

## Case – Late abdominal wall recurrence following open nephroureterectomy for urothelial carcinoma

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### INTRODUCTION

Upper tract urothelial carcinoma (UTUC) recurrence following open nephroureterectomy to the surgical wound is very uncommon. Herein, we describe a case with late abdominal wall recurrence, surgically removed, with no evidence of further recurrence over a short period of followup.

### CASE REPORT

A 59-year-old male presented to us initially in 2012 with gross hematuria. Cystoscopy identified a papillary bladder tumor, confirmed on resection to be Ta low-grade transitional cell carcinoma (TCC). No intravesical treatment was offered. He developed another Ta low-grade recurrence two years later, followed by no recurrence on annual surveillance.

A new attack of gross hematuria occurred in 2017. Cystoscopy identified a papillary tumor coming out from the right ureteric orifice. Ureteroscopy identified multiple areas of papillary tumors within the ureter and lower calyx. Biopsy was low-grade TCC and cytology was negative. Right open nephroureterectomy with removal of bladder cuff was done. Two incisions were done: a right supracostal retroperitoneal incision and midline extraperitoneal incision. The pathology was T2 urothelial carcinoma multifocal in the ureter and pelvicalyceal system. All margins were negative. Pelvic lymphadenectomy was done, and all lymph nodes were negative. No adjuvant treatment was provided at that time.

In October 2021, he presented with a painless abdominal wall mass. Computed tomography (CT)

showed  $3.2 \times 2.2 \times 2$  cm<sup>3</sup> mass in the right side of the abdominal wall at the right supracostal retroperitoneal incision with no other area suspicious of metastasis (Figures 1, 2). The mass was located anterior and below the level of previous scar. It was not attached to the skin.

The skin was incised over the mass and the mass was dissected and removed with the part of the involved external oblique muscle (Figure 3). Pathology confirmed urothelial carcinoma with negative margins. Adjuvant systemic chemotherapy with cisplatin and gemcitabine was started. Six months after surgery, the patient showed no new recurrence.

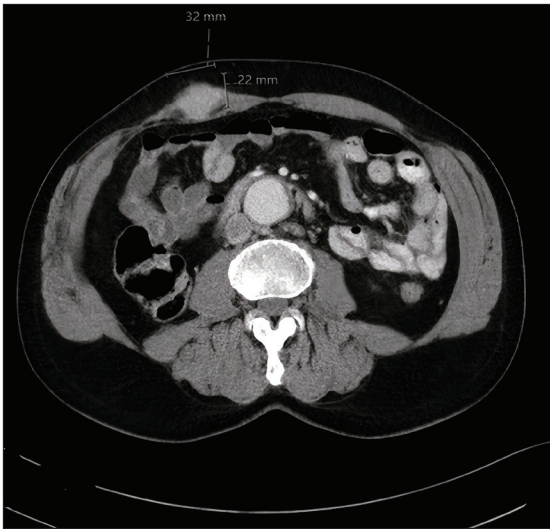
### DISCUSSION

This is a rare case of an abdominal wall metastasis to previous incision site secondary to an UTUC four years after nephroureterectomy, without any evidence for other areas of metastases.

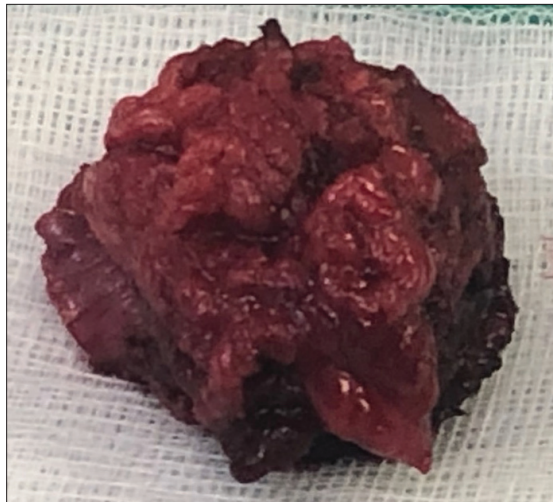
To our knowledge, this is only the third such case found in the literature. A research paper by Morselli et al was done comparing tumor seeding and recurrence rate after laparoscopic vs. open nephroureterectomy for upper tract TCC.<sup>1</sup> Based on their results, open nephroureterectomy and laparoscopic nephroureterectomy have globally similar recurrence rate and outcomes at long-term followup. However, peritoneal cancer recurrence occurred exclusively with laparoscopy, although this ut did not reach a statistical significance.<sup>1</sup>

The first case we found described a 61-year-old female that underwent a right open nephroureterectomy for urothelial carcinoma with bladder carcinoma requiring transurethral resection one year later. Eighteen months after right open nephroureterectomy, a 5 cm mass was seen on CT on the surgical wound. Surgical removal and systemic chemotherapy were used to treat. At 37 months post-abdominal wall metastasis, patient remained disease-free.<sup>2</sup>

The second case was about a 74-year-old male with Lynch syndrome, who had abdominal wall metastasis nine months following open nephroureterectomy for UTUC. Thirteen-month followup did not show any recurrence.<sup>3</sup>



**Figure 1.** Computed tomography (CT) abdomen axial image showing abdominal wall recurrence. CT abdomen image recorded the recurrent mass at the largest dimension (32 mm x 22 mm) in axial plane. The mass was located on the right side of the abdominal wall at the right supracostal retroperitoneal incision.



**Figure 3.** Surgical image showing the resected recurrent mass. The recurrent mass was dissected and removed with the part of the involved external oblique muscle. It was not attached to the skin. Pathology confirmed urothelial carcinoma with negative margins.



**Figure 2.** Computed tomography (CT) abdomen coronal image showing abdominal wall recurrence. The arrows on the CT image showed the recurrent mass in the right side of the abdominal wall at the right supracostal retroperitoneal incision with no other area suspicious of metastasis. The largest dimension was 20 mm in coronal plane.

This case is about a 70-year-old who developed an abdominal mass at the incision site four years after open nephroureterectomy. The mass was safely excised without any evidence for recurrence over six months of followup.

While still rare, based on this case, we have initiated new policies to cover the surgical wound before specimen retrieval and to do copious wash with sterile water at the end of surgery. All used gauzes are withdrawn immediately from the field to prevent contamination with tumor cells.

## CONCLUSIONS

Recurrence to the surgical wound following nephroureterectomy can develop from months to several years following surgery. Absence of other areas of metastases suggest tumor spillage. Great care is recommended at time of nephroureterectomy to prevent spillage, and policies may be needed to ensure no direct contact of the specimen and the surgical wound.

COMPETING INTERESTS: Dr. Shahrouh has received speaker honoraria from AbbVie and TerSera. The remaining authors do not report any competing personal or financial interests related to this work.

This paper has been peer-reviewed.

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