A Rare Cause of Abdominal Pain

Erin Dauchy, DO

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LSU Health New Orleans School of Medicine

Department of Internal Medicine

Chief Complaint

- Right flank pain for one week

Case Presentation

- A 54 year old female with hypothyroidism and tobacco use who presented with one week of right upper quadrant and flank pain
- The initial onset of pain was acute and was sharp, intermittent (8/10 at its worst) and radiated to her back
- The pain was not associated with food intake

- She denied fever/chills, N/V, dysuria, hematuria or increased urinary frequency
- She presented to the ED two days PTA and was diagnosed with a urinary tract infection
- The pain continued and so she returned to the ED the following day and was told her pain was due to constipation

- She continued to have pain through the day, so she went back to the ED that night and a RUQ ultrasound was performed
- RUQ ultrasound was concerning for gallbladder distension and 8 mm common bile duct

PMH – As above

Surgical – gastric bypass, hysterectomy

Allergies – Sulfa (hives)

Meds

- Dicyclomine 20 mg BID
- Fluconazole 150 mg x1
- Hydrocodone-acetaminophen 5-325 mg 1 tab q4h PRN pain
- Levofloxacin 750 mg QD
- Psyllium 1 packet QD
- Armour thyroid

Family – no history of HTN, cancer

Social – 1 ppd smoker x “years”

Denied illicit drug use

ROS – as above

Physical Exam

Vital signs

T 97.4F, HR 62, BP 150/100, RR 20, 97% on RA

Wt 59 kg, 5’4”, BMI: 22.31

Significant exam findings

- Gen: moderately distressed

- CV: Regular rhythm, bradycardic (rate 60), no m/r/g, 2+ radial and DP pulses

- Abd: soft, RUQ tenderness, -Murphy sign, no CVA tenderness, no rebound, +voluntary guarding, normoactive bowel sounds

Labs

- WBC 18.95
- Hgb 14.1
- Hct 41
- Plt 353
- MCV 95
- RDW 12.8

- Neutrophils 79%
- Bands 0%
- Lymphocytes 16%
- Monocytes 5%
- Eosinophils 0%
- Basophils 0%

- Na^+ 145
- K^+ 4.1
- Cl^- 108
- CO_2 26
- BUN 28
- Cr 0.75
- Glu 97
- Ca^{2+} 9
- PT/INR 10.3/1

- TP 6.7
- Albumin 4
- T bili 0.6
- AST 41
- ALT 92
- Alk phos 118

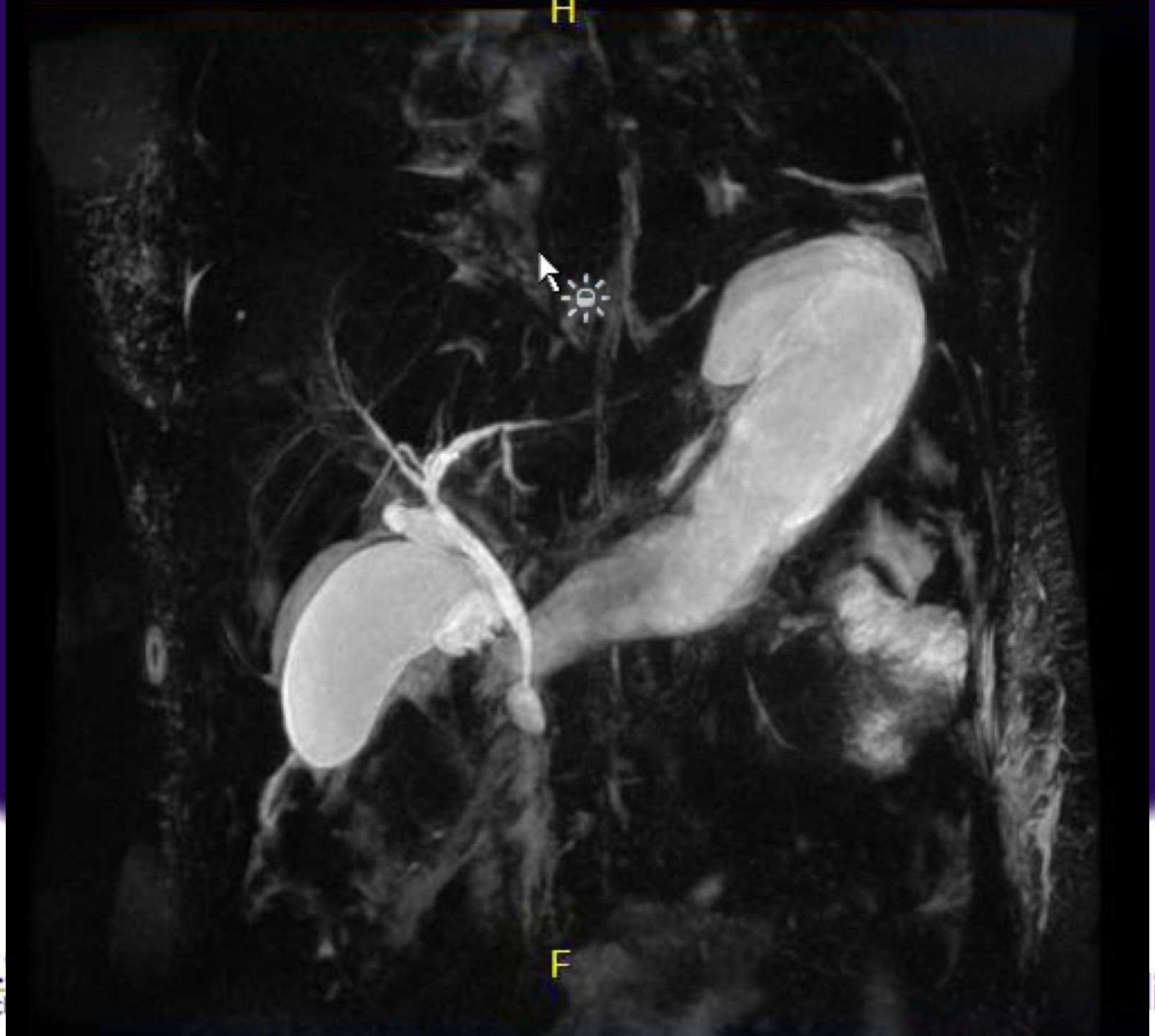
Lipase 22

Urinalysis

- Yellow, hazy
- pH 6.0, SG 1.025
- 1+ protein, 2+ ketone
- 1+ occult blood, 5 RBC
- Nitrite (-), LE (-), 2 WBC, few bacteria

Initial Hospital Course

- Transferred from outside ED for MRCP and GI evaluation
- Started on empiric ceftriaxone and metronidazole due to leukocytosis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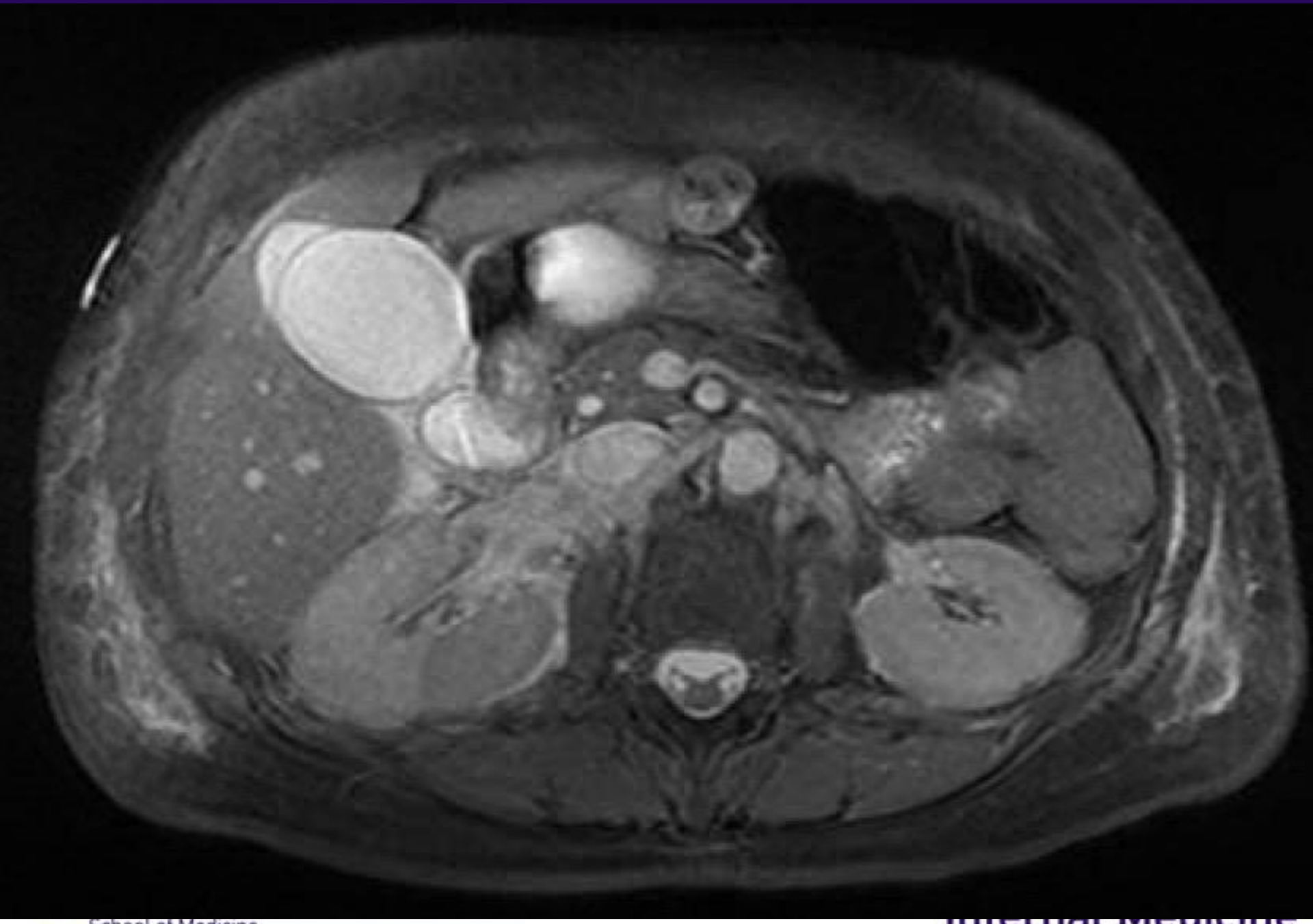
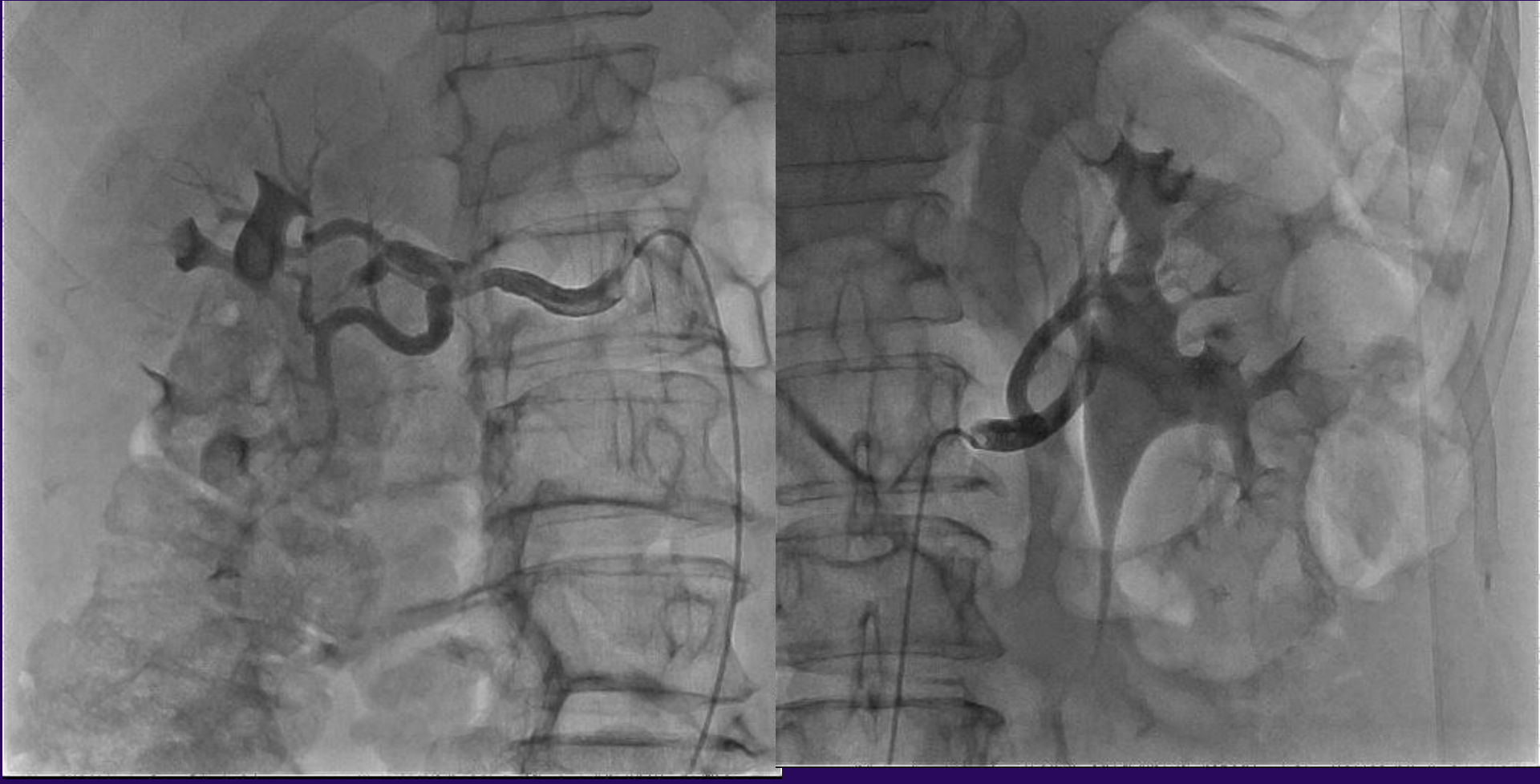




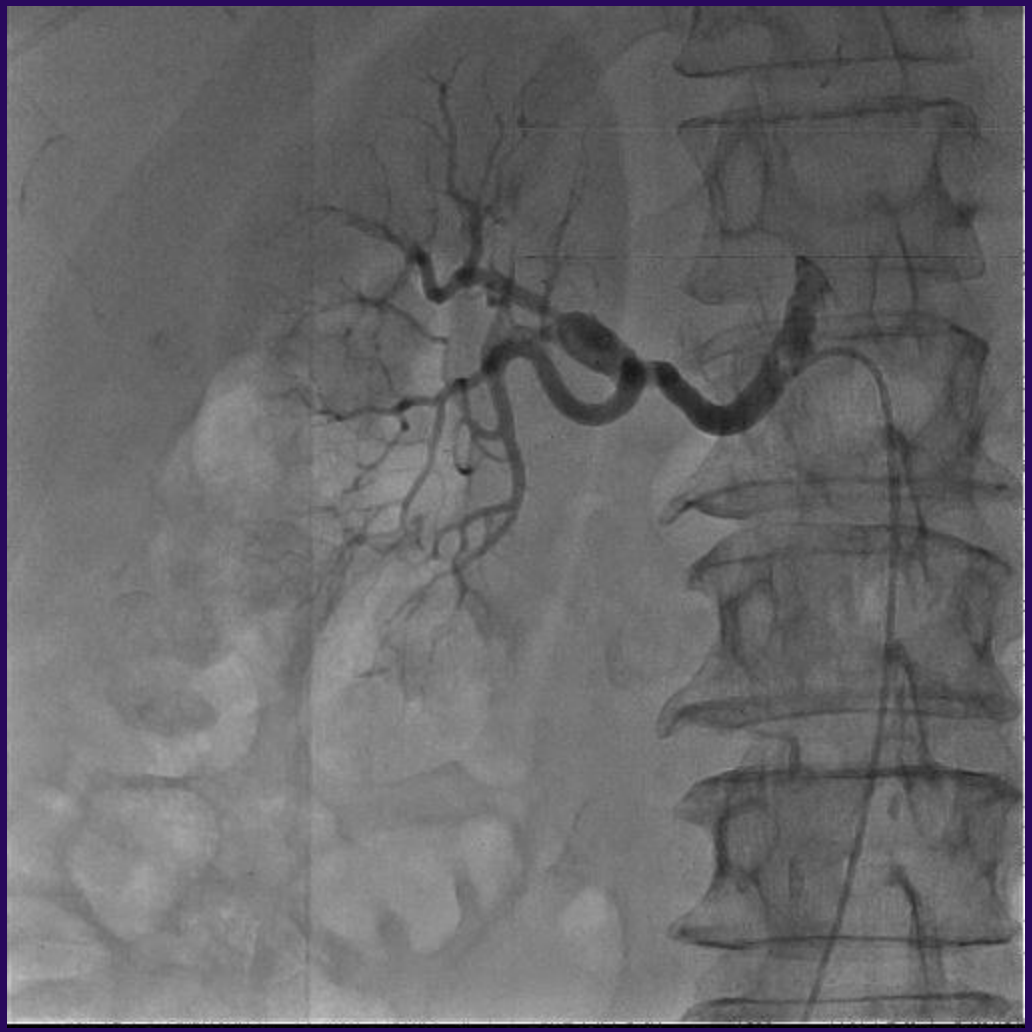
Final Diagnosis

- Renal infarction due to spontaneous renal artery dissection

Discussion

- Renal artery injury is a rare complication of blunt abdominal trauma
  - It should be suspected in patients complaining of severe flank pain after blunt abdominal trauma
- Dissection can be secondary to anatomical variation or due to acceleration/deceleration and subsequent intimal tearing

- Management remains controversial
- Current practices include anticoagulation, endovascular intervention and open surgery
  - There are no studies that compare these methods against each other
- Treatment modality should be based on the patient's medical status
  - If renal function is normal, can often manage medically



References

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