

Major vascular resections in the surgical treatment of retroperitoneal sarcoma

Lochan R, French J, Prof Manas DM

Department of HPB, Transplantation and Sarcoma Surgery, Freeman Hospital, Newcastle upon Tyne, UK

Background: One of the major obstacles to achieving satisfactory local control of retroperitoneal sarcomas is their intimate relationship to other organs in the retroperitoneum/abdomen, especially the major vascular conduits.

Study subjects and practice description: Fourteen patients have undergone major vascular resection along with their neoplasm at our centre over the past 9 years. Median (range) age has been 58(49 – 69), and m:f=7:4. In these patients the vascular structures resected include a total of 15 (one patient had both IVC and aorta resected): IVC (n= 4) aorta (n= 5) and EIA (n= 6). The primary histology was liposarcoma (n=6), rhabdomyosarcoma (n=5), sarcoma of no specific type (n=3) and myoepithelial tumour (n=1). The majority underwent vascular resection in a planned elective manner, apart from one patient who underwent an EIA resection and reconstruction as an emergency. The aorta was replaced with a Dacron graft (n=3 tube, and n=2 bifurcated). The IVC was reconstructed utilising bovine pericardium (n=3), in 1 patient a composite graft was used. The EIA was replaced in all with a Dacron graft. No vascular specific complications ensued in these patients. All patients were discharged home and there was no 30-day or in-hospital mortality. In 11, a R0 margin was achieved and in 4 patients an R1 resection ensued. All of these latter patients developed locally recurrent and metastatic disease at a median (range) of 22 (11-26) months.

Conclusion: Major vascular resections can be performed as part of surgical treatment of retroperitoneal sarcomas with minimal morbidity and no mortality. Recurrence following major vascular resection appears to be associated with systemic disease.