

Renal Cell Carcinoma with IVC Thrombus Extending into Right Atrium: Right Atrial Cross Clamping Technique to Avoid Cardiopulmonary Bypass

Introduction and Objective: Renal cell carcinoma with inferior vena cava thrombus extending into right atrium usually requires cardiopulmonary bypass during thrombectomy. We describe a technique to avoid the morbidity of cardiopulmonary bypass.

Materials and Methods: A 60 year-old-male presented with right flank pain. He was diagnosed to have right renal mass with a vena caval thrombus extending into right atrium on computed tomography. The procedure was performed with the patient in 30° left lateral position. Right femoral artery was exposed for possible need for cardiopulmonary bypass. Right anterolateral thoracotomy was performed via 5th intercostal space for exposing the heart. A 9th rib thoracoabdominal incision was made to expose the renal mass. After ligating and dividing right renal artery, left renal vein, proximal IVC and right atrium were sequentially clamped. Venotomy was made in IVC and thrombus extracted.

Results: The operating time was 260 minutes. Blood loss was 1100 ml. The patient was mobilized in second postoperative day and discharged after 8 days.

Conclusions: Right atrial cross clamping can avoid the morbidity of cardiopulmonary bypass while performing thrombectomy for IVC thrombus extending into right atrium. Right anterolateral thoracotomy can avoid the morbidity of sternotomy.

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