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 fifty-nine-year-old gentleman presented to us initially in 2012 with gross hematuria. Cystoscopy identified a papillary bladder tumour, confirmed on resection to be Ta low grade 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 tumour coming out from the right ureteric orifice. Ureteroscopy identified multiple areas of papillary tumours 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 of 2021, he presented with a painless abdominal wall mass. CT showed 3.2 x 2.2 x 2 cm^3 mass in the right side of the abdominal wall at the right supracostal retroperitoneal incision with no other area suspicious of metastasis. (Figures 1 and 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 showing 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.

This is the third case found in literature to our knowledge. A research paper by Morselli et al. was done comparing tumor seeding and recurrence rate after laparoscopic vs. open nephroureterectomy for upper tract transitional cell carcinoma. Based on their results, open nephroureterectomy and laparoscopic nephroureterectomy have globally similar recurrence rate and outcomes at long term follow-up. However, peritoneal cancer recurrence occurred exclusively with laparoscopy but did not reach a statistical significance. [1]

The first case we found described a 61-year-old woman that underwent a right open nephroureterectomy for urothelial carcinoma with bladder carcinoma requiring transurethral resection 1 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. [2]

The second case was about a 74-year-old man with Lynch syndrome, had abdominal wall metastasis, 9 months following open nephroureterectomy for upper tract urothelial carcinoma. Thirteen months follow up did not show any recurrence [3]

This case is about a 70-year-old that develops an abdominal mass at the incision site four years after open nephroureterectomy. The mass could be safely excised without any. Evidence for recurrence over 6 months follow up.

Based on this case, while being still rare, we were starting 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 tumour 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 tumour 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.

References

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3. Stewart MJ, Guerra GR, Sutherland TR, et al. Abdominal wall metastasis following open nephroureterectomy for upper tract urothelial carcinoma in a patient with Lynch syndrome. BMJ Case Rep. 2016 Mar 31; 2016: bcr2016214940. doi: 10.1136/bcr-2016-214940. PMID: 27033297; PMCID: PMC4840595.

Figures and Tables

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.

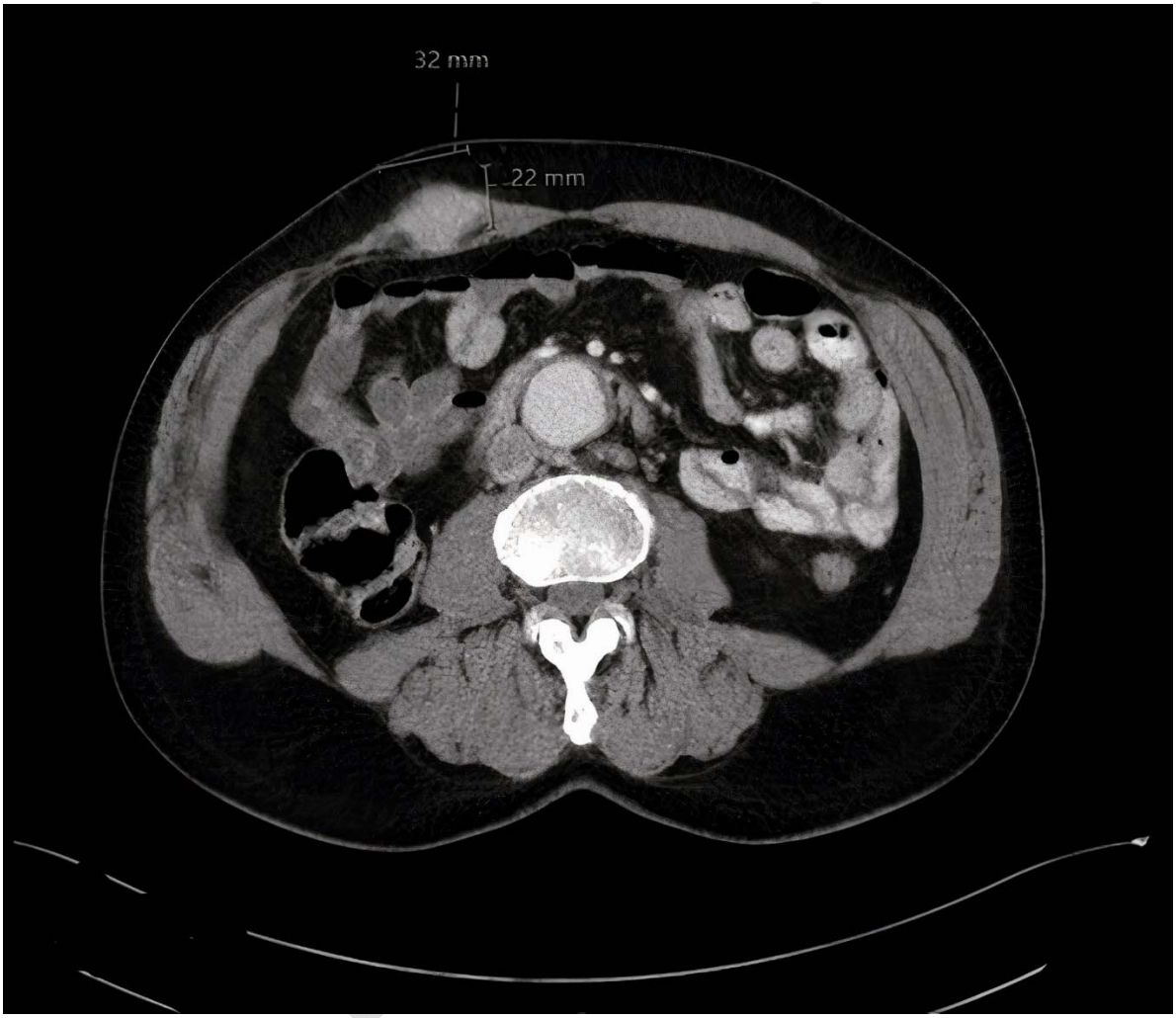

Figure 2. Computed tomography (CT) abdomen coronal image showing abdominal wall recurrence. The arrows on the CT image showed the recurrent mass in the right side of the abdominal wall at the right supracostal retroperitoneal incision with no other area suspicious of metastasis. The largest dimension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

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.