Cavat Tumors

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Disclosures

- Veniti Medical
- Volcano
- Celgene
- Tactile Medical
- None relevant to content of this presentation

Classification of IVC tumors

- Primary IVC tumors
  - Leiomyoma
  - Leiomyosarcoma
- Secondary IVC tumors
  - Hepatic
  - Retroperitoneal
  - Pancreaticoduodenal
- Tumor thrombus
  - Renal Cell
  - Pheochromocytoma
  - Adrenocortical Ca
  - Uterine sarcomas
  - Germ cell tumors
    - Embryonal
    - Yolk sac tumor

Primary leiomyosarcoma

- 2% of all leiomyosarcomas
- >80% in women
- 60% of venous cases originate in IVC
  - 40% have suprarenal involvement
- Usually grow intraluminally
- >50% have mets at time of Dx
- Survival usually < 1 year with mets

Secondary tumors

- Significantly more common than primary
- May invade pelvic veins or IVC or cause obstruction extrinsically
- Symptoms usually late so tumors typically advanced
Tumor thrombus

- Direct extension from primary
  - Renal cell most common
  - 15-20% assoc w thrombus
- Extent variable
  - 50% renal vein
  - 40% IVC infrahepatic
- Usually not adherent to venous structures

Level 1 thrombus
Oto et al, AJR 171:1619

Intracaval tumor thrombus (TT)

- Considerations for removal depend on extent and risk of embolization
- Malignant potential of TT dependent on primary
- TEE useful to define proximal extent

Level 3 thrombus
Oto et al, AJR 171:1619

Decision for surgical resection

- In most cases survival < 1 year without resection
- Not generally responsive to XRT and chemo
- Patients with extensive tumors and mets have limited life expectancy even with resection

Risk of surgical resection

- Extent of surgery
- Medical status:
  - Cardiopulm defects
  - Increased age
  - Poor functional status

If tumor extensive, resection should only be considered if med condition and functional status are good

Bower, Ann Vasc Surg 1993;7:51

Technical considerations

- Complex cases benefit from multi-team collaboration
  - Urology
  - Surg Onc
  - Transplant
  - CT
- Balloon occlusion of IVC has pros and cons
Outcomes of management

- Leiomyomas have best outcome
  - Local recurrence may occur but low metastatic potential
- Renal cell Ca with tumor thrombus have best outcome of malignant tumors
  - 5 yr survival 59% in recent large study
- Survival of other types dependant on primary and tumor extent

Blute ML; BJU int;2004:94:33
Summary

• Primary and secondary IVC and iliac venous tumors are uncommon but will be encountered
• May masquerade as ilio-caval thrombosis
• Resection should be considered if patient status is acceptable and extent of tumor is not prohibitive