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CASE REPORT

An Unusual Case Of Bladder Adenocarcinoma With Involvement Of The Upper Urinary Tract

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ABSTRACT

A 13 year young boy presented with complaints of abdominal pain and haematuria. His CT scan showed a growth in the bladder, with extension into the right ureter and pelvis. Cystoscopic biopsy was reported as papillary adenocarcinoma of urinary bladder. The patient underwent radical cystectomy, right nephroureterctomy and left ureterosigmoidostomy. He received 6 cycles of chemotherapy comprising of methotrexate, adriamycin, vinblastine and etoposide. Two years later, he presented with acute intestinal obstruction due to a growth in the ileum. Eight months later, the patient died due to metastatic disease.

Key Words: Adenocarcinoma urinary bladder, urachal, non urachal, cystectomy, upper urinary tract

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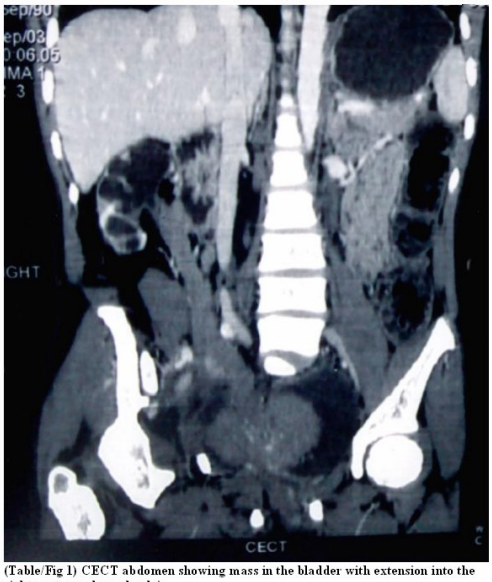
Case Report

A 13-year-old male presented with complaints of abdominal pain and haematuria for 7 months. Clinical examination was unremarkable, except for marked pallor. Investigations showed haemoglobin to be 7 g%, blood urea to be 36 mg% and serum creatinine to be 0.2mg%. Cystoscopy showed a polypoidal growth in the bladder, which on biopsy was reported as papillary adenocarcinoma. CT scan of the abdomen showed a growth in the bladder with extension into the right ureter and renal pelvis, with right hydroureteronephrosis, with no evidence of metastasis. [Table/Fig 1] There was no evidence of local spread or distant metastases. A diagnosis of adenocarcinoma of the bladder with extension into the upper urinary tract was made. On exploratory laparotomy, a large mass filling up the bladder, with extension into the right ureter and pelvis was detected. [Table/Fig 2] There was infiltration into the ileum and the second part of the duodenum. A radical cystectomy with right nephroureterectomy and left ureterosigmoidostomy was performed, with resection of the involved segment of ileum. The defect in the second part of the duodenum was closed after excision of the involved area. The patient had an uneventful post-operative recovery.

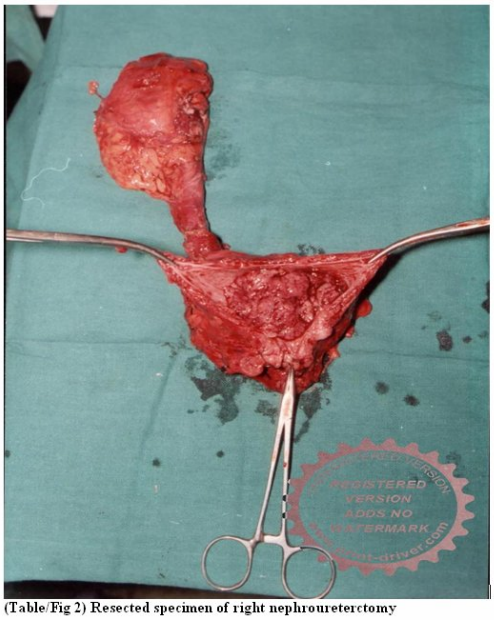
Histopathologic examination showed papillary adenocarcinoma with evidence of mucin production, limited to the superficial part of the muscularis propria. Sections from the kidney showed chronic interstitial inflammation. The case was diagnosed as papillary adenocarcinoma involving the urinary bladder, extending into the right ureter till the renal pelvis. Sections from the intestine showed serositis with fibrinous exudates only.

The patient received 6 cycles of adjuvant chemotherapy of methotrexate, vinblastine, adriamycin and etoposide. Two years later, the patient presented with acute intestinal obstruction. On exploration, a hard mass was found in the terminal ileum. Resection of the involved segment along with the

mesenteric lymph node, and end-to-end anastomosis was done. The histopathology of the specimen showed adenomatous foci predominantly on the serosal aspect of the small intestine. Mesenteric lymph nodes showed metastases. Six months later, the patient had ascites, and investigations showed mesenteric and paravertebral lymphadenopathy, ascites and lung metastases. The patient died two months later, after a total survival of 2 years and 8 months after the diagnosis of the carcinoma of bladder.



(Table/Fig 1) CECT abdomen showing mass in the bladder with extension into the right ureter and renal pelvis.



(Table/Fig 2) Resected specimen of right nephroureterctomy

Discussion

Adenocarcinomas of the urinary bladder are classified into three categories according to their site of origin[2]. Urachal tumours arise from the vault of the bladder. Primary vesicular adenocarcinomas arise de novo from the transitional epithelium that has undergone glandular metaplasia. Metastatic adenocarcinoma in the bladder is usually a direct extension from primary lesions in the colon, prostate or the female genital tract.

The mean age of presentation of adenocarcinoma of bladder is 49-56 years for urachal tumours, and 65-69 years for non urachal tumours[3],[4].Our patient is unusual in this regard, he being only 13 years old. There was no history of urinary tract malignancy in his family. On review of literature, we found only two reported cases of adenocarcinoma in young patients[5],[6].However, our patient is the youngest patient reported so far.

Involvement of the upper urinary tract (UUT)[7] in transitional cell carcinoma (TCC) of the bladder has a reported incidence of 2 to 4 %. Simultaneous involvement of the UUT in adenocarcinoma is uncommon[8]. The ideal treatment of bladder adenocarcinoma remains controversial[3],[4],[9] whereas, urachal adenocarcinomas are more often managed by partial cystectomy. Primary adenocarcinomas are more often managed by radical surgery. It remains unclear whether lymphadenectomy, chemotherapy or radiotherapy have any added benefit. Chemotherapy using cisplatin based combinations has been used, with success[10].However, we did not use cisplatin due to concern for his solitary kidney. The survival figures in patients of adenocarcinoma are poor, with reported overall survival rates being 11% to 55% for nonurachal adenocarcinomas, and 27% to 61% for urachal adenocarcinomas[3],[4],[9],[10]. Our experience with this patient suggests that besides known factors associated with poor survival such as higher stage, grade, and

surgical margins, an early age of onset may also be an indicator of poor survival.

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