

Squamous Cell Carcinoma of the Bladder: Two Case Report

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Abstract

Case Report

Squamous cell carcinoma (SCC) of the bladder is a rare variant of bladder cancer, accounting for less than 5% of cases. Its occurrence shows a balanced distribution across sexes, although it tends to affect the Black population disproportionately. Clinical presentation is often nonspecific, with hematuria being the predominant symptom. Diagnosis relies on endoscopic resection of the bladder followed by histopathological examination. Due to its rarity, treatment approaches remain a subject of debate. However, radical cystectomy with extensive lymph node dissection is typically favored. In this study, we present a series comprising 2 cases of squamous cell carcinoma. Our objective is to shed light on the epidemiological, clinical, histopathological, and therapeutic aspects associated with squamous cell carcinoma of the bladder. The two cases presented in this study highlight the importance of accurate diagnosis and classification of squamous cell carcinoma of the bladder for optimal treatment planning and patient outcomes.

Keywords: Bladder Cancer, Squamous Cell Carcinoma, Urothelial Carcinoma, Diagnosis, Treatment Approach, Prognosis.

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INTRODUCTION

Squamous cell carcinoma of the bladder is a rare type of cancer that accounts for only 4% of all bladder cancers. It is characterized by the presence of squamous cells in the bladder lining, which are normally not found in this area. Primary squamous cell carcinoma of the urinary bladder is a rare histological variant of epithelial bladder tumors. It is essential to identify the exact type of urothelial carcinoma on microscopy as histopathological types are associated with significant disease outcomes. Proper diagnosis and classification of the tumor type are crucial for determining the most effective treatment approach and predicting the patient's prognosis. Performing a detailed histopathological examination is necessary to accurately identify the specific type of urothelial carcinoma present in the bladder tissue. This will enable the healthcare team to tailor the treatment plan to best address the individual characteristics of the tumor and provide the most appropriate care for the patient.

METHODS AND MATERIALS

This study entails a detailed examination of medical records spanning a period of one year, focusing on two cases of squamous cell carcinoma (SCC) of the bladder. These cases were diagnosed, treated, and

followed up at Ibn Rochd Hospital in Casablanca. Both patients under review were men, with an average age of 66 years. It's noteworthy that both patients had a history of chronic smoking, a finding present in 100% of cases within this study. This highlights the potential link between chronic smoking and the development of squamous cell carcinoma of the bladder. Such observations underscore the significance of lifestyle factors in the onset and progression of this disease

RESULTS

Patient Characteristics:

Both patients were males, with an average age of 66 years. Importantly, a history of chronic smoking was noted in both cases, presenting in 100% of instances.

Clinical Presentation:

The primary presenting symptom in both patients was total hematuria, accompanied by a decline in general condition, marked by symptoms such as asthenia, adynamia, anorexia, and weight loss, all observed in 100% of cases. Clinical examinations revealed hypogastric tenderness in one patient, while the other presented with a palpable hypogastric mass.

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Complementary Examinations:

RADIOLOGY:

Thoracic-Abdominopelvic CT Scans: were performed for both patients, revealing advanced-stage tumors classified as cT4.

Transurethral Resection of The Bladder: Both patients underwent transurethral resection of the bladder.

Histopathological Examination: Histopathological analysis confirmed the definitive diagnosis of squamous cell carcinoma of the bladder in both patients (**Figure 1**).

Neoadjuvant Chemotherapy: Both patients received four cycles of cisplatin-gemcitabine chemotherapy as part of their treatment regimen.

Total Cystectomy (Figure 2), Associated with Bilateral Ilioobturator Lymph Node:

Total cystectomy, accompanied by bilateral ilioobturator lymph node dissection, was performed in both patients. Subsequently, urinary diversion was achieved using a cutaneous ureterostomy.

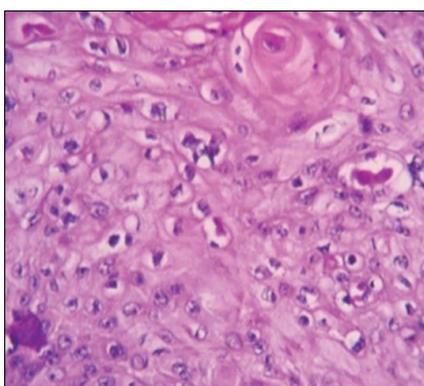


Figure 1: Histological aspect of epidermoid carcinoma



Figure 2: Cystectomy piece with tumor removed

DISCUSSION

Squamous cell carcinoma is a relatively rare tumor in Western countries, comprising only 2% to 5% of bladder cancers, with urothelial carcinoma being the most common. However, its prevalence is significantly higher in regions such as the Middle East, Southeast Asia, and South America, where there is a high incidence of schistosomiasis, also known as Bilharzia, reaching frequencies of 20% to 30%. The development mechanism of squamous cell carcinoma was initially proposed by Mostofi, who identified a three-stage process involving bladder epithelial response to environmental factors and irritants: cell proliferation, metaplasia, and neoplasia, accompanied by cell progression and mutation.

Clinical presentation of squamous cell carcinoma primarily revolves around hematuria (Blood in urine) and urinary symptoms such as frequent urination during the day or night (pollakiuria), urinary burning, pelvic pain, and lower back pain, often indicating tumor extension. A definitive diagnosis typically relies on histopathological examination of bladder tissue obtained through transurethral resection of the bladder (TURB), with confirmation of squamous cell nature through the presence of keratinizing differentiation and/or intercellular bridges. The preferred treatment for squamous cell carcinoma involves radical cystectomy (removal of the bladder) combined with pelvic lymph node dissection and urinary diversion, offering better disease control and survival rates compared to partial cystectomy. Total cystectomy is considered the only curative option, although it carries a high risk of local recurrence, particularly due to its lesser efficacy compared to treatments for urothelial tumors [2-4]. Neoadjuvant chemotherapy is generally not recommended, with cystectomy being the primary treatment approach if the tumor is resectable. However, in cases of cT4 tumors or those not amenable to complete resection, neoadjuvant platinum-based chemotherapy may be considered, followed by locoregional treatments tailored to the therapeutic response. Adjuvant chemotherapy is not commonly recommended due to uncertain efficacy [6]. Squamous cell carcinoma tends to progress locally, with metastatic spread being relatively rare compared to transitional cell tumors, occurring in only 8% to 13% of cases [3]. Despite advancements in treatment, the prognosis for squamous cell carcinoma remains poor, largely due to delayed diagnosis. In squamous cell carcinoma cases, it's common for diagnosis to occur at an extravesical stage, with roughly 76% to 100% of patients showing signs of invasion into nearby structures like the prostate or urethra. Prognostic factors primarily revolve around tumor stage and grade. Ghoneim's findings revealed significant differences in 5-year survival rates, with pT1 and pT2 tumors showing rates of 54.3% and 43% respectively, while pT3a and pT3b tumors exhibited rates of 33.5% and 30% [4, 5].

CONCLUSION

The rare nature of squamous cell carcinoma of the bladder necessitates ongoing research and collaborative efforts to improve our understanding of its pathogenesis and to establish evidence-based treatment guidelines. The cases presented in this study contribute to the growing body of knowledge on this rare form of bladder cancer and provide valuable insights for future clinical management and research endeavors. <the clinical presentation, etiology, and treatment of squamous cell carcinoma of the bladder remain areas of active investigation> (Taşkıran & Baba, 2022)

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