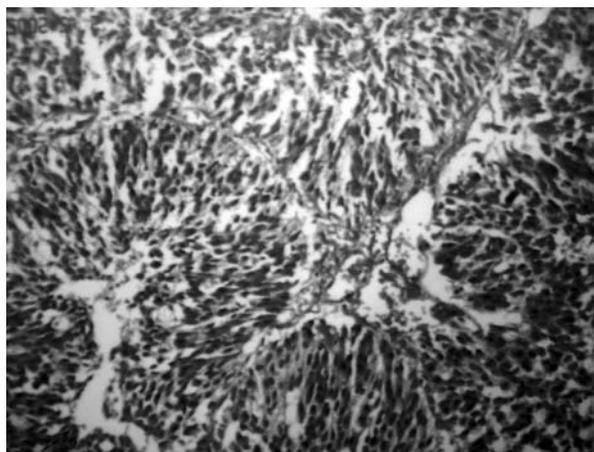


Fig. 3- The histopathologic appearance of transitional cell carcinoma of the bladder.

nocarcinoma, 1 carcinosarcoma and 1 prostatic carcinoma) and detected the calcified foci in 54 cases (41.5%). They found no statistical correlation between calcification in USG examination and histological examination of tumors. In another study, Irwin et al.^[1] detected calcification inside or at the surface of the tumor in four of 38 cases (10.5%) using computed tomography.

Massive calcification of bladder tumors are rarely seen on plain films and this appearance may be confused with bladder stones. For this reason, cystoscopic examination must be done before genitourinary surgery to distinguish the controversial calcified body from the calcified bladder tumors.

REFERENCES

1. Irwin GA, Craig R, Novotny P. CT of calcified bladder masses. *Comput Radiol* 1985;9:181-4.
2. O'Cleireachain F, Awad SA, Prentice RS. Gross calcification in bladder tumor. *Urology* 1974;3:642-3.
3. Emmett JL, Witten DM, editors. *Clinical Urography*. 4th ed. Philadelphia: W. B. Saunders Co; 1977.
4. Davidson HD, Witten DM, Culp OS. Roentgenologically demonstrable calcification in tumors of the bladder. Report of three cases. *Am J Roentgenol Radium Ther Nucl Med* 1965;95:450-4.
5. Berg RA, Chan YS. Diagnosis of bladder cancer on intravenous pyelography. Analysis of 117 cases. *Urology* 1973;1:230-5.
6. Biggers RD. Calcification of bladder tumor. *Urology* 1985;25:656.
7. Singh DV, Seth A, Gupta NP, Kumar M. Calcified nonfunctional paraganglioma of the urinary bladder mistaken as bladder calculus: a diagnostic pitfall. *BJU Int* 2000;85:1152-3.
8. Braband H. The incidence of urographic findings in tumours of the urinary bladder. *Br J Radiol* 1961;34:625-9.
9. Fang YC, Chou YH, Hsu CC, Chang T. Staging of bladder cancer by transabdominal real-time ultrasound. *Zhonghua Yi Xue Za Zhi (Taipei)* 1993;52:21-5.
10. Dibb MJ, Noble DJ, Peh WC, Lam CH, Yip KH, Li JH, et al. Ultrasonographic analysis of bladder tumors. *Clin Imaging* 2001;25:416-20.