Case Study of the Month

Treatment with Sunitinib Enabled Complete Resection of Massive Lymphadenopathy not Previously Amenable to Excision in a Patient with Renal Cell Carcinoma

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1. Case report

A 53-yr-old male presenting with flank pain and gross haematuria was diagnosed with a 15-cm left renal cell carcinoma (RCC). No tumour thrombus was evident; however, massive lymphadenopathy was observed, extending from the superior mesenteric artery to the aortic bifurcation (cN2) (Fig. 1). Bone scans and chest, abdominal, and brain computed tomography (CT) scans showed no evidence of distant metastases.

Open left radical nephrectomy and lymph node dissection was initiated. A radical nephrectomy, along with a left lymph node dissection pre-, lateral,
and posterior to the aorta, was performed. However, as expected from the preoperative CT, complete resection was judged to be unachievable owing to massive retroperitoneal disease and encasement of the great vessels and mesenteric vessels; the procedure was therefore aborted. The patient recovered from surgery uneventfully and without complications. Final pathology revealed a pT3bN2M0 clear-cell tumour with a Fuhrman grade of IV.

It was decided to treat the patient’s residual retroperitoneal disease with sunitinib malate (Sutent) administered at the standard dose of 50 mg/day in 6-wk cycles of 4 wk on treatment followed by 2 wk off treatment (schedule 4/2). Sunitinib is an oral, multi-targeted receptor tyrosine kinase inhibitor that has demonstrated efficacy for the first- and second-line treatment of metastatic RCC (mRCC) [1,2]. In a randomised phase 3 trial in 750 patients with previously untreated clear-cell mRCC [1], median progression-free survival was 11.0 mo in patients receiving sunitinib compared with 5.1 mo in those receiving interferon alfa (IFN-α) (p < 0.000001) [3].

In this patient, following two cycles of sunitinib, a 40% partial response, according to the Response Evaluation Criteria in Solid Tumours (RECIST), was observed (Fig. 2a). The patient received three further cycles of sunitinib until disease stabilisation, with an additional 10% response achieved after the fourth cycle (Fig. 2b). Second-look surgery (full bilateral retroperitoneal lymph node dissection via a sub-costal incision) was performed following the fifth cycle of sunitinib therapy (Fig. 3). This surgery was uncomplicated, although it was noted that cleavage planes were very difficult to identify between the great vessels and the large bulky nodes. The post-operative course was not marked by any major surgical complications. A prolonged ileus was
conservatively managed. Final pathology demonstrated viable clear-cell carcinoma similar in appearance to the primary specimen. Following the second-look surgery, treatment with sunitinib was not reinitiated. Follow-up after 6 mo showed no evidence of disease recurrence.

2. Discussion

In this patient, treatment with sunitinib allowed complete resection of a massive lymphadenopathy that had previously been impossible to excise. Cytoreductive effects of sunitinib prior to surgery were shown in a previous report; sunitinib reduced tumour thrombi in a patient with RCC, enabling successful excision [4]. The initial reports with sunitinib in this setting require further confirmation in prospective clinical trials.

Conflicts of interest: Dr Patard is a consultant for Pfizer, Bayer, Wyeth, and Wilex.

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References