Acute Care Surgical Service Experience with Ruptured Visceral Artery Aneurysms

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Acute Care Surgical Service Experience with Ruptured Visceral Artery Aneurysms

Schaeffer Surgical Society

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Background

- Aneurysms of visceral arteries are an uncommon but lethal form of vascular disease
- 22% of visceral artery aneurysms present with rupture, with a 25-75% mortality rate
- Most of literature consists of case reports

Objective

- To present our experience of patients with ruptured visceral artery aneurysms (RVAA) over a five month period

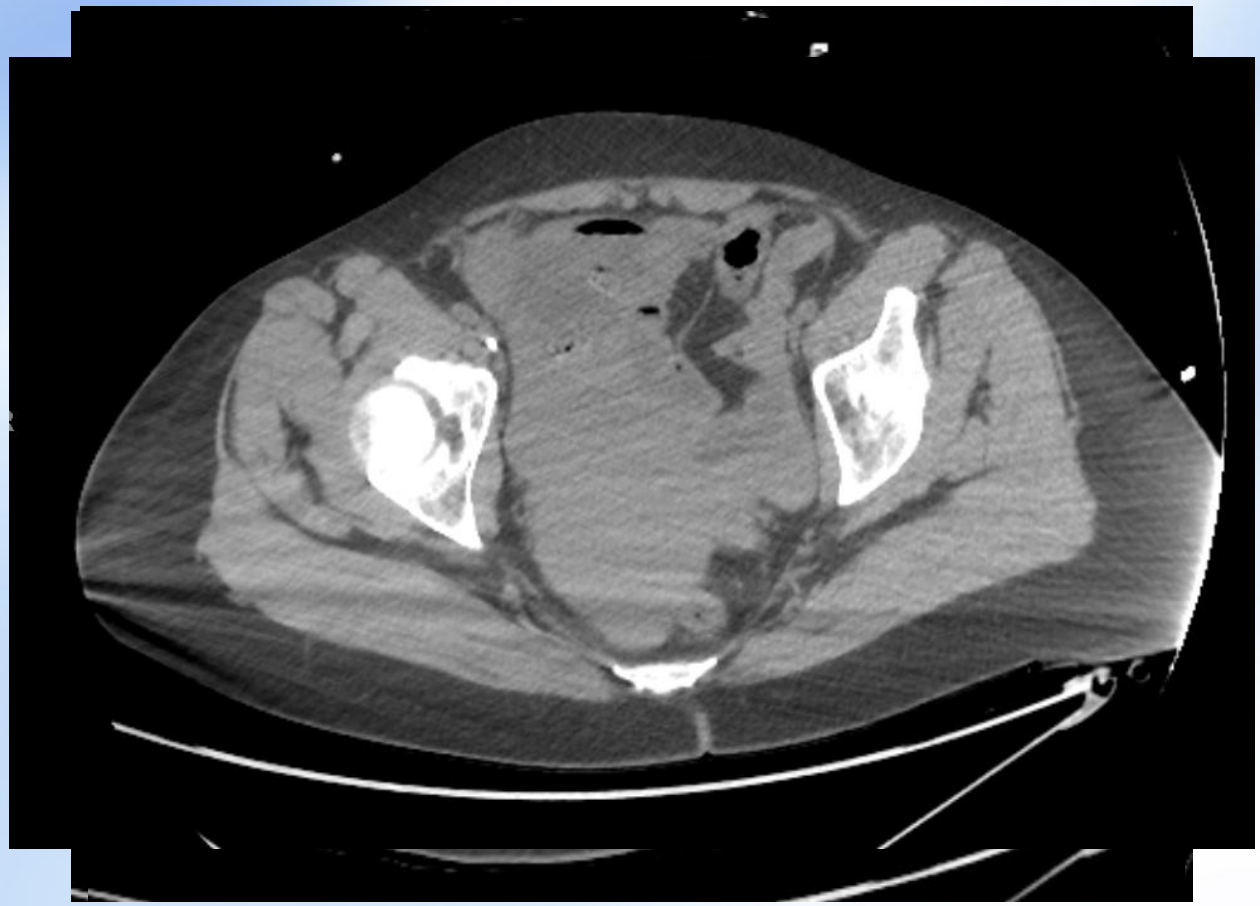
Methods

- Retrospective review of prospectively collected data from the Acute Care Surgery Service at LVHN
- Study period: 12/2013 - 5/2014
- Three patients with RVAA were identified

Case #1

- **HPI**: 56yoF found down at home. Cardiac arrest x3, intubated, on epi. CT revealed hemoperitoneum.
  - **PMH/PSH**: HTN, hypothyroidism, DJD, chronic back pain, endometriosis s/p multiple LOA, chole, appy, eye surgery
  - **Hmeds**: percocet, lisinopril, synthroid,cymbalta, flexeril, ultram, tobradex

- CT



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- CT
- Hb 6.6, INR 2.2, lactate >20, pH immeasurable, T 94.3

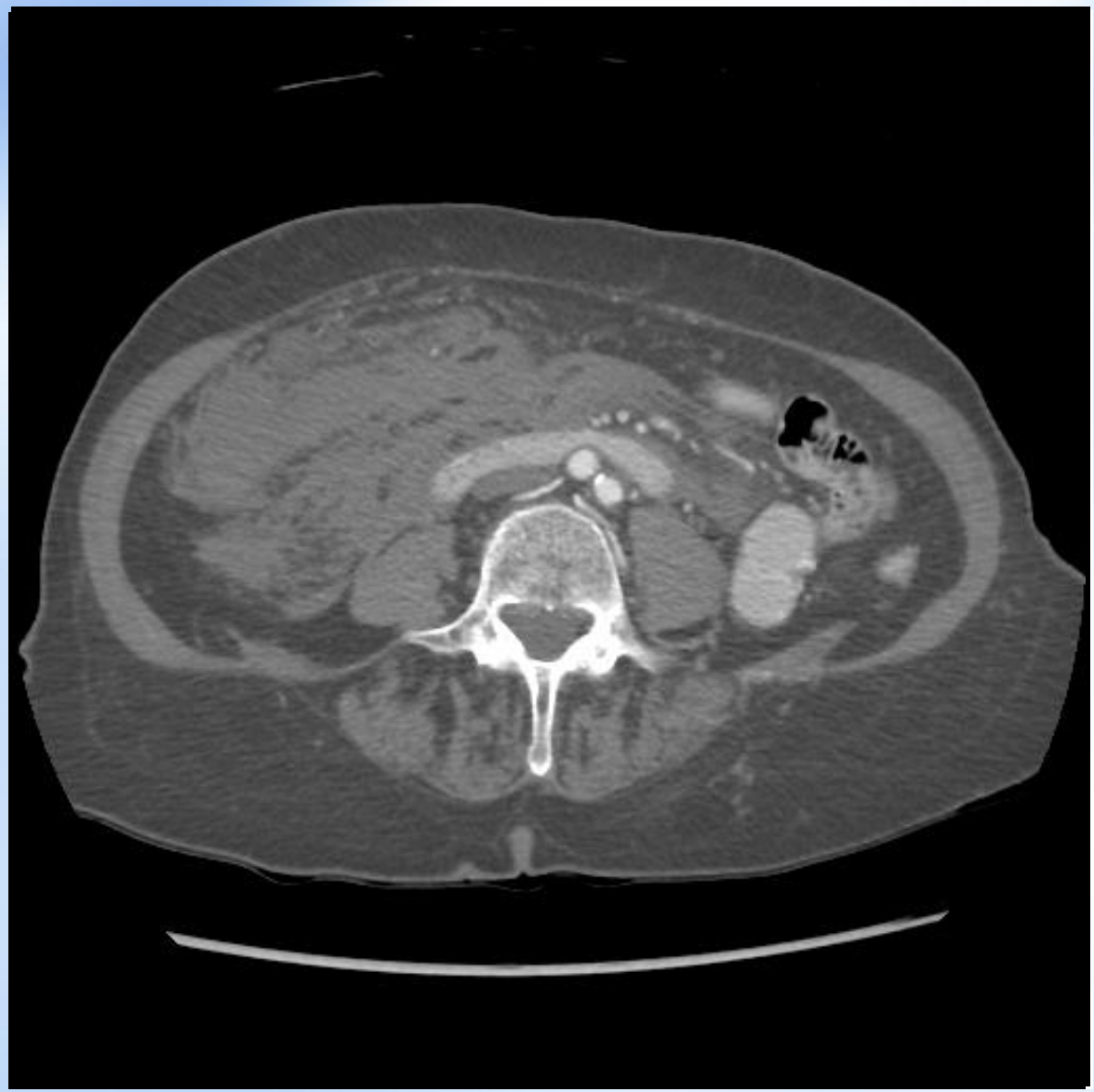
Case #1

- Emergent exploratory laparotomy
  - Splenectomy, distal pancreatectomy, SBR
- Hospital Course
  - Hemorrhagic shock/ MODS
  - Multiple washouts, Wittmann patch, GJ tube, eventual closure
  - Septic shock – reopening of laparotomy, SBR, subtotal colectomy, washout with end ileostomy, closure, tracheostomy
  - d/c to LTACH

Case #2

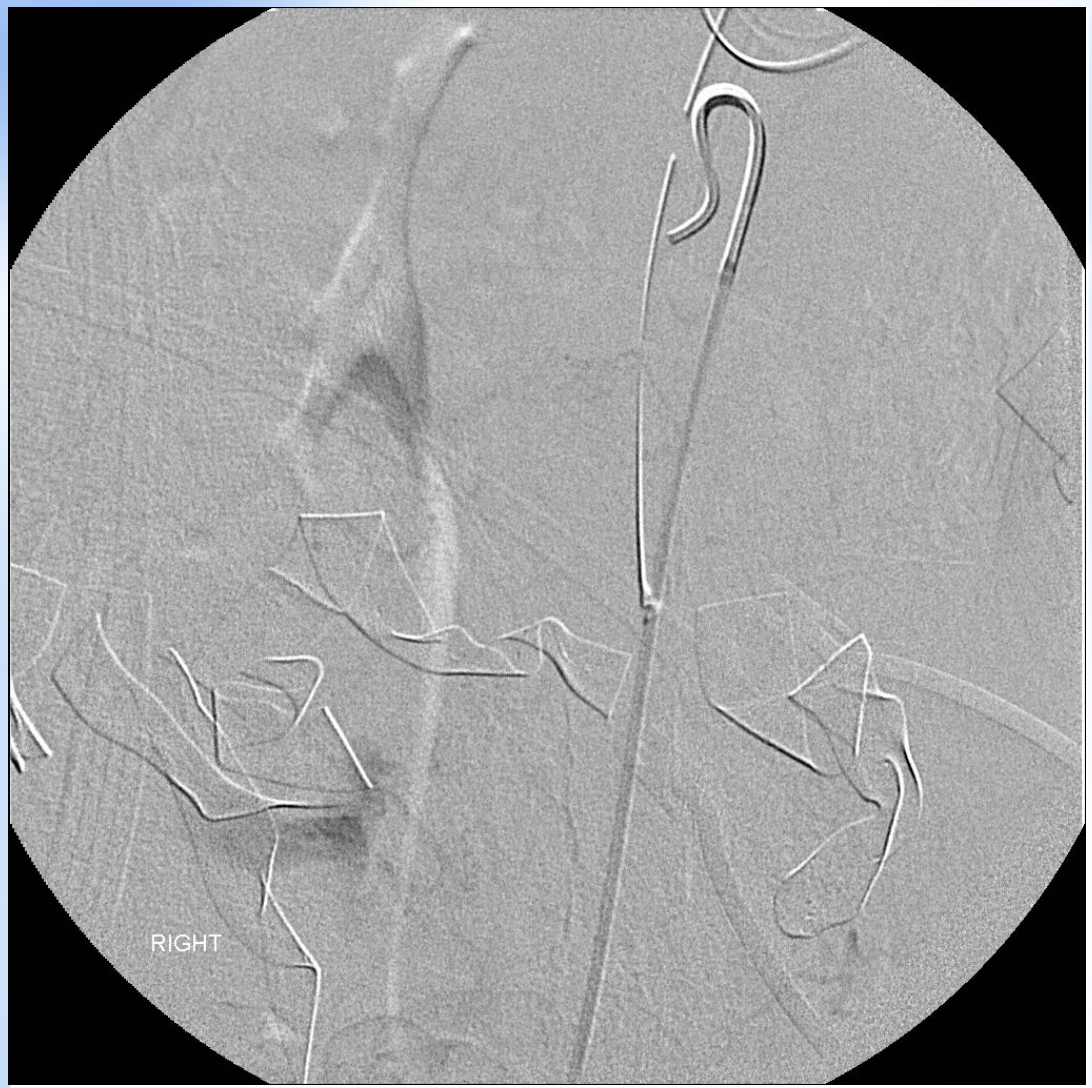
- **HPI**: 84yoF trauma alert s/p MVC rollover. c/o abdominal pain and nausea.
  - **PMH/PSH**: Hep C, HTN, DJD, hyperlipidemia
  - **Hmeds**: lopressor, lingagliptin, iron, vitamins

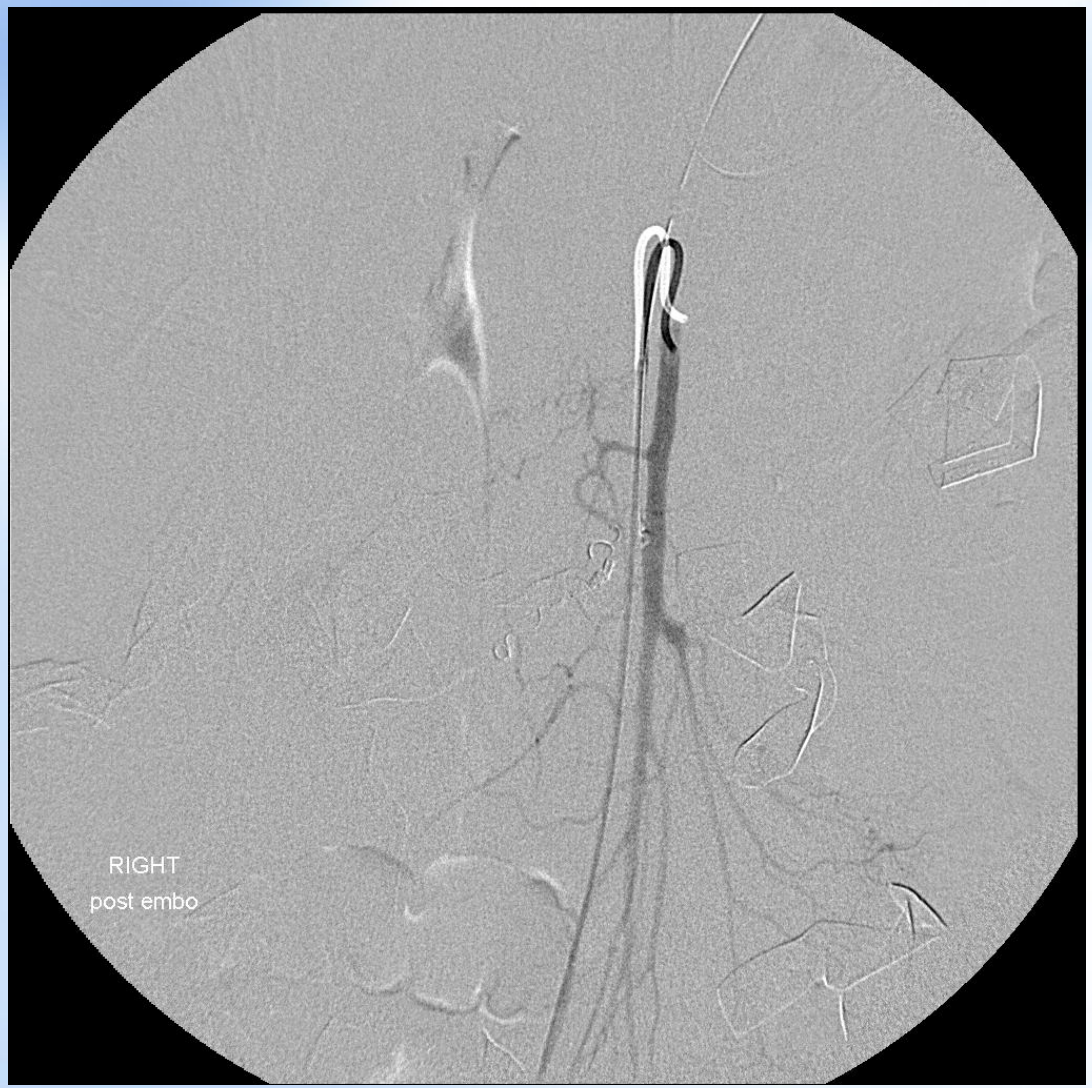
- Primary Survey intact. HR 115, BP 112/79
- LUQ/LLQ tenderness
- CT



Case #2

- Exploratory laparotomy
  - Mobilization of right colon, packing
- Arteriogram


RIGHT

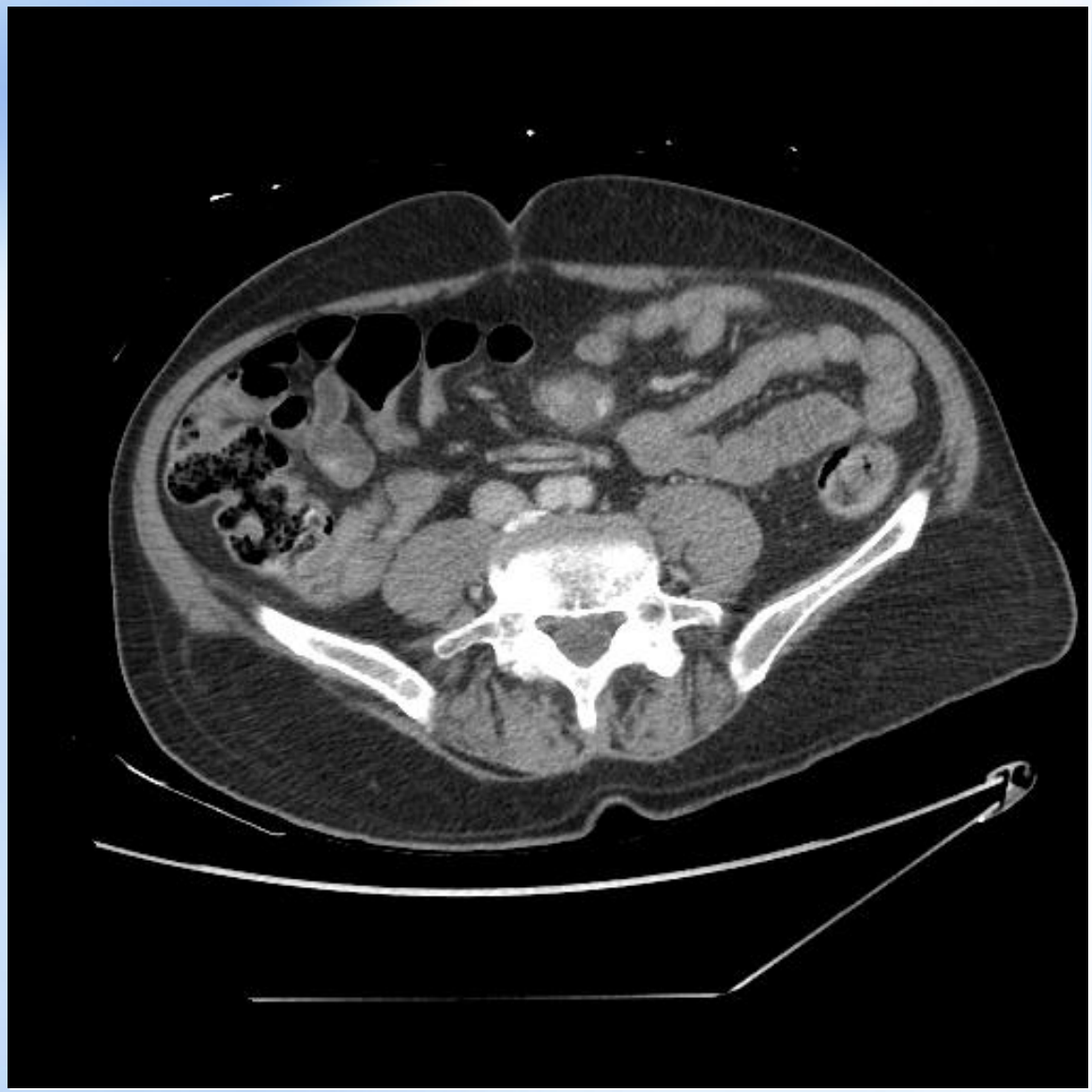

RIGHT
post embo

Case #2

- Exploratory laparotomy
  - Mobilization of right colon, packing
- Arteriogram
  - IR embolization of middle colic a. branch aneurysm
- Hospital Course
  - Re-exploration, closure
  - VDRF, weaned off ventilator
  - d/c home POD 20

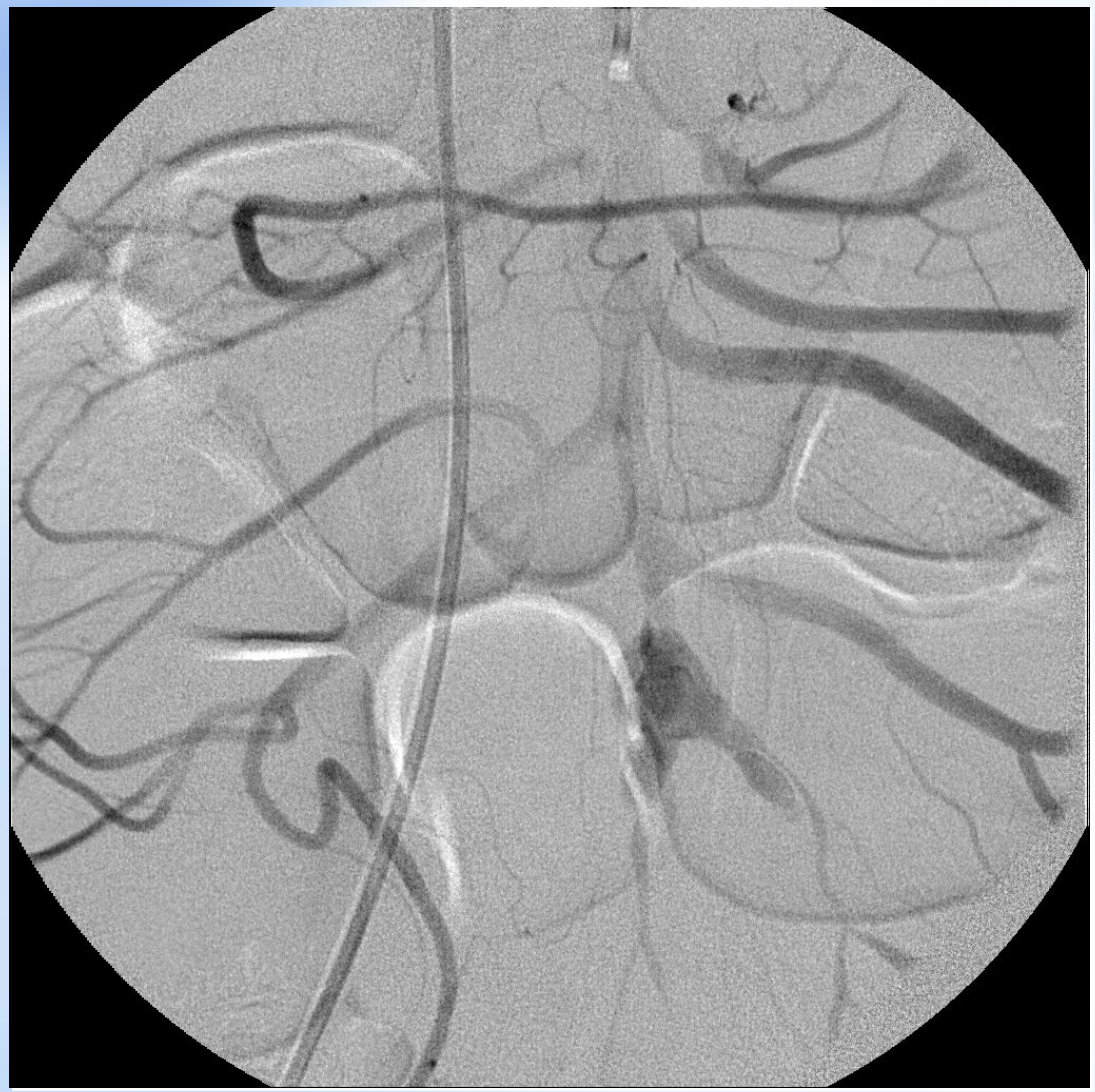
Case #3

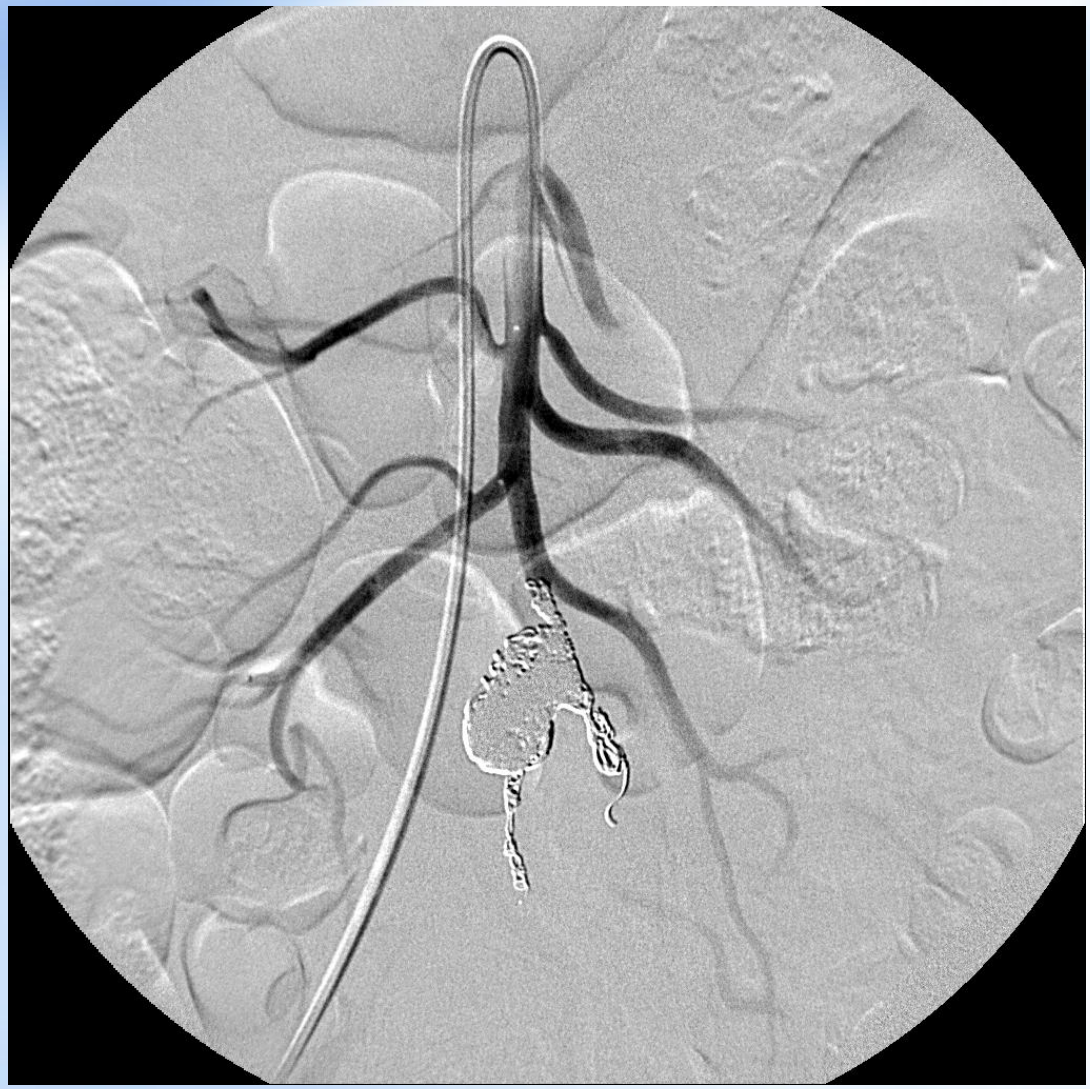
- **HPI**: 59yoM found down, intubated in ED for AMS. MVA 6 months ago, treated for spinal fx's and DVT. c/o pain/worsening swelling of LLE.
  - **PMH/PSH**:LLE DVT, ETOH/drug abuse, recent MVA, seizure disorder, bipolar
  - **Hmeds**: coumadin, aspirin, keppra, depakote, metoprolol, amitriptyline, geodon, neurontin, vicodin, flomax
- LLE compartment syndrome
- CT



Case #3

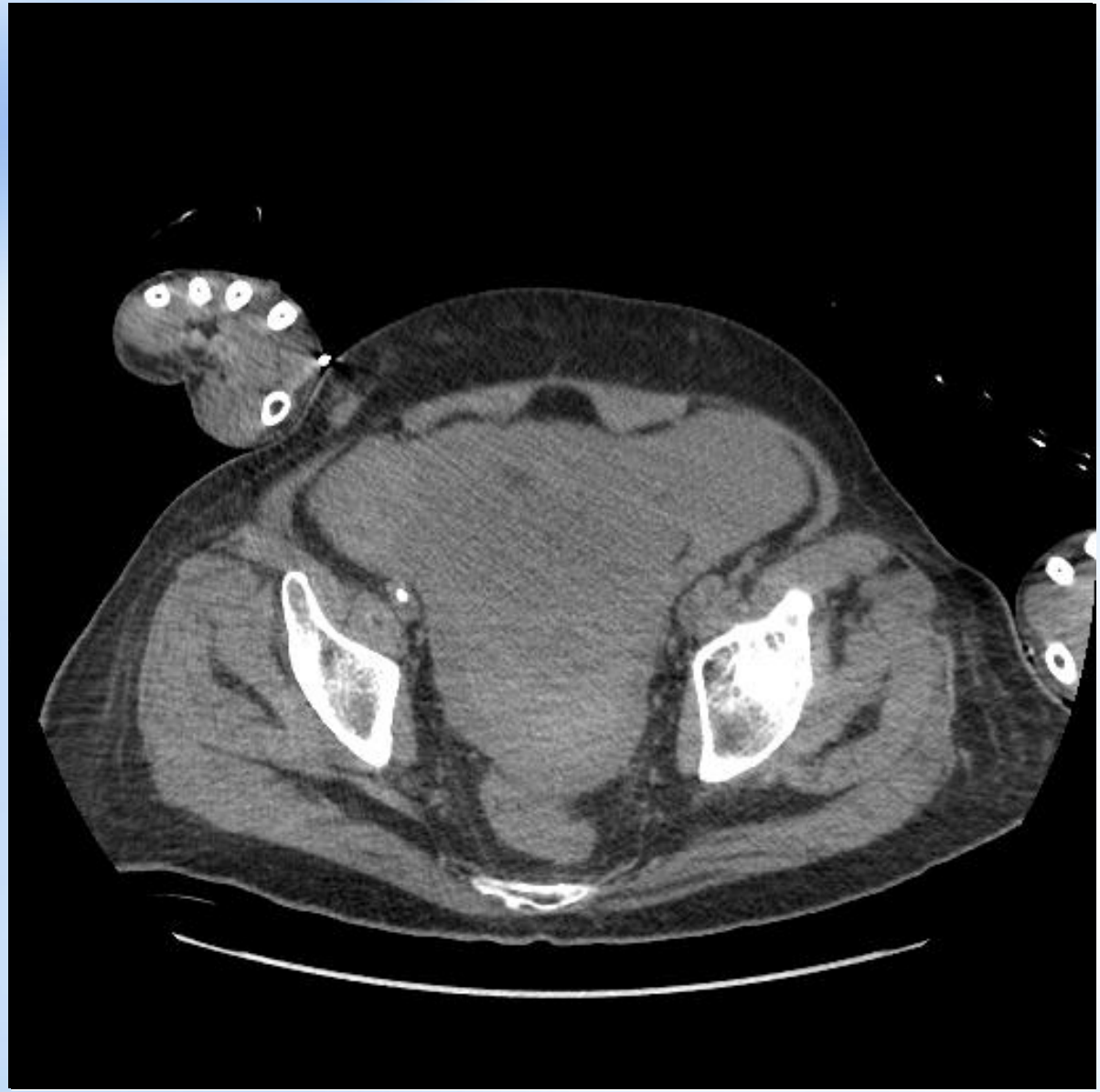
- Hospital day 1
  - Emergent LLE fasciotomy
  - Agram





Case #3

- Hospital day 1
  - Emergent LLE fasciotomy
  - Agram - IR embolization SMA branch, spleen
- POD 1
  - CT



Case #3

- Hospital day 1
  - Emergent LLE fasciotomy
  - Agram - IR embolization SMA branch, spleen
- POD 1
  - CT– hemoperitoneum
  - Right Hemicolectomy
- POD 2
  - Completion of fasciotomy, L popliteal aneurysm ligation and exclusion, L SFA to PT bypass
  - Washout

Case #3

- POD3-28
  - Multiple abdominal washouts
  - Ileocolic anastomosis
  - Abdominal closure
  - Fasciotomy closure
- POD 29
  - d/c to SNF

Results

- 56yoF: ruptured splenic a. aneurysm
  - Distal pancreatectomy, splenectomy
- 84yoF: ruptured middle colic a. aneurysm
  - Embolization of aneurysm
- 59yoM: contained rupture of SMA aneurysm and ruptured left popliteal a. aneurysm
  - Bypass and exclusion of popliteal aneurysm
  - Embolization of SMA aneurysm
  - R hemicolectomy

Results

- All patients lived to hospital discharge
- LOS 20-40 days
- Total operative procedures 2-13, majority washouts
- 1 partial colectomy, 1 total colectomy

Conclusion

- RVAA must be considered in patients presenting with hemorrhagic shock. With a multidisciplinary approach and several therapeutic options, including interventional embolization and laparotomy, survival was higher than the literature suggests. These results should prompt further investigation regarding all techniques and team oriented approaches to treat RVAA.

Questions?

References available upon request

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Health Centers

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