INFERIOR VENA CAVA SYNDROME IN A PATIENT WITH GIANT HEPATIC HEMANGIOMAS

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Case

- 60 year old female
- Recent hospitalization for management of bleeding from hepatic hemangiomas
  - Chemical and coil embolizations
  - Superior right hepatic artery and the right hepatic segmental arteries
Hepatic Hemangiomas: Transverse
Hepatic Hemangiomas: Saggital
Hepatic Hemangioma

- Composed of cavernous vascular spaces
- Most common benign mesenchymal hepatic tumor
- Prevalence ranges from 0.4-20%
- More frequent in women (3:1 ratio)
- Wide range of size (millimeters to > 20 cm)
- Usually solitary but can be multiple
Hepatic Hemangiomas: Diagnosis

• Usually an incidental finding
• Sometimes may have abdominal pain, RUQ discomfort/fullness

• Imaging
  – Ultrasound
  – CT
  – MRI
Hepatic Hemangiomas: Management

• Usually simple observation
• If giant hemangiomas radiologic follow-up
• Prophylactic resection not advised due to bleeding risk
• Surgical/interventional management only if complications
Follow-up post embolization
Na: 123
Laboratory

- Chemistry
  - Lytes: Na 120, K 4.0, Cl 83, CO2 30
  - Serum Osmol 265
  - Renal Function: BUN 18, Cr 0.85
  - Liver: Bili 2.8, AST 59, ALT 39, Alk Phos 281
- Coag: INR 1.4
Abdominal Ultrasound

- Exam limited
- Gallbladder sludge and cholelithiasis
- Partial compression of IVC
Sodium: The Peaks and Valleys

Admission: Fluid Restriction

Diuresis

Fluid Challenge

Gentle Fluids

Diuresis
IVC Below Liver
Dammed Up: Compressed IVC
IVC: Upstream and Downstream
IVC Syndrome

• Caused by compression of the inferior vena cava.

• Syndrome is characterized by:
  – Abdominal discomfort
  – Anasarca below the level of the diaphragm
  – Abdominal ascites
  – Hepatomegaly
  – Shortness of breath
  – Increased risk for infection and thrombosis.
IVC Syndrome: Etiologies

- Most common cause: Thrombosis
- Hepatic Masses
  - Primarily neoplasms
  - 1 Case report of Post-traumatic biloma
  - No reports of hepatic hemangiomas
- Other lesser reported causes
Stenting of IVC for IVC Syndrome

- Case reports and retrospective reviews of IVC stenting for IVC Syndrome due masses
  - Reduction in body weight
  - Increase in urine volume
  - Improvement of lower extremity edema
  - Improvement abdominal distension and ascites
  - Improved breathing, eating, and mobility
Outcome

• Transferred to outside facility for IVC stenting
  – Successful in patients with IVC syndrome associated with hepatic neoplasms.

• Unfortunately, the patient died from complications of the IVC stenting procedure.
Thank you!

Special Thank you to Dr. Todd Ebbert for assistance with image selection
References

- Curry, MP and Chopra, S. Hepatic Hemangioma. UpToDate, Accessed 4/5/12