



Oncology

## Bladder colloid carcinoma: A case report

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## ARTICLE INFO

## Keywords:

Colloid  
Bladder  
Cancer  
Carcinoma

## ABSTRACT

Non-urothelial bladder cancers are rare. We report the case of a 72-year-old who consulted for terminal hematuria evolving for three months. Computed Tomography scan showed a tumor of the anterior wall of the bladder. The patient underwent a transurethral resection of the bladder tumor. The histological examination of the tumor showed a bladder colloid carcinoma. The extension evaluation showed pulmonary and bone metastases. The patient received chemotherapy.

## 1. Introduction

Bladder cancer is the most frequent urologic cancer in Tunisia and is the second in the world after prostatic cancer. Urothelial cancer is the most frequent type of bladder tumors. Non-urothelial bladder cancers are rare and only represent 5% of all genitourinary tract tumors.<sup>1</sup> Non-urothelial tumors affecting the bladder have generally an epithelial origin including: squamous cell carcinoma, adenocarcinoma, small cell carcinoma and undifferentiated carcinoma.<sup>2</sup> Non-urothelial bladder cancers have a poor prognosis and need a specific treatment and follow up.

## 2. Case presentation

A 72-year-old patient, diabetic, hypertensive, smoker, who consulted for terminal hematuria evolving for three months. There was no notion of professional exposure to aromatic amines or pelvic irradiation. He was haemodynamically stable. Physical examination was normal and no abdominal masses were palpable. The rectal examination was unremarkable. The hemoglobin level was 12.3 g/dl, and the creatinine level was 9.6 mg/L. The urine culture was negative. Prostate-specific-antigen level was at 2.3 ng/mL. Computed Tomography scan showed a tumor of the anterior wall of the bladder with the invasion of the perivesical fat (Fig. 1). Cystoscopic exploration revealed a solid lesion in the anterior wall with a large base. The bladder neck was endoscopically normal. The patient underwent a complete and deep transurethral resection of the bladder tumor. The histological examination of the tumor showed a

marked mucus production from the tumor, also noteworthy because mucous nodule formation occurs in more than 80% of tumor, the muscularis is invaded (Fig. 2). As part of the extension work-up, a Computed Tomography scan showed a pulmonary metastasis (Fig. 3) and multiple lytic bone lesions. The plasma level of carcinoembryonic antigen (CEA) was 0.9 ng/mL. Colonoscopy did not show any suspicious lesions. After a decision of multidisciplinary consultation meeting and discussion, the patient received carboplatin-based chemotherapy. After six months, the patient died with multi-visceral failure.

## 3. Discussion

Cases of adenocarcinomas of the bladder represent only 0.5–2% of all primary malignant bladder tumors.<sup>2</sup> The sex ratio is 2.7 men to one woman.<sup>2</sup> The risk factors are chronic *S. haematobium* infection, endometriosis, bladder enlargement and bladder exstrophy.<sup>2</sup> Adenocarcinomas are the third most frequent histological type of bladder tumors following urothelial carcinoma and squamous cell carcinoma. Primary bladder carcinomas always result from a glandular metaplasia of the urothelium caused by a chronic bladder irritation.<sup>3</sup> The dome of the bladder and the posterior wall are the two preferential sites of development of adenocarcinomas.<sup>3</sup> The primary colloid mucinous adenocarcinoma of the bladder also named signet-ring cell adenocarcinoma was firstly described in 1955 by Saphir.<sup>4</sup> It is a rare histologic type representing only 0.12–0.6% of all bladder cancers.<sup>5</sup> It is histologically defined by small, dissociated mucin-filled cytoplasmic vacuoles. For the differential diagnoses, we must eliminate a high-grade urothelial tumor,

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<https://doi.org/10.1016/j.eucr.2023.102415>

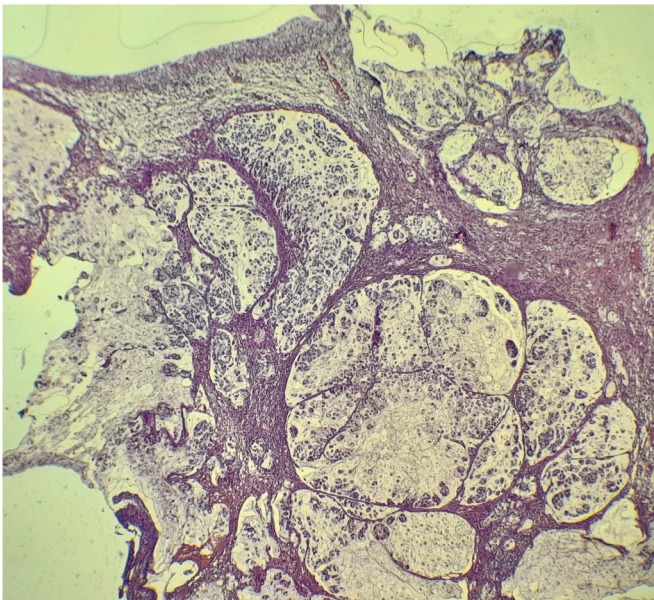
Received 6 March 2023; Received in revised form 15 April 2023; Accepted 30 April 2023

Available online 1 May 2023

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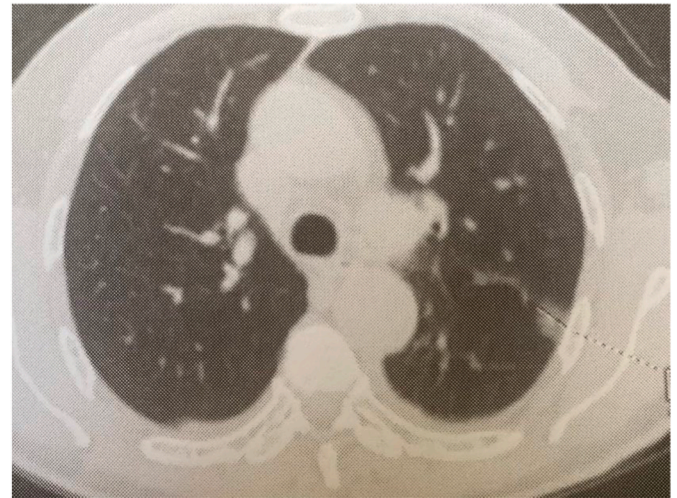


**Fig. 1.** Computed Tomography scan showed a tumor of the anterior wall of the bladder with the invasion of the perivesical fat.



**Fig. 2.** The pathologic examination of the biopsy specimen showed abundant extracellular mucin with clusters of tumour cells floating in mucin lakes (hematoxylin-eosin x10).

a metastasis or an urachal carcinoma by proceeding with gynecologic,



**Fig. 3.** Computed Tomography scan showed a suspicious 14 mm lung nodule suggesting a metastatic location (arrow).

gastroenterological and anatomopathological examinations. It is the most aggressive type of adenocarcinomas, with a poor prognosis always discovered in an infiltrative or a metastatic form,<sup>2</sup> and commonly resistant to chemo and radiotherapy.<sup>5</sup> Because of its rarity there are no clear recommendations for the treatment of signet-ring cell adenocarcinoma of the bladder,<sup>5</sup> some publications suggested the partial cystectomy others suggested chemotherapy based on 5-fluorouracile (5-FU) but the results were not conclusive. The radical cystectomy with pelvic lymphnodes dissection can be proposed in the non-metastatic forms.

#### 4. Conclusion

Non-urothelial bladder cancers particularly adenocarcinomas are rare but very aggressive with a poor prognosis studies should give more interest to this type of tumors so that clear recommendations for treatment and follow up can be established.

#### Declaration of competing interest

The authors declare that they have no competing interests.

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