35-year-old female with breast cancer with back pain and inability to urinate

Cased-Based Learning and Morbidity and Mortality

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Disclosures

No relevant financial interests with any commercial interest to disclose.

Brand names are included in this presentation for participant clarification purposes only.

No product promotion should be inferred.

HPI

35 y/o female with history of right breast cancer ER-, PR-, Her2neu- cT2N1 (AJCC stage IIB) s/p neoadjuvant AC-T, bilateral mastectomy, PMRT with delayed bilateral DIEP flaps reconstruction (3 months prior), currently no evidence of disease

PMH

Type 1 DM, HgbA1c 8.7

5/9/2020 CC: Inability to urinate and left flank pain, foley catheter placed, released 1400 mL of urine

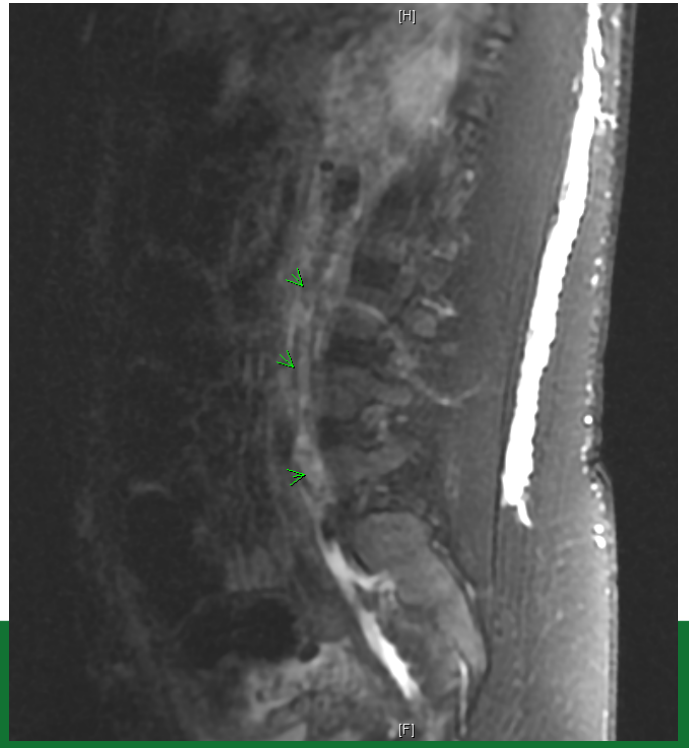
Pertinent Labs

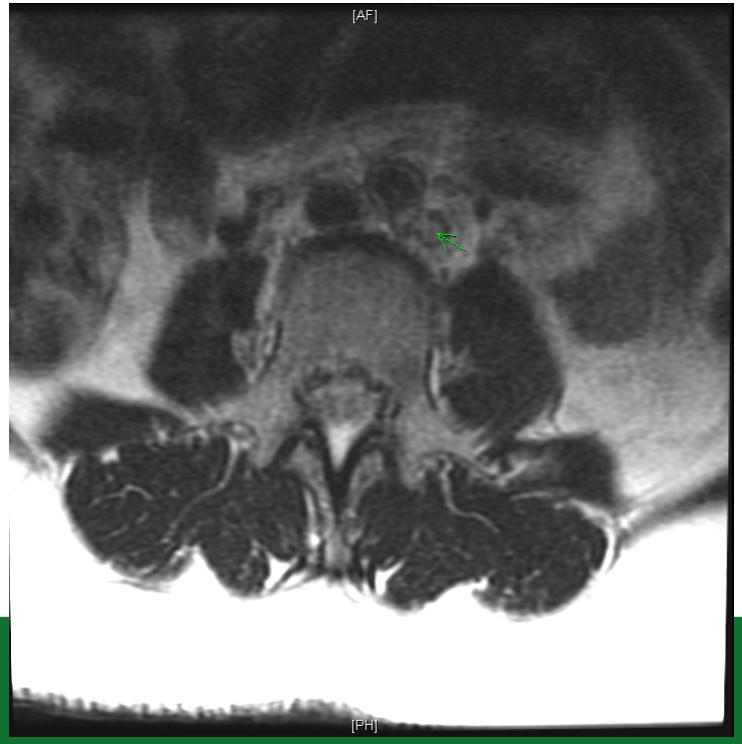
- Create 1.5 → → 1.1 with foley and urine retention resolved
- H/H 11.6/36.4

MRI performed 5/9/2020 due to back pain and urinary retention

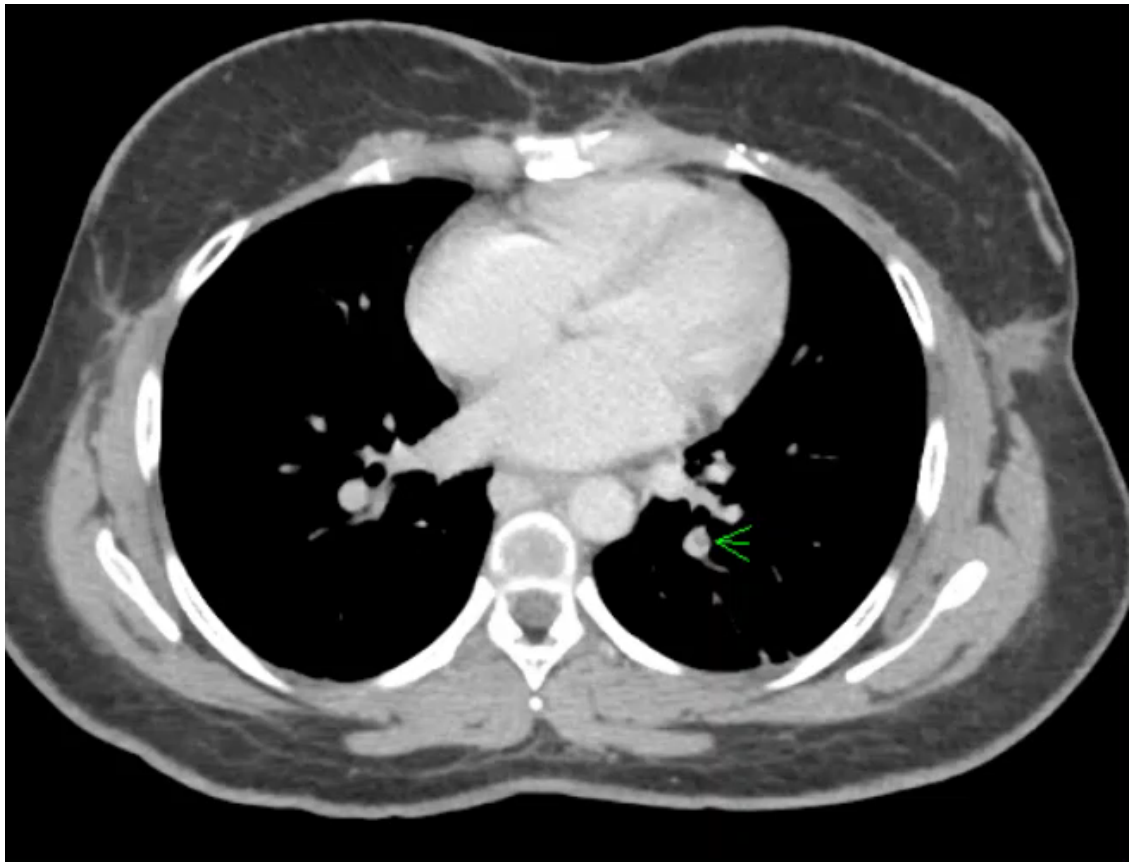
Findings: fullness/congestion of the epidural venous plexus at the inferior lumbar segment and lumbosacral junction is related to suspected left common iliac and left-sided IVC

There is secondary moderate effacement of the S1 sacral canal.





CT 5/10/2020



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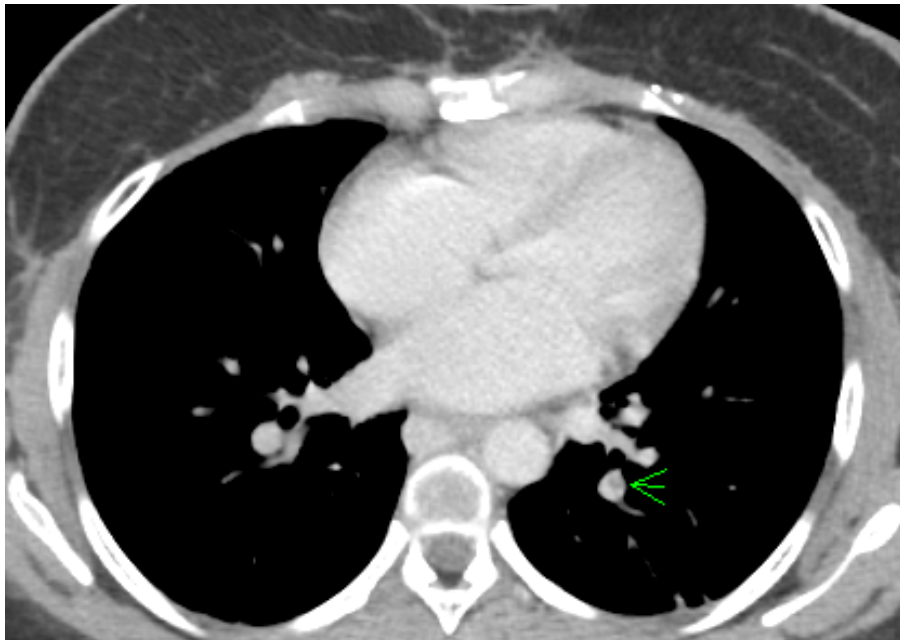
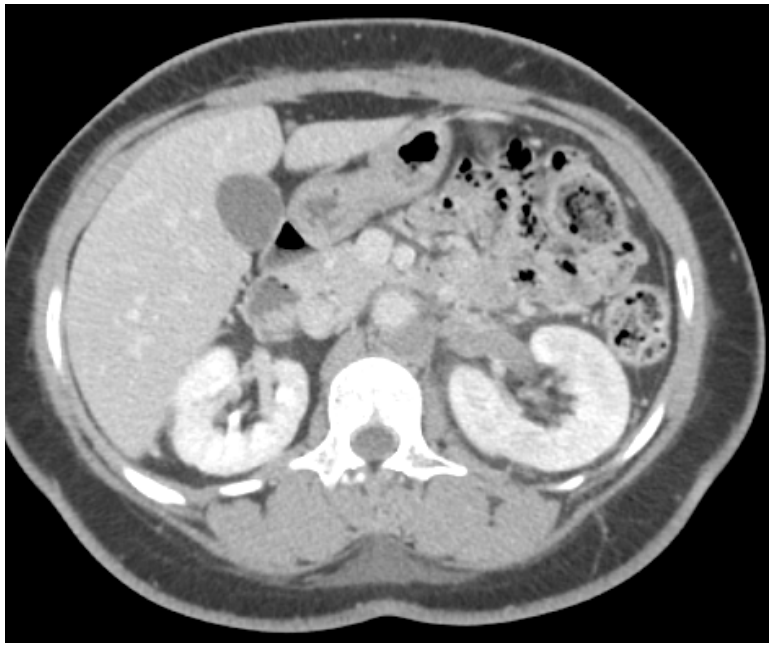
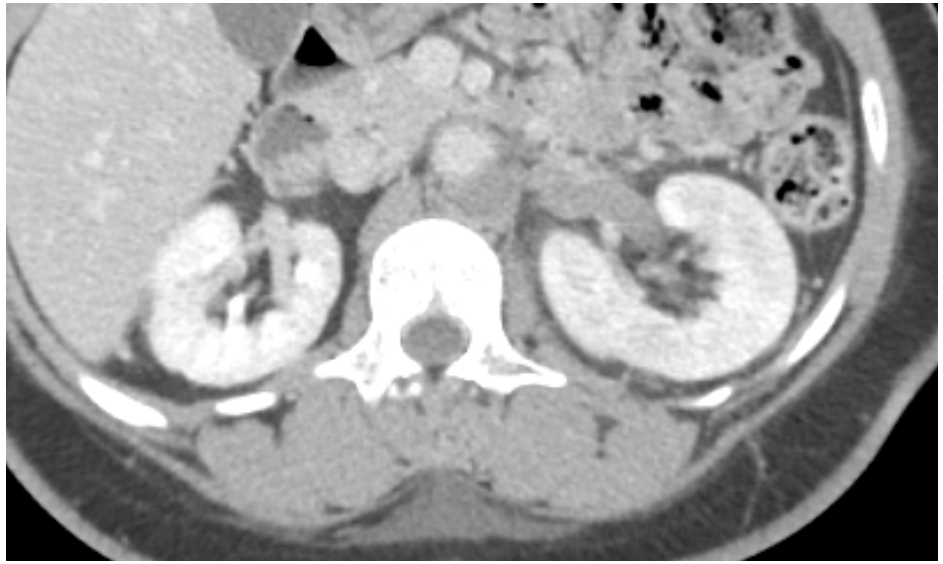


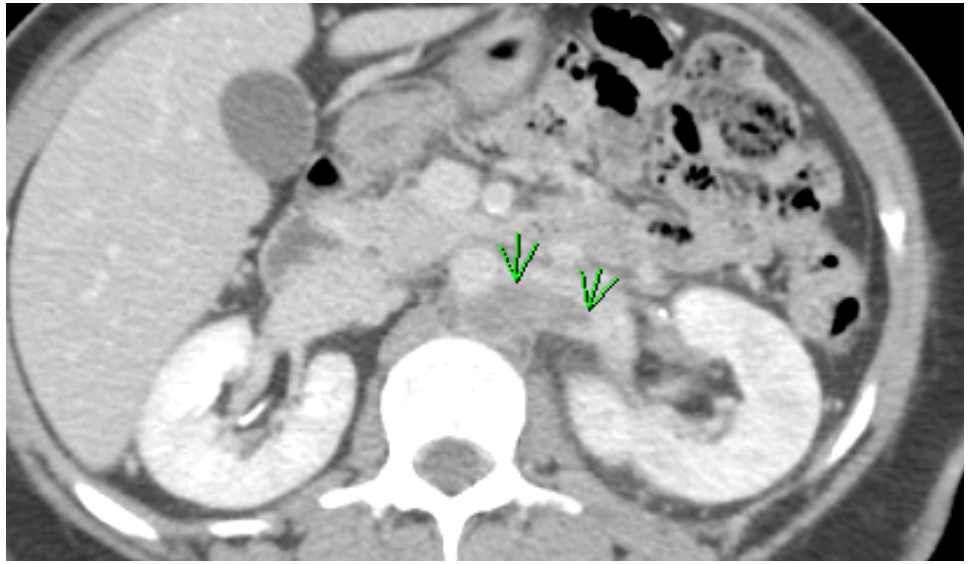
Subsegmental PE at the lung bases

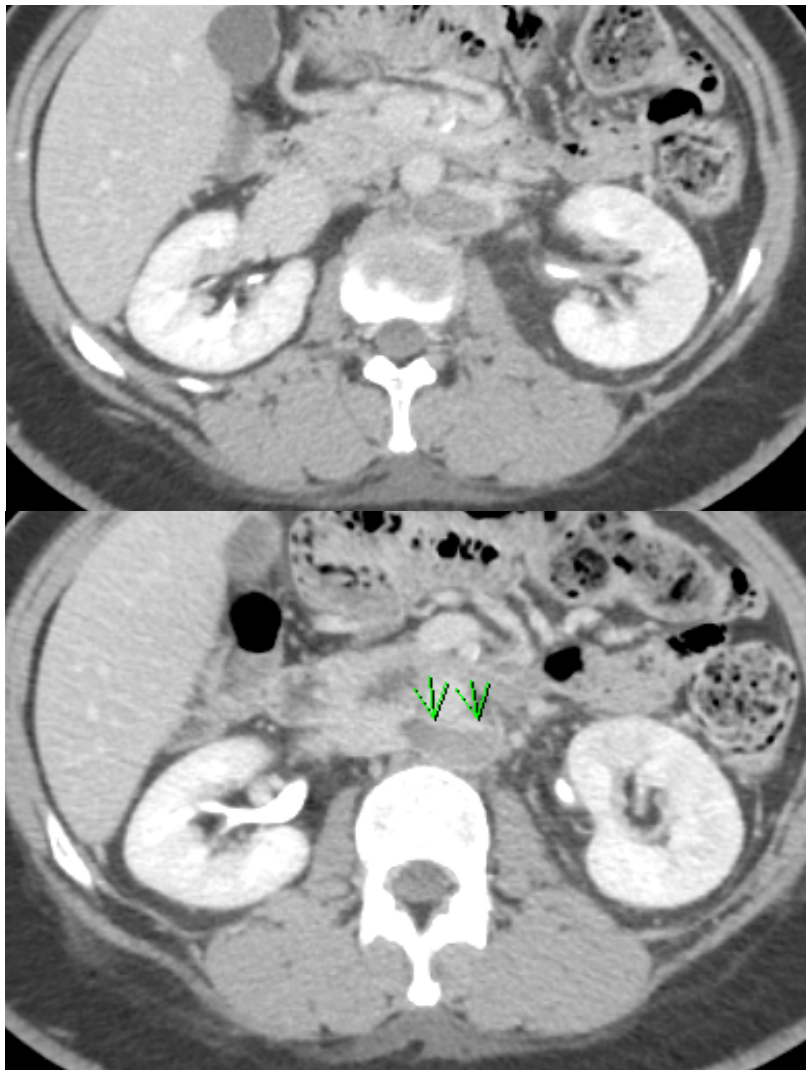


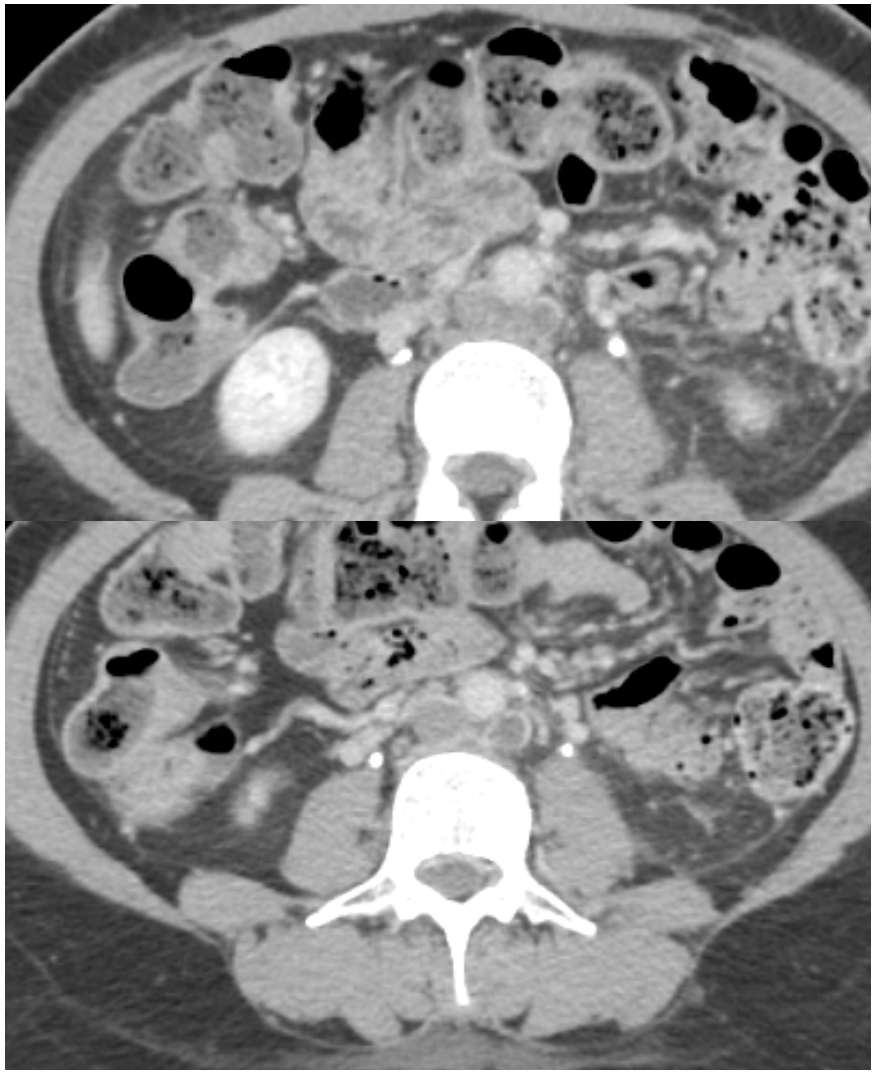
Left renal vein thrombosis

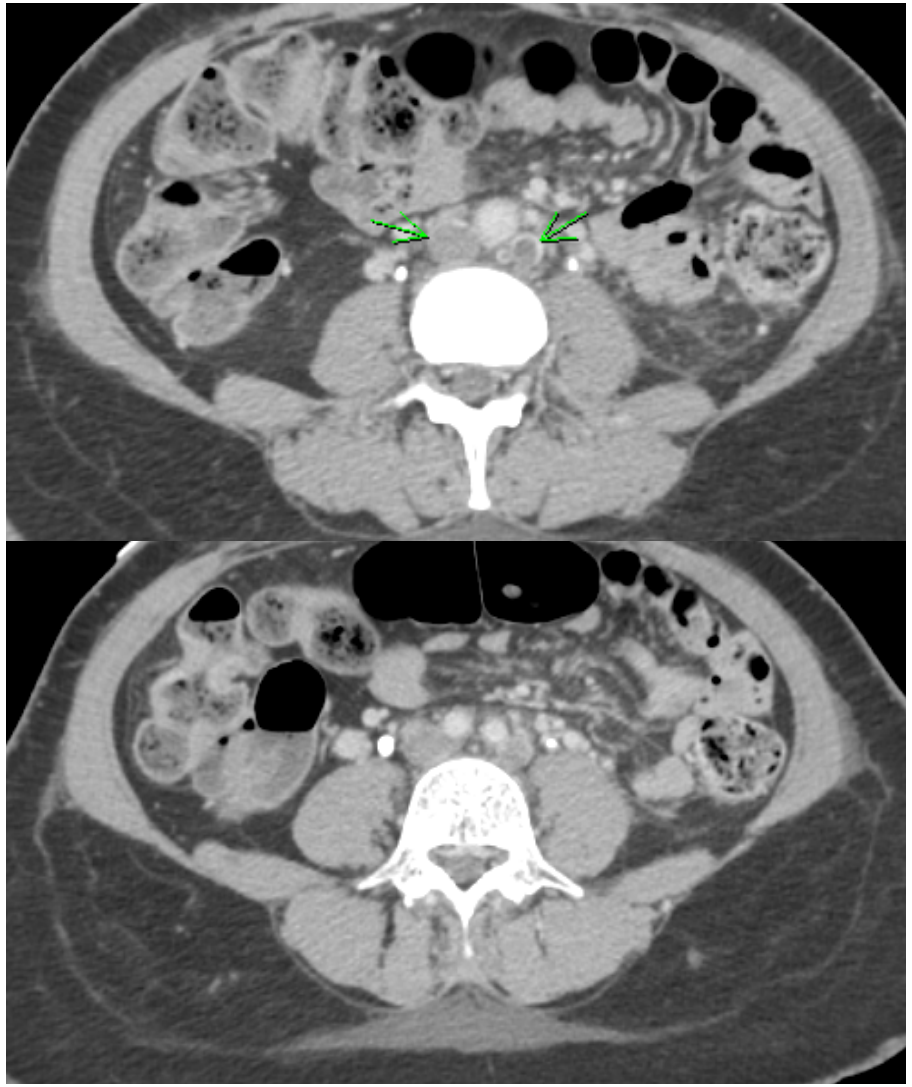
CT 5/10/2020

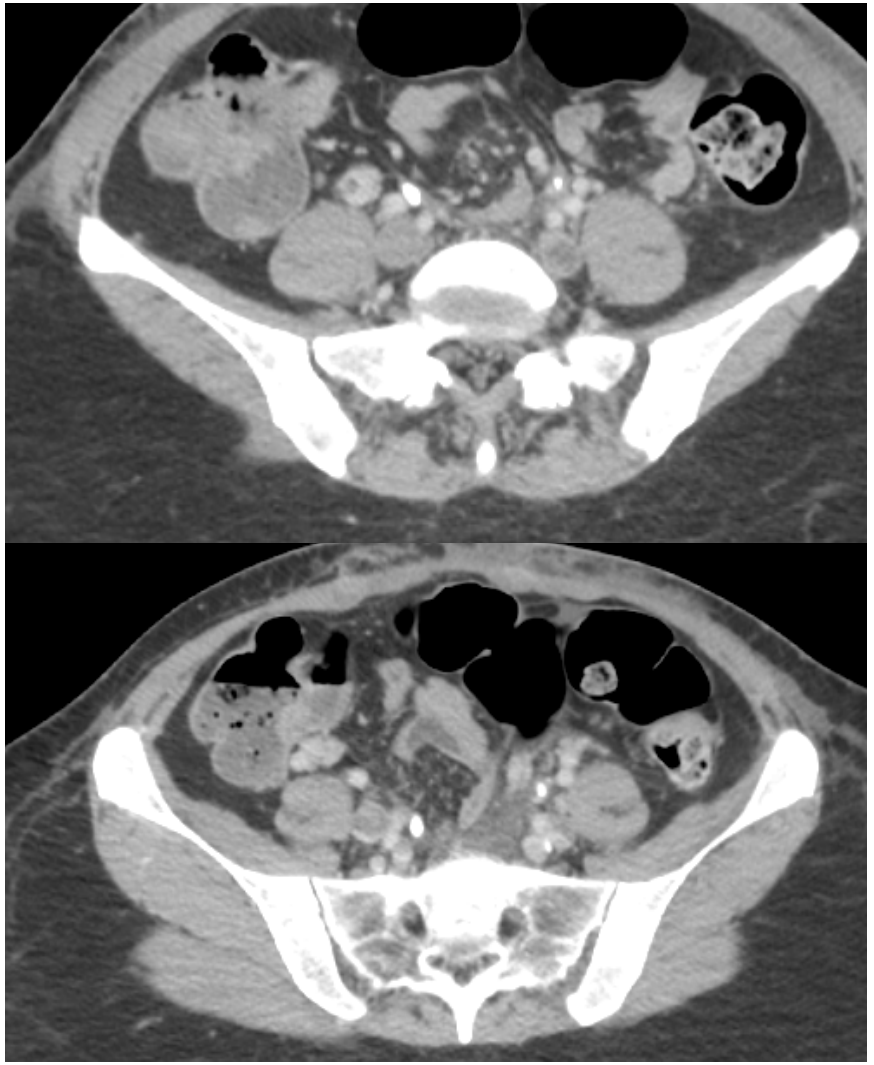




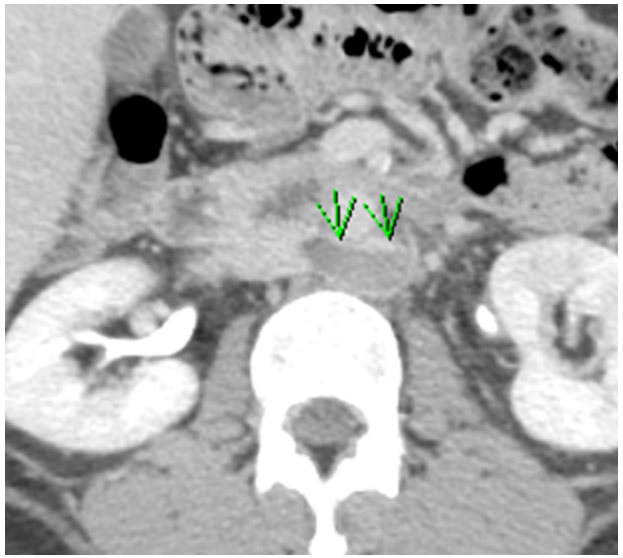


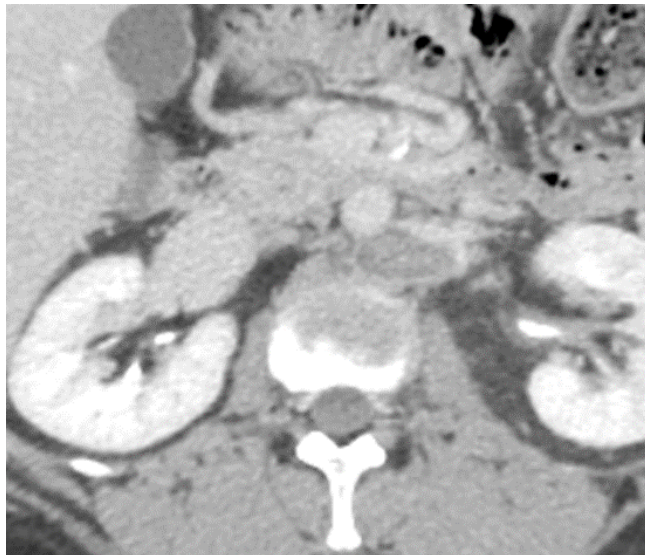


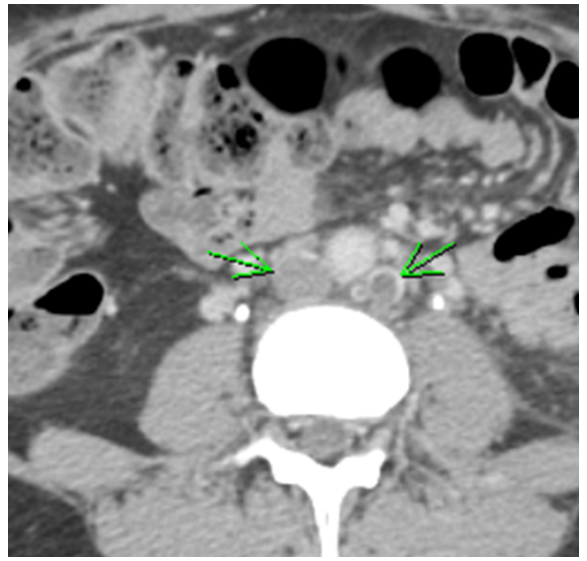




Venous Anomaly





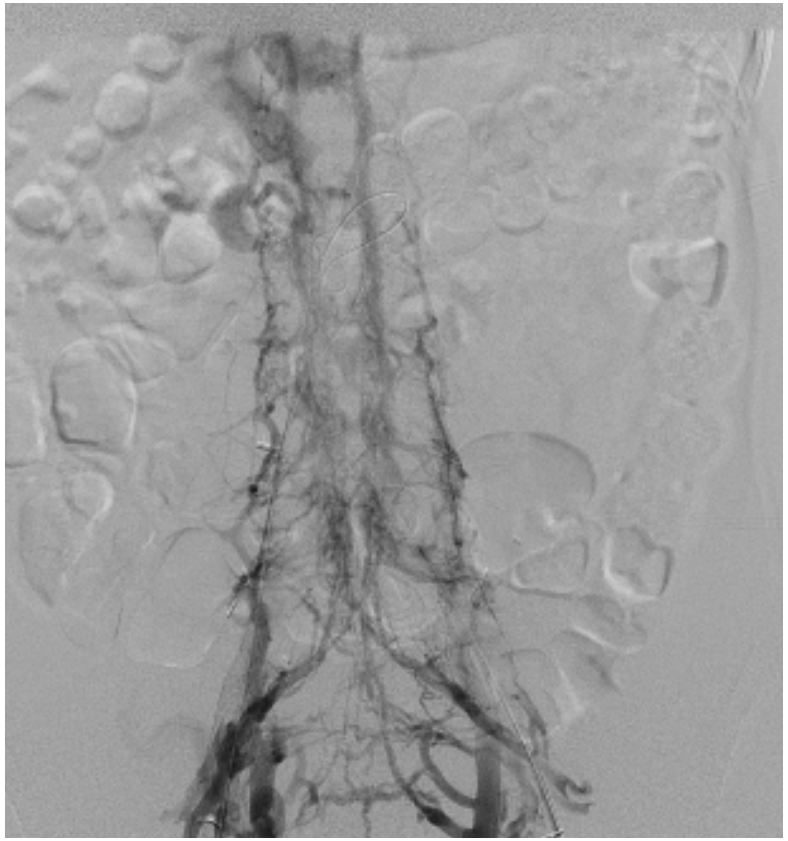


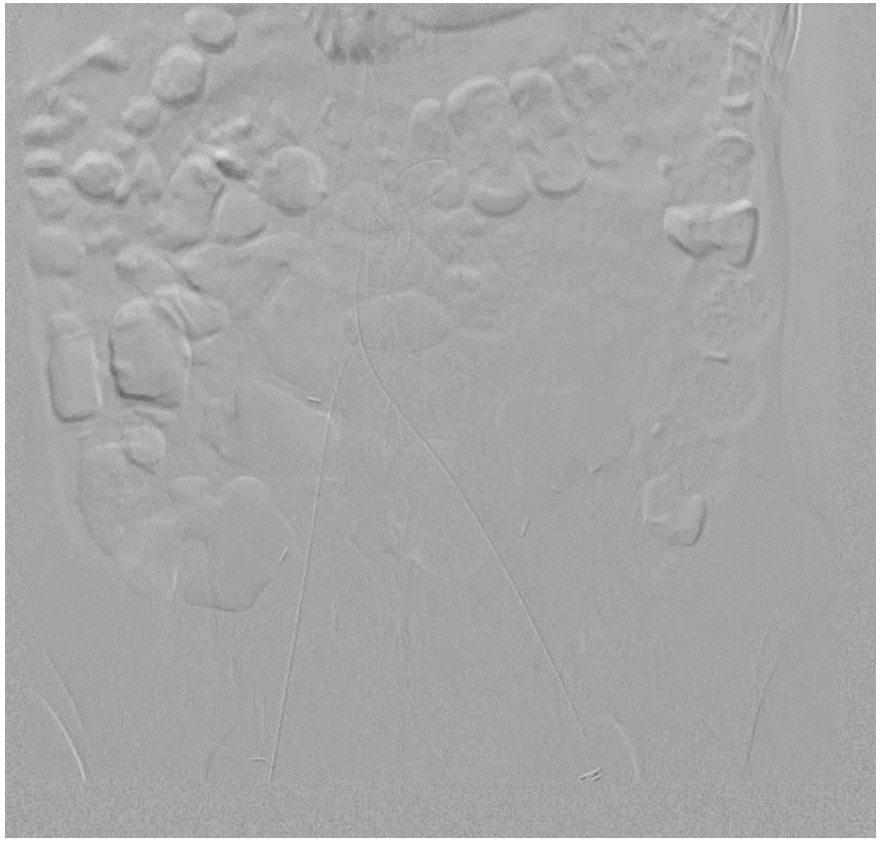
Venous anomaly with duplicated IVC with left IVC confluent with the left renal vein and azygous continuation to the chest
R IVC with more typical course, confluent with right renal vein and to R atrium

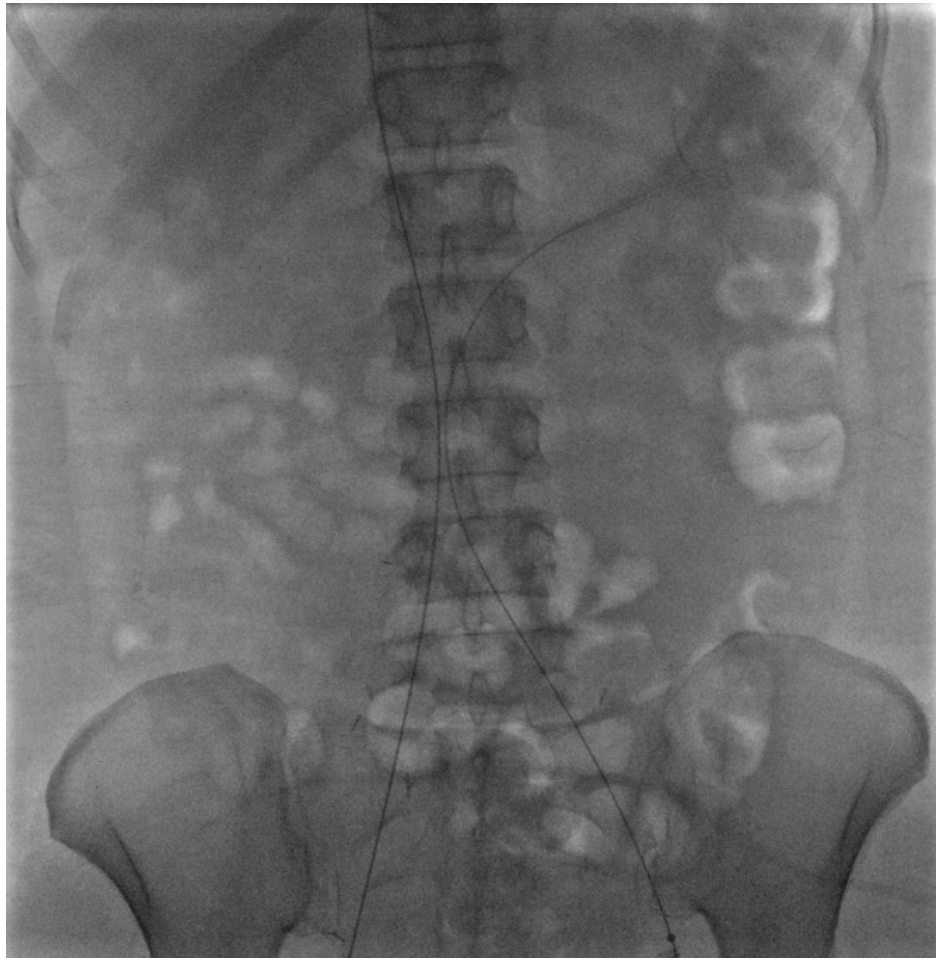
Decision for Urgent Intervention

- No Head CT with contrast at this time, as team did not want repeat contrast administration prior to administration of additional contrast for intervention given recent recovery of renal function (service policy to obtain either head CT with contrast or brain MRI)
- Decision by operating physician to try to do everything in one sitting and avoid overnight lysis given no head imaging with contrast
- Non-contrast head CT performed in the Angio Suite was negative

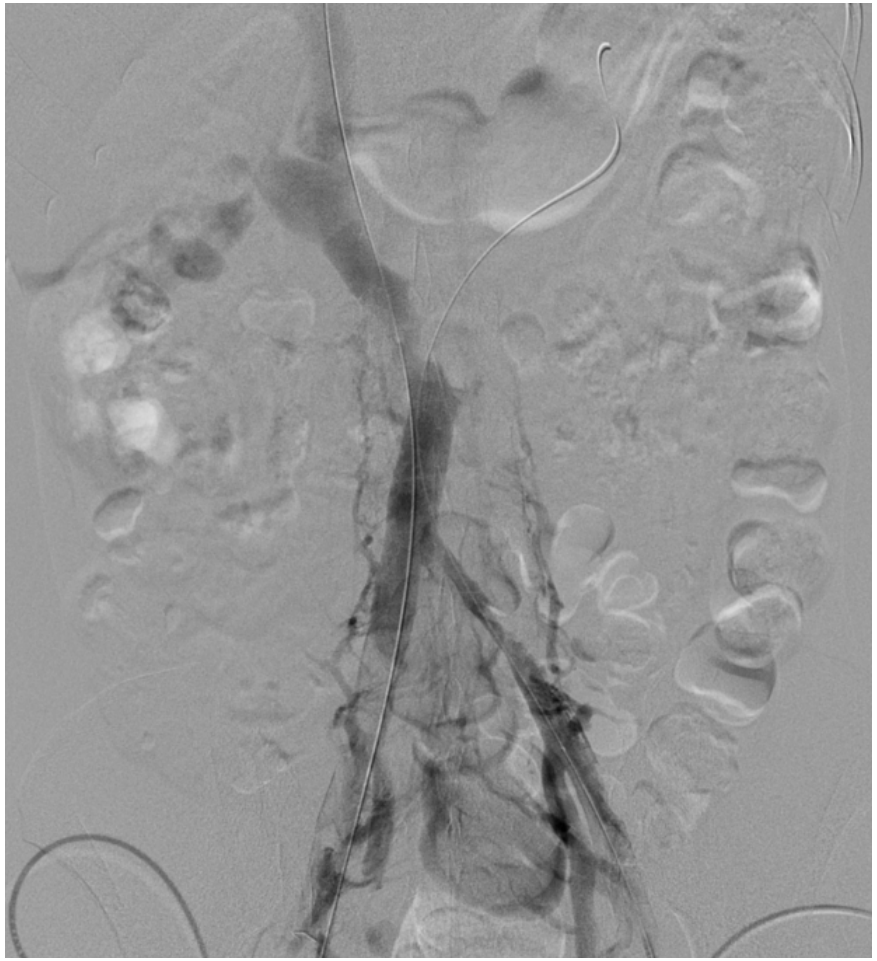
Procedure



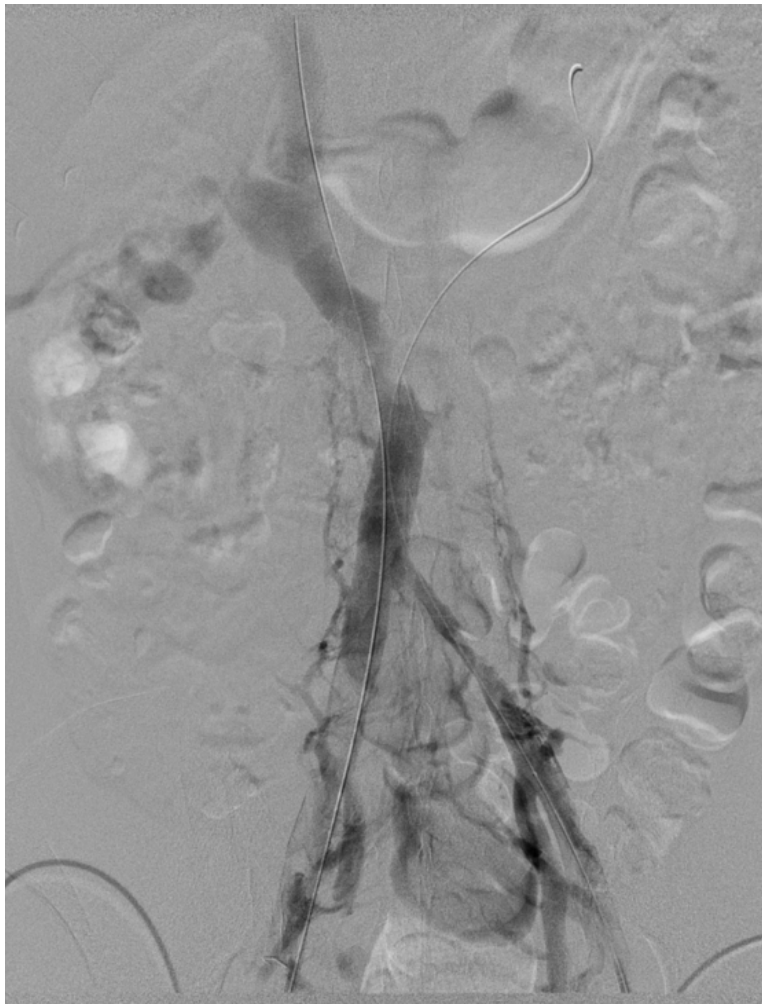


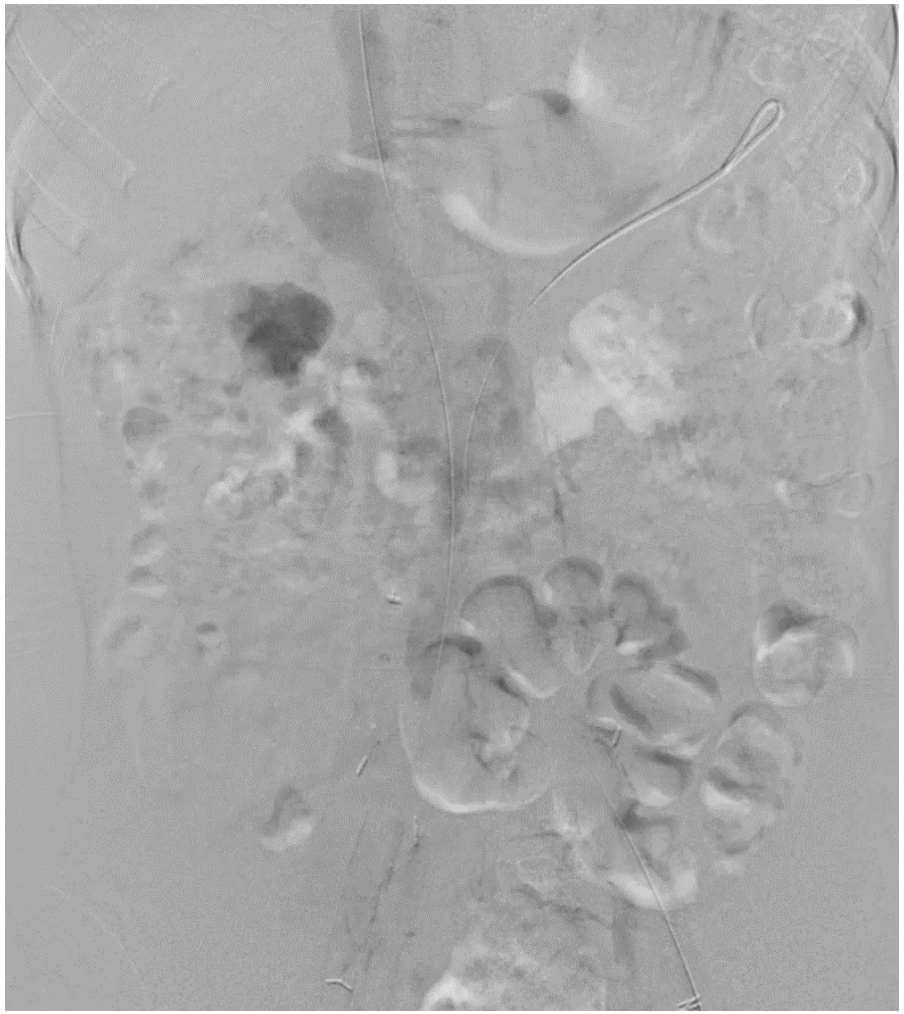


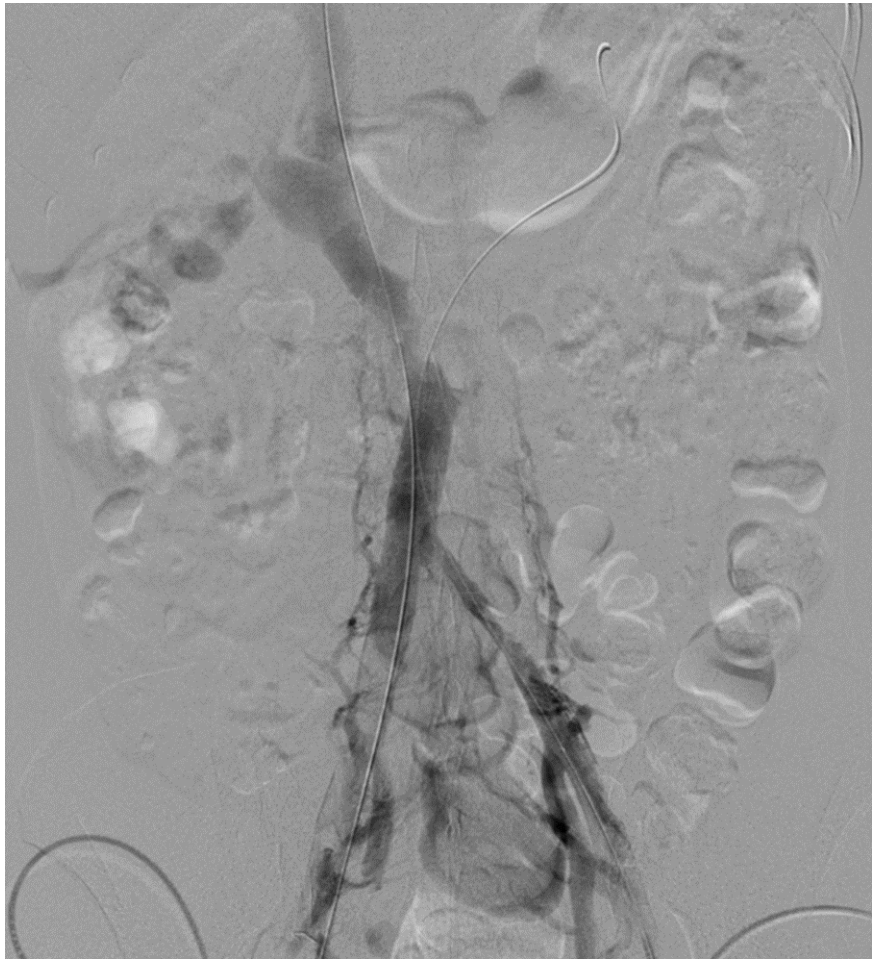
Access gained and infusion of local tPa, 5 mg each side

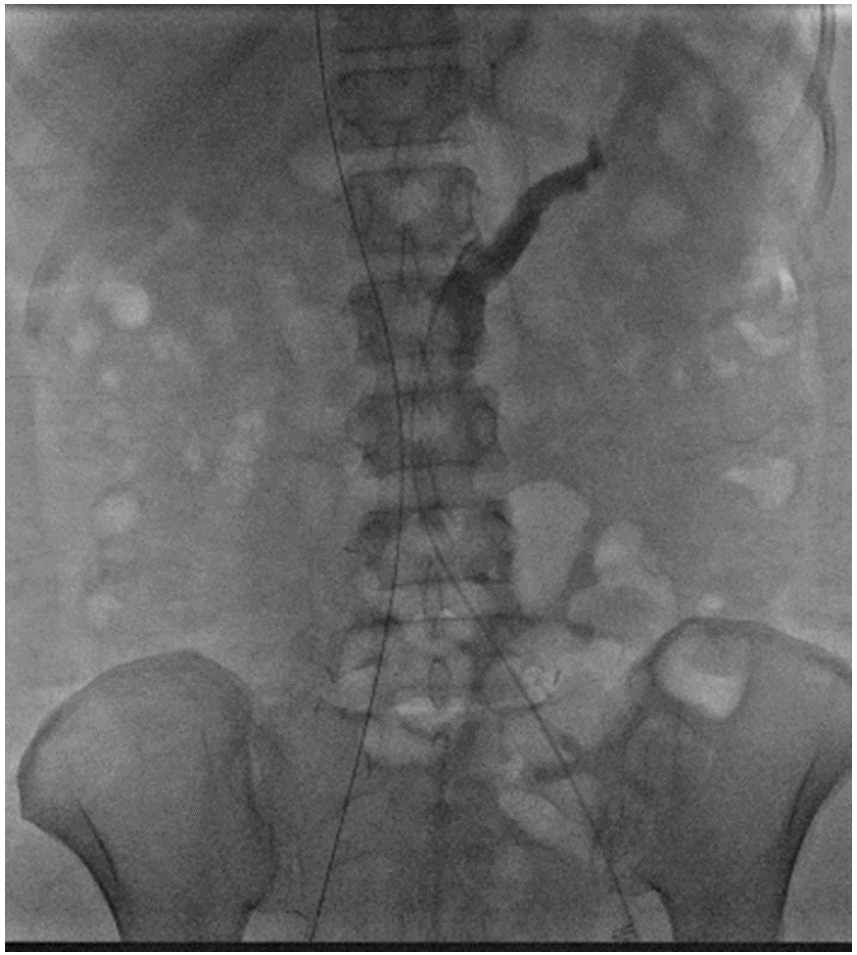


Post pulse-spray thrombolysis and rheolytic thrombectomy





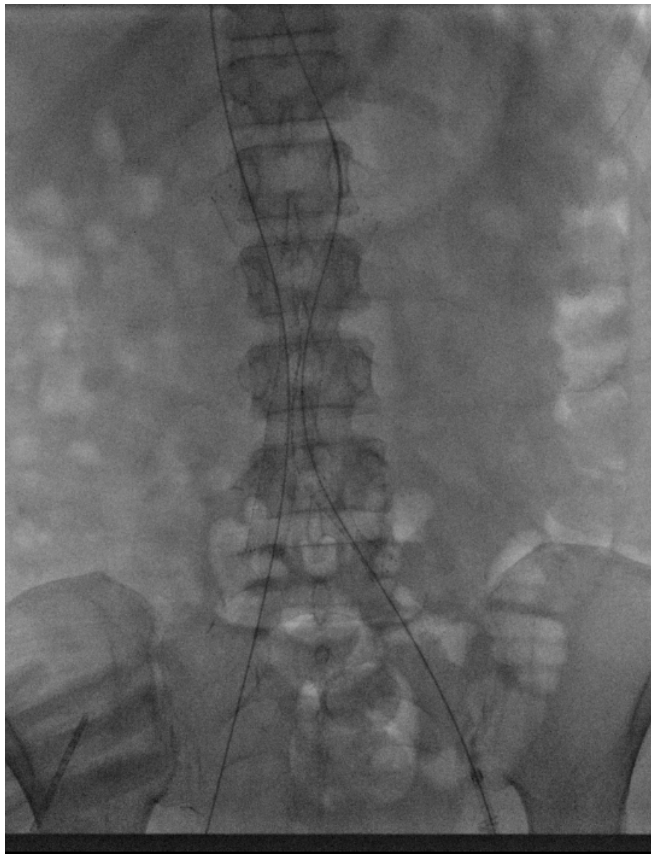


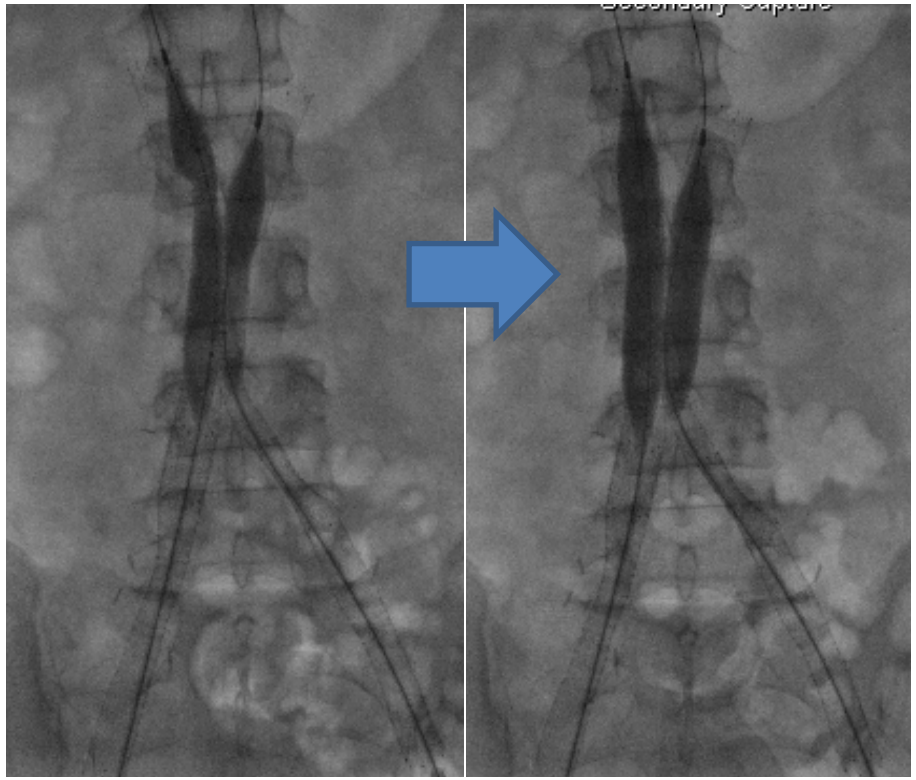


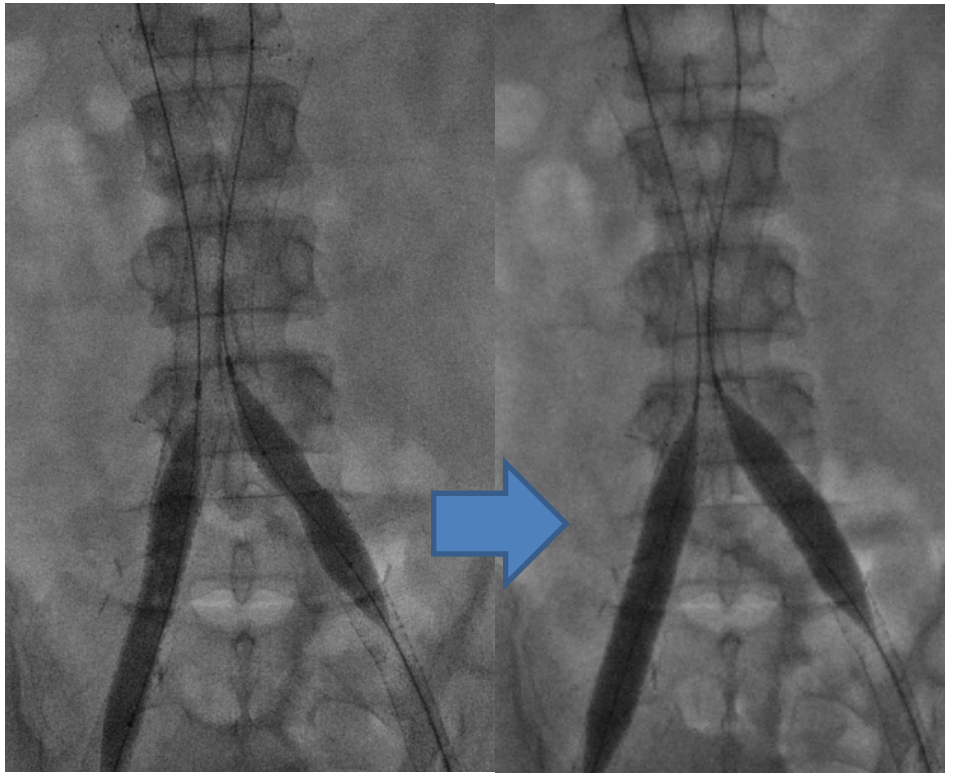
Post thrombolytic and thrombectomy

Stenting Performed B/l IVCs and Iliacs

Right side: 14 mm x 120 cm and 14 mm x 90 cm
Left side: 14 mm x 120 cm and 12 mm x 90 cm

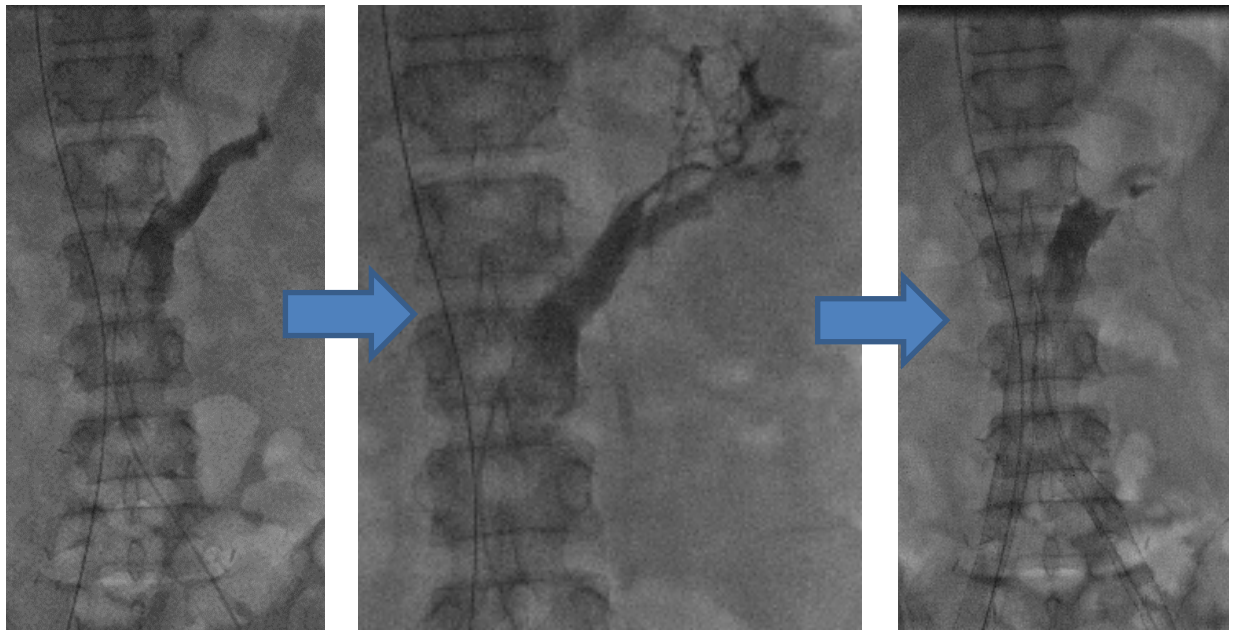


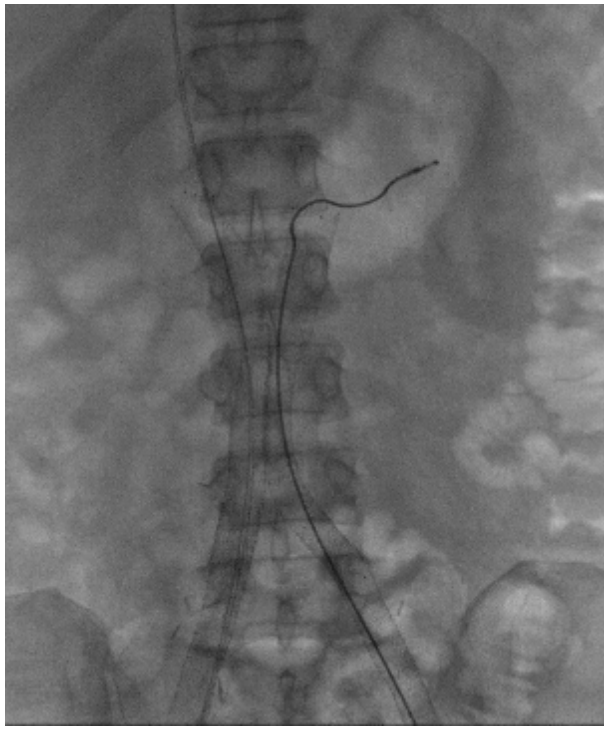




IVUS demonstrated stenoses in the IVCs and bilateral Iliacs
Residual stenoses angioplastied with 12 mm balloon

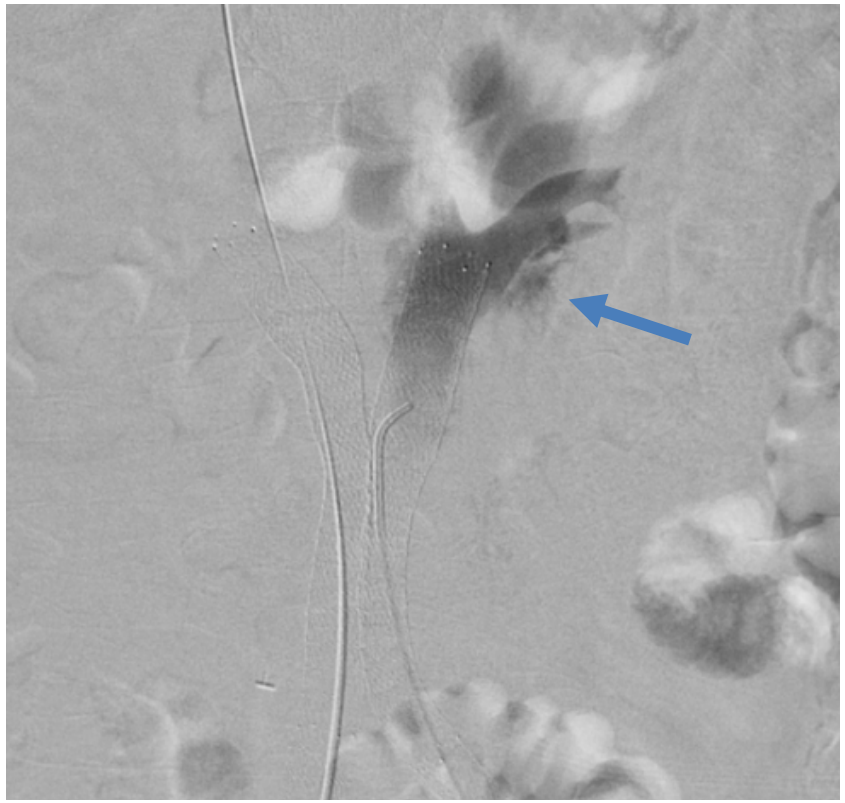
Throughout the Procedure, the Left Renal Vein Re-Thrombosed

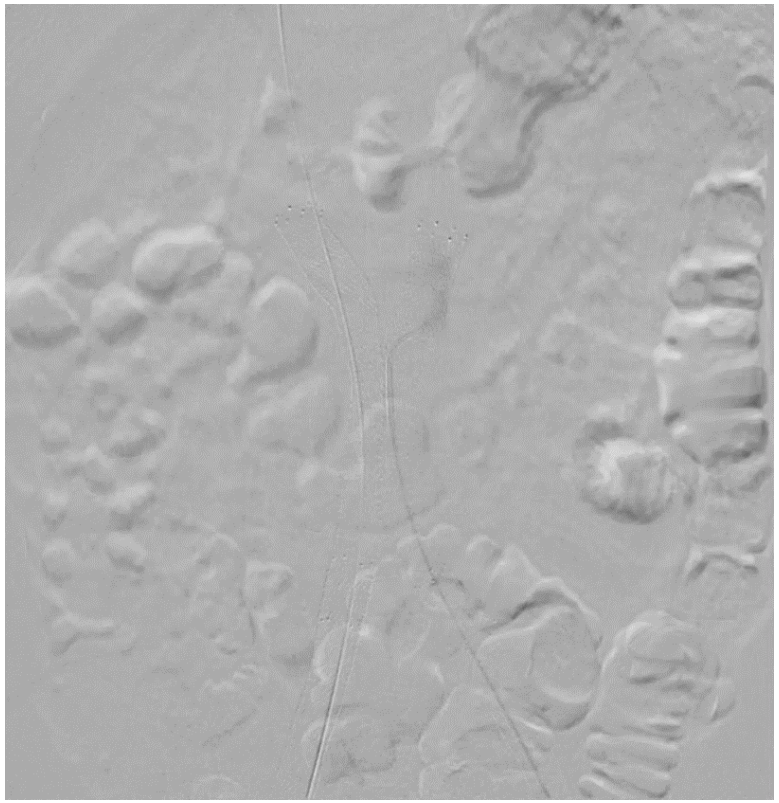




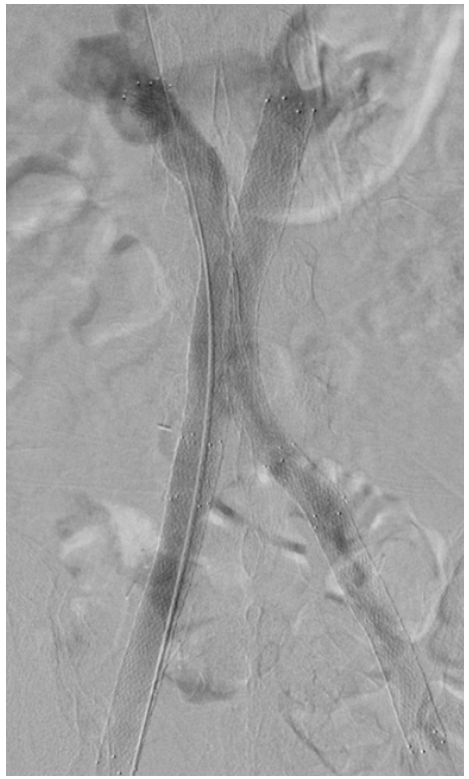
Mechanical Thrombectomy with Argon the Cleaner

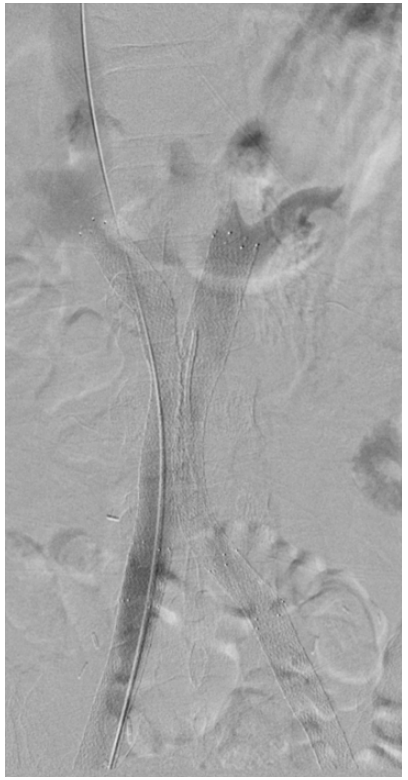
In Retrospect: Post Thrombectomy Injury

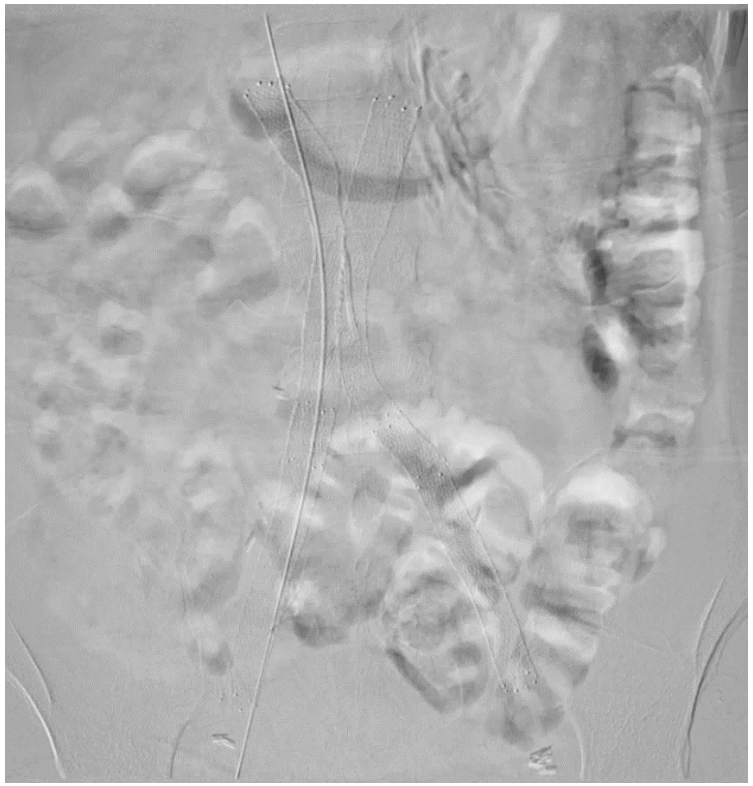




Final

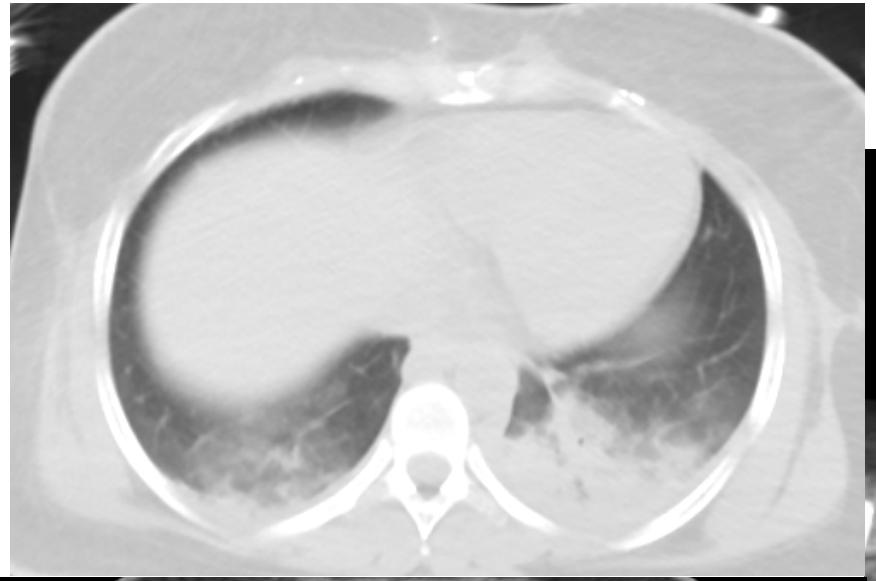


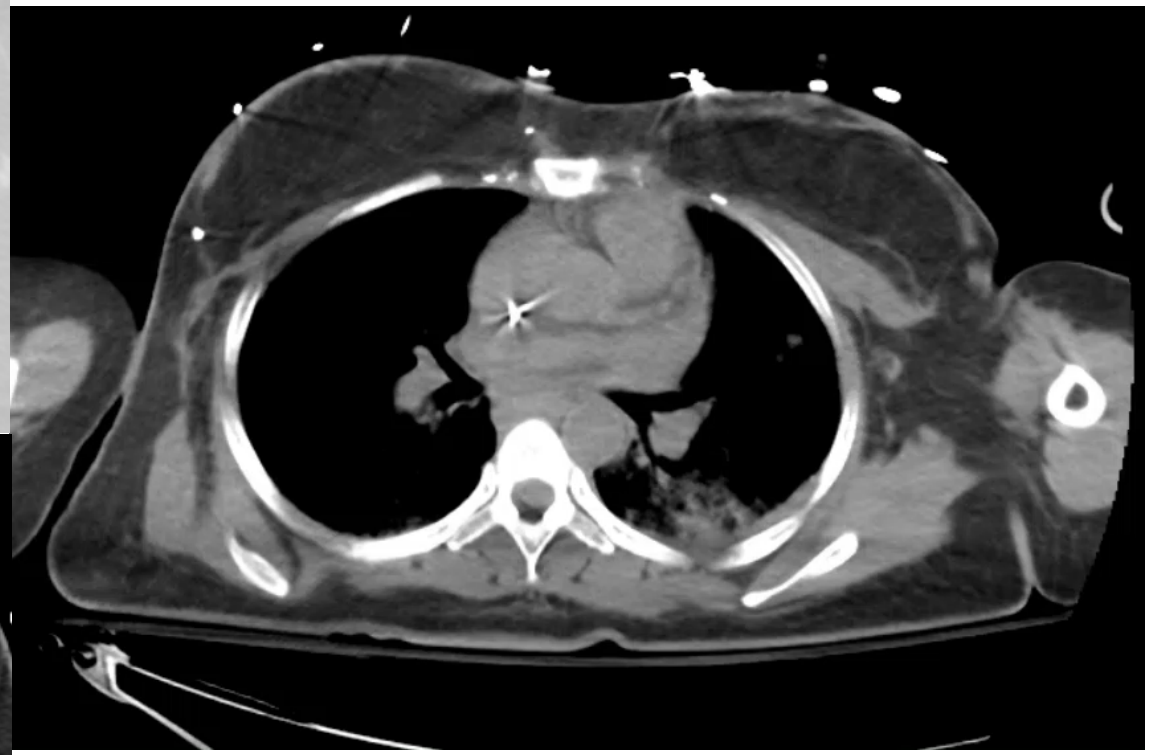


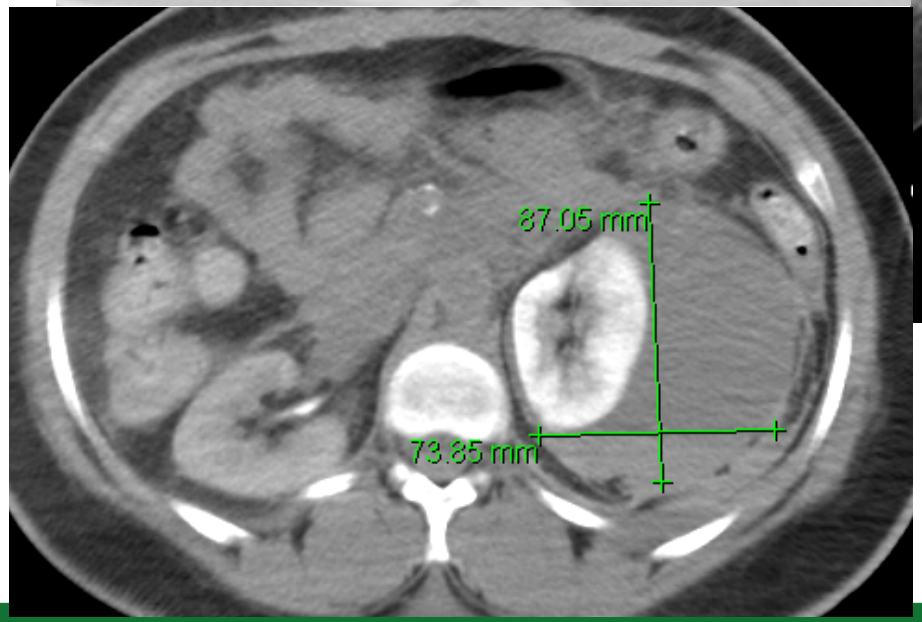


Post Procedure

- Patient in respiratory distress → patient intubated
  - DDx: Pulmonary embolus vs. aspiration pneumonia (patient with coughing episode during the procedure)
- Hypertensive in the ICU
- H/H 6.1/17.7






87.05 mm
73.85 mm

Complicated Hospital Course

- Respiratory failure (stable and improved), no evidence of RV dysfunction on ECHO to indicate sub-massive or massive PE
- Anemia, multiple transfusions
- Hypertension → Hypotension on pressors
- Infection w/elevated WBC – aspiration pneumonia and UTI
- DKA due to post procedure stress
- Worsening renal failure with anuria

Hospital Course

- Extubated on 2L NC
- BP stable on Labetalol, though still with episodes of hypertension
- Left back pain with pain management onboard
- Nausea/vomiting on TPN, slowly improving in food tolerance → currently tolerating solid food with intermittent nausea
- Limited US demonstrates patent stents and renal veins on Eliquis
- Anuria → Oliguria → 4200 ml of urine on Lasix on 5/30/2020, however, poor-quality urine with rising creatinine
- CRRT → intermittent HD via temporary dialysis catheter → currently off dialysis with Creat. ≈ 1.8

Renal Failure Multifactorial

- Existing renal injury from urine retention (though improving)
- Renal vein thrombosis
- Contrast from CT and procedure
- Hemolysis with AngioJet
- Hemorrhage with hemorrhagic shock
- Page kidney