ASO Author Reflections: Portal Vein Leiomyosarcoma: How to Perform a Major Hepatectomy with Biliary and Portal Vein Reconstruction Using an Autogenous External Iliac Vein Interposition Graft

Stylianios Tzedakis, MD, and Karim Boudjema, MD, PhD

Department of Hepatobiliary and Digestive Surgery, Pontchaillou University Hospital, Rennes, France

PAST

Vascular leiomyosarcomas (LMSs) represent only 2% of soft tissue sarcomas and most commonly (50%) originate from the inferior vena cava, renal vein, and great saphenous vein.^{1–3} Portal vein LMSs are very rare, and the 4-year survival rate is estimated to be 32%. Surgical resection currently is the only realistic chance of long-term survival but demands complex liver surgery procedures with vascular reconstructions. Currently, advances in liver and vascular surgery as well as perioperative patient management may offer a greater chance for surgical resection.

PRESENT

Regarding treatment, surgeons manage most soft tissue sarcomas with surgical resection for localized primary tumors. These resections combine en bloc negative margin sarcoma surgery principles and complex liver surgery procedures with vascular reconstructions.^{3–5}

From the technical point of view, the authors' video shows how to approach tumor resection without compromising R0 resection due to its difficult central location in the hepatic pedicle confluence. Furthermore, it shows how to perform complex vascular reconstruction using an autologous vascular graft to avoid prosthetic vascular complications such as infection and thrombosis. These resections generally borrow surgical techniques from hilar

cholangiocarcinoma surgery (biliary confluence resection) and liver transplantation (autogenous iliac vein graft portal vein reconstructions). Although feasible and safe, these resections should be well codified and restricted to high-volume hepatobiliary centers.

FUTURE

Portal vein leiomyosarcomas are extremely rare. Liver surgery with complex vascular resections for en bloc extensive surgical resection is feasible and safe. The surgical strategy should be well planned and codified to minimize surgical morbidity and to achieve R0 resections and prolonged survival.

DISCLOSURE The authors declare that they have no conflict of interest.

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