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Carcino-sarcoma of the urinary bladder with cartilaginous differentiation: About a case report

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ABSTRACT

Carcinosarcoma of the bladder is a very rare and aggressive tumor with poor prognosis. We report a case of a 61 year-old-male who presented a terminal hematuria. Ultrasounds revealed a mass at the dome and the right of urinary bladder. A transurethral resection of the bladder tumor was performed. A pathological examination revealed a pT1 hight grade carciono-sarcoma of the urinary bladder with cartilaginous differentiation. Cystoprostatectomy with Bricker diversion and lymph node dissection were performed. The pathological examination of the surgical specimen revealed no residual tumor lesion.

Introduction

Carcinosarcoma is a high-stage tumor at diagnosis and has a poor prognosis. No reference treatment may be proposed, although some long-term survival has been observed with total cystectomy, sometimes associated with external radiotherapy. These tumors are rare, accounting for about 0.3% of bladder tumors. We aimed to remind the clinical, histological and therapeutic features of this rare tumor.

Case report

A 61-year-old man had a history of chronic smoking. He reported a hematuria 2 months ago. His physical examination was normal. Ultrasonography and chest and abdominopelvic computed tomography (CT) scan revealed a urinary bladder tumor of 4 × 5 cm over the dome and right wall with normal upper tract (Fig. 1). Cystoscopic exploration revealed a solid lesion in the right wall and the dome with a large base. The patient underwent a complete and deep transurethral resection of the bladder tumor. The histological examination of the tumor shows a biphasic tumor profiling made of a urothelial carcinomatous component arranged in small masses and in spans. Tumor cells exhibit marked anaplasia criteria. The sarcomatous component is made of fusiform cells with highly atypical hyperchromatic nuclei (Fig. 2). Foci of cartilaginous differentiation are observed within this proliferation. The muscularis is not invaded. Immunohistochemical examination demonstrated the presence of keratin, cytokeratin and epithelial membrane antigen in both carcinomatous and sarcomatous elements. A chest and abdominopelvic computed tomography (CT) scan, with intravenous administration of contrast medium (CT) did not show pelvic lymphadenopathy or secondary location. A radical surgery was then decided without neoadjuvant therapy. Cystoprostatectomy with Bricker diversion and lymph node dissection were performed. The postoperative course was uneventful. The pathological examination of the surgical specimen revealed no residual tumor lesion and non-invaded lymph nodes (T0 N0). After 80 months of clinical, radiological and endoscopic check-up, there was no functional complaint or any sign of reoccurrence.

Discussion

Sarcomatoid carcinoma is a stage-elevated tumor at diagnosis and has a poor prognosis. It was in 1856 that the first case of bladder tumor with cartilaginous component was described by Ordonez.[1] The histological features of carcinosarcomas of the bladder is variable, macroscopically, they can be nodular, large or polypoid. The most common sarcomatous elements are chondrosarcoma, leiomyosarcoma, and malignant fibrous histiocytoma. In our case the sarcomatous element was containing elements of cartilage. The etiology of this tumor is not yet clearly defined but history of previous radiotherapy or chemotherapy could be responsible.[2] These tumors are more common in men than women, with a ratio of 4:1.[3] The preferential localization of these tumors in the bladder was the lateral wall of the bladder[2] as in our case. Bladder carcinosarcoma is an aggressive tumor and there is no consensus

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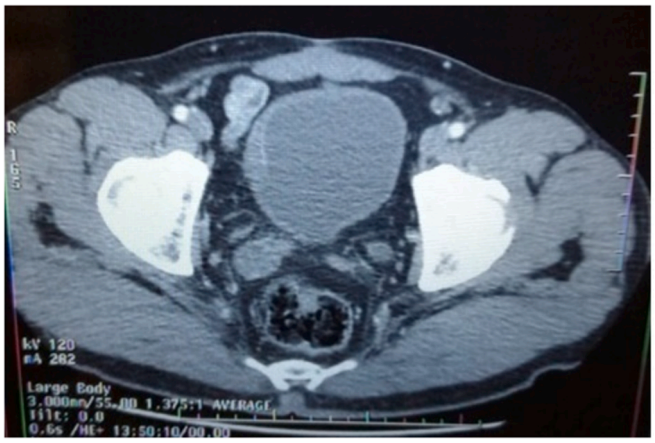

Fig. 1. Computed tomography revealing a urinary bladder tumor of 40 × 45 mm over the dome and right wall.

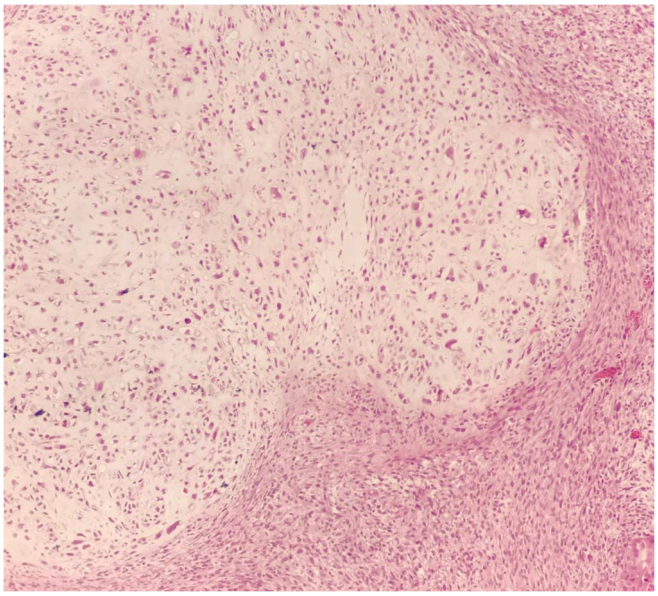

Fig. 2. Microscopic overview of the malignant urothelial tumor with epithelial and sarcomatoid components (H-E, × 5).

about its treatment. Several treatments have been proposed but it turns out that a multimodal treatment seems necessary.[4] Transurethral resection and partial cystectomy carry the risk of incomplete tumor resection.[2] Si Sen, in 1985, reported a favorable prognosis at one year with radical cystectomy (86% survival without recurrence), the Lopez-Beltran series showed that the prognosis of all these tumors was dark regardless of the treatment, a 5-year survival about 20%.[5] Neo-adjuvant/adjuvant radiochemotherapy has been used in many cases, and there were complete responses after neoadjuvant treatment.[5] No reference treatment can be proposed, although some long-term survival has been observed with radical cystectomy, sometimes associated with radiotherapy.[5] In a retrospective study which analyzed 221 cases, the overall 5-year cancer-specific survival rate after radical cystectomy was 20.3%. The 1-, 5-, and 10-year survival rates for carcinosarcoma of the urinary bladder were 53.9%, 28.4%, and 25.8%, respectively.[2] In present case, patient has survived 80 months without reccurence.

Conclusion

Sarcomatoid carcinoma is a high-stage tumor at diagnosis and has a poor prognosis. No reference treatment may be proposed, although some long-term survival has been observed with total cystectomy, sometimes associated with external radiotherapy.

Declaration of competing interest

The authors declare that there are no conflicts of interest regarding the publication of this article.

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