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A Solitary Metachronous Bladder Metastasis after Nephron Sparing Surgery for Renal Cell Carcinoma: A Case Report

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Bladder metastasis of renal cell carcinoma is very uncommon. A solitary metachronous renal cell carcinoma metastasis to the bladder after nephron sparing surgery was incidentally diagnosed and treated with transurethral resection only. To our knowledge, this is the first report of a solitary bladder metastasis occurring after nephron sparing surgery for renal cell carcinoma (RCC) without any local or additional distant metastasis.

Case Report

A 53-year-old female patient presented with left dull flank pain, and had left renal mass. Abdominopelvic CT demonstrated a 45 x 50 mm solid mass at the lower pole of the left kidney and multiple cortical cysts in the right kidney. There were no metastatic lesions. Left nephron sparing surgery and right renal cyst excision were performed. The patient was discharged on the fourth postoperative day without any surgical problems. Microscopically large tumor cells with clear cytoplasm showing glandular differentiation in some areas, otherwise forming nests, were observed. Pathological examination revealed renal cell carcinoma of clear cell type. Twenty-seven months after the first operation a polypoid mass on the left lateral wall of the bladder was observed in abdominopelvic CT. Radiologically, the left kidney was completely normal (Figure 1). The patient had no history of hematuria or any other urological manifestations and remained asymptomatic during the follow-up period. During cystoscopy, a solitary, pedunculated, hypervascular, and spherical lesion with a rough surface was observed 5 cm superior to the left ureteral orifice on the lateral bladder wall. The lesion was resected completely. The tumor was concluded to be

metastasis from the RCC (Figure 2). The evaluation of metastatic disease with bone scintigraphy and thorax CT were all negative. The patient was free of recurrent disease after 6 months of follow-up without any additional treatment.

Renal cell carcinomas most commonly metastasize to the lung, bone, lymph node, liver, adrenal gland, and the brain. Prognosis in metastatic disease is poor and 5-year survival is only 10%. The metastatic neoplasms in the bladder are less than 2% of all bladder tumors (1).

In our patient, bladder metastasis was detected incidentally in the follow-up period without any signs or symptoms. The tumor did not invade the lamina propria and muscularis mucosa and enabled us to treat it with transurethral resection alone.

Bladder recurrence more than 2 years after nephron-sparing surgery for pT1 tumor without any symptoms suggests that, even small, renal cell carcinomas have the capability of late distant recurrences, and bladder recurrence may occur without any symptoms or signs, meaning that metastases investigation should include the bladder.

In general, the prognosis is poor and survival is less than 1 year. In the literature, treatment options vary from transurethral surgery to cystectomy (2,3). Resection of solitary metastatic lesion prolonged survival but additional therapies were usually unsatisfactory (2). Our patient underwent treated transurethral resection and fulguration, and was followed closely without any adjuvant therapy. The long-term disease outcome is unknown, as in the literature no long-term survivors are mentioned.



Figure 1. CT scan of the patient (27 months after nephron sparing surgery for renal cell carcinoma) demonstrates the operated left kidney without any local recurrence.

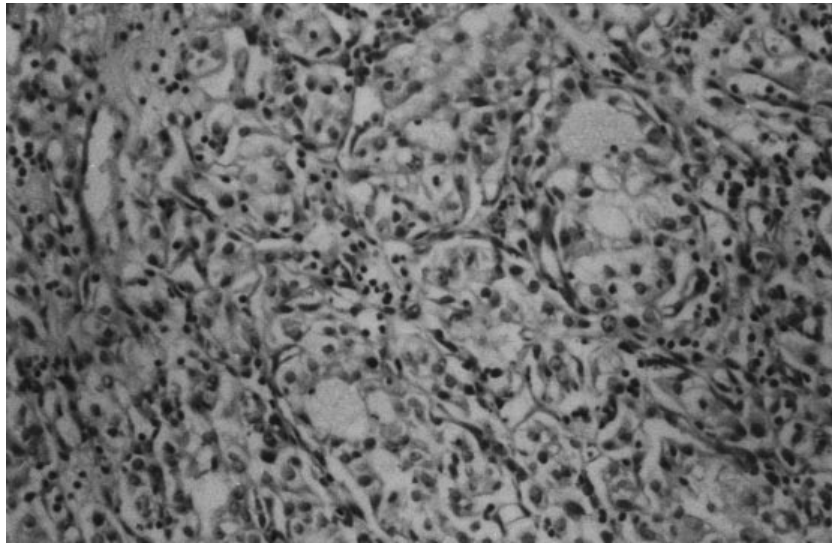


Figure 2. Metastatic renal cell carcinoma of the bladder (HE x 100).

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