

# SMALL CELL CARCINOMA OF URINARY BLADDER

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## ABSTRACT

Small cell carcinoma of the bladder is a rare, aggressive, poorly differentiated neuroendocrine neoplasm accounting for only 0.3-0.7% of all bladder tumors. We report a case of 48 year old male presented to urology clinic with complain of hematuria. On workup he was diagnosed as urinary bladder tumor. He was planned for transurethral resection of tumor. On histopathology and immunohistochemistry he was diagnosed as small cell carcinoma of urinary bladder.

**KEY WORDS:** Hematuria; Histopathology; Immunohistochemistry; Small cell carcinoma; Urinary bladder.

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## INTRODUCTION

Small cell carcinoma of the bladder (SCCB) is a rare, aggressive, poorly differentiated neuroendocrine neoplasm accounting for only 0.3-0.7% of all bladder tumors.<sup>1</sup> The disease was described in 1981 by Cramer.<sup>2</sup> The majority of patients are male, with a male to female ratio of 5:1, with a wide range of 1:1 to 16:1.<sup>3,4</sup> Like transitional cell carcinoma of the bladder, SCCB is often associated with history of smoking (in 65 to 79% of the cases).<sup>4,5</sup> In the western countries, Small cell carcinoma (SCC) is the 4<sup>th</sup> most common cancer in men and the 8<sup>th</sup> most common cancer in women<sup>6</sup>. Since 1981, 550 cases of SCCB have been diagnosed<sup>4</sup>

## CASE REPORT

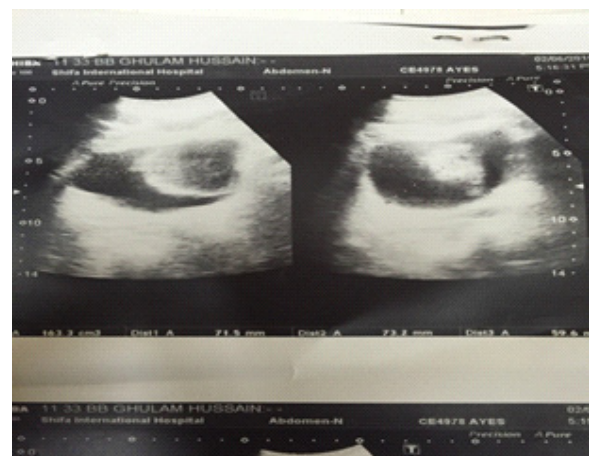
A 48 years old male patient presented (June 2015) to Urology Outpatient Department of Pakistan Institute of Medical Sciences Hospital, Islamabad, Pakistan with a complain of hematuria. On urine R/E red blood cells were numerous. Urine culture yielded no growth. Complete blood count, renal function tests, liver function tests were all in normal range. Ultrasonography showed a broad based echo mixed area of 52 mm x 49 mm x 47 mm in size, volume 64ml with internal vascularity from the left lateral wall.

Cystoscopy confirmed the above findings and the mass was resected and the tissue was sent for histopathology and immunohistochemistry. The pa-

tient was stable postoperatively and was discharged after three days. Histopathology showed small atypical cells with darkly staining, hyperchromatic and pleomorphic nuclei. The tumor cells were scattered and also forming nests. On immunohistochemistry, Ki67 was positive in tumor cells (70-80%), synaptophysin was positive in tumor cells, CD56 was positive in tumor cells and chromogranin was weak focal positive. The patient was diagnosed as small cell carcinoma of urinary bladder.

Because of the low incidence of small cell carcinoma of the urinary bladder, a second opinion was taken on histopathology and immunohistochemistry and they also confirmed SCCB of the urinary bladder. The patient was referred to Nuclear Oncology & Radiotherapy Institute (NORI) Islamabad for chemotherapy.

The patient was alive till december 2015, He was on chemotherapy, There was no recurrence/ Metastasis but since december 2015 he lost follow up.



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## DISCUSSION

SCCB is rare, and there is no standard treatment for it. SCCB tends to behave aggressively, with up to 25% of patients presenting metastatic disease and up to two-thirds developing distant recurrence. Chemotherapy plays a prominent role in the management of these tumors. In a multi-institutional review of 64 patients with a muscle invasive disease, a multivariate analysis indicated that neither chemotherapy, nor radiation, nor surgery had any impact on overall survival.<sup>7</sup> In the Mayo Clinic Study, the authors have proposed radical cystectomy for patients with locally advanced disease and adjuvant treatment for patients with stage III and VI (M0) disease.<sup>8</sup> Others authors expressed a realistic optimism and acknowledged a potential for long-term survival in patients with limited stage small cell cancer of the bladder treated with a combination of chemotherapy and sequential radiotherapy; the survival rate was 70% at 2 years and 44% at 5 years.<sup>9</sup>

The prognosis of SCCB is poor. The overall 5-year survival rate in all stages is 19% (16 to 25%).<sup>7,8</sup> The pure small cell histology was shown to have poorer outcome than the mixed small cell histology.<sup>4</sup>

## CONCLUSION

Small cell carcinoma of the bladder is a rare pathology; therefore urologist should keep small cell carcinoma of urinary bladder in the differential diagnosis of bladder tumor. They should follow the histopathological findings for proper diagnosis.

## REFERENCES

1. Trias I, Algaba F, Condom E, Español I, Seguí J, Orsola I. Small cell carcinoma of the urinary bladder. Presentation of 23 cases and review of 134 published cases. *Eur Urol* 2001;39:85-90.
2. Cramer SF, Aikawa M, Cebelin M. Neurosecretory granules in small cell invasive carcinoma of the urinary bladder. *Cancer* 1981;47(4):724-30.
3. Holmang S, Borghede G, Johansson SL. Primary small cell carcinoma of the bladder: a report of 25 cases. *J Urol* 1995;153(6):1820-2.
4. Ismaili N, Elkarak F, Heudel PE, Flechon A, Droz JP. Small cell cancer of the bladder: The Leon-Berard Cancer Centre experience. *Indian J Urol* 2008;24:494-7.
5. Lohrisch C, Murray N, Pickles T, Sullivan L. Small cell carcinoma of the bladder: Long term outcome with integrated chemoradiation. *Cancer* 1999;86(11):2346-52.
6. Haresh KP, Julka PK, Sharma DN, Rath GK, Prabhakar R, Seth A. A prospective study evaluating surgery and chemoradiation in muscle invasive bladder cancer. *J Cancer Res Ther* 2007;3:81-5.
7. Cheng L, Pan CX, Yang WJ, Lopez-Beltran A, MacLennan GT, Haiqun L. Small cell carcinoma of the urinary bladder: a clinicopathologic analysis of 64 patients. *Cancer* 2004;101:957-62.
8. Choong NW, Fernando Quevedo J, Kaur JS. Small cell carcinoma of the urinary bladder: The Mayo Clinic experience. *Cancer* 2005;103:1172-8.
9. Lohrisch C, Murray N, Pickles T. Small cell carcinoma of the bladder: long term outcome with integrated chemoradiation. *Cancer* 1999;86:2346-52.

<p>CONFLICT OF INTEREST Authors declare no conflict of interest. GRANT SUPPORT AND FINANCIAL DISCLOSURE None declared.</p>
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