

## Infiltrating the Heart and

Inferior Vena Cava

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- It is well known that formation of tumor thrombus in inferior vena cava and right atrium in patients with abdominal masses is a predictor for very short survival.
- Etiology of tumor thrombus:
  - Hepatic masses;
  - Adrenal masses;
  - Renal & Retroperitoneal masses;
  - Pelvic masses.
- The aim of this work is to review our experience with onpump surgical treatment of patients with abdominal tumors, infiltrating the heart and inferior vena cava.



- **Period:** 2009 2012;
- Patients:
  - 17 patients (12 m and 5 f)
  - Average age 59 years (from 25 to 78).
- Primary tumor:
  - Hepatic 2; Adrenal 1; Renal 13; Pelvic 1

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Sechnique

- Hybrid team:
  - Cardiac surgeon; Urologist; General surgeon
- Hybrid access: Sternotomy & Laparotomy
- On-pump:
  - Aorta; Femoral vein; Superior vena cava.
  - Mild hypothermia 32 C.
  - Occlusion of IVC in thorax with tourniquet before tumor extraction.
  - Occlusion of renal vein(s) and occlusion of IVC in abdomen below the tumor thrombus, before thrombectomy and suture of IVC.





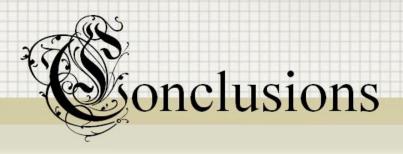
- Radical Tu extraction and IVC thrombectomy 100%. ٠
- **Mortality:** 2 patients; •
- **Modes of death:** Massive pulmonary embolism 1; multi organ failure 1. ٠
- **Complications:** re-exploration for bleeding -2; CVVH -3. ٠
- **Discharged home:** 15 patients. ٠
- Average hospital stay: 10 days (from 7 to 15 days)
- **Histology:** ٠
  - Hepatic: Hepatocellular carcinoma 1 patient; Leiomyosarcoma 1 patient;
  - Adrenal: Adrenocortical carcinoma 1 patient;
  - Renal: Hypernephroma 13 patients;
  - Pelvic: Leiomyoma 1 patient.
- No late deaths during the follow up. ٠

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**Recurrence:** 1 patient with hepatic leiomyosarcoma.







- Our present results show that:
  - ✓ On-pump surgery guarantees radical tumor extraction;
  - ✓ Multy-disciplinary team is mandatory;
  - ✓ Perioperative mortality and morbidity is **acceptable**;
  - ✓ Mid-term results are **good**.
  - ✓ Long-term are expected.





## Schark gou for gour attention!