Right Trisectionectomy and Caval Reconstruction with Peritoneal Patch Under Short Total Vascular Exclusion for Hepatocellular Carcinoma with Tumoral Thrombus in Suprahepatic Vena Cava

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ABSTRACT

Background. Hepatocellular carcinoma (HCC) can be complicated by major vascular invasion, and resection can be beneficial in some patients.¹ Some of these patients are traditionally operated under total vascular exclusion (TVE), refrigeration, extracorporeal circulatory bypass, and cardiac surgery, with high morbidity and mortality.² However, HCC thrombi are not adherent to the venous wall, and with advances in surgical techniques, resection can be simplified and performed during short-duration TVE alone. Patients who need resection under any degree of TVE represent < 5% of our hepatectomies.

Patient and Methods. A 59-year-old male patient was admitted for management of a right large HCC (developed on a metabolic syndrome without cirrhosis). After 12 months of treatment, HCC progressed after arterial chemoembolization followed by antiangiogenic treatment, with tumoral thrombus extension to the intrathoracic vena cava up to the right atrium. Surgical resection under TVE and intrathoracic control of the vena cava was decided. Liver transection was performed with intermittent clamping of the hepatic pedicle and low central venous pressure. During 25 min of TVE and vascular remplissage, resection was completed with complete thrombectomy and reconstruction of the vena cava with a peritoneal patch.³

Results. Surgery lasted 330 min, with blood loss of 500 ml and transfusion of 2 units of blood. Postoperative course was uneventful with 10-day hospital stay. Four months after resection, the patient is well with no disease recurrence.

Conclusion. As surgical techniques improve, complicated liver resection can be performed during short-duration total vascular exclusion.

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