



uOttawa



CAIR Case of the Month

Case Courtesy of Dr. M. Siddaiah
University of Ottawa

Inspired by research. **Inspiré** par la recherche.
Driven by compassion. **Guidé** par la compassion.

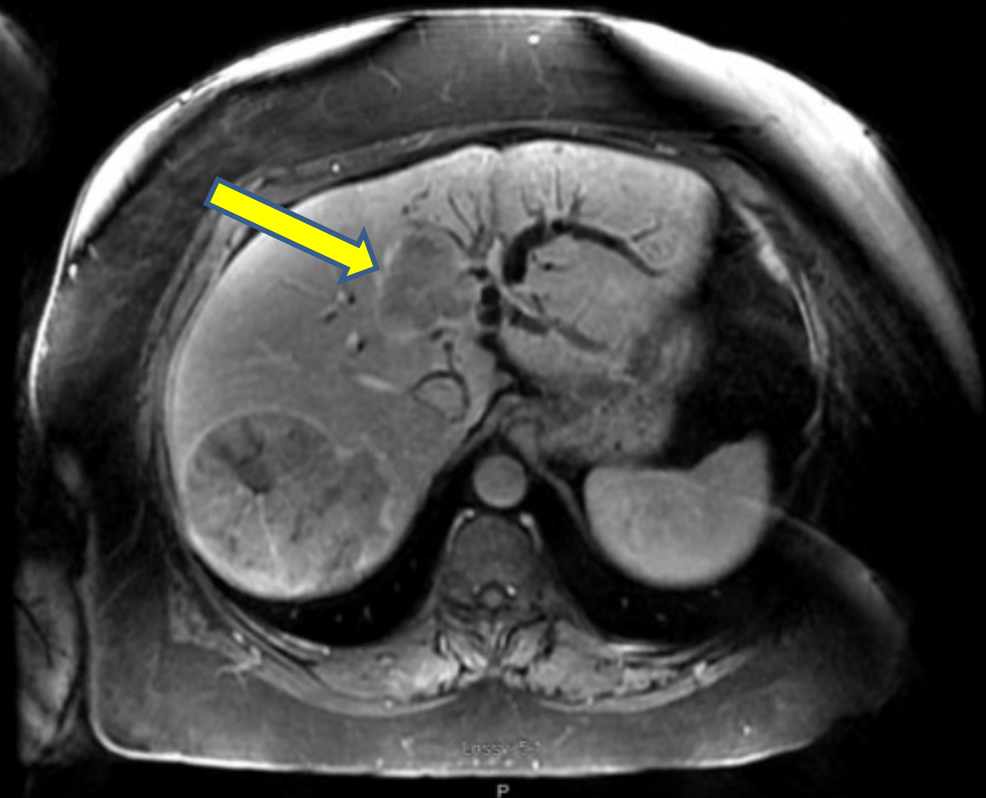
Clinical History

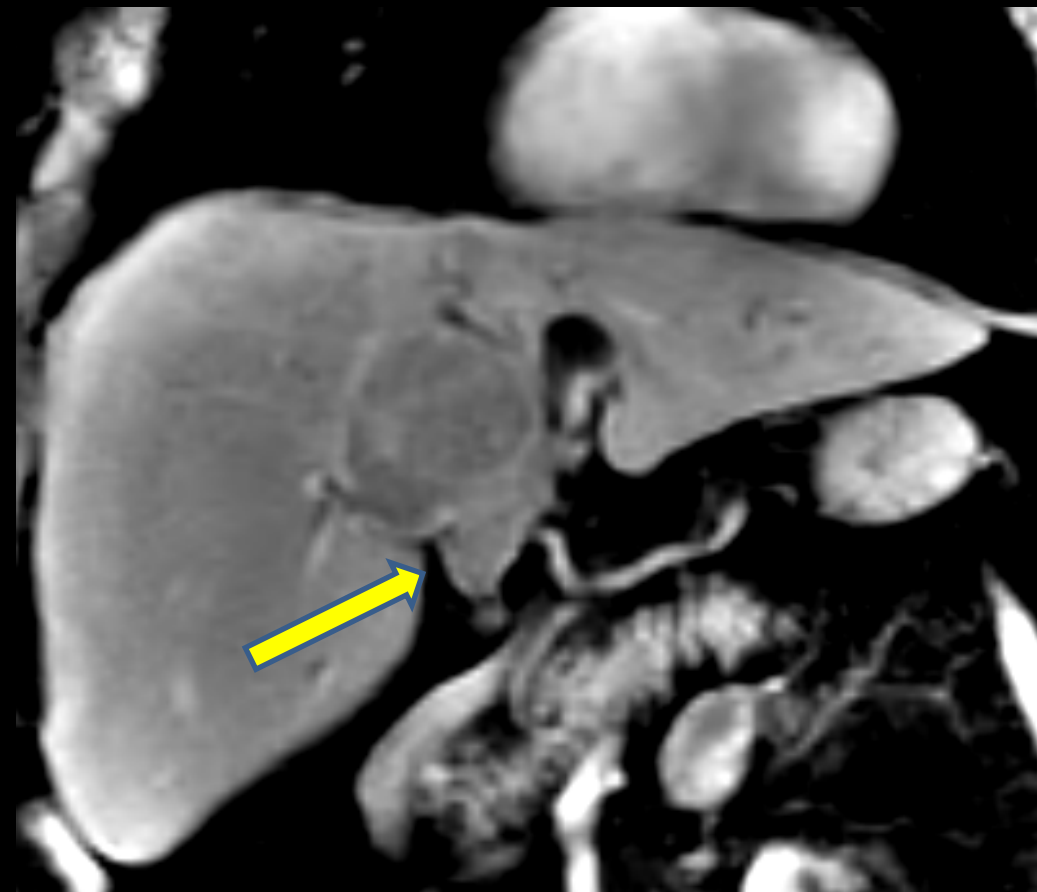
- 67 years old male presenting with painless jaundice (Aug 30, 2016)
- Lab picture
 - Bili 254
 - AST 494, ALP 288, ALP 590, GGT 923
- Cross-sectional imaging



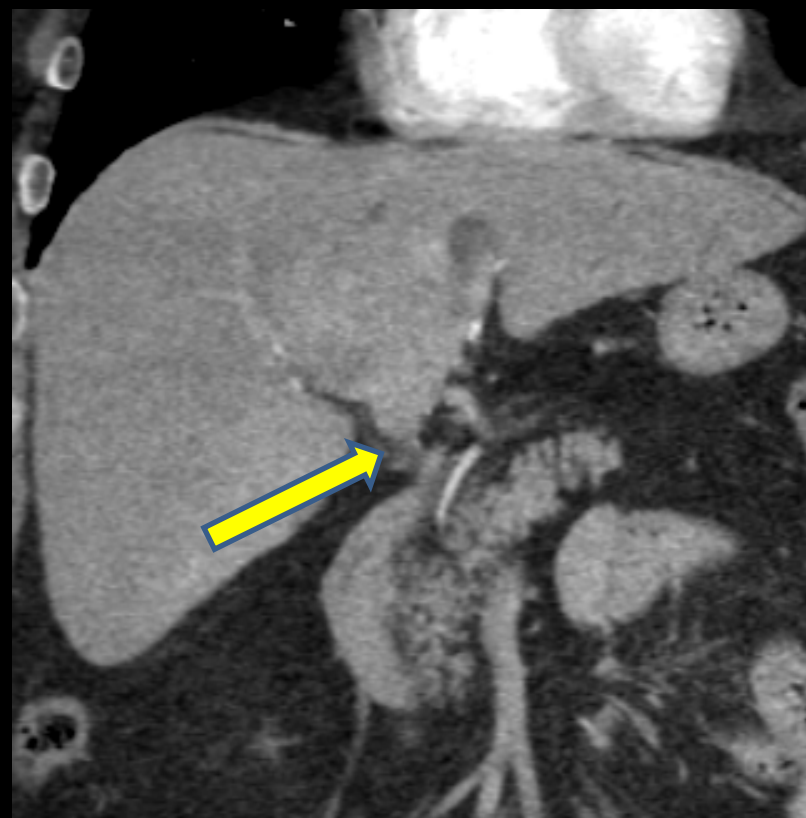
CEMRI – Art Phase

CEMRI – PVP





Coronal CEMRI



Coronal CECT

Diagnosis

- Multifocal hypervascular lesions
 - Biopsy-proven moderately differentiated HCC

Left-sided External Biliary Drain



- Patient readmitted after 1 month, with
 - Electrolyte imbalance
 - ATN
- Functioning left external drain
- For internalizing biliary drain

Left Biliary Drain Internalized



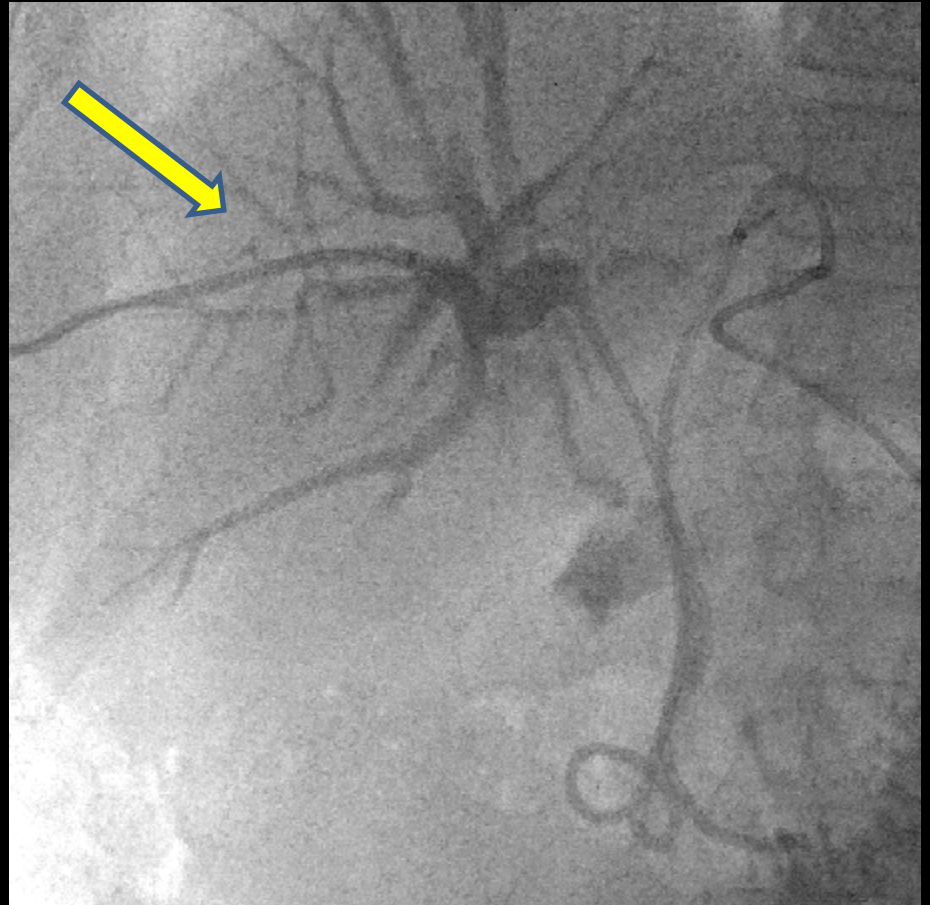
Tube Change

- Oct 3, 2016
 - No drop in bilirubin in spite of left-sided drainage catheter
 - Had uneventful tube change
- Oct 7, 2016
 - Persistent raised bilirubin (180) for right-sided drain placement

Right Internal/External Drainage

Post procedure

- Hypotension (80/50 mmHg)
- Recovered after fluid resuscitation
- F/U uneventful

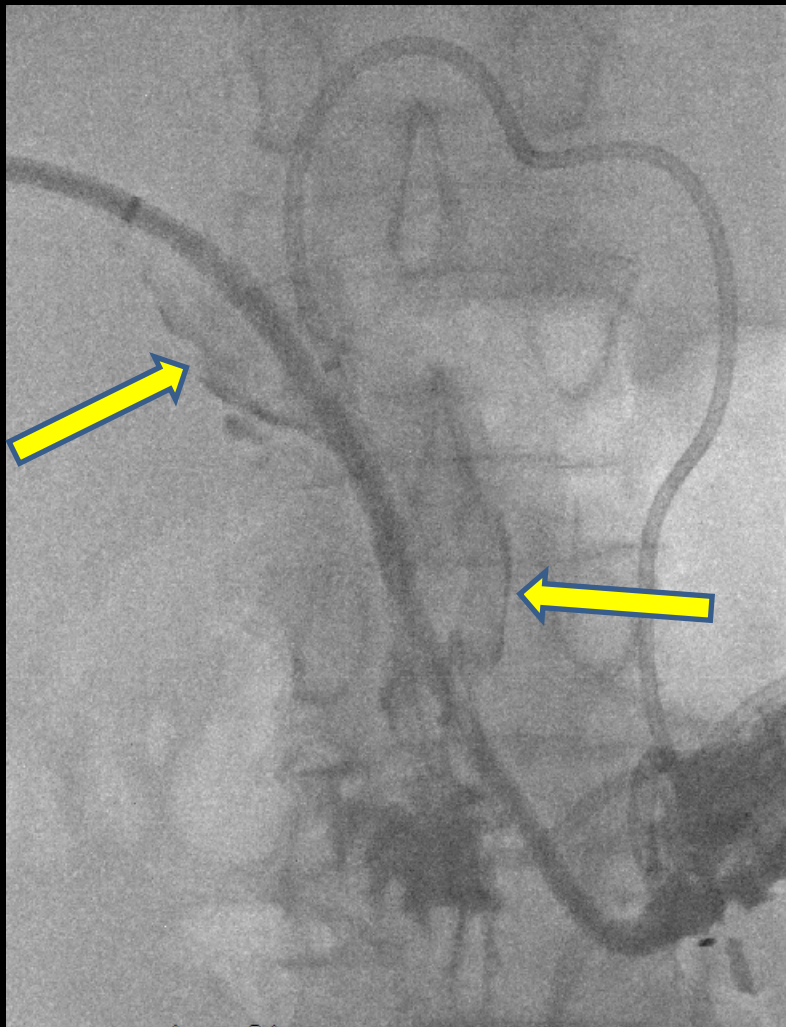


Tube Change

- Feb 15, 2017
 - Suspected right tube migration
 - Uneventful tube change
- March 25, 2017
 - Right peritubular leakage
 - Uneventful tube change

May 10, 2017

- Bilateral biliary drains capped
- New RUQ pain and jaundice
- Bilirubin 130 for tube change



Post tube change

- The right upsized to 12 Fr
- Blood-stained drainage with suggestion of clots in bile duct
- Left exchange uneventful
- Immediate f/u unremarkable

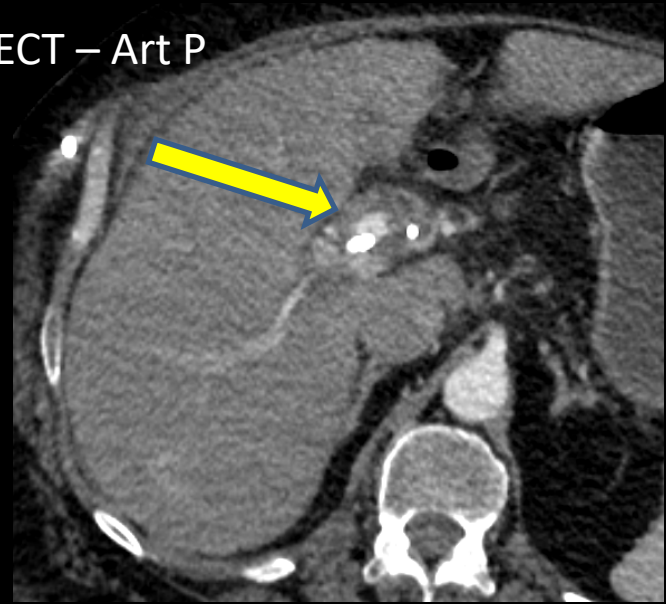
14 May 2017

- Melena and hemobilia
- Bilirubin 200
- CT advised

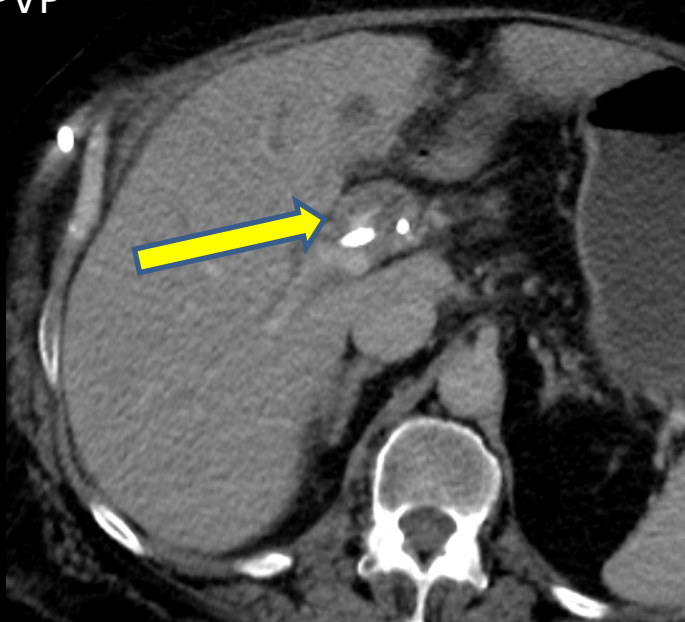
NCCT



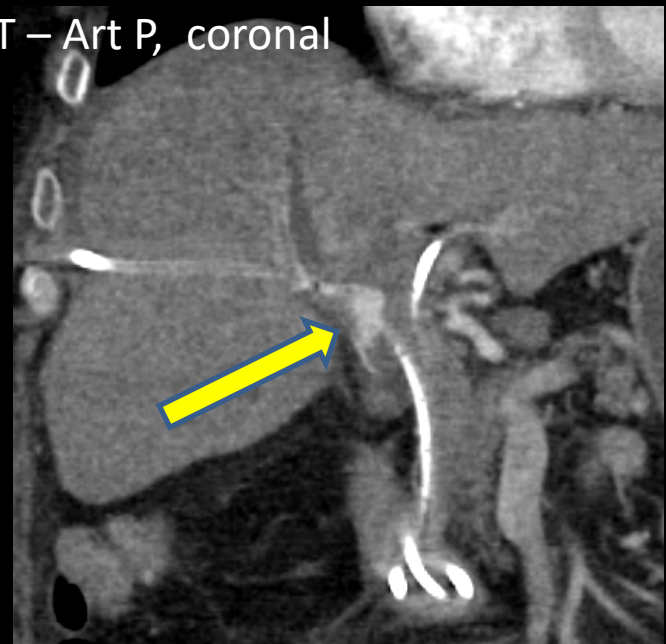
CECT – Art P



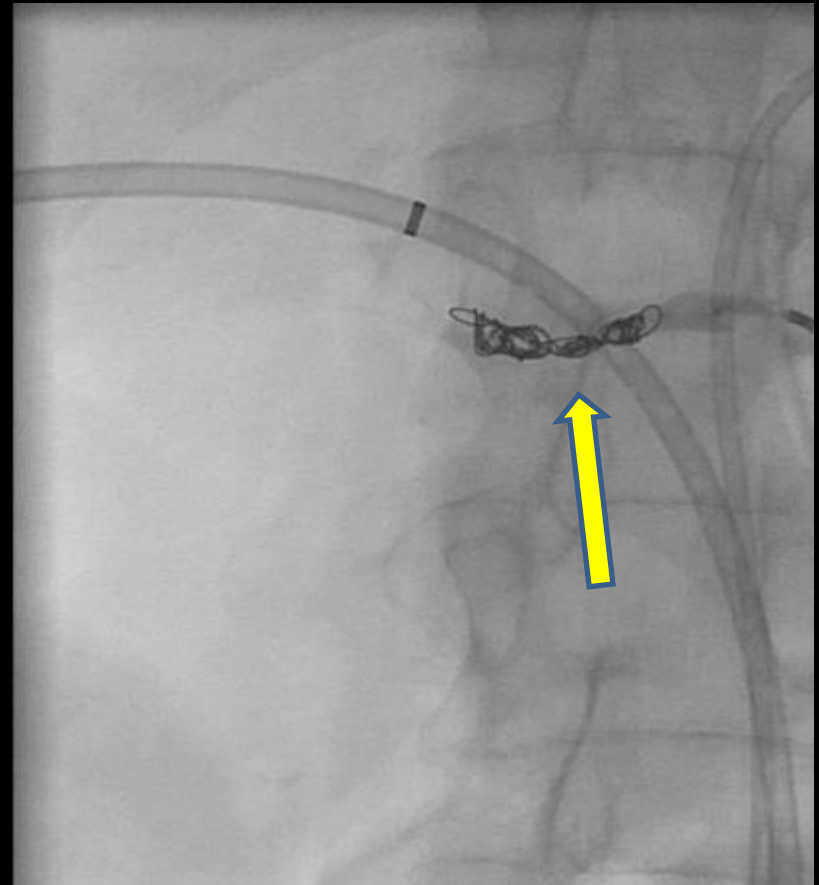
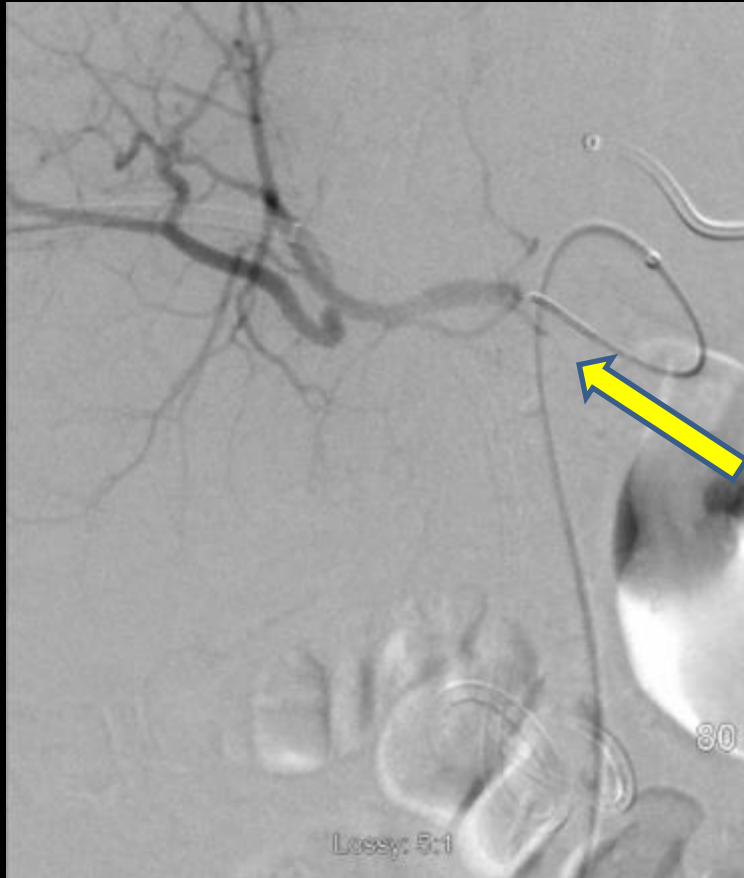
CECT – PVP



CECT – Art P, coronal



Hepatic Angiogram



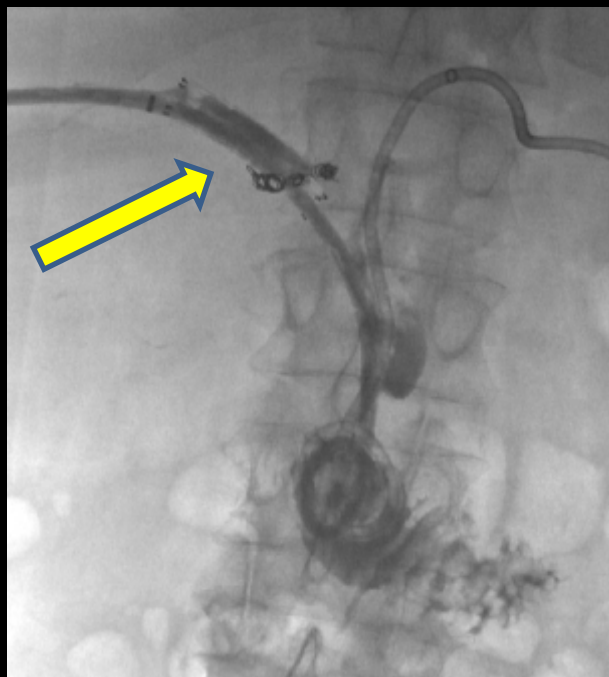
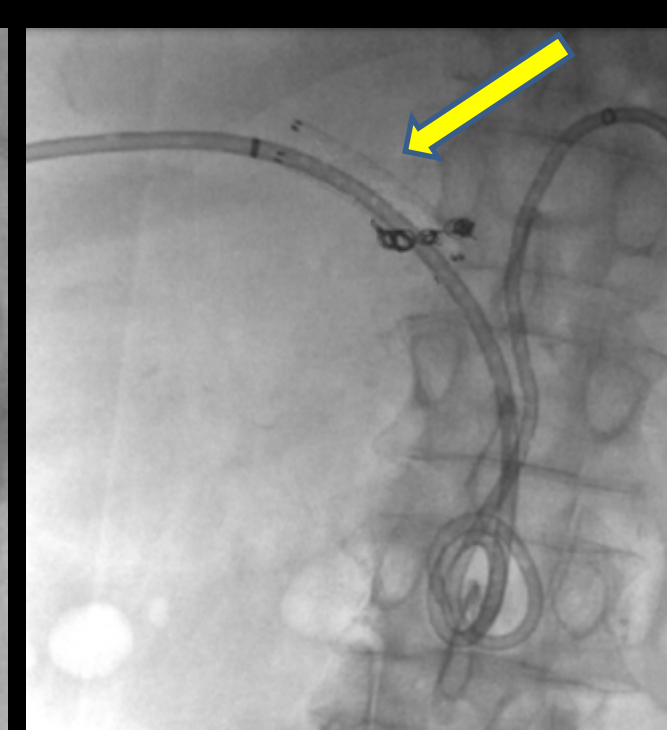
Follow-Up

- Immediate post procedure - clinically stable
- Underwent uneventful tube changes on multiple occasions (5 times)
 - May 30, 2017 - Dec 18, 2017
 - For pericatheter leakage or decreased drainage

- Came for decreased right tube drainage and history of melena
- Clinically continues to have melena



- He became hemodynamically unstable
- Drop in BP and increase in HR
- Intervention
 - The tube was exchanged and upsized from 12.5 to 14 Fr biliary catheter
 - Cholangiogram performed which showed no active bleed
- The patient continued to be unstable and we were asked to intervene the next day



- Biliary stenting with A 10 x 40 mm covered stent
- Post-procedure cholangiogram
 - Complete blockage of the fistula
 - Free drainage of bile in to the duodenum

Immediate follow-up

- Mildly febrile
- Blood culture showed bacteremia
- Started on multiple antibiotics
- Asymptomatic
- Bacteremia persisted and was finally treated with meropenem

1 month follow-up (5 weeks since stenting)

- While in ICU he deteriorated neurologically
- Diagnosis of embolic stroke made
- Unfortunately the patient succumbed to his illness

Discussion

Biliary-portal fistula

- A known uncommon vascular complication
- Associated with significant morbidity and mortality

- Treatment

- If small, upsizing the drainage catheter tamponades fistula and over a period of time track epithelializes
- Coil embolization of fistulous tract from either side (portal or biliary) - completely occludes fistula
- Portal vein stenting via a transhepatic approach