Early metastasis to anterior abdominal wall following radical cystectomy: A rare presentation

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INTRODUCTION
Urinary bladder urothelial cancer most commonly metastasizes to the liver, lungs, bones, adrenal gland, and peritoneum. Primary metastasis of urothelial cancer to abdominal wall is very rare and signifies advanced disease. Seedings of the tumor to the abdominal wall have been described during procedures such as cystectomy, needle biopsy, or inadvertent bladder perforation during endoscopic resections. Such metastases after a surgical intervention usually have a delayed presentation and most of the times signify generalized spread of the disease.

We describe this rare case of an anterior abdominal wall solitary metastasis postradical cystectomy which presented within less than a year and was rapidly progressive.

CASE REPORT
A 65-year-old male patient had undergone radical cystectomy with ileal conduit urinary diversion for muscle invasive nonmetastatic carcinoma of the bladder. Intraoperatively, there was no perivesical spread and the growth was contained within the bladder. There was no visible or gross contamination of the anterior abdominal wall. At the time of discharge, the patient was advised to visit us in case of any recurrence. However, within 8 months the patient reported to our institute with a large fungating infraumbilical mass along the ileal conduit. The patient was not taking any chemotherapy or radiation therapy at that time.

Key Words: Anterior abdominal wall, bladder, metastasis, urothelial cancer

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the operative site. Histopathology report was suggestive of high-grade invasive transitional cell carcinoma (TCC) of the urinary bladder, T2aN0M0 (Stage 2) with resected surgical margins free of tumor. Postoperative course was uneventful.

After 8 months, patient presented with a rapidly growing infraumbilical mass which had fungated through the skin [Figure 1].

Ultrasonography revealed an intensely lobulated mass measuring 10 cm × 9 cm × 6 cm arising from anterior abdominal wall muscles with few small bowel loops adherent to the mass. Magnetic resonance imaging confirmed the above findings. There was avid tracer uptake on fludeoxyglucose - positron emission tomography scan with no other metastatic lesion. We decided to go ahead with resection of the tumor along with reconstruction with the help of general surgery and plastic surgery colleagues.

Intraoperatively, the mass was densely adherent to the ileal conduit. Wide excision of the mass along with adhered bowel loops and partial excision of the ileal conduit was done. Right ureteric reimplant into the ileal conduit was performed [Figure 2]. The defect was closed with mesh and musculocutaneous thigh flap [Figure 3]. Patient’s creatinine clearance was compromised (18 ml/min) so chemotherapy was not considered. The patient recovered well postoperatively. On follow-up, the operative site was healthy with no complications [Figure 4].

The patient is under follow-up for 1 year with no postoperative morbidity.

DISCUSSION

Abdominal wall metastasis from visceral malignancies is a rare occurrence and usually considered as a sign of an advanced disease. Abdominal wall may get directly invaded from the underlying tumor or indirectly from the lymphatic and hematogenous spread. After resection of a high-grade bladder tumor, the most common cause of involvement of abdominal wall is iatrogenic implantation. Such involvement may occur

Figure 1: Metastatic lesion involving anterior abdominal wall

Figure 2: The mass resected with bowel anastomosis and ureteric reimplant done

Figure 3: Abdominal wall defect after resection of the mass has been covered with musculocutaneous flap from the right thigh

Figure 4: Follow-up image of the abdominal wall
even without visible contamination of the surgical site or perivesical spread, likely cause being microscopic seedings. Some reports mention port site metastasis after laparoscopic and robotic surgeries for TCC.\(^{[1,4]}\) In our case, the most likely cause was direct iatrogenic implantation rather than hematogenous/lymphatic spread or multicentricity, which would have taken a longer time to develop. There are only a handful of similar cases reported earlier but none with such rapid progression and early presentation postsurgery as in our case. Ku et al. presented a case of a 66-year-old woman with metastasis of TCC to the lower abdominal wall 20 years after radical cystectomy.\(^{[3]}\) Salemis et al. presented a case of cutaneous metastasis 17 months after cystectomy.\(^{[5]}\)

Due to a limited number of such cases the treatment guidelines remain poorly defined. Chemotherapy forms the mainstay of treatment with surgical resection instituted in selected cases of the recurrent and persistent disease. In a series of 31 patients with metastatic urothelial cancer undergoing metastectomy, Siefker-Radtke et al.\(^{[6]}\) reported a 5-year survival rate of 33%. The most frequent location of metastectomy was lung. Subcutaneous metastasis was seen only in one case. The authors suggested that resection of metastases if feasible may confer a survival advantage in selected patients, especially in combination with chemotherapy. However, palliative care is sometimes the only option in very advanced disease and poor general condition of the patient. In our case, the patient had chronic kidney disease (CKD) with creatinine clearance of 18 ml/min so, chemotherapy was not used as a salvage therapy or even postoperatively.

The uniqueness of the presented case comes from the fact that generally TCCs after complete resection do not present so early as secondaries to the body wall or skin. Furthermore, the secondary was rapidly progressing and very large at presentation. The CKD status of the patient deterred us from using chemotherapy. This limitation prompted us to take a surgical course in management.

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Conflicts of interest
There are no conflicts of interest.

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