



# Oncovascular Resection and Reconstruction of Recurrent Retroperitoneal Liposarcoma Adherent to the Iliac Veins and Vena Cava

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A 62-year-old patient presented with a 5-cm local recurrence of a retroperitoneal myxoid liposarcoma invading the right common iliac vein (CIV) and the distal segment of the inferior vena cava (IVC) (Fig. 1). Imaging studies were negative for other local recurrences or metastatic diseases. Intraoperatively, it became apparent that venous resection would be required to achieve complete excision with negative margins since the tumor adhered to the CIV and IVC (Fig. 2). Therefore, the patient underwent removal of both CIVs and infrarenal IVC and reconstruction with a 16–8-mm bifurcated Dacron graft (Fig. 3). The left limb of the synthetic graft was placed anterior to the artery to reduce the risk of graft occlusion due to external pressure from the overlying artery. An arteriovenous fistula has been

suggested to increase graft patency; however, in the case of a bifurcated graft, two distal fistulas would be needed. Therefore, we opted for life-long therapeutic anticoagulation instead (Xarelto; Bayer, Leverkusen, Germany). The postoperative course was uneventful, and no morbidity of the venous circulation in either leg was observed. The patient was discharged on the 11th postoperative day.

Retroperitoneal sarcomas often recur locally. In the absence of systemic disease, resection is the treatment of choice which often results in prolonged disease control, when the approach is optimized. Vascular involvement may necessitate vessel resection and planned reconstruction, as part of the curative resection [1]. Vascular surgeons are increasingly involved in oncologic surgeries, and according to



**Fig. 1.** Computed tomography scan showed a recurrent tumor involving the right common iliac vein (RCIV) and distal vena cava. IVC, inferior vena cava.

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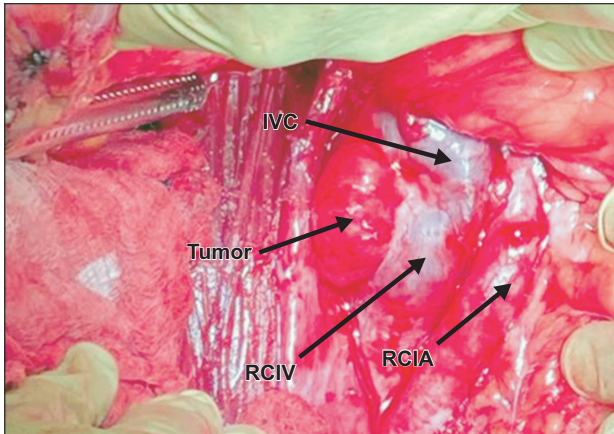
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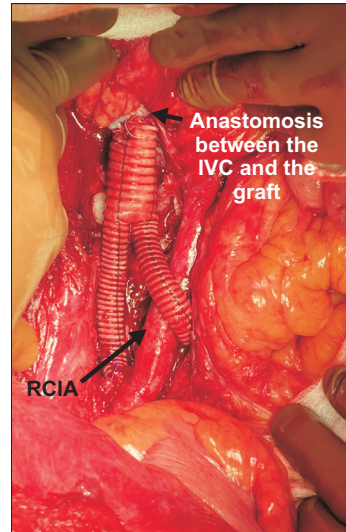
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**Fig. 2.** Intraoperative photograph showed the neoplastic mass involving the right common iliac vein (RCIV) and extending to the confluence and distal vena cava. IVC, inferior vena cava; RCIA, right common iliac artery.

the concept of oncovascular surgery, tumor excision with concomitant resection of the involved vessels may be curative and margin-free [2]. Since oncovascular surgeries may represent a minority of oncologic surgeons' routines, the potential role of vascular surgeons during these complex procedures may not be appreciated. Therefore, it has been suggested that unplanned intraoperative consultations, especially for caval injuries, present significantly inferior out-



**Fig. 3.** After curative resection, vein reconstruction was performed using a bifurcated graft. Note that the left limb has been positioned anterior to the right common iliac artery (RCIA) to avoid external compression. IVC, inferior vena cava.

comes to those of the planned multidisciplinary approach [3,4]. In this regard, the CIV and IVC can be safely resected if needed and reconstructed with a standard bifurcated graft [5].

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