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Case Study of the Month

Adjuvant Therapy with Sorafenib in Bone Metastases Bilateral Renal Carcinoma: A Case Report

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Abstract

A 69-yr-old man with bilateral and metastatic renal cell carcinoma developed progressive disease after interleukin-2 and interferon therapy. He was submitted to radical left nephrectomy, right nephron-sparing surgery, and bone metastasis removal, followed by therapy with sorafenib. At 12-mo follow-up there was a significant improvement in patient performance status and no evidence of clinical progression.

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1. Case report

1.1. Presentation and diagnosis

In January 2006, a 69-yr-old white male with bilateral and metastatic renal cell carcinoma (RCC) first presented after developing progressive disease during interleukin-2 and interferon-α therapy. ECOG performance status was 3, and bone pain and analgesic requirement score was 3.

Computed tomography (CT) scan of the abdomen and the pelvis (January 2006) demonstrated a 7.5-cm left-side renal mass and a 4.5-cm right-side renal mass (Fig. 1). Intravenous pyelogram revealed functionally excluded left kidney and normal function of the right kidney. Metastatic sites were localized only at bone level (right femur and right humerus; x-ray and CT scan, Fig. 2).

In January 2006 a surgical resection of the femoral metastasis and an arthroplasty with cemented endoprosthesis were first performed. In February 2006 we decided to submit the patient to radical left nephrectomy and right nephron-sparing surgery (Fig. 3). No intraoperative or postoperative complications developed.

1.2. Pathology

Histological examination of the left side showed a 9 × 6-cm clear cell RCC (Fuhrman grade 2), with focal

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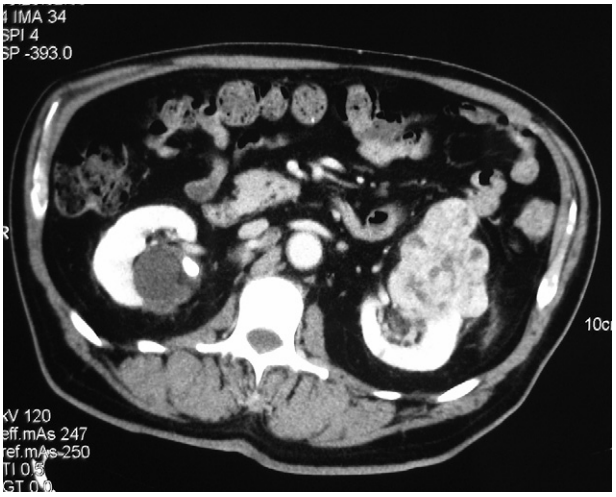

Fig. 1 – CT scan showing a 7.5-cm left-side solid renal mass and a 4.5-cm right-side solid renal mass.

infiltration of the renal capsule; no positive surgical margins; and no involvement of renal vessels, pelvis, and ureter. At the right kidney level, a 5 × 3.5-cm papillary RCC type 2 with areas of sarcomatoid differentiation was found (pT1b).

1.3. *Clinical course*

In February 2006 the patient started treatment with Nexavar (sorafenib) given orally at a dose of 400 mg daily. In April 2006 the right humerus metastasis was treated with radiotherapy. In April 2006 the patient presented a right kidney stone, which was treated with ureteral stenting and extracorporeal shock wave lithotripsy without complications.

At 6- and 12-mo follow-up (August and February 2007) a total body CT scan revealed no evidence of

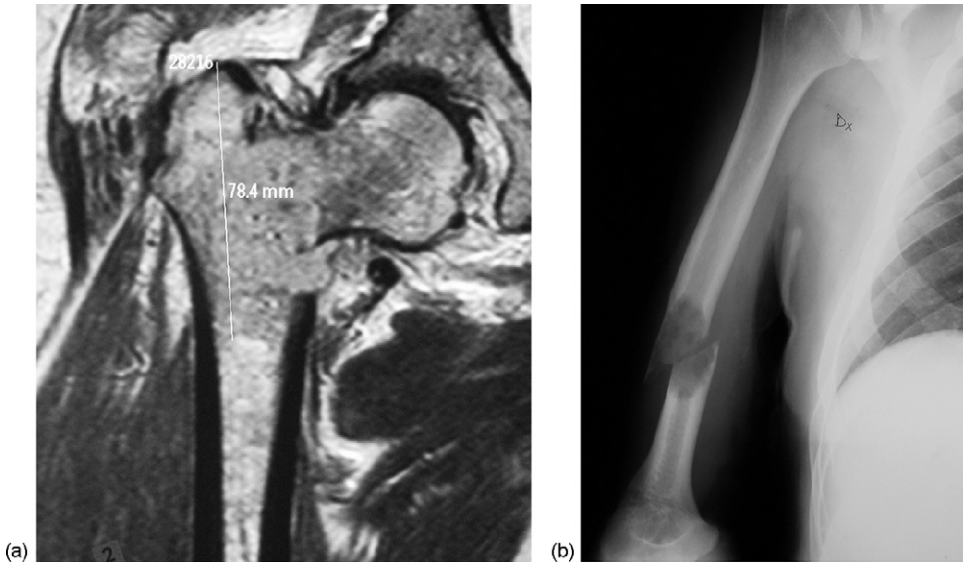

Fig. 2 – CT scan showing the right femoral metastasis (a). X-ray showing the right humeral metastasis with fracture (b).

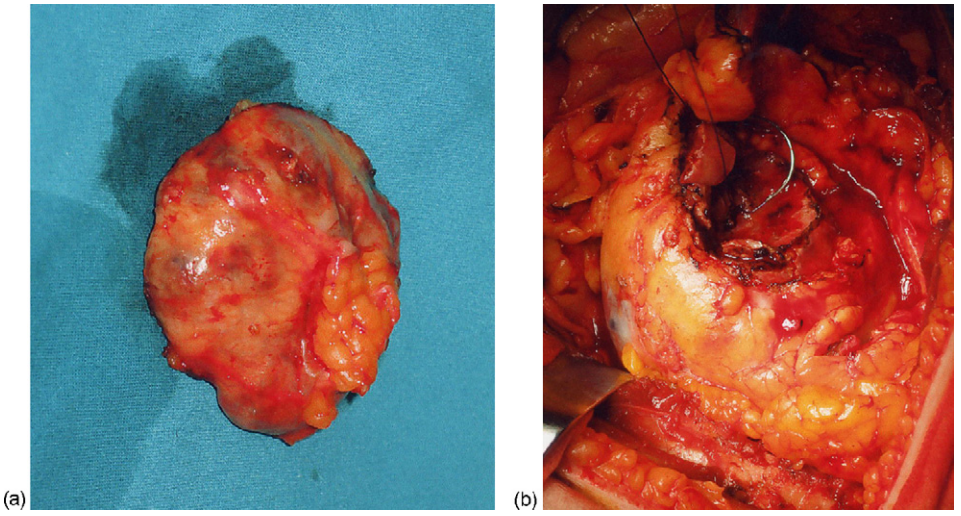

Fig. 3 – Renal mass removed at right nephron-sparing surgery (a). Residual right kidney at surgery (b).

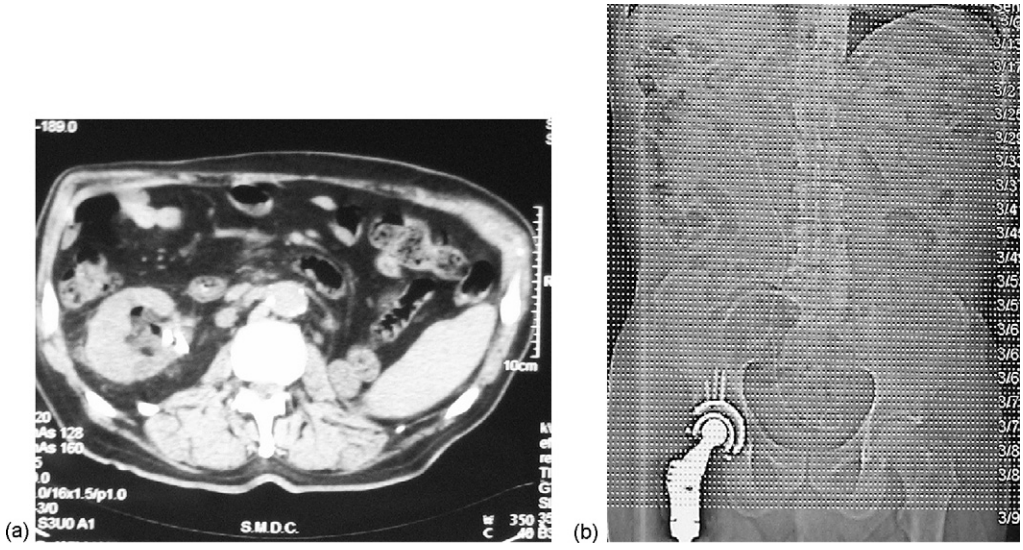

Fig. 4 – CT scan showing no evidence of local recurrence at right kidney level (a) and cemented endoprosthesis at right femoral level (b).

clinical progression (neither local recurrence at right kidney level nor other distant metastasis) and normalization at right femur level (Fig. 4). Physical examination was unremarkable. There was also a normalization in ECOG performance status (score: 1) and bone pain score (=1). Treatment with sorafenib was well tolerated without side effects. The patient is still alive, without clinical evidence of progression and with a good quality of life [1–3].

EU-ACME question

Please visit www.eu-acme.org/europeanurology to answer the below EU-ACME question on-line (the EU-ACME credits will then be attributed automatically). The answer will be given in *Case Study of the Month: Part 2*, which will be published in next month's issue of *European Urology*.

Question:

Sorafenib has been analyzed in phase III studies as a systemic therapy for metastatic renal cell carcinomas. This drug acts as:

A. an inhibitor of dendritic cells
B. immunotherapy
C. multikinase inhibitor
D. endothelin 1 inhibitor

References

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