

CO2 - Cases

Hector Ferral, MD

Senior Clinician Educator
Section of Interventional Radiology
NorthShore University HealthSystem
Evanston, IL



19th Annual Conference

2018
May 30 - June 01

THE PERIPHERAL EVENT OF THE YEAR



Disclosures

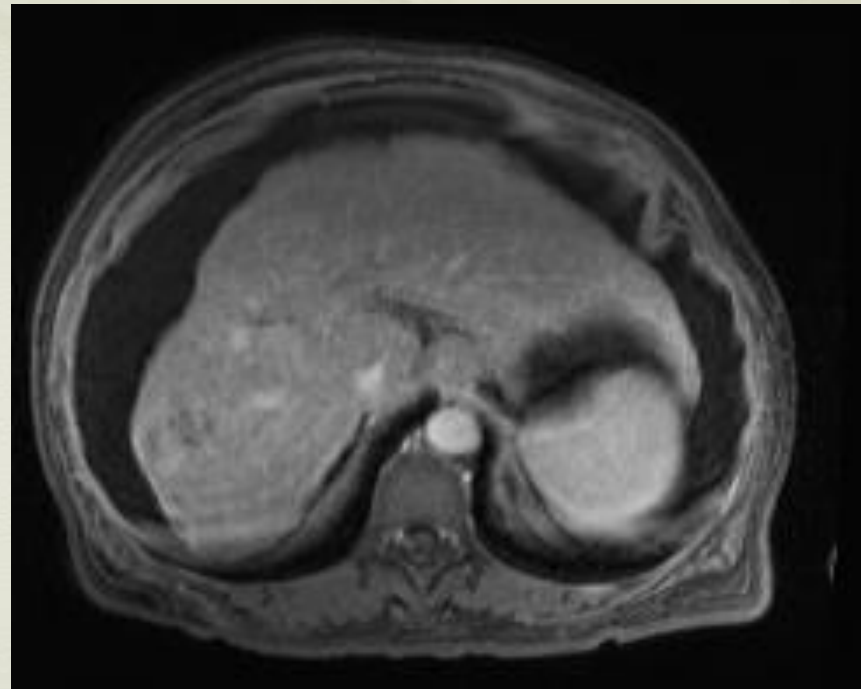
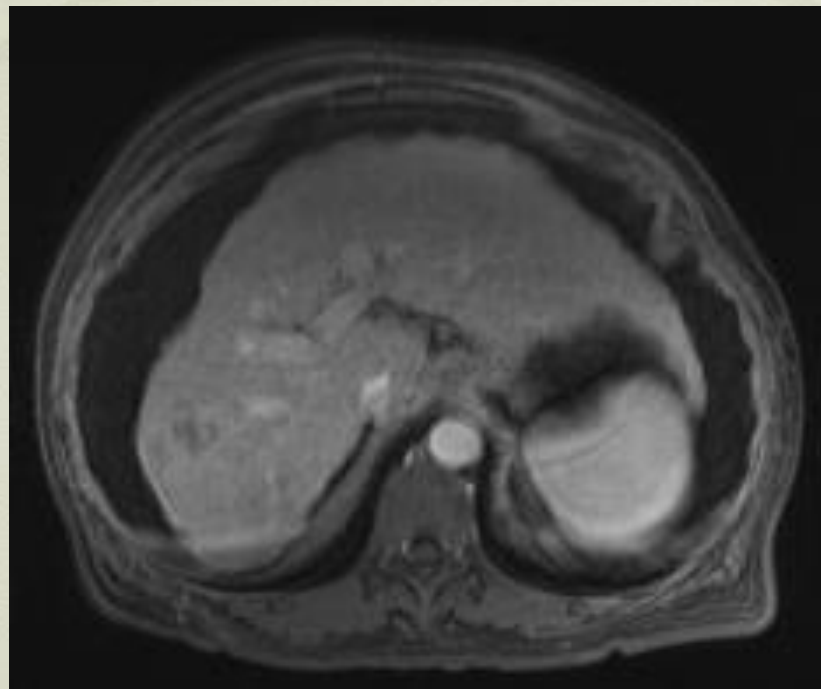
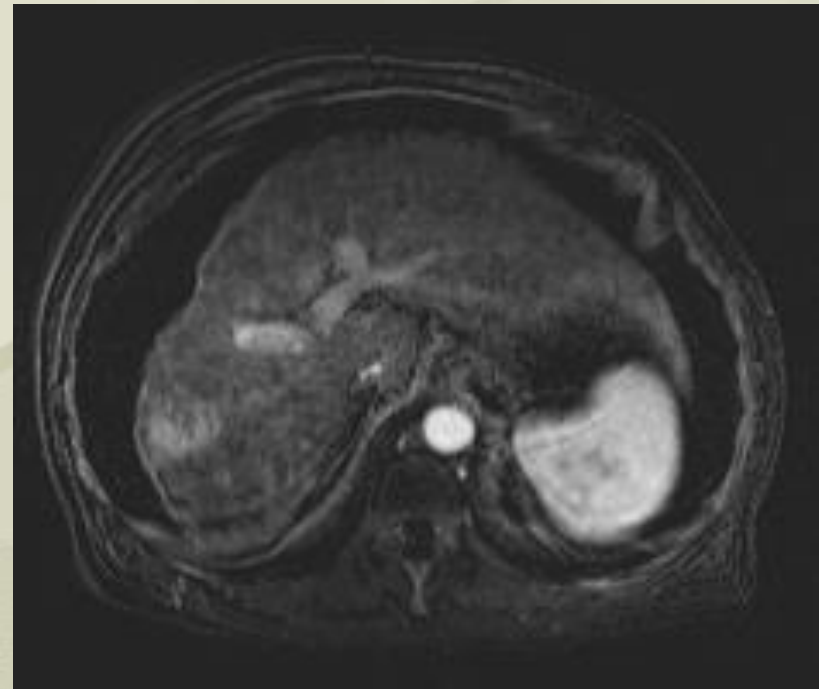
- Consultant for Terumo
- Consultant for Gore
- Consultant for Cook Medical
- Teaching and training team for BTG
- Teaching and training team for BD

Case # 1

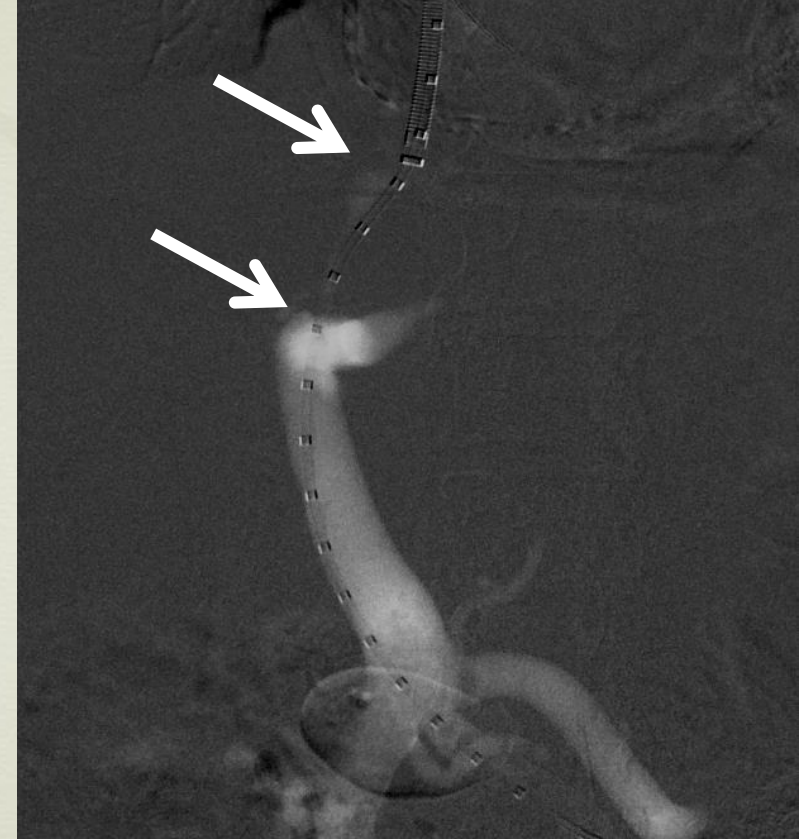
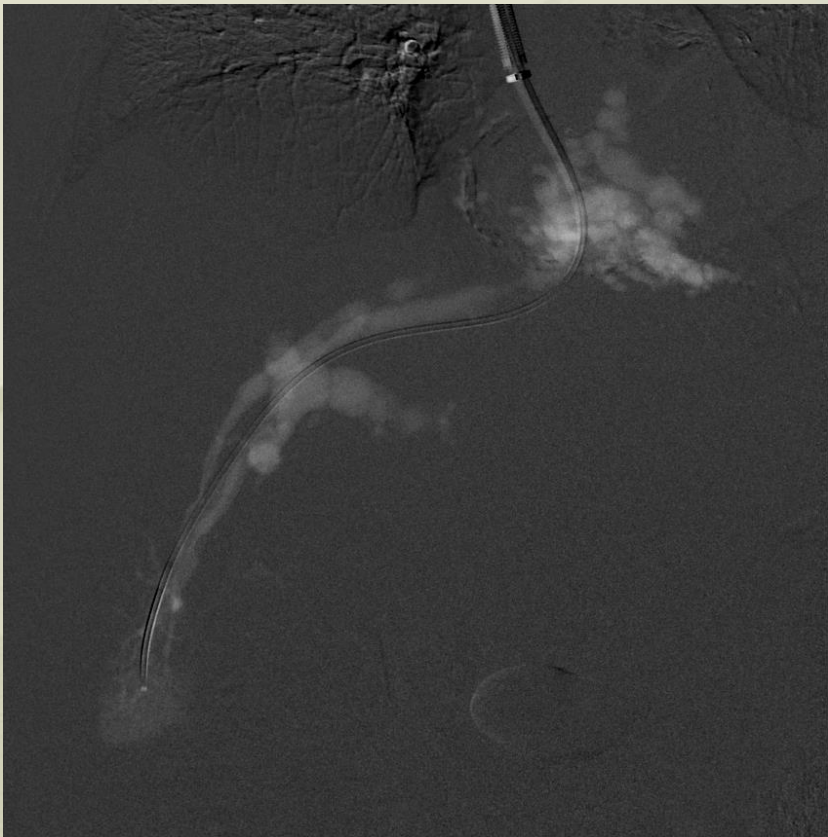
TIPS in a patient with chronic kidney disease

- 68 year old woman with Hepatitis C cirrhosis
- MRI showed Lirads-5 mass in the right lobe of the liver
- Patient was considered a good candidate for resection
- TIPS requested by her surgeon to decrease bleeding risk
- She had chronic kidney disease stage IV

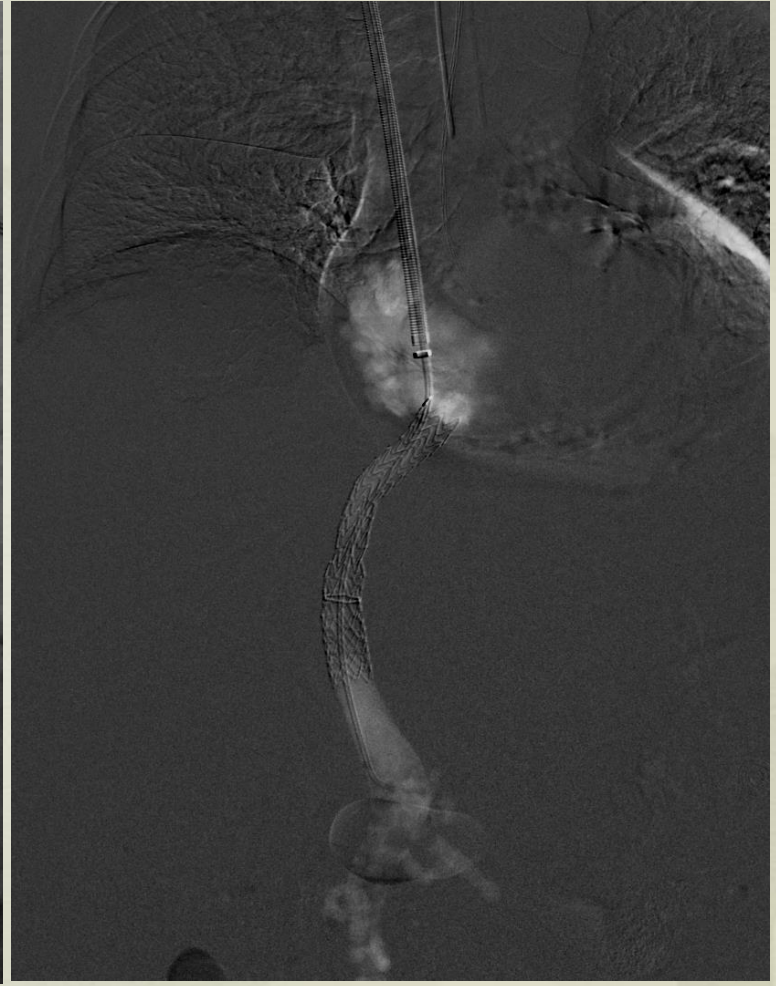
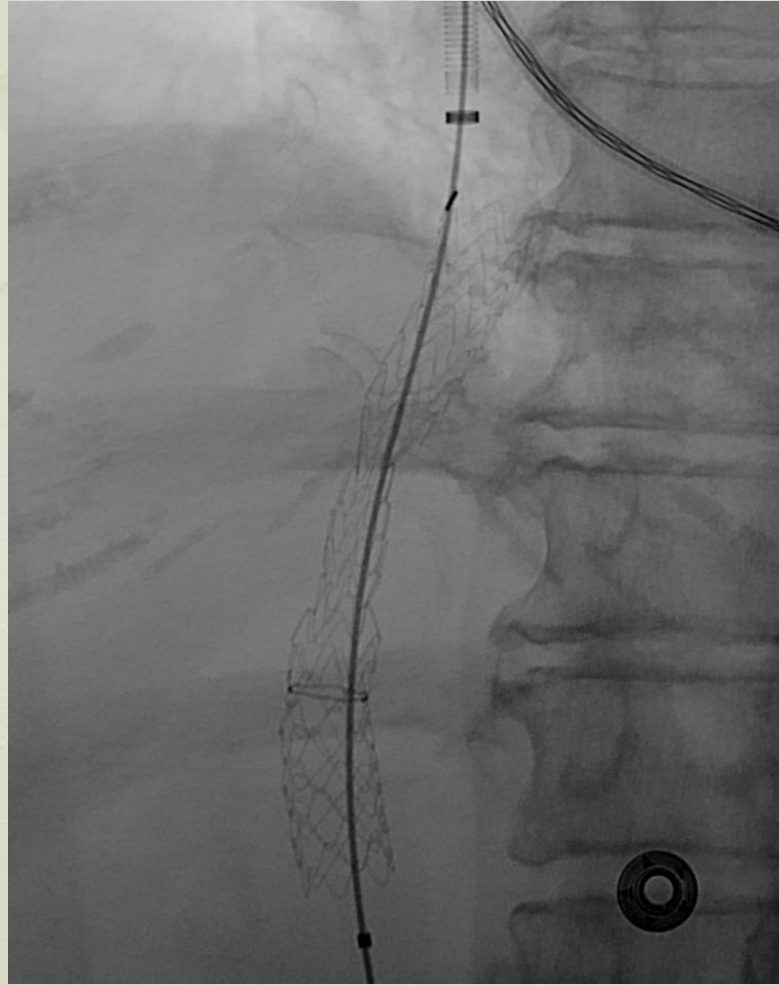
MRI



TIPS



TIPS



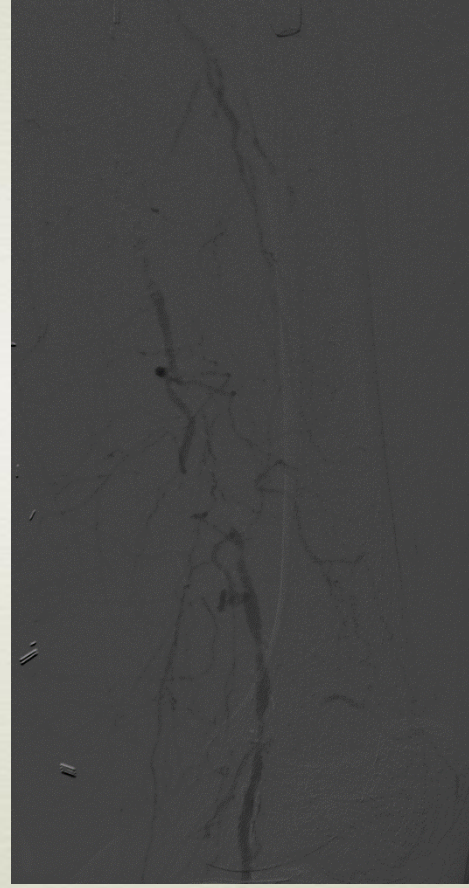
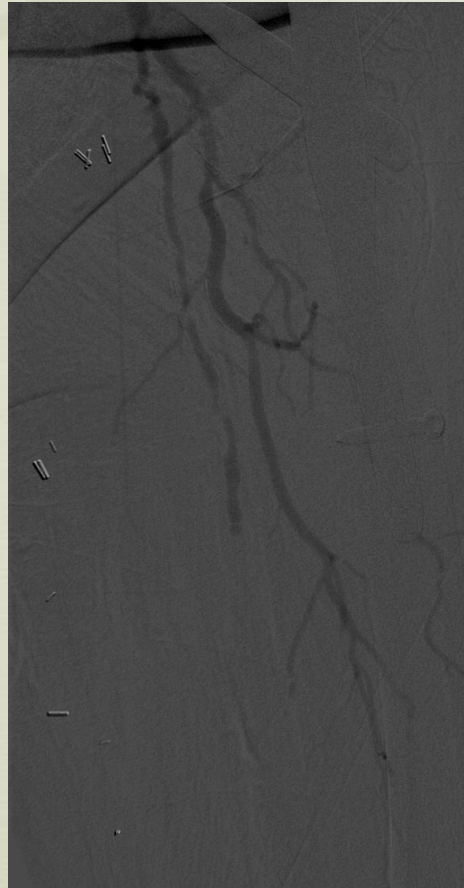
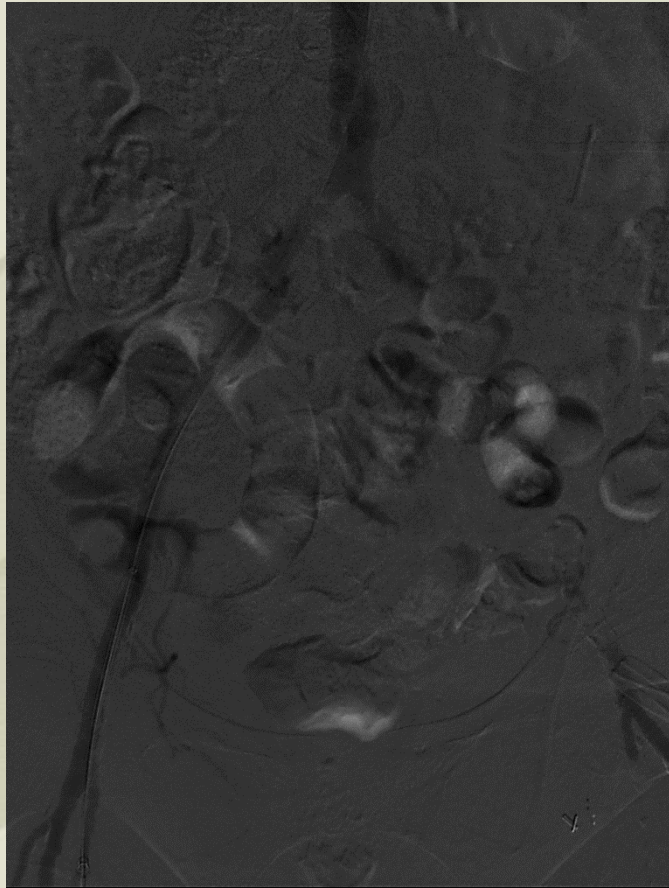
Discussion

- The procedure was completed using 10 ml of contrast
- No renal function deterioration was observed
- The patient underwent an uneventful right lobe resection
- Take home points:
 - Borderline kidney function is not a contraindication to TIPS
 - A TIPS procedure can be completed almost exclusively with CO₂
 - Minimal amount of contrast is required
 - *Especially useful on patients with diuretic resistant ascites*

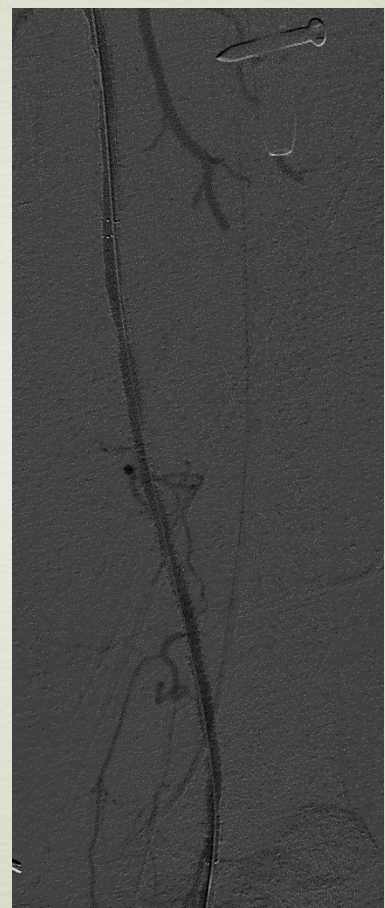
Case # 2 - Arterial limb salvage

- 68 year old woman with multiple co-morbidities
 - Diabetes
 - Obesity
 - Current smoker
 - Stage IV kidney disease - NOT on dialysis
- Presents with a large non-healing wound on the left shin

Diagnostic CO₂ Arteriogram



Recanalization and Stent Placement



Discussion

- These procedures can be performed with minimal risk to the patient
- In my experience, I end up always using contrast
 - The highest amount of contrast I use: 40-50 ml
 - Contrast is useful in certain key steps
 - Immediately after recanalization (confirm endovascular position)
 - Final runs (evaluate flow)
- Patients have not required dialysis due to a procedural complication

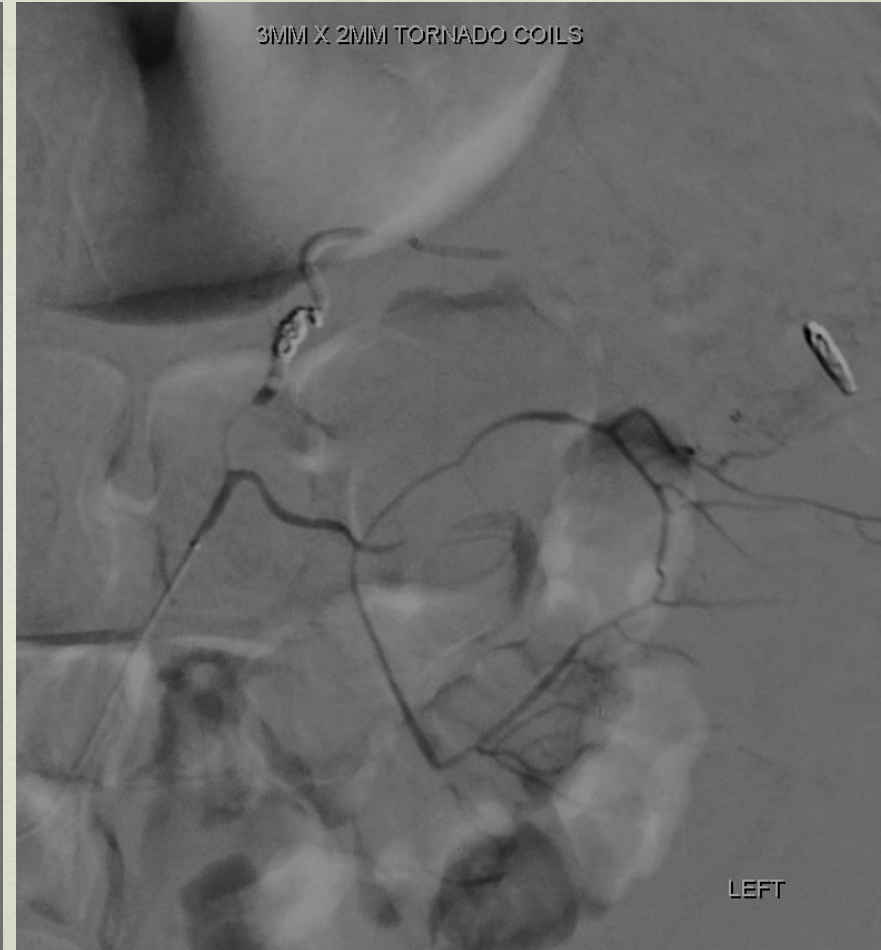
Case # 3 Lower GI bleed

- 85 year old woman who presented with lower GI bleed
- Had a colonoscopy
 - Large amount of blood seen
 - Suspicious site was marked with a clip
- Patient developed massive bleeding
- Brought directly to angiography
- A non-selective aortogram with CO₂ was performed

Non-selective aortogram



Super-selective embolization



Discussion

- CO2 angiography may be very useful in acute GI bleed
- This case illustrates a good application of CO2 in GI bleed
- CO2 can also be injected via microcatheters
- Additional medications (glucagon and papaverine) may be required to obtain better quality images.

Thank you



Owl- Davide Salvadore

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