

CARVE 2022 Case Presentation

Endovascular Management of Complex Superior Mesenteric Artery Pseudoaneurysm

Yulia Kostenko, MD, Rajan Gupta, MD, Travis Engelbert, MD
Saint Joseph Hospital, Denver, CO



Disclosure

- I have no financial disclosure or conflicts of interest

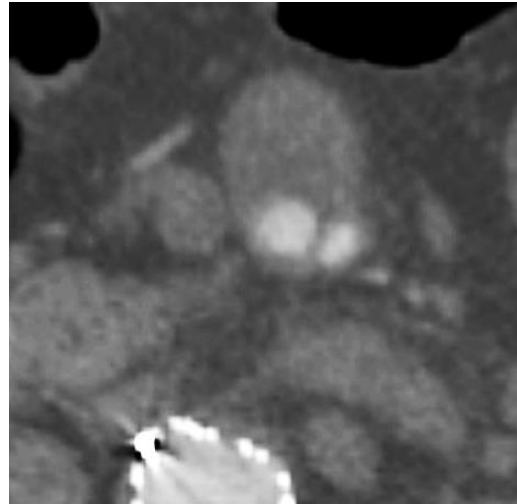
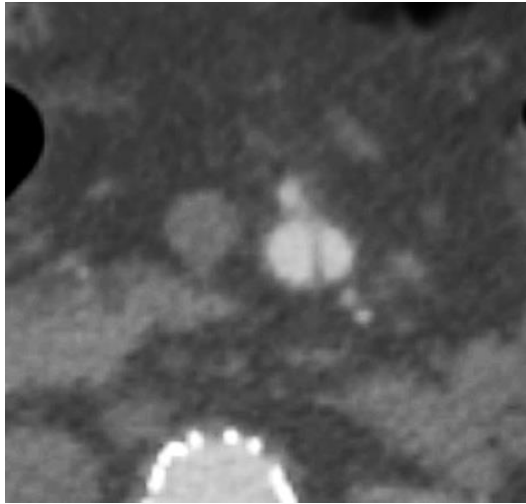
Complex superior mesenteric artery pseudoaneurysm

Patient

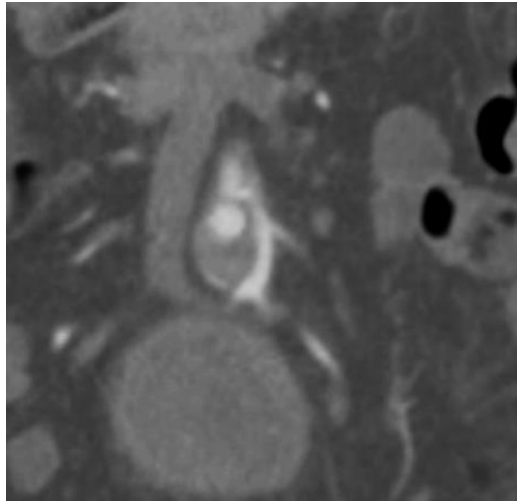
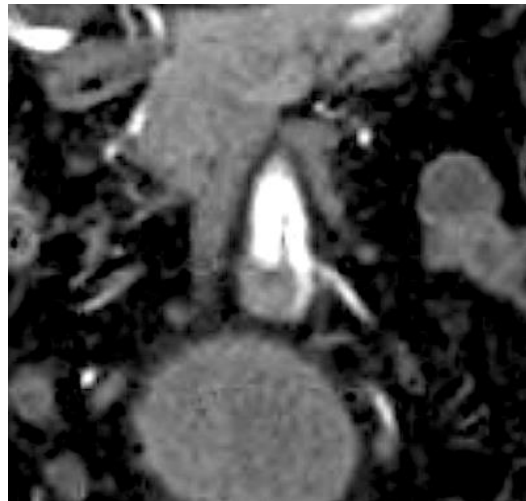
- 81 yo M
- PMH: Afib on warfarin
- PSH: EVAR for 5.9 cm infrarenal AAA
- Enlarging 2.9 cm partially thrombosed, dissecting superior mesenteric artery pseudoaneurysm
- Asymptomatic
- High surgical risk



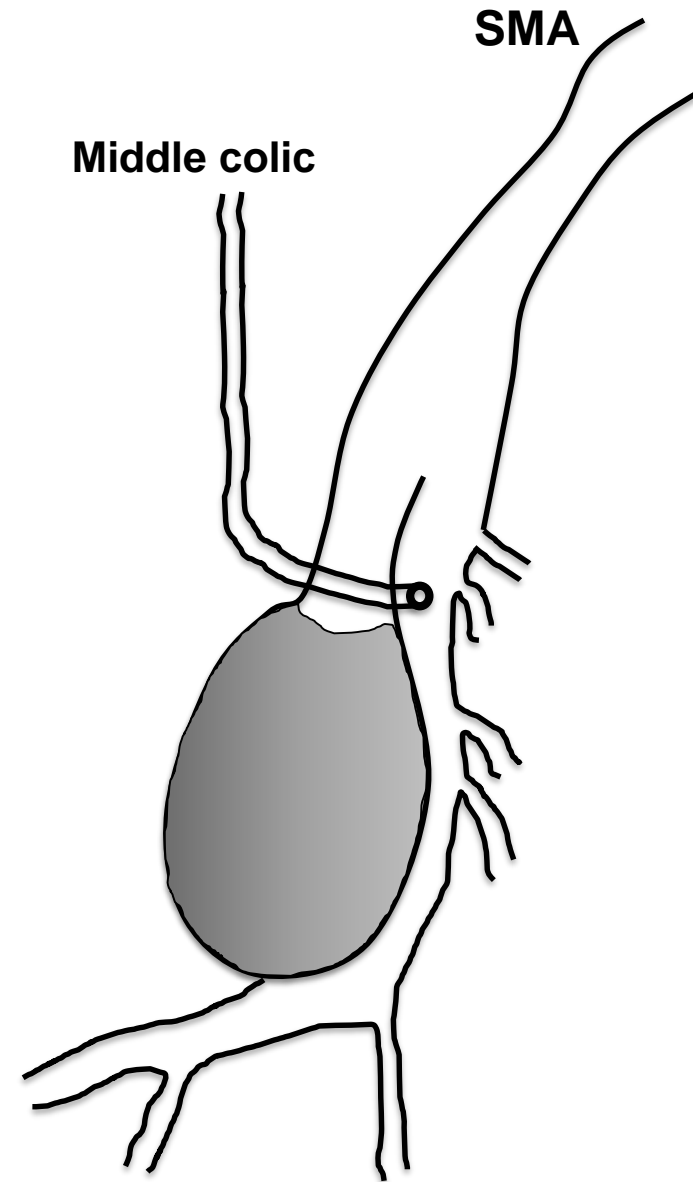
Pseudoaneurysm Anatomy



Axial view of pseudoaneurysm



Coronal view of pseudoaneurysm

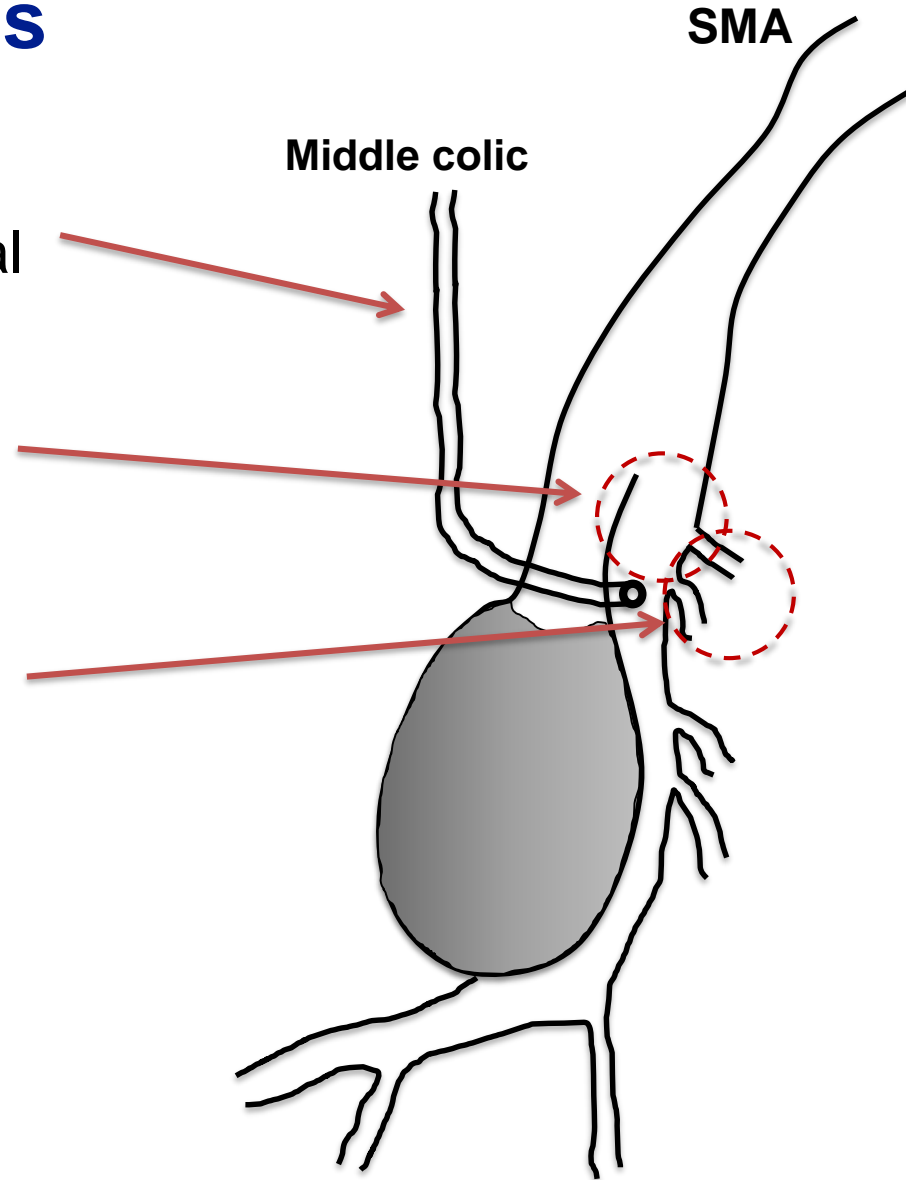


SMA

Middle colic

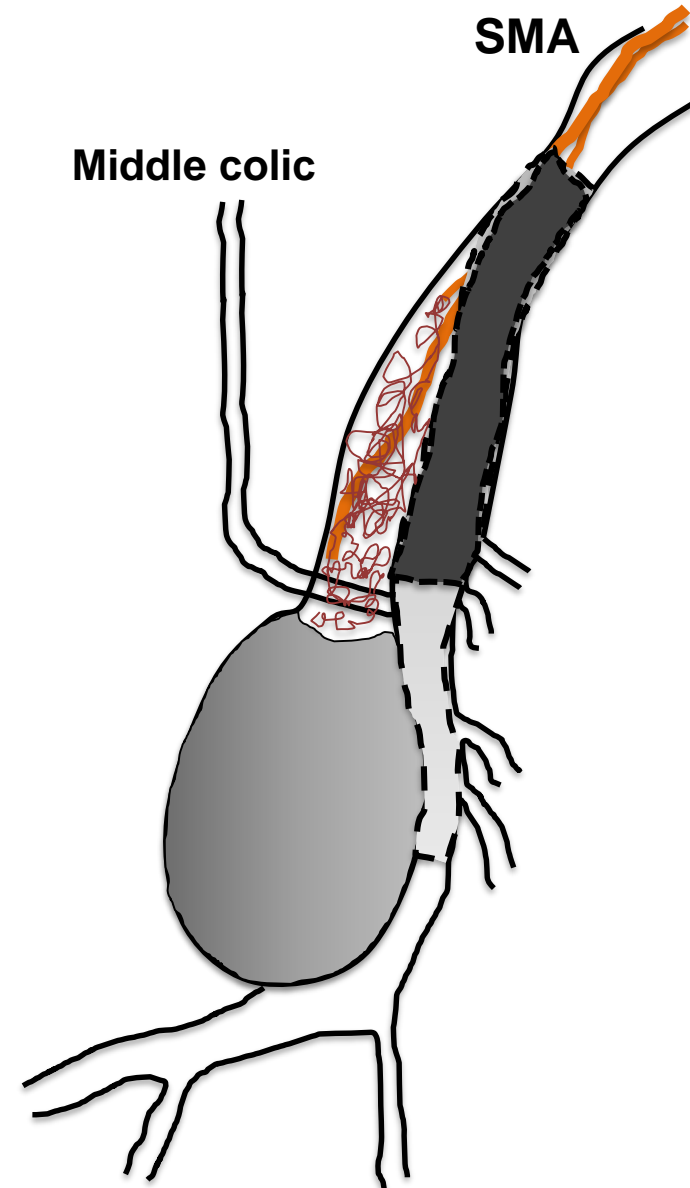
Endovascular Considerations

- Preservation of middle colic artery important for collateral IMA flow
- Poor distal landing zone for stent graft in dissection flap above middle colic
- Multiple jejunal branches in landing zone



Endovascular Plan

- Trap microcatheter outside of bare metal stent in pseudoaneurysm
- Create distal landing zone with bare metal stent
- Place covered stent just above middle colic
- Pack pseudoaneurysm



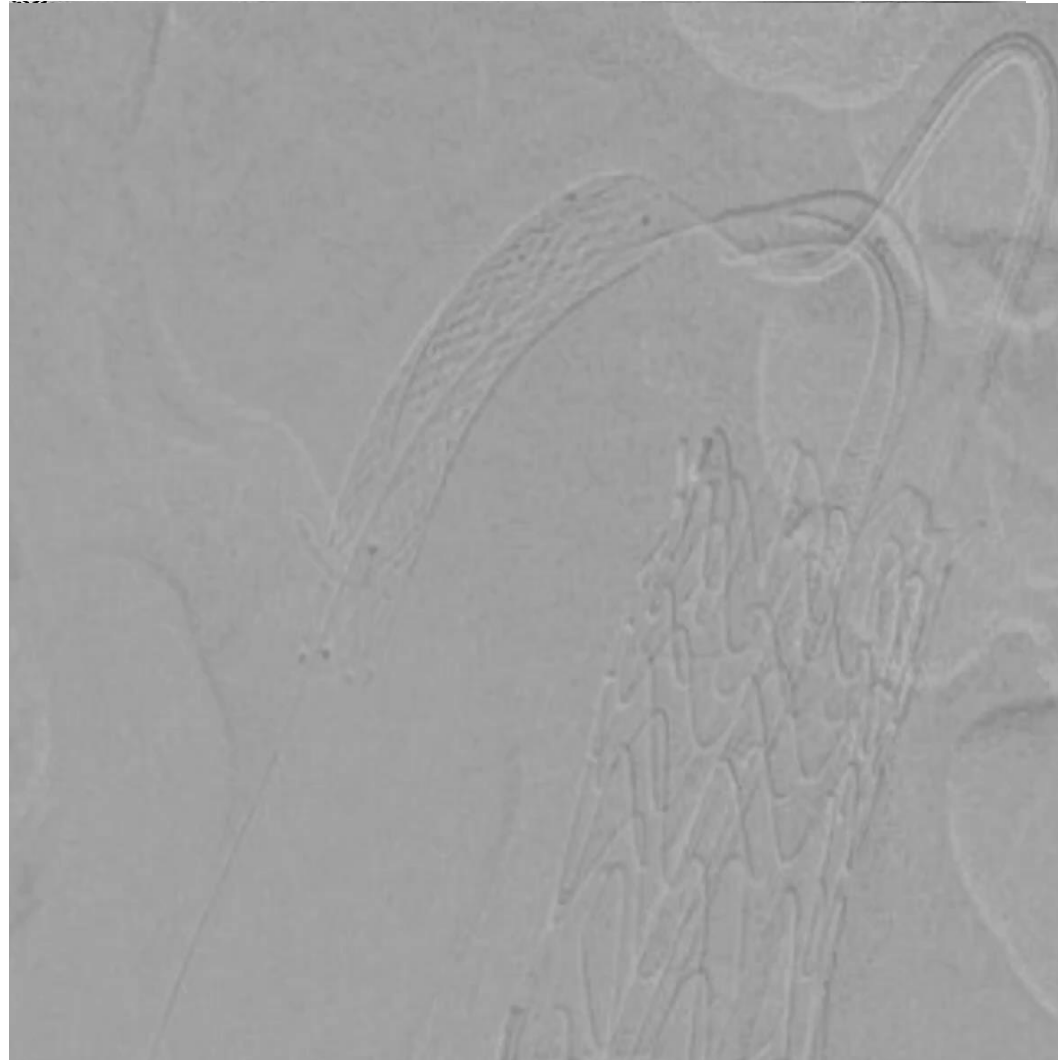
Procedure: Complex SMA pseudoaneurysm repair

- Bilateral common femoral access
- SMA selected
 - Sim 1
- Microcatheter placed directly into pseudoaneurysm
 - Rebar



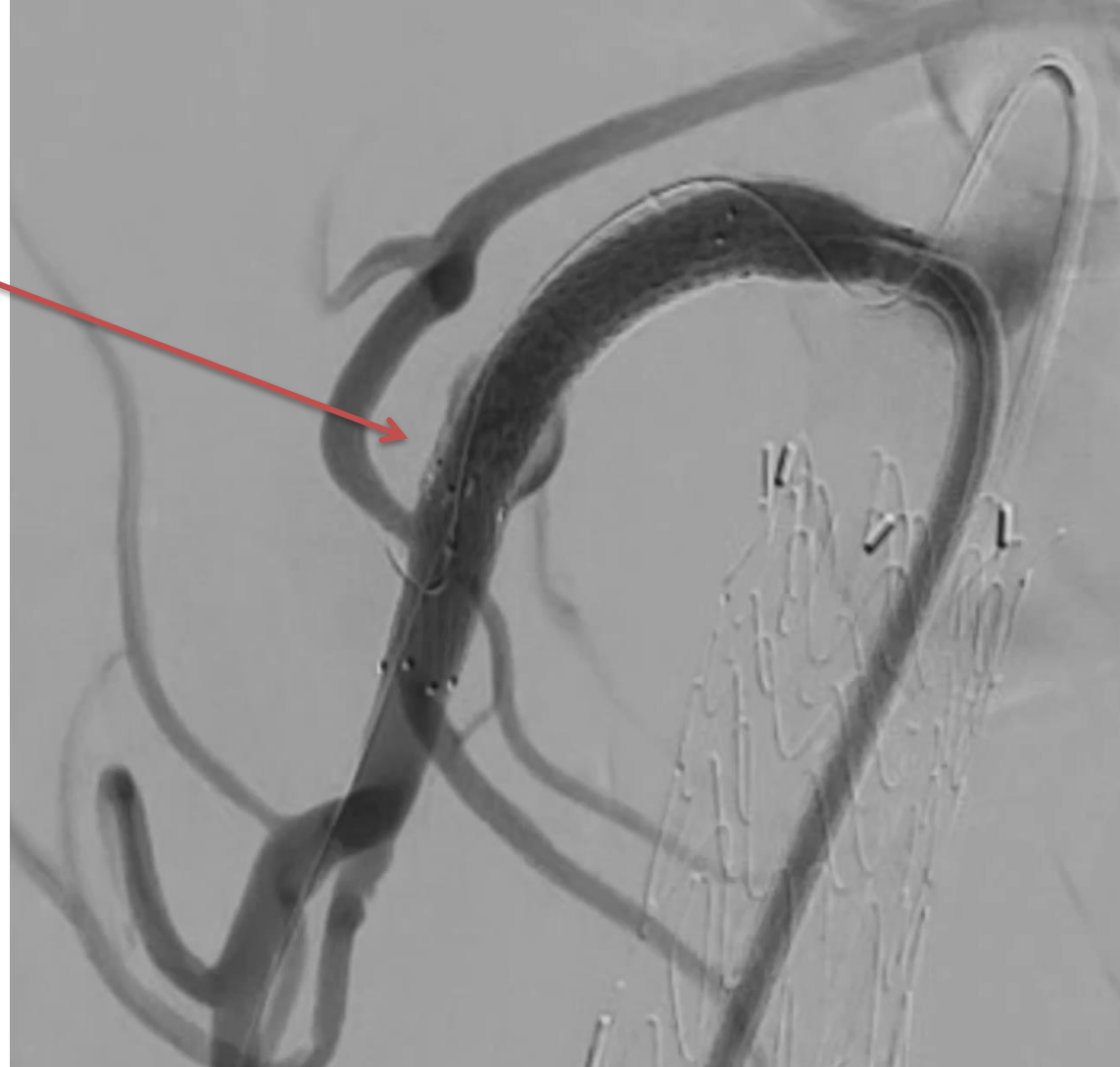
Procedure: Complex SMA pseudoaneurysm repair

- 6.5 Fr ID Destino deflectable sheath placed
- 6 x 40 mm Innova self-expanding bare metal stent placed



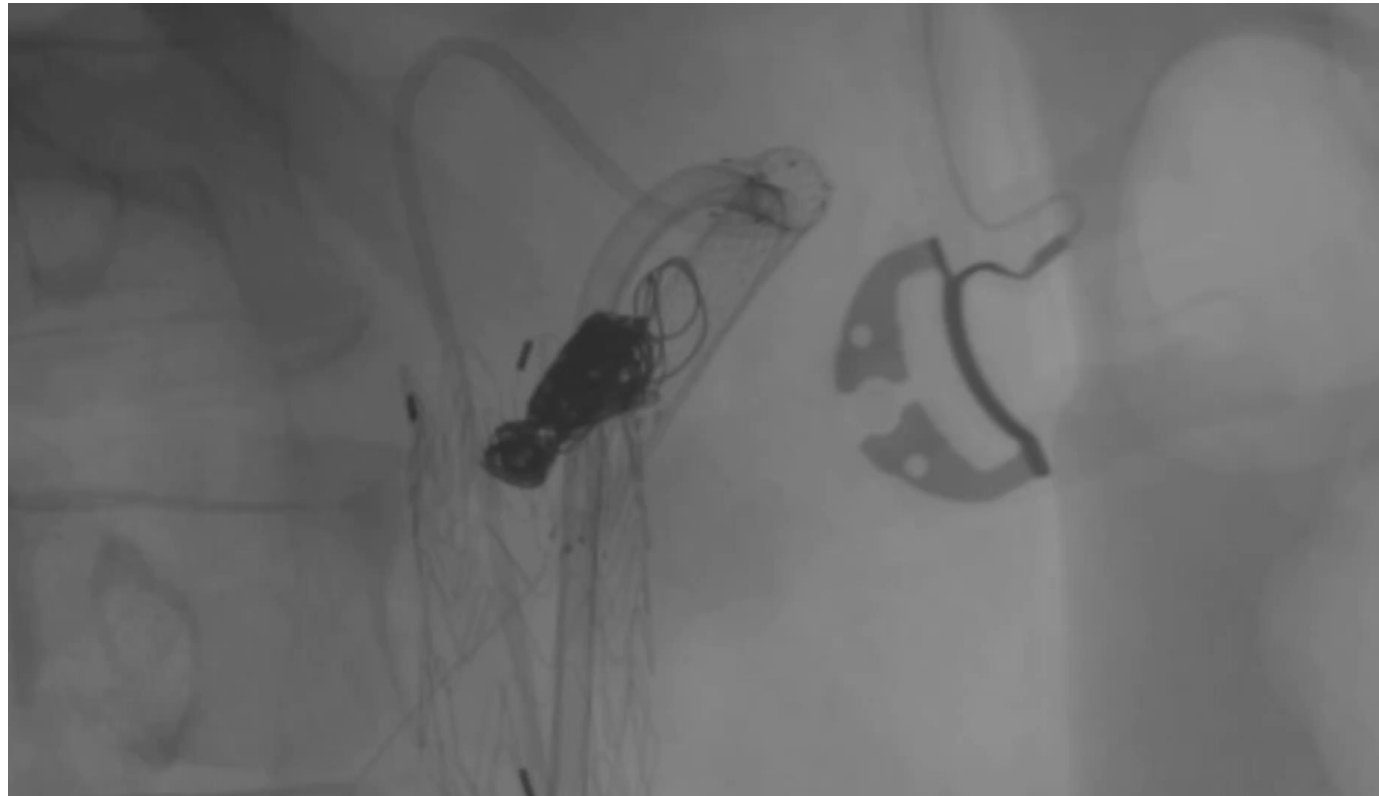
Procedure: Complex SMA pseudoaneurysm repair

- 7 x 50 mm Viabahn covered stent placement just proximal to middle colic
- Good filling of middle colic after stent placement



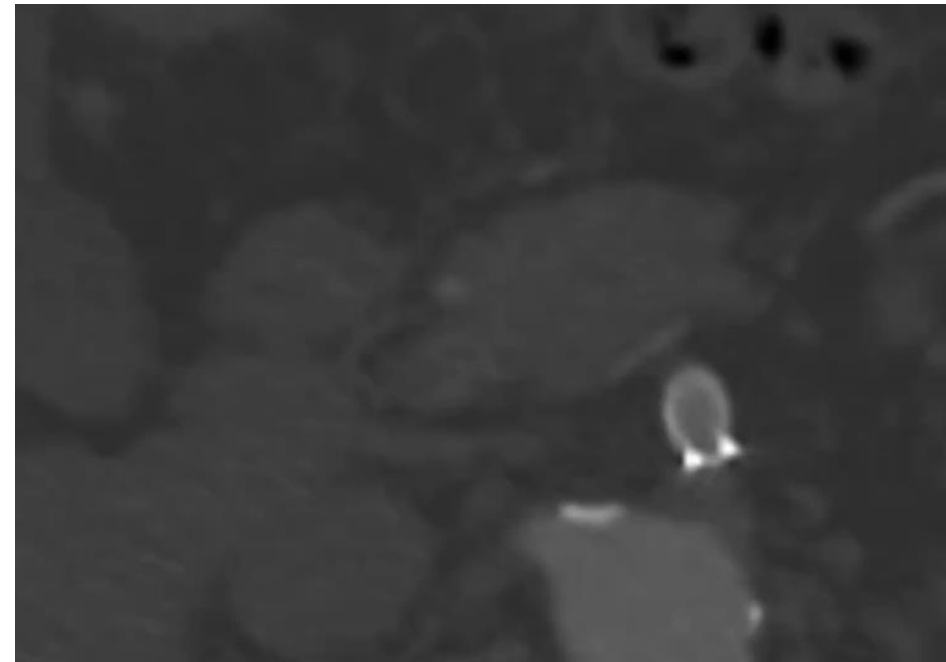
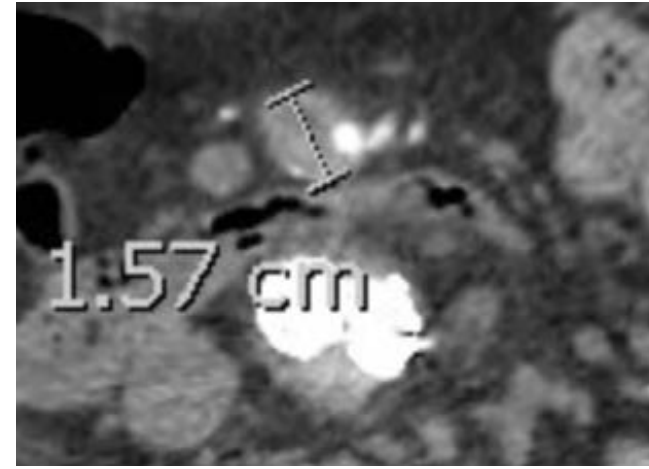
Procedure: Complex SMA pseudoaneurysm repair

- Pseudoaneurysm packed with Concerto and Azur hydrogel coils until catheter kicked out
- Completion angiogram: good filling of middle colic artery, no pseudoaneurysm filling



Complex SMA pseudoaneurysm repair: 4-year follow up imaging

- Follow-up imaging at 4 years
 - No aneurysmal progression
 - Stable size of thrombosed, coiled pseudoaneurysm
- Endovascular repair proved to be safe and effective in management of complex SMA pseudoaneurysm



Thank you!