Presurgical treatment with sunitinib for renal cell carcinoma with a level III/IV vena cava tumour thrombus.

The feasibility and safety of a presurgical treatment approach with sunitinib for renal cell carcinoma (RCC) with level III/IV tumour thrombus in the inferior vena cava (IVC) were to be evaluated and its potential ability to reduce the surgical morbidity explored. In our institution, we treated five consecutive patients with suspected RCC and a level III/IV IVC tumour thrombus with preoperative sunitinib (50 mg, 4 weeks on, 2 weeks off). Side dose effects were assessed and the effect on the tumour size and the dependent surgical approach documented with a computed tomographic scan before and after the treatment. The data were analyzed retrospectively. The overall tolerability to presurgical sunitinib was good. All procedures were carried out without perioperative complications. In four patients, a reduction in tumour size was observed, which resulted in avoidance of a bicaval surgical approach with cardiopulmonary bypass in one patient. This patient was diagnosed with papillary renal cancer; the other four patients had clear cell carcinomas. Presurgical treatment with sunitinib is able to ease surgery for RCC tumour thrombi regardless of the histological subtype in selected patients. In our series, surgery was possible without additional morbidity. Two courses of a presurgical therapy with sunitinib seems to be an appropriate duration. In accordance with previously published data, presurgical sunitinib
treatment may become more widely used in RCC with level III/IV IVC tumour thrombi but administered with restraint in cases of level I/II thrombi. The effects on the risk of recurrence and survival remain to be evaluated prospectively.