

# Inferior Vena Cava Thrombectomy for Renal Cell Carcinoma with Thrombus

M K Li,\**FAMS, MBBS, FRCS*, S K H Yip,\*\**MBBS, FRCS, FHKAM*, W S Cheng,\*\*\**FAMS, MBBS, FRCS*

## Abstract

*Up to 10% of patients with renal cell carcinoma have intracaval neoplastic extension. The results of nephrectomy and caval cavotomy to remove the renal tumour and caval thrombus were reviewed. From September 1991 to October 1997, 16 consecutive patients (13 males, 3 females) with a mean age of 59 years (range 45 to 75 years) underwent radical nephrectomy together with cavotomy and thrombectomy (15) or caval resection (1). The tumour thrombi extended to the infrahepatic vena cava in 9 patients, intrahepatic cava in 5 and suprahepatic cava in 2. The surgical approaches included abdominal (8), right thoraco-abdominal (5) and abdominal with median sternotomy (3), respectively; cardiac bypass was not required. The mean cava clamp time was 15 minutes and the average operative time was 127 minutes (range 70 to 190 minutes). There was no operative mortality but the complication rate was 31%. The mean hospital stay was 12 days (range 7 to 23 days). Ten patients had Robson's stage IIIa disease, 4 had stage IIIc disease and 2 had stage IV disease. During a mean follow up of 20 months (range 1 to 54 months), 6 patients were alive with no recurrence and 10 patients had died of the disease. The survival of stage IIIa patients was significantly better than stage IIIc and IV patients. In summary, caval thrombectomy is associated with acceptable operative morbidity and mortality; however, advanced staged disease dictates a short survival.*

*Ann Acad Med Singapore 1999; 28:508-11*

*Key words: Renal tumour, Thrombus, Vena cava*

---

\* Associate Professor and Senior Consultant  
Division of Urology, Department of Surgery  
National University Hospital

\*\* Senior Registrar

\*\*\* Senior Consultant

Department of Urology  
Singapore General Hospital

Address for Reprints: Associate Professor Li Man Kay, Division of Urology, Department of Surgery, National University Hospital, 5 Lower Kent Ridge Road, Singapore 119074.