

AMSER Case of the Month

February 2022

87-year-old male with malaise, fever, weight loss

Sharath Rama (MS4)

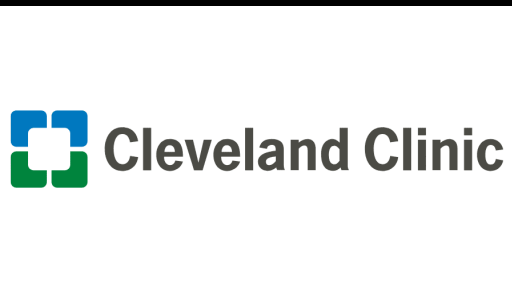
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Cleveland Clinic

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Cleveland Clinic



Patient Presentation

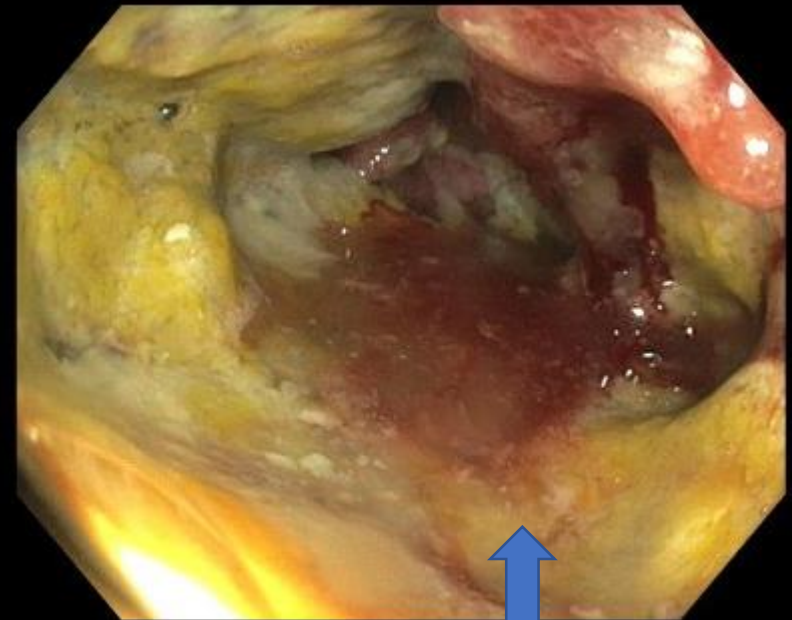
- 87 y/o M complains of generalized malaise, low grade fever, and left hip pain with one episode of gross hematuria
- **HPI:**
 - Presented to ED after outpatient lab-work showed new anemia
 - 1 month history of fatigue, weakness, shoulder pain, **10 pound weight loss** over this time
 - Denies bloody bowel movements, abdominal pain, change in bowel habits
 - Never had a colonoscopy
 - Denies family history of cancer
- **PMH:** HTN, BPH, hypothyroidism, HLD, AAA without rupture, aortic regurgitation
- **PSH:** appendectomy, L ankle fixation, cataracts

Pertinent Labs and Colonoscopy Findings

- Pertinent labs:
 - Hgb of 11.2 versus 15.4 eight months prior
- Colonoscopy findings shown
- Upper endoscopy was also performed; unremarkable



Terminal ileum



“Diffuse inflammation, severe and characterized by congestion, erythema, friability, and granularity”

What Imaging Should We Order?

Select the applicable ACR Appropriateness Criteria

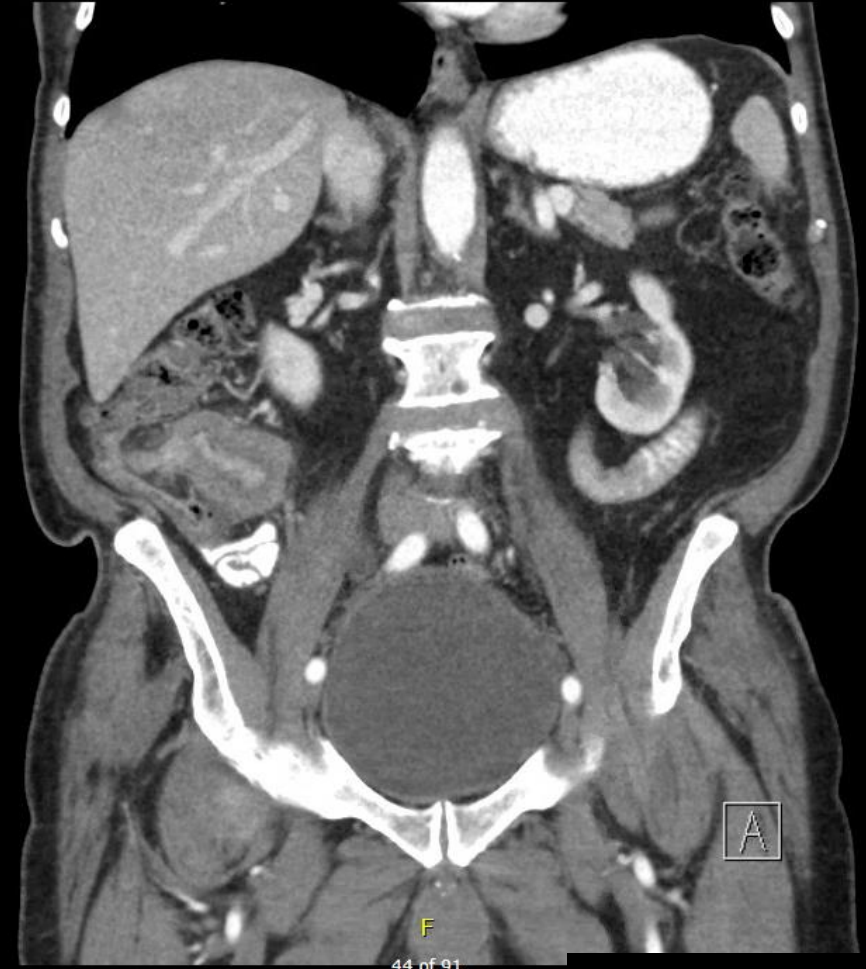
Variant 1: Palpable abdominal mass. Suspected intra-abdominal neoplasm. Initial imaging.

Procedure	Appropriateness Category	Relative Radiation Level
CT abdomen with IV contrast	Usually Appropriate	⊕⊕⊕
US abdomen	Usually Appropriate	○
MRI abdomen without and with IV contrast	May Be Appropriate	○
CT abdomen without IV contrast	May Be Appropriate	⊕⊕⊕
MRI 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 clinician

No palpable mass, but concern for intra-abdominal malignancy was high.

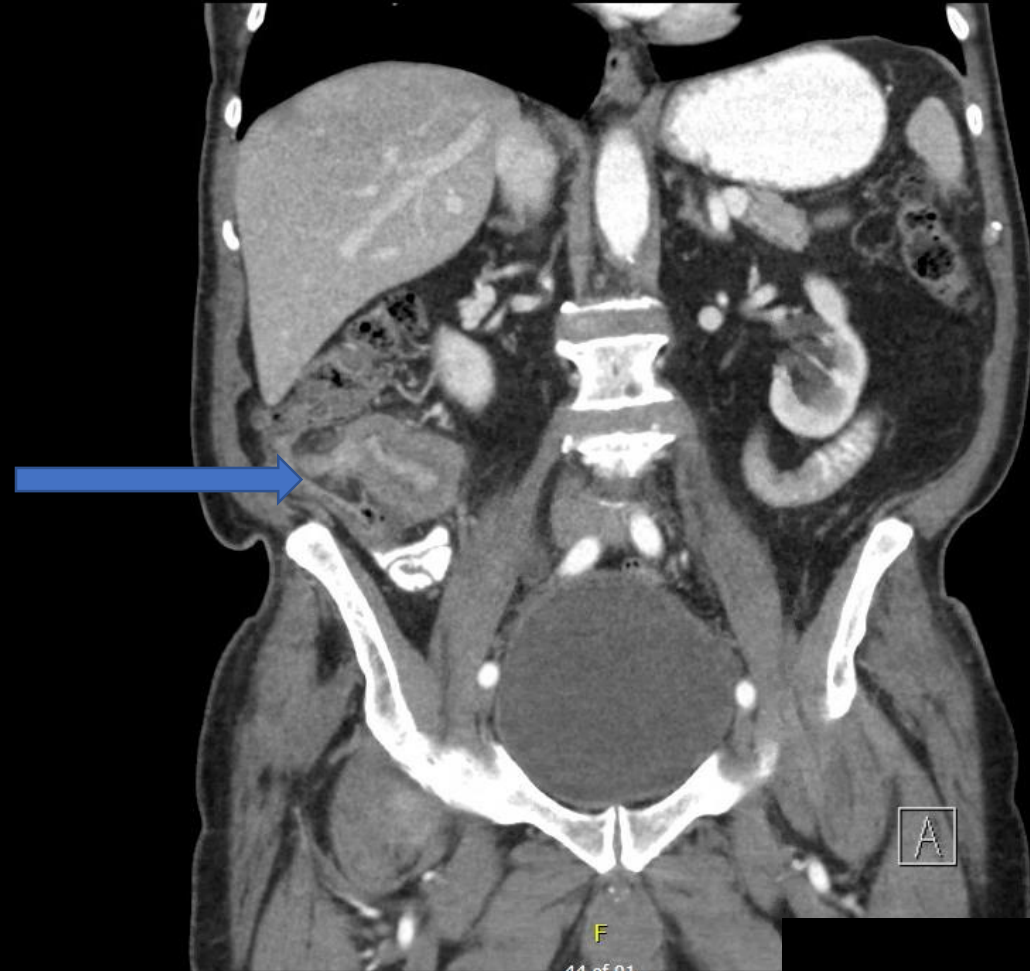
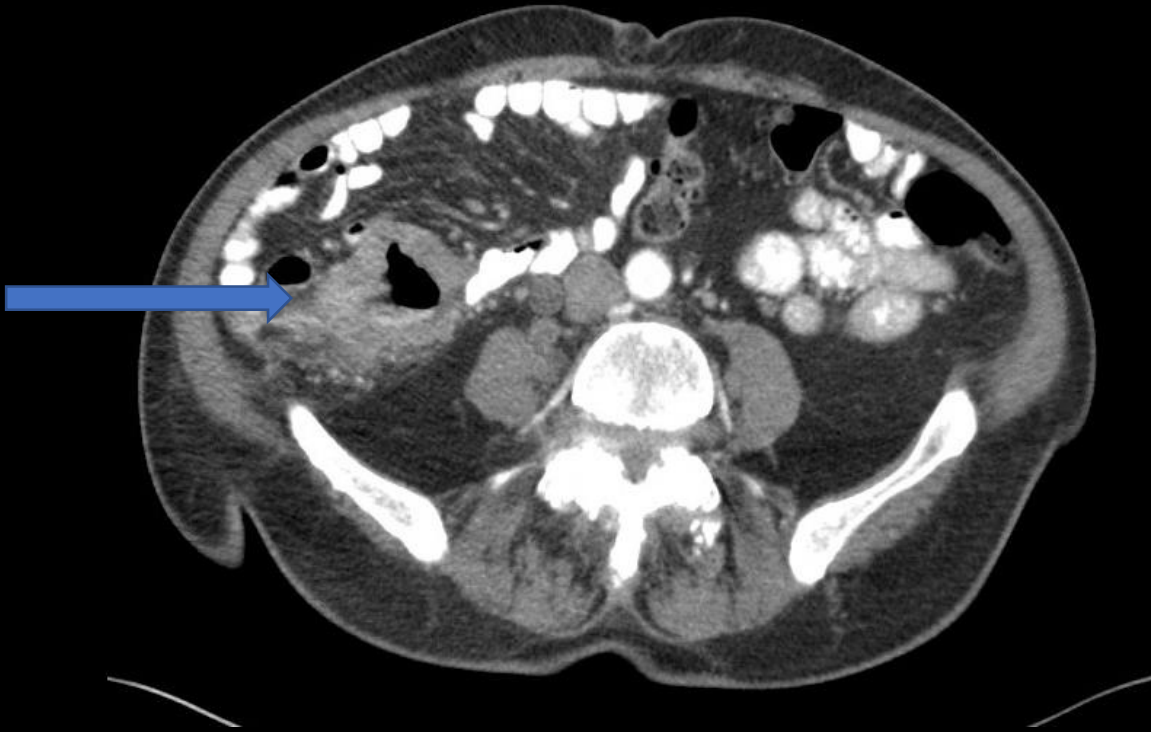
Findings (unlabeled)



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Findings (labeled)

CT abdomen pelvis with IV and oral contrast



“Aneurysmal dilatation and circumferential segmental wall thickening of the terminal ileum”

Final Dx:
Ileal lymphoma

Case Discussion

- Classic findings of small bowel lymphoma
 - Preservation or aneurysmal dilatation of the lumen
 - Circumferential bulky mass/wall thickening, sometimes with extension into small bowel mesentery and regional LNs
- Contrast with ileal adenocarcinoma
 - Enhancing soft-tissue mass with circumferential or eccentric/irregular luminal narrowing
 - Associations: vascular invasion, mets (often to liver), **obstruction**
 - Most frequent in the duodenum and jejunum
- Specifically this case illustrates the characteristic pseudoaneurysmal form of small bowel lymphoma (vs. more common polypoid form)

Case Discussion



Aneurysmal dilatation of the lumen seen in ileal lymphoma



Compare with luminal narrowing characteristically seen in ileal adenocarcinoma

Case Discussion

- Lymphoma is the most common malignancy of small bowel
 - Non-Hodgkin, Burkitt, MALT, rarely Hodgkin lymphoma all seen in small bowel
 - Small bowel lymphoma 20%-30% of all primary GI lymphomas
- Greater amount of lymphoid tissue in distal ileum → most common site of small bowel B-cell lymphoma
- Vague, non-specific symptoms – nausea, vomiting, weight loss, etc.
- Unlike adenocarcinoma, rarely causes obstruction
 - Tumor does not elicit desmoplastic response
- Small bowel lymphoma can be primary or secondary
- Diagnosis of primary GI lymphoma requires
 - Absence of peripheral or mediastinal lymphadenopathy
 - Normal white blood cell count and differential count
 - Absence of liver or spleen involvement
- Treatment: local resection and chemotherapy with or without radiotherapy

Case Discussion

- Outcome
 - Patient underwent right hemicolectomy with complete mesocolic excision
 - Final pathology report:
 - “Aggressive B-cell lymphoma...cecal mass shows a diffuse infiltrate of large transformed lymphocytes extending through the bowel wall”

References:

- Ghai S, Pattison J, Ghai S, et al. Primary gastrointestinal lymphoma: spectrum of imaging findings with pathologic correlation. *RadioGraphics*. 2007;27(5):1371-88.
- Ghimire P, Wu GY, Zhu L. Primary gastrointestinal lymphoma. *World J Gastroenterol*. 2011;17(6):697-707.
- Jasti R, Carucci LR. Small bowel neoplasms: a pictorial review. *RadioGraphics*. 2020;40(4):1020-38.