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Mucinous adenocarcinoma of the urinary bladder

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Summary

Background:

Mucinous adenocarcinoma of the urinary bladder is a rare primary urologic disease, poorly responsive to radiation or chemotherapy as first-line treatment.

Case Report:

After trans-urethral resection of the bladder, a 62-year-old woman was diagnosed with mucinous adenocarcinoma of the urinary bladder. An upper gastro-intestinal endoscopy and a colonoscopy excluded any primary site of origin from those gastro-intestinal tracts. After whole-body CT staging scans, an anterior pelvectomy was performed, confirming a mucinous adenocarcinoma of the bladder, with no extra-vesical spreading. Some onco markers were sampled before surgery, and Ca 19-9 showed very high values, with a decreasing trend after pelvectomy. Six month after surgery, bilateral inguinal lymph node dissection was performed because of bilateral palpable masses – histologic examination showed a single metastatic node. The patient also received external radiotherapy of the inguinal area. Twenty-eight months after pelvectomy, the patient appears healthy.

Conclusions:

Early radical surgery with or without adjuvant radio-chemo-therapy appears to be the best option for mucinous adenocarcinoma of the bladder, and a good outcome is likely to be related with a confined disease and small tumor size. In addition, Ca 19-9 sampling proves to be useful in tumors that produce markers.

key words:

mucinous • adenocarcinoma • bladder • Ca 19-9

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BACKGROUND

Primary mucinous adenocarcinoma of the bladder is a rare uro-oncologic disease with an aggressive behaviour, poorly responsive to radiation or chemotherapy, as first-line treatment [1].

Bladder adenocarcinoma, with or without mucinous differentiation, most often arises at the base or dome, eventually with urachal remnants [2,3]. The classification itself, between primary vesical and urachal, is debated [4].

CASE REPORT

A 62-year-old woman was referred to our urologic unit with a history of chronic urinary retention and urodynamic findings suggesting severe detrusor underactivity, managed by intermittent self-catheterization.

She underwent cystoscopy and voiding cystourethrography, showing no remarkable pathology.

Two years later she came back to our unit for macrohematuria. The external inspection and digital rectal examination showed no remarkable findings, while an accurate examination by vaginal palpation revealed the presence of an irregular, hard swelling lesion of the urethra.

An ultrasound scan showed a neoformation of the bladder neck.

We performed a transurethral resection of a bladder tumor; histological examination demonstrated mucinous adenocarcinoma involving the proximal urethra and the bladder neck with muscle invasion (Figure 1).

Some tumor markers were sampled, with normal values for CEA, Ca 15-3 and Ca 125, while Ca 19-9 greatly exceeded the range (512 U/mL, range 0–37 U/mL).

Esophago-gastro-duodenoscopy and a colonoscopy excluded any primary disease related to those gastrointestinal tracts.

Staging total body CT scans showed no extravesical spreading, thus, according to the literature [1], and after an oncology consultation, an anterior pelvicotomy with extended lymphadenectomy and a Bricker's ileal conduit urinary diversion was proposed and then performed.

The histological assessment confirmed a mucinous adenocarcinoma (Figure 2) and demonstrated no extravesical or nodal spread.

Grossly, neoplasia appeared as a fungating mass ulcerating the mucosa and invading the bladder wall. The surface of the tumor was covered with gelatinous, slimy, thick material.

Microscopically, we could observe true glandular differentiation with sheets of clear, marked pleomorphism and mitotic activity. There was invasion of the muscle and the glandular component was mucin-secreting, similar to colorectal adenocarcinoma.

Two months after surgery, Ca 19-9 decreased to 32.5 U/mL.

Figure 1. Histopathological aspect of urethra and bladder (4×).

Figure 2. Histopathological aspect of bladder (4×).

The patient was discharged with a program of periodic oncologic follow-up.

Six months after surgery, she was back to the department because of bilateral inguinal palpable masses.

A bilateral inguinal lymph node dissection was performed, showing a single left 2.3 cm node with metastatic features from mucinous adenocarcinoma.

The patient received adjuvant external radiotherapy by 4500 cGy delivered on the inguinal area over a period of 25 days.

Twenty-eight months after pelvicotomy, the patient appears healthy.

DISCUSSION

In the literature, there are cases of mucinous adenocarcinoma of the bladder metastasizing to the uterus, ovaries, colon and abdominal wall [5,6] and penis [7].

We found 2 reported cases of metastatic urachal adenocarcinoma in 30-year-old women [8,9] and 1 reported case of metastatic adenocarcinoma of the bladder (not urachal) in a 25-year-old female patient [4].

On the contrary, there is at least 1 report of a case of primary mucinous adenocarcinoma of the appendix with bladder metastasis [10].

There are very few reported cases of primary adenocarcinoma of the urinary tract producing tumor markers [11].

In our experience, the patient had neither organ metastasis nor local spreading of disease at the time of diagnosis, while during the follow-up just 1 inguinal node metastasis was detected. This is likely to be important in successful surgical treatment.

CONCLUSIONS

There is no general agreement about the treatment of bladder adenocarcinoma [1,12,11]. Because of its different histological types, early surgical treatment with or without adjuvant radio-chemo-therapy appears to be the best option in cases of small, organ-confined disease [1,13] with mucinous differentiation. In addition, Ca 19-9 proves to be a reliable marker of disease activity in tumors that produce markers.

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