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Primary Mucinous Adenocarcinoma of the Urinary Bladder: About One Case and Literature Review.

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ARTICLE INFO	ABSTRACT
Article history:	The bladder Adenocarcinoma is an extremely rare urological entity. We report the case of
Received: 11 August 2017;	an 80 year old patient. The Cystoscopic exploration found a solid tumor located at the
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7 September 2017;	study showed the presence of an adenocarcinoma with glandular architecture. The
Accepted: 18 September 2017;	immunohistochemical study showed a positive labeling of the tumor cells by the anti CK
	20, with an absence of nuclear labeling of β -catenin, thus confirming the primitive
Keywords	bladder character of the mucinous Adenocarcinoma.Due to the localized appearance of
Mucinous,	the tumor an anterior pelvectomy with drainage type cutaneous ureterostomy was
Adenocarcinoma.	performed.

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Mucinous, Adenocarcinoma, Bladder, β-catenin.

Introduction

The bladder adenocarcinoma represent less than 2 % of all bladder cancers.

Primary mucinous adenocarcinoma of the bladder expands from a glandular metaplasia of the bladder urothelium, which may be the result of chronic infection. It is more frequent in men, and is often developed at the dome and the anterior surface.

Patient and Observation:

We report the case of an 80 year old patient, with no medical or toxic history, presenting for 1 year a terminal haematuria, associated pollakiuria, pelvic pain and alteration of general state without digestive disorder or metrorrhagia. The clinical examination did not find palpable abdominal mass. The lumbar pits were free. Pelvic touch was normal. The bladder ultrasound resumed an irregular, vascularized, budding tissue process, dependent on the dome and extended to the right side wall measuring 3.2 x 2.2 cm.

The Cystoscopic exploration found a solid tumor located at the anterior side, the rest of the bladder mucosa was featureless.

The anatomopathological study showed the presence of an adenocarcinoma with glandular architecture. It consists of glands bordered by a cylindrical epithelium with an apical secretory vacuole. Large mucosal colloid inflection zones are associated with approximately 80% (Figure 1, 2).

The immunohistochemical study showed a positive labeling of the tumor cells by the anti CK 20, with an absence of nuclear labeling of β -catenin, thus confirming the primitive bladder character of the mucinous adenocarcinoma.

Rectosigmoidoscopy and pelvic abdominal CT (Fig. 3) in search of a primary tumor with a rectocolic or ovarian localization was normal.

Due to the localized appearance of the tumor an anterior pelvectomy with drainage type cutaneous ureterostomy was performed. The surgical sequences were simple (FIG. 4)



Figure 1. Adenocarcinoma of glandular architecture consisting of glands bordered by a cylindrical epithelium with an apical secretory vacuole.



Figure 2. Carcinomatous proliferation, made of irregular tubes within acellular mucus puddles.



Figure 3. Abdominal scan showing a wall thickening of the anterior wall.

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Figure 4. Operative part of the anterior pelvectomy.

The control scan performed 6 months after the operation did not demonstrate local recurrence or metastasis. **Discussion :**

The adenocarcinoma of the bladder can have 3 origins:

- Metaplasia favored by a state of chronic infection

- Vestigial with anatomical and therapeutic considerations particular to the urachus

- Metastatic or by invasion of contiguity.

Whatever its origin, there are four different histological types but with a phenotype resembling to the colonic tumors: intestinal-the most frequent-, mucinous, with clear cells and hepatoide.

In the literature there are only a few reported cases of mucinous adenocarcinoma most commonly in Asian countries [2] some cases of metastatic form in the uterus, abdominal wall ovary or penis [3] have also been postponed.

Mucinous adenocarcinoma has been described as a longterm complication of enterocystoplasty, trans-ileal derivation Bricker type, bladder exstrophy or bilharzia [4]. Areas of glandular cystitis or intestinal metaplasia are then observed. This type of tumor has also been described in renal transplantation [5].

For several authors, the pathogenesis of mucinous adenocarcinoma is related to chronic irritation and / or infection, which contribute to the development of metaplasia and then adenocarcinoma [6]. This hypothesis may be an explanation for the high incidence of adenocarcinoma in populations exposed to bilharziasis or who have benefited from urinary diversion. Clinical signs are similar to other types of adenocarcinoma including hematuria which occurs in 90% of cases.

Our patient also reported intermittent terminal hematuria. Other signs are found at lower frequencies such as dysuria, nocturia and painful bladder syndrome. Cystoscopy revealed in 2/3 of the cases a papillary or polypoid tumor of similar appearance to the urothelial carcinoma and in 1/3 of the cases a simple whitish mucosa with some bullous zones. [7]. Urinary cytology and the search for mucosuria are positive in only about 20% of cases. [7].

The majority of mucinous adenocarcinomas secrete mucus but its urinary excretion (mucosuria) is infrequent [5].

Abdominal-pelvic CT is essential for evaluating the tumor extension in the bladder, the ganglionic chains and also to seek metastasis at a distance.

In all cases, a complete assessment in search of a primary digestive adenocarcinoma will be performed (high fibroscopy and colonoscopy).

Pathologically the mucinous ADK of the bladder resembles that of the colon. It is defined by the presence of mucin with plaques of carcinomatous tumor cells that float in mucin pools. Immunohistochemical analysis of resection chips is important for differentiating primary adenocarcinoma from the bladder from secondary adenocarcinoma (usually invading a colorectal tumor or prostate). Wang showed that dysregulation of β -catenin allowed for this differentiation. Indeed, its nuclear expression is positive in the colorectal tumors invading the bladder, whereas its cytoplasmic labeling is in favor of a primitive bladder origin [8].

In our case, where this distinction was not easy, histochemical immunoassay was the key examination leading to the diagnosis of primary adenocarcinoma of the bladder.

The extreme rarity of this attack explains the lack of real consensus nevertheless several therapeutic modalities are possible and join the treatment of primitive adenocarcinomas in general :

• trans urethral resection of the bladder : The survival at 5 years was low: 19% for Kramer in 1979 and 33% for Malek in 1983 [9].

• Partial cystectomy: Few cases reported, mediocre result [10].

• External radiotherapy: This tumor is considered radioresistant and 5-year survival was less than 20% in patients treated with radiotherapy alone.

• Systemic chemotherapy: 5-fluorouracil-based А chemotherapy (5-FU) has been proposed for all colonic adenocarcinomas in all series: Nevin treated 4 patients with intra-arterial chemotherapy: 2 complete responses were obtained with a follow-up of 30 and 40 months (no further treatment), partial response in one patient and no response in the fourth patient [10]. Logothetis treated 8 patients with a T4 tumor by intravenous and / or intra-arterial chemotherapy of 5-FU or in combination: a single complete response was obtained with an 11-month survival. These results show the value of 5-FU-based chemotherapy for the treatment of primary bladder adenocarcinoma, but its association with other treatments, particularly total cystectomy, has not been evaluated.

• Total cystectomy:

In the absence of extra-vesical extension, it is the most widely used treatment with 5-year survival rates, ranging from 0 to 80%, with an average value of 35% in all pathological stages.

- The El-Makresh series, in 1998, showed 185 outbreaks that prognostic factors of survival were the same as for epithelial tumors, namely pT, pN, and grade.

In our case and before the localized aspect of the tumor an anterior pelvectomy with drainage type cutaneous ureterostomy was performed. The operative sequences were simple.

Conclusion:

The primary mucinous adenocarcinomas of the bladder are of very pejorative prognosis. The mucinous primary adenocarcinoma creates a diagnostic dilemma, as it can not be easily differentiated from an adenocarcinoma of digestive origin.

Several therapeutic modalities are possible due to the lack of consensus but radical surgery is the most used treatment.

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