

# A Rare Case of the Urinary Bladder: Small Cell Carcinoma

## Mesanede Nadir Görülen Olgı: Küçük Hücreli Karsinom

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### Abstract

Small cell carcinoma generally originates from the lungs. However, rarely, it could be observed in organs other than the lungs. Primary small cell carcinoma of the bladder is a rare and aggressive disease and it generally presents itself with metastasis. Although there has not been a consensus on the method of treatment for this rare disease, multimodal treatment is recommended. In this study, we present long-term results of transurethral resection in a patient with non-muscle-invasive primary small cell carcinoma who refused additional treatments.

**Keywords:** Small cell carcinoma, Bladder tumor, Multimodal treatment

### Öz

Küçük hücreli kanser çoğunlukla akciğer orijinlidir. Fakat nadiren akciğer dışı organlarda da görülebilir. Mesanenin primer küçük hücreli karsinomu nadir görülen ve çoğunlukla metastazlarla seyreden agresif bir hastalıktır. Nadir görülmeleri nedeni ile tedavisinde fikir birliği sağlanmamış olsa da multimodal tedavi önerilmektedir. Bu çalışmada ek tedavileri kabul etmeyen, kas invaziv olmayan primer küçük hücreli mesane kanserli bir olgunun sadece transüretral rezeksiyon sonrası uzun dönem sonuçları sunulmuştur.

**Anahtar Kelimeler:** Küçük hücreli kanser, Mesane tümörü, Multimodal tedavi

### Introduction

Small cell carcinoma of the bladder is a very rare tumor accounting for less than 1% of all bladder cancers (1). It is much aggressive than the commonly seen types of cancers of the bladder and urothelial carcinoma and is associated with poor prognosis. Clinically, it has similarities with urothelial carcinoma. Patients with small cell carcinoma of the bladder typically present with macroscopic hematuria and rarely with signs of bladder irritation. Additionally, rarely, there may be signs of abdominal pain and urinary system obstruction. Although there has not been a consensus on the treatment because of its rarity, multidisciplinary approach, including radical cystectomy (RC), chemotherapy and radiation therapy, is recommended to increase the chance of cure and life expectancy.

### Case Presentation

This study was retrospective and patient approval was obtained. An 86-year-old female patient presented to our clinic with a

bladder mass which was detected incidentally. Ultrasonography showed a 14x9 mm hyperechoic, vascularized solid lesion in the right lateral wall protruding into the lumen. Complete transurethral resection of bladder tumor (TURBT) was performed. Pathologic examination revealed lamina propria-invasive small cell carcinoma which was not invading the muscularis propria (Figures 1, 2). Thoracoabdominal computed tomography showed primary bladder small cell carcinoma with no lung pathology. Although there was muscle tissue in the specimen in pathologic examination, restaging-TUR was performed in order to do better staging after four weeks and no tumor formation was recognized in the pathologic examination. Additional treatment options, such as RC and radiotherapy were recommended to the patient by giving information on the aggressiveness of the disease, however, the patient did not accept any treatment. In the four-year follow-up of the patient who came to controls irregularly, no pathologic findings were detected in the control cystoscopies and systemic evaluations.

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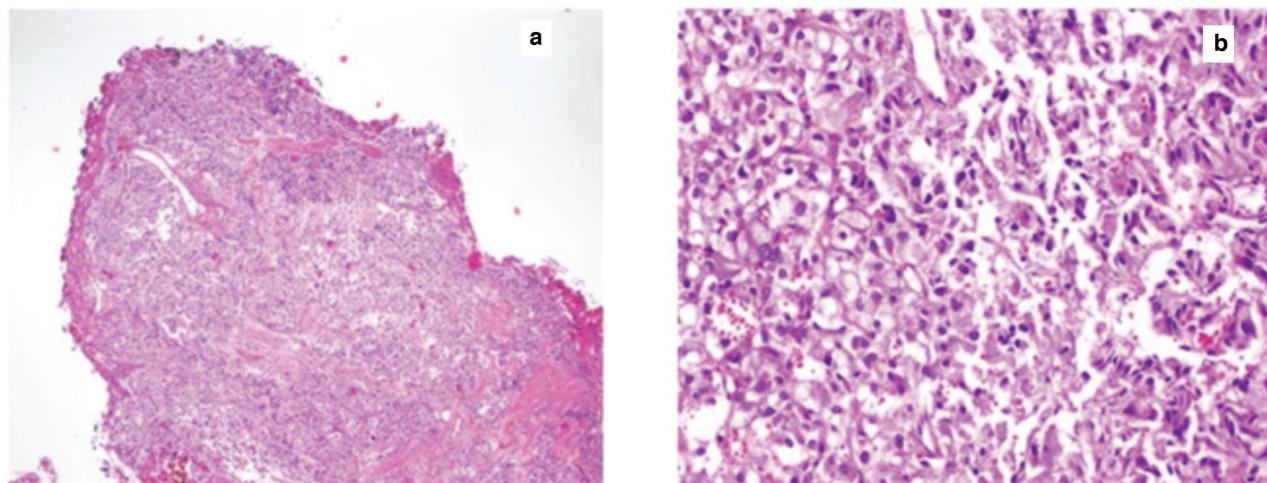
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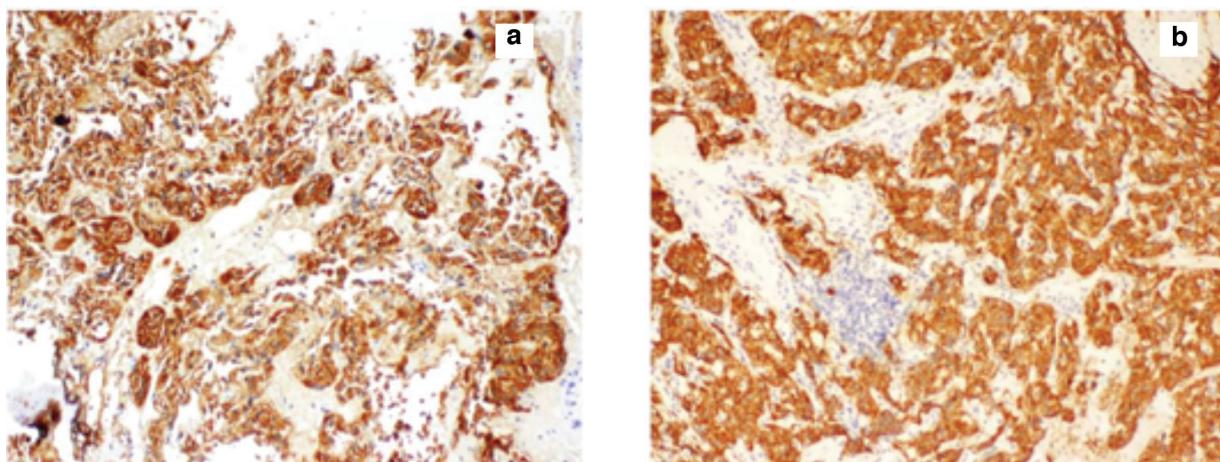
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**Figure 1.** a) Small cell carcinoma of urinary bladder; tumor is composed of sheets and nests of atypical small cells (hematoxylin and eosin, 40x), b) Higher magnification of tumor cells with scant cytoplasm and hyperchromatic nucleus (hematoxylin and eosin, 200x)



**Figure 2.** a) Immunostaining for synaptophysin is diffusely positive (100x), b) Immunostaining for chromogranin A is diffusely positive (100x)

## Discussion

Small cell carcinoma of the bladder was first defined by Cramer et al. (2) in 1981. The ratio between male and female patients is 5/1 and it is seen commonly in the 6<sup>th</sup> decade of life (3). Pathologic diagnosis can generally be established via TURBT or immunohistochemical analysis of RC samples (4). Preoperative urine cytology may be useful for diagnosis, however this method has a low specificity (5).

It is much aggressive than the commonly seen urothelial carcinomas of the bladder and has poor prognosis. Nearly 40% of patients with small cell carcinoma present at an advanced stage (6). In one study, it has been reported that 66% of patients had lymph node metastasis detected during RC (3). Our case belongs to the rare group of patients with non-muscle invasive disease followed up with re-TUR evaluation. The explanation for the absence of the expected aggressive features can be made based on this situation.

There is no standard treatment for small cell carcinoma of the bladder. Local treatment options are TURBT, RC and radiation therapy as for urothelial carcinoma. High recurrence and poor survival rates have been reported for the disease which cannot be controlled with only TURBT (7). According to the experiences of Mayo Clinic, if there is not any metastasis, RC should be performed for patients with bladder small cell carcinoma. Systemic chemotherapy should be planned for patients with metastasis. Chemotherapy following RC is not indicated for patients with stage 2 disease but is considered for those with stage 3 and 4 disease (8). Neoadjuvant chemotherapy and RC combination as multimodal therapy has been reported to provide longer survival when compared with RC alone (9). On the other hand, Cheng et al. (3) have reported that there was no difference in 5-year survival between patients treated with RC and those who received no treatment.

In some selected patients with localized low-stage bladder small cell carcinoma, TURBT, radiotherapy and partial cystectomy can

be performed. RC is thought to be the best method to totally remove the mass, however, it only improves survival in patients with localized tumor (10).

As a result, since it is an aggressive disease and is rarely seen, there is no standard treatment approach to the management of small cell carcinoma of the bladder. It is seen that in muscle invasive disease, there must be RC and in metastatic disease, multimodal treatment is required in the light of recent studies. However, in rare situations like our case, non-muscle-invasive disease may occur. There have not been many studies in the literature regarding non-muscle-invasive bladder small cell carcinoma. We believe that our study will be useful in the topic. However, it is obvious that large-scale studies are needed.

### Ethics

**Informed Consent:** Consent form was filled out by participant.

**Peer-review:** Externally peer-reviewed.

### Authorship Contributions

**Surgical and Medical Practices:** E.K., A.D., **Concept:** E.K., Design: E.K., **Data Collection or Processing:** E.K., E.Y.A., **Analysis or Interpretation:** A.D., **Literature Search:** E.K., **Writing:** E.K.

**Conflict of Interest:** No conflict of interest was declared by the authors

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