AMSER Case of the Month October 2025

84 y/o Male with Worsening Abdominal Pain

ROCHESTER REGIONAL HEALTH

LECOM

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AMSER

Patient Presentation

- 84-year-old male with a past medical history of CVA, atrial fibrillation s/p ablation and bilateral carotid artery stenosis who initially presented to the ED with intermittent right sided abdominal and flank pain radiating to his back.

- Recent history of decreased appetite, unintentional weight loss, and increased weakness/fatigue.

- Pertinent Negatives: Denies N/V, diarrhea, and chest pain

Vitals and Physical Exam

- BP: 178/96
- HR: 120 BPM
- Temp: 97.9F
- SpO2%: 95%
- Respirations: 16 BPM

Physical Exam Findings:

- Abdominal: Tenderness in right hemiabdomen and iliac fossa, hard mass palpated in the right hypochondrium, non-distended
- Cardiovascular: Tachycardic, regular rhythm with no murmurs
- Pulmonary: Clear
- Neurological: Intact cranial nerves, no focal deficits

Pertinent Labs

- WBC: 10.9 (↑) with neutrophilia
- Hgb/Hct: WNL
- Electrolytes: WNL
- AST: 61 (↑)
- ALT: 52 (↑)
- ALP: 182 (↑)
- Total Bilirubin: 1.6 (↑)
- Lipase: WNL
- LDH: 601 (↑)
- CA 19-9: 72 (↑)

What Imaging Should We Order?

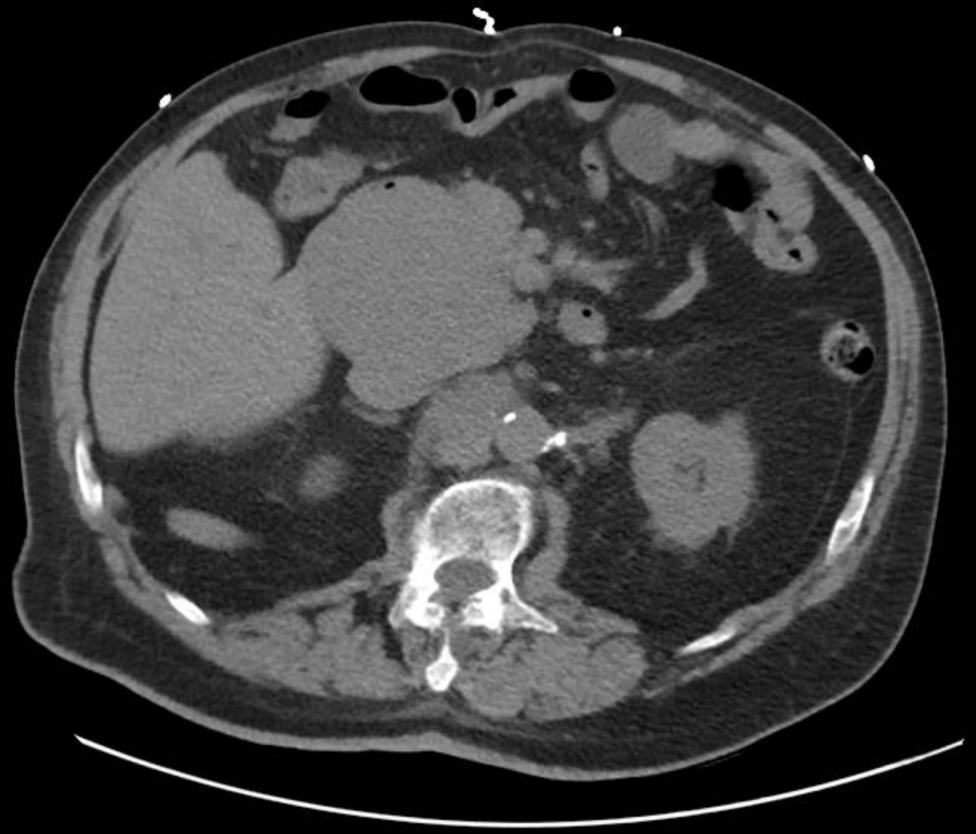
Select the applicable ACR Appropriateness Criteria

Variant 1: **Pulsatile abdominal mass, suspected abdominal aortic aneurysm. Initial imaging.**

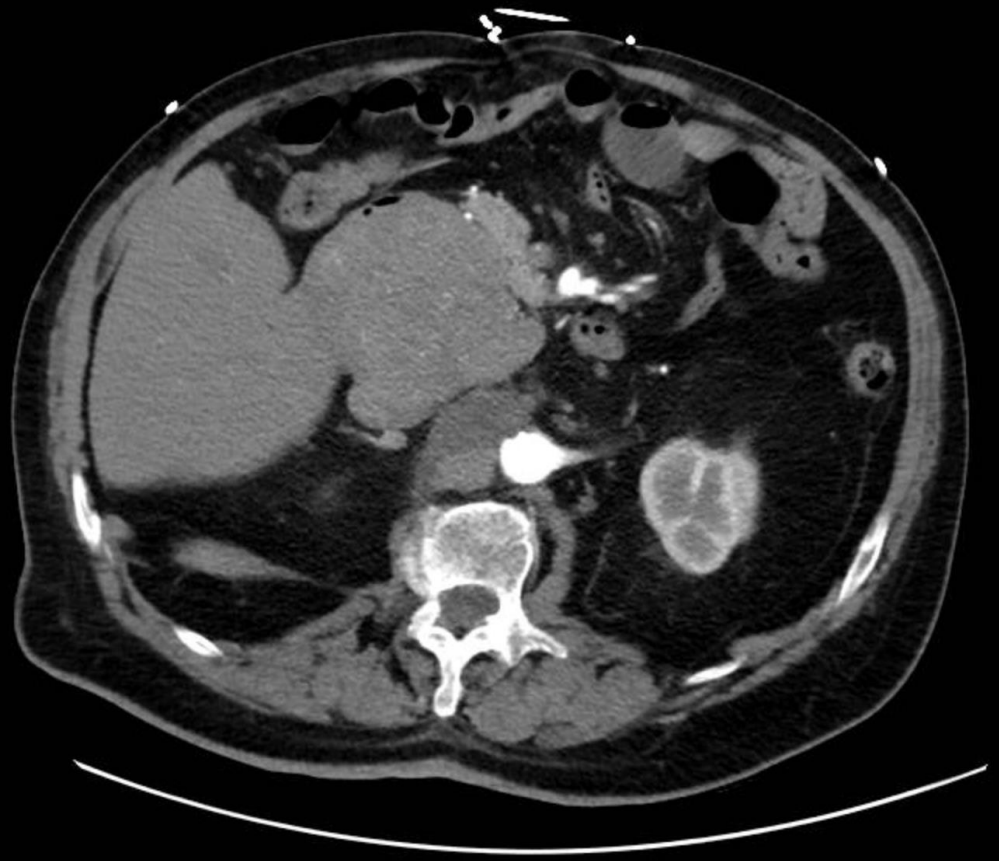
Procedure	Appropriateness Category	Relative Radiation Level
US aorta abdomen	Usually Appropriate	O
MRA abdomen and pelvis with IV contrast	Usually Appropriate	O
MRA abdomen and pelvis without and with IV contrast	Usually Appropriate	O
MRA abdomen and pelvis without IV contrast	Usually Appropriate	O
CTA abdomen and pelvis with IV contrast	Usually Appropriate	☢☢☢☢
CTA abdomen and pelvis without and with IV contrast	Usually Appropriate	☢☢☢☢
MRI abdomen and pelvis with IV contrast	May Be Appropriate	O
MRI abdomen and pelvis without and with IV contrast	May Be Appropriate	O
MRI abdomen and pelvis without IV contrast	May Be Appropriate	O
CT abdomen and pelvis with IV contrast	May Be Appropriate	☢☢☢☢
CT abdomen and pelvis without IV contrast	May Be Appropriate	☢☢☢☢
CT abdomen and pelvis without and with IV contrast	May Be Appropriate	☢☢☢☢☢
US intravascular aorta abdomen	Usually Not Appropriate	O
Aortography abdomen	Usually Not Appropriate	☢☢☢
Radiography abdomen and pelvis	Usually Not Appropriate	☢☢☢
FDG-PET/CT skull base to mid-thigh	Usually Not Appropriate	☢☢☢☢

To rule out acute aortic syndrome a CTA Chest/Abdomen/Pelvis was ordered by the EM physician

Findings (Unlabeled)

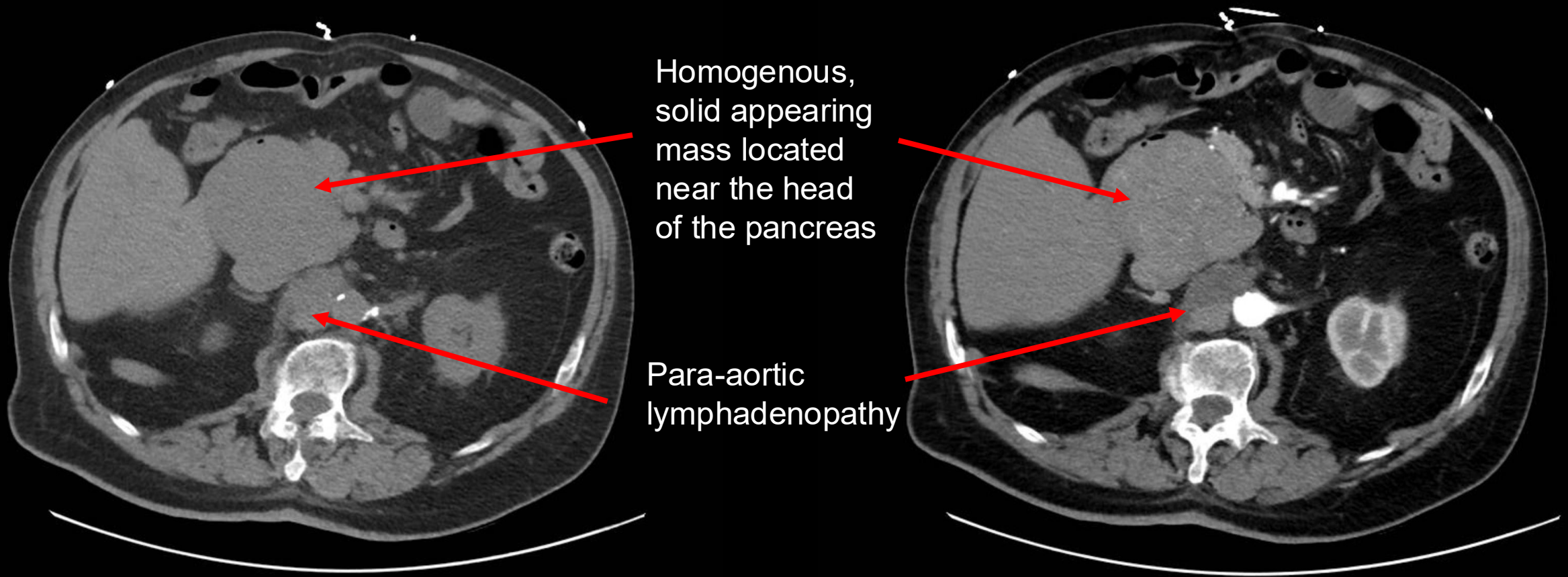


CT Angiogram Without Contrast



CT Angiogram With Contrast

Findings (Labeled)



CT Angiogram Without Contrast

CT Angiogram With Contrast

What Imaging Should We Order Next?

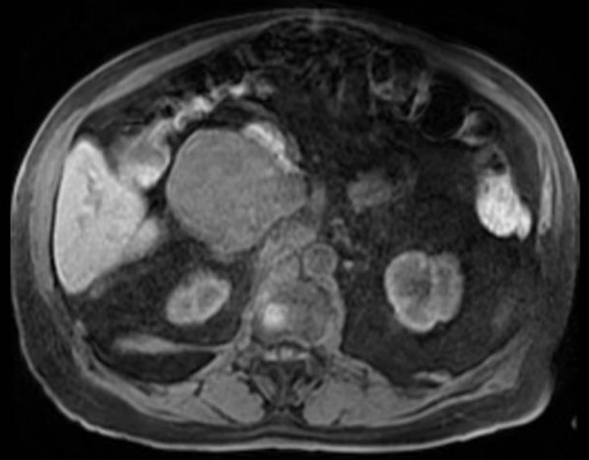
Select the applicable ACR Appropriateness Criteria

Variant 2: **Palpable abdominal mass. Suspected abdominal wall mass. Initial imaging.**

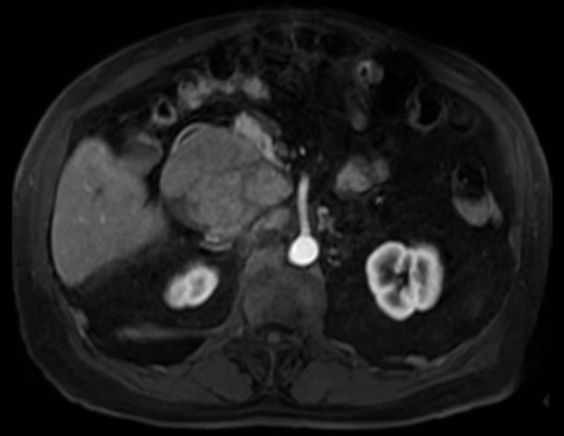
Procedure	Appropriateness Category	Relative Radiation Level
US abdomen	Usually Appropriate	O
CT abdomen with IV contrast	Usually Appropriate	☢☢☢
MRI abdomen without and with IV contrast	Usually Appropriate	O
MRI abdomen without IV contrast	May Be Appropriate	O
CT abdomen without IV contrast	May Be Appropriate	☢☢☢
CT abdomen without and with IV contrast	Usually Not Appropriate	☢☢☢☢
FDG-PET/CT skull base to mid-thigh	Usually Not Appropriate	☢☢☢☢
Radiography abdomen	Usually Not Appropriate	☢☢
Fluoroscopy contrast enema	Usually Not Appropriate	☢☢☢
Fluoroscopy upper GI series	Usually Not Appropriate	☢☢☢
Fluoroscopy upper GI series with small bowel follow-through	Usually Not Appropriate	☢☢☢

This imaging modality was ordered by the attending physician

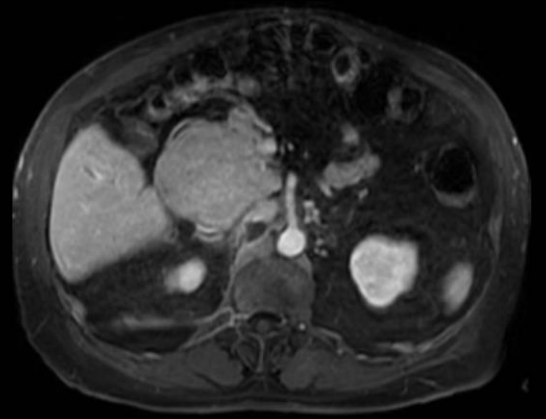
Findings (Unlabeled)



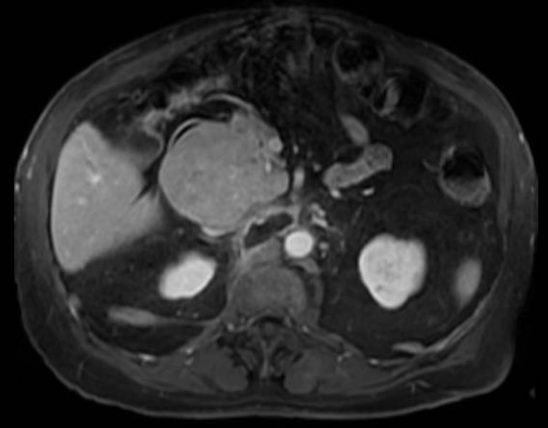
T1 Fat Sat without Contrast



T1 Fat Sat Arterial Phase



T1 Fat Sat Early Venous Phase

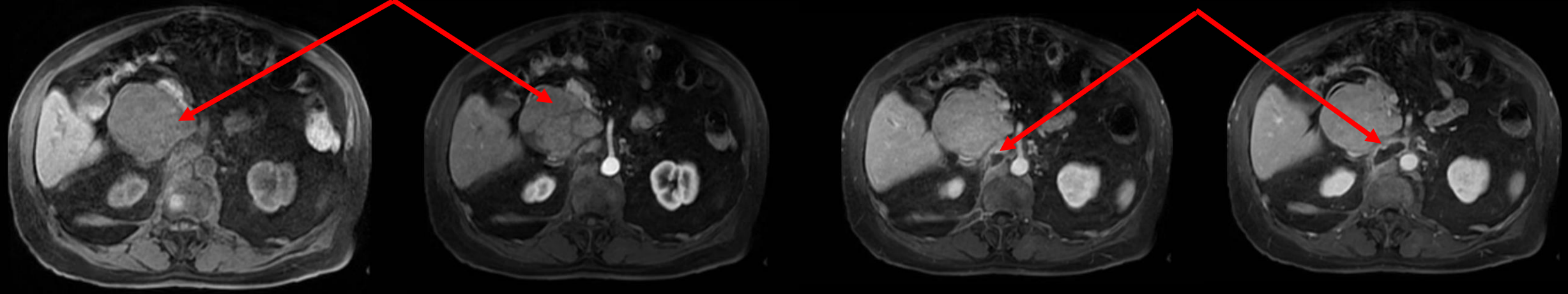


T1 Fat Sat Venous Phase

Findings (Labeled)

8.6cm
T1 hypo/isointense
mass within the
pancreaticoduodenal
groove

Para-aortic
(retroperitoneal)
lymphadenopathy with
central hypo-intensity
suggesting likely
necrosis



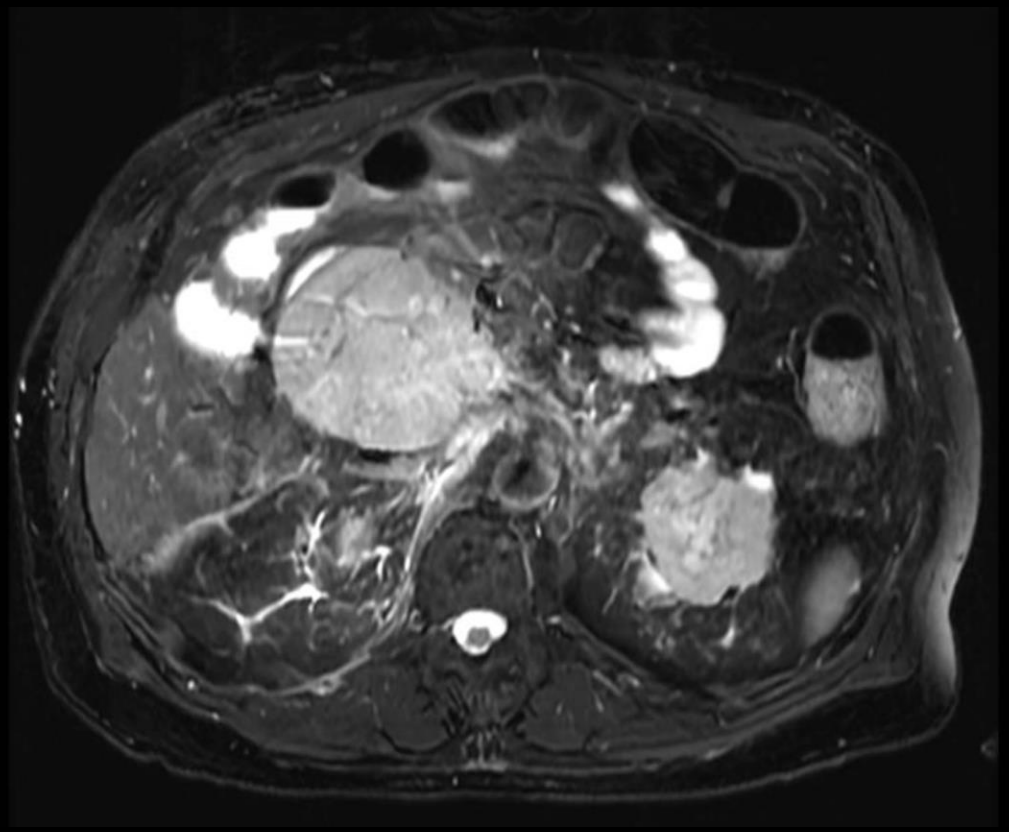
T1 Fat Sat without
Contrast

T1 Fat Sat
Arterial Phase

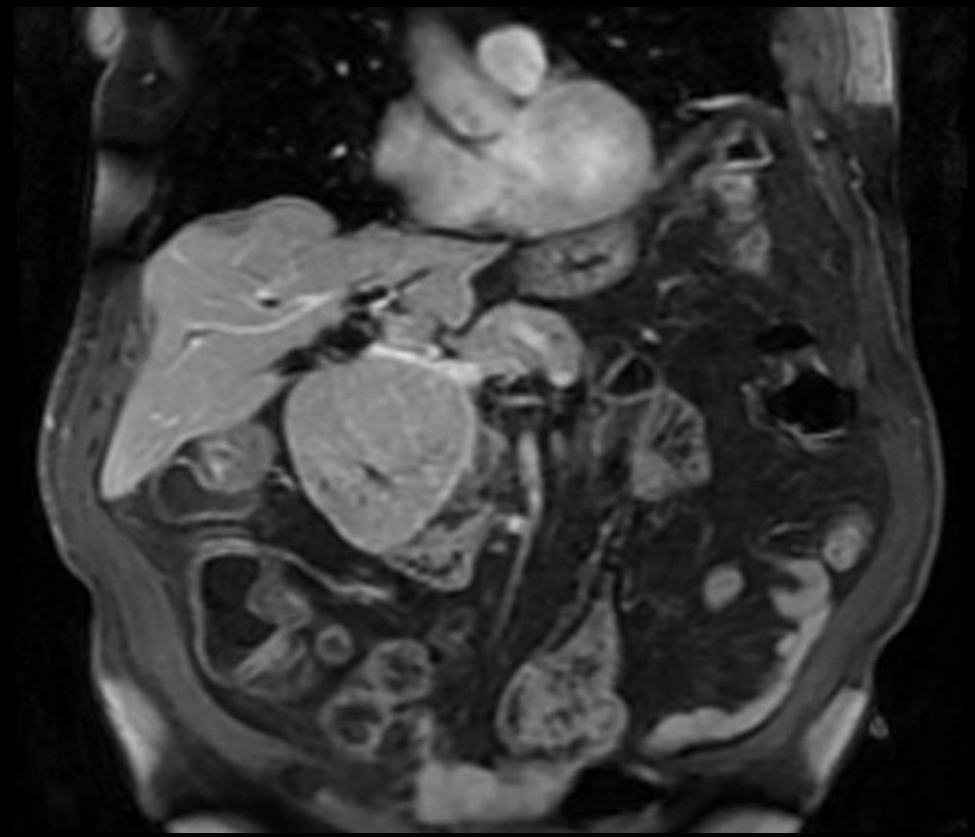
T1 Fat Sat Early
Venous Phase

T1 Fat Sat
Venous Phase

Findings (Unlabeled)

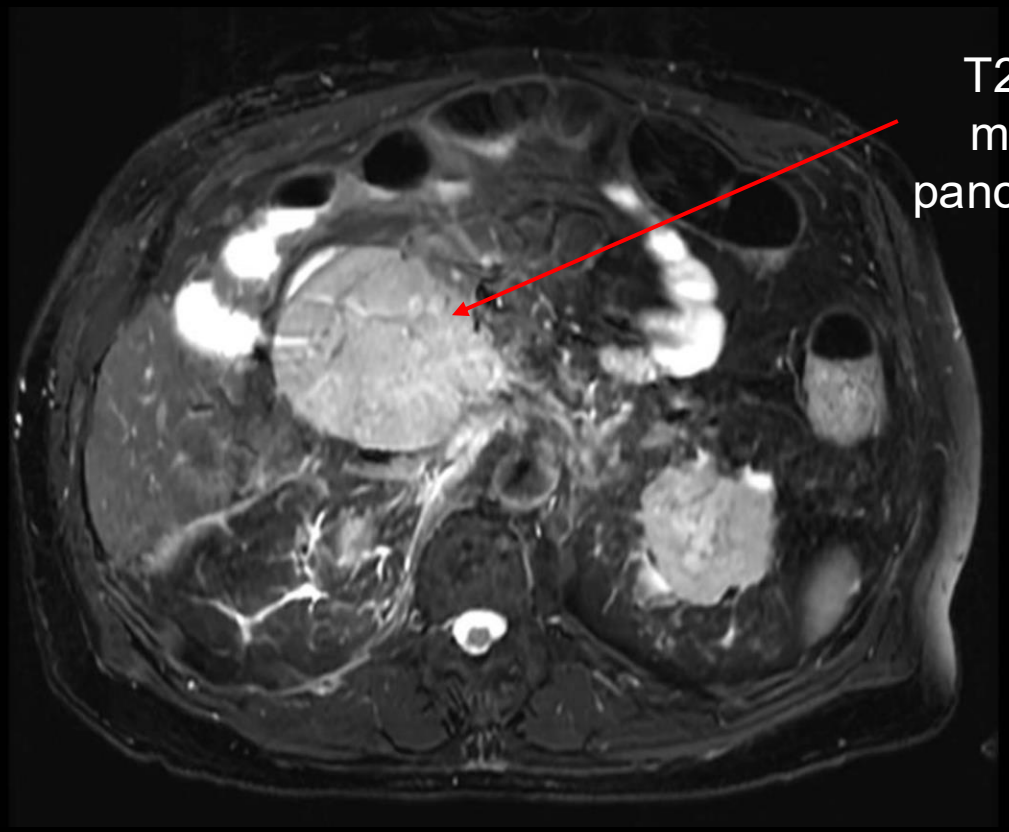


Axial T2 Fat Sat



T1 Coronal Post-Contrast

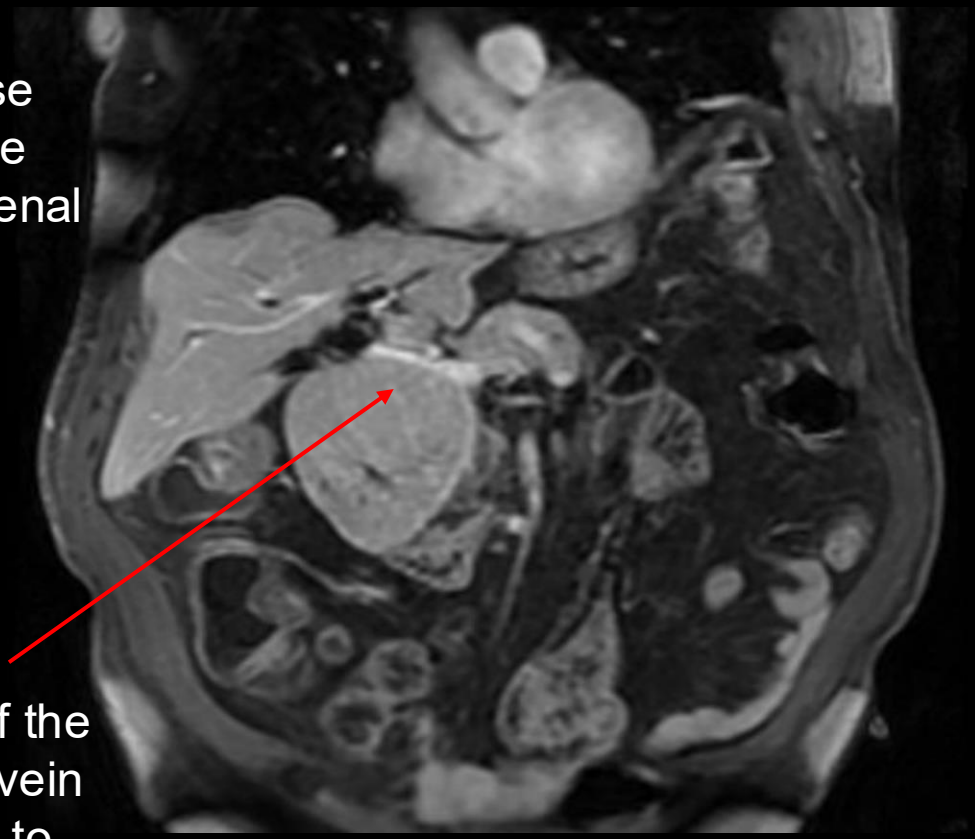
Findings: (labeled)



Axial T2 Fat Sat

8.6cm
T2 hyperintense
mass within the
pancreaticoduodenal
groove

Narrowing of the
main portal vein
secondary to
mass effect



T1 Coronal Post-Contrast

Differential Diagnosis

- Lymphoma
- Gastrointestinal Stromal Tumor (GIST)
- Pancreatic Adenocarcinoma
- Pancreatic Neuroendocrine Tumor
- Metastasis

Final Dx:

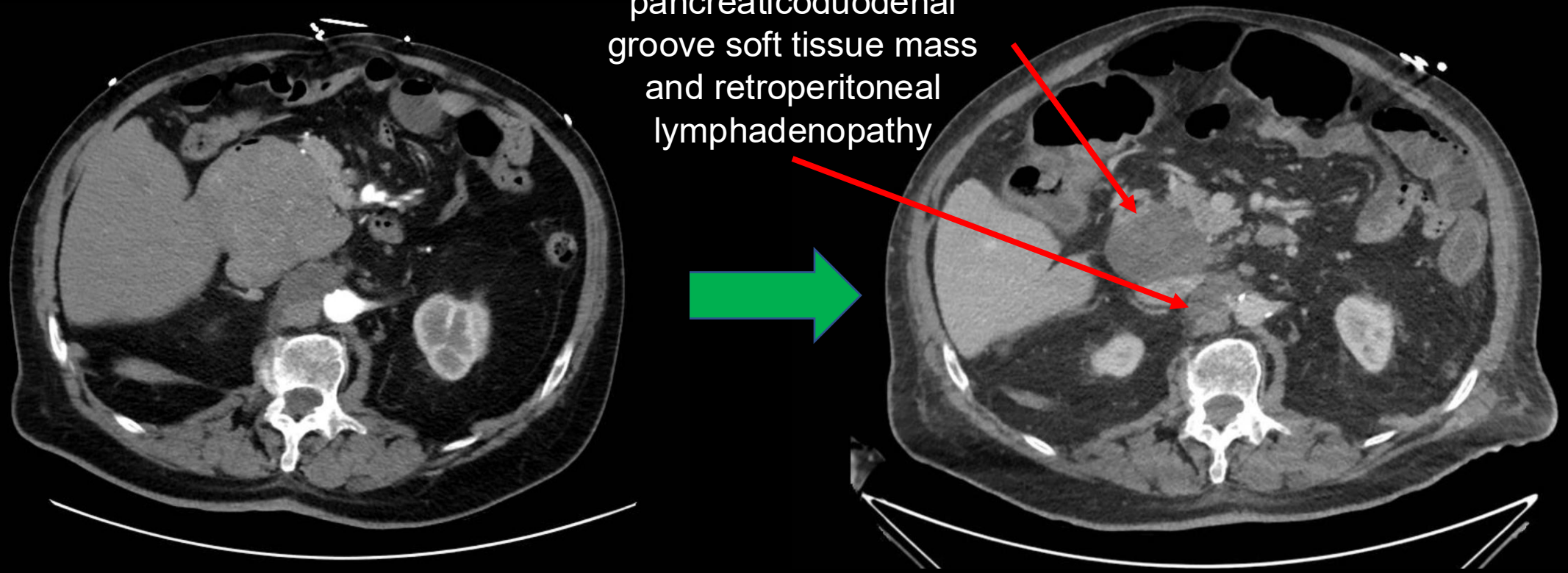
Diffuse Large B-Cell Lymphoma

Hospital Course

- IR Consult was placed for a CT-guided biopsy after initial CTA
- Given elevated LFTs and bilirubin with leukocytosis, patient was treated for cholangitis with 5-day course of Augmentin
- Once pathology results came back, the patient was started on R-CHOP therapy for 6 cycles
  - High-Risk for Tumor Lysis Syndrome per Oncology

Post-Treatment Imaging

Decreased size of pancreaticoduodenal groove soft tissue mass and retroperitoneal lymphadenopathy



Original CT with Contrast

CT 3 weeks after initiating R-CHOP

Case Discussion

- Diffuse Large B-Cell Lymphoma (DLBCL) is an aggressive malignancy of mature B cells
- Diffuse Large B-Cell Lymphoma is the most common type of Non-Hodgkin Lymphoma (1/3 of all NHLs)
  - Germinal center being the most common subtype (60%)
- Not common overall; effects around 7 out of every 100,000 people in the U.S.
  - Men > Women
- Average age of diagnosis is around 60 years old

Case Discussion

- Risk Factors include immunosuppression, organ transplant, auto-immune conditions, environmental exposures (pesticides), viruses (HIV, HBV)

- Classic clinical picture: “B” symptoms + enlarging lymph nodes
  - Extra-nodal disease in about 30-40% of cases
    - Most commonly in GI tract

- First-line treatment is R-CHOP

Case Discussion

- Radiology Roles in DLBCL
  - CT scan can detect lymphadenopathy as well as extra-nodal disease especially within GI tract
  - MRI can aid in diagnosis especially in the CNS and head/neck regions
  - Imaging further aids in obtaining biopsies
    - Histopathology is needed to confirm diagnosis
  - PET-CT for staging and treatment response
    - Lugano Staging Classification

References:

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4. Lymphoma Research Foundation. Diffuse large B-cell lymphoma. Lymphoma Research Foundation website. Published 2025. Accessed August 8, 2025. https://lymphoma.org/understanding-lymphoma/aboutlymphoma/nhl/dlbcl/
5. Padala SA, Kallam A. Diffuse Large B-Cell Lymphoma. In: *StatPearls*. Treasure Island (FL): StatPearls Publishing; April 24, 2023.
6. Wang SS. Epidemiology and etiology of diffuse large B-cell lymphoma. *Semin Hematol*. 2023;60(5):255-266. doi:10.1053/j.seminhematol.2023.11.004