Adrenocortical Carcinoma with Intracaval Extension to the Right Atrium: Resection on Cardiopulmonary Bypass

Ryan Z. Swan, MD, Erin M. Hanna, MD, David Sindram, MD, PhD,
David A. Iannitti, MD, and John B. Martinie, MD

Division of Hepatobiliary Surgery, Department of General Surgery, Carolinas Medical Center, Charlotte, NC

ABSTRACT

Case Presentation. A 28-year-old woman presented with dyspnea on exertion and elevated testosterone level. A 21 × 19 cm right adrenal mass was found invading the liver and inferior vena cava (IVC); tumor thrombus extended to the right atrium on transthoracic echocardiogram.

Operative Procedure. Median sternotomy and extended right subcostal incisions were made. Inferior surface of liver was mobilized and vessels to the tumor divided and packed. The IVC was isolated and cardiopulmonary bypass initiated. Tumor was excised from IVC and tumor thrombus extracted. After partial IVC wall resection, the venotomy was closed. The right atrium was explored for remaining thrombus. Segment 7 of the liver was resected with division of right hepatic vein. The patient was removed from bypass, and the cut surface of liver was reinforced with chromic sutures. Intraoperative ultrasound demonstrated no remaining tumor thrombus. Provisional closure was achieved with wound vac, and the next day, the patient's wound was closed primarily.

Outcome. On postoperative day 3, the patient was extubated; she was discharged on day 12. Pathology revealed well-differentiated adenocarcinoma weighing 2.3 kg with negative surgical margins. Two months after surgery, she received radiation for suspected lumbar vertebral metastasis and initiated mitotane therapy. Follow-up surveillance scans showed no evidence of disease.

Discussion. Adrenocortical carcinoma is a rare malignancy presenting frequently in advanced stage with poor prognosis. Chemotherapy is often only moderately effective, while complete surgical resection is potentially curative. In this patient, excellent short-term outcome was achieved through radical surgical resection. We continue to monitor her closely for evidence of recurrence.

DISCLOSURES The authors have nothing to disclose.

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J. B. Martinie, MD
e-mail: john.martinie@carolinashealthcare.org