

# AMSER Case of the Month

## April 2022

61 yo female with abdominal pain. Patient is post operative with recent laparoscopic appendectomy now with pain and distention. History of Factor V Leiden mutation

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# Patient Presentation

Presents to outpatient surgeon 20 days after laparoscopic appendectomy. Final pathology showed benign perforated appendicitis.

She feels overall well. Eating okay, bowel movements x1-2 daily and passing some gas. She does report feeling heavy and unpleasant after ingesting liquids with associated mild distension and fullness that resolves on its own. No fever, chills, nausea, vomiting or urinary symptoms.

CBC and other labs WNL

What Imaging Should We Order?

# Select the applicable ACR Appropriateness Criteria

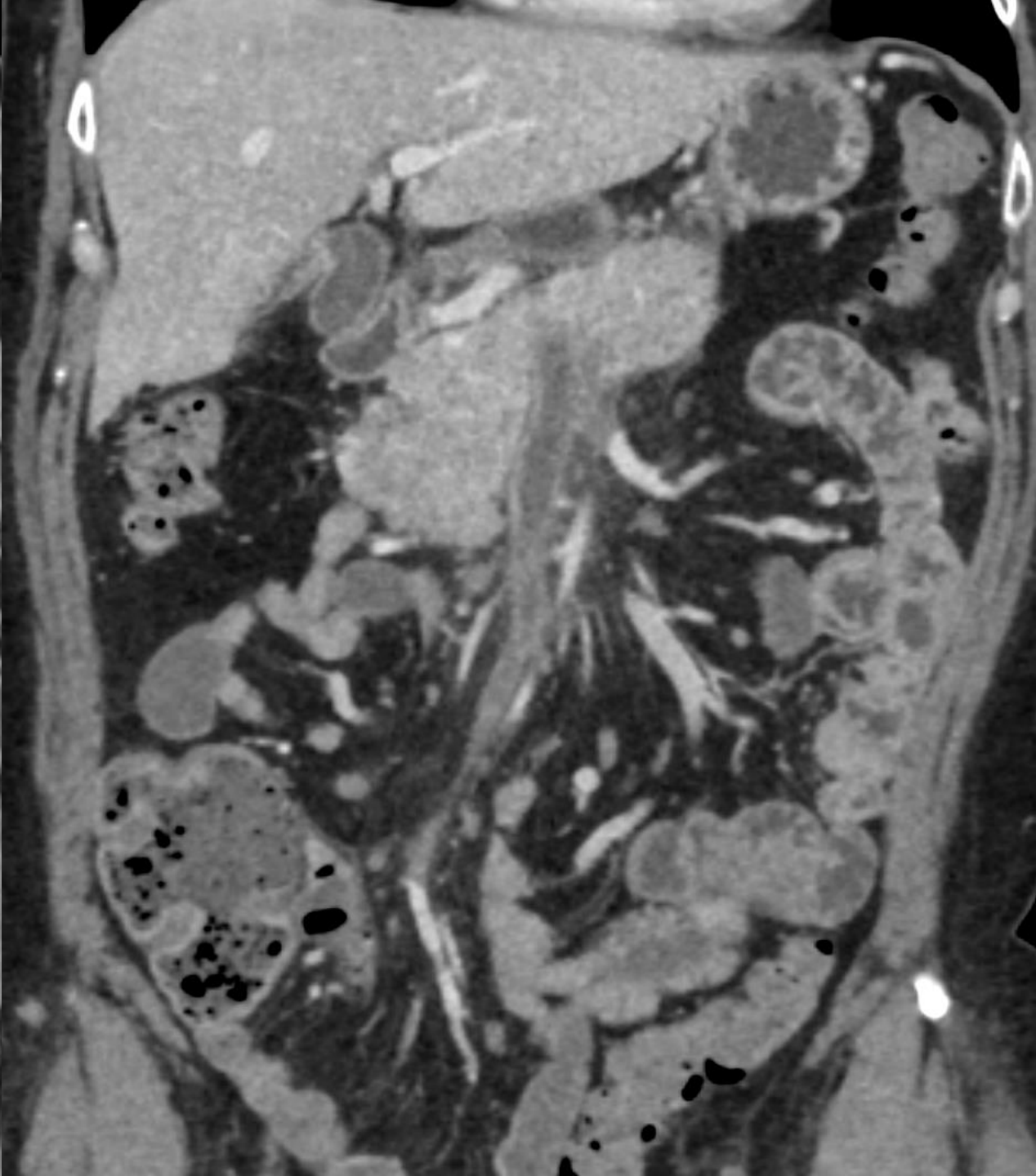
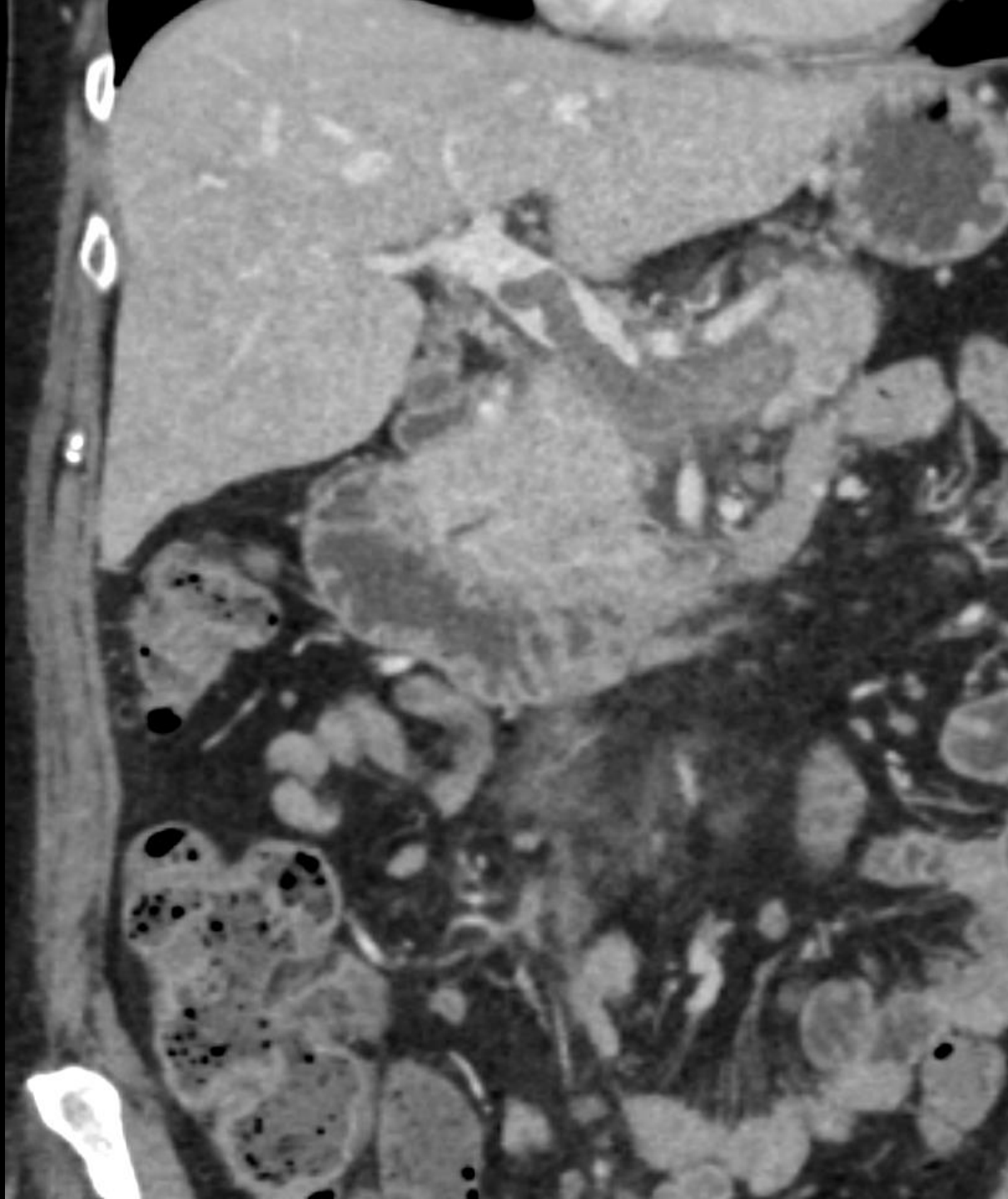
**Variant 1:** Suspected acute mesenteric ischemia. Initial imaging.

Procedure	Appropriateness Category	Relative Radiation Level
CTA abdomen and pelvis with IV contrast	Usually Appropriate	☼☼☼☼☼
CT abdomen and pelvis with IV contrast	May Be Appropriate	☼☼☼
Arteriography abdomen	May Be Appropriate (Disagreement)	☼☼☼
MRA abdomen and pelvis without and with IV contrast	May Be Appropriate (Disagreement)	○
Radiography abdomen	May Be Appropriate	☼☼
US duplex Doppler abdomen	May Be Appropriate	○
CT abdomen and pelvis without and with IV contrast	Usually Not Appropriate	☼☼☼☼☼
CT abdomen and pelvis without IV contrast	Usually Not Appropriate	☼☼☼
MRA abdomen and pelvis without IV contrast	Usually Not Appropriate	○

This imaging modality was ordered by the ER physician



# Findings (unlabeled)









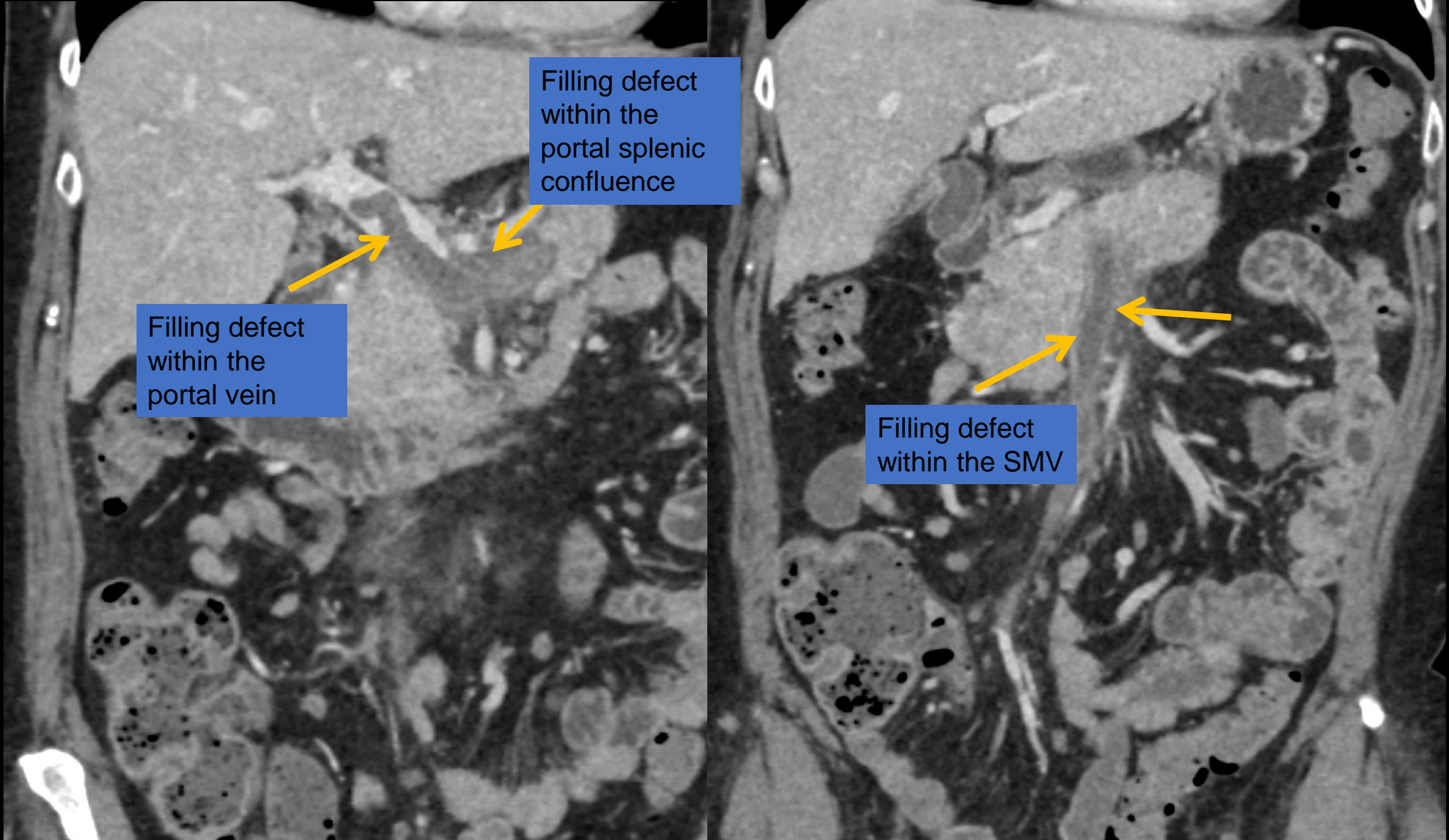


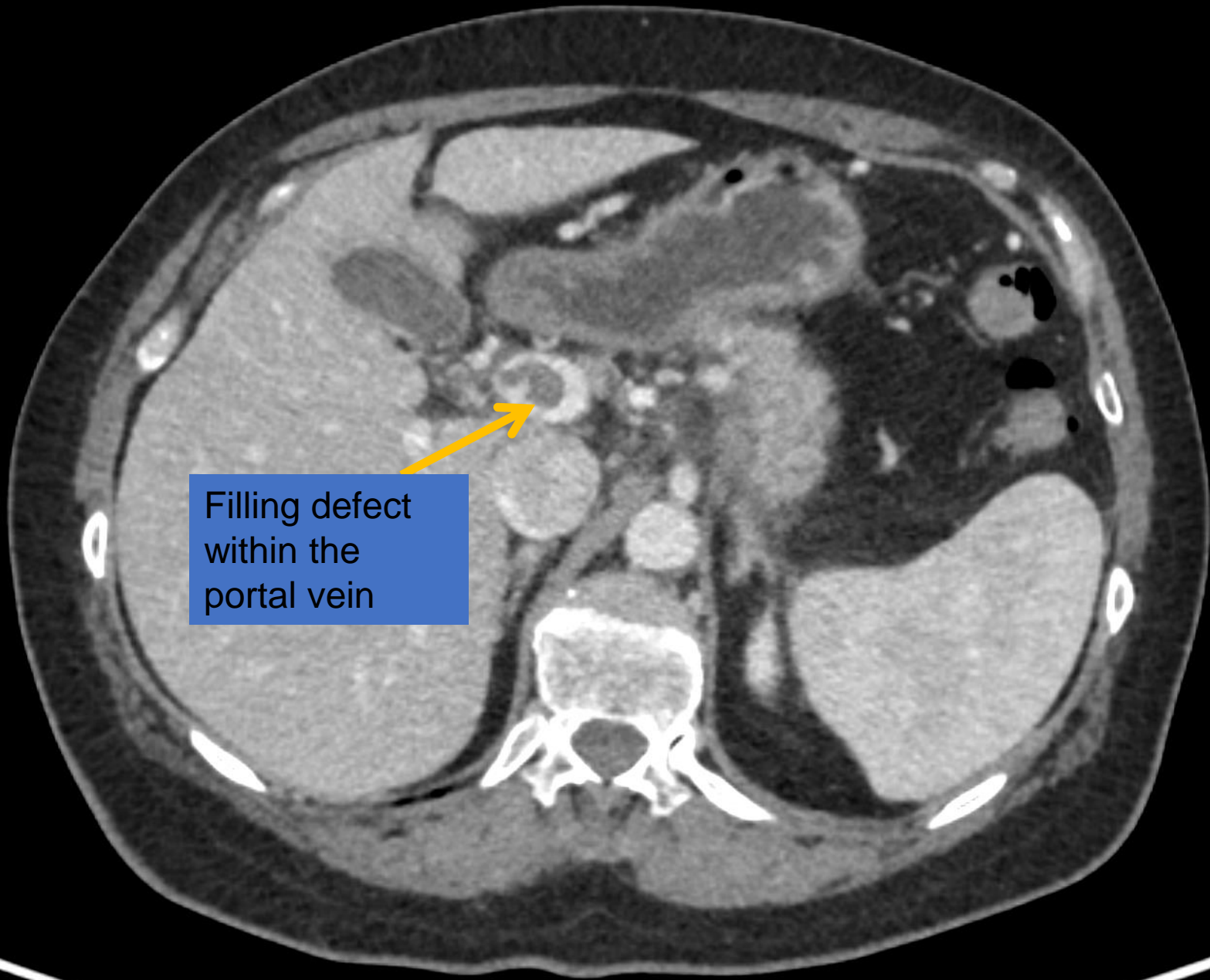
Findings: (labeled)

Filling defect within the portal vein

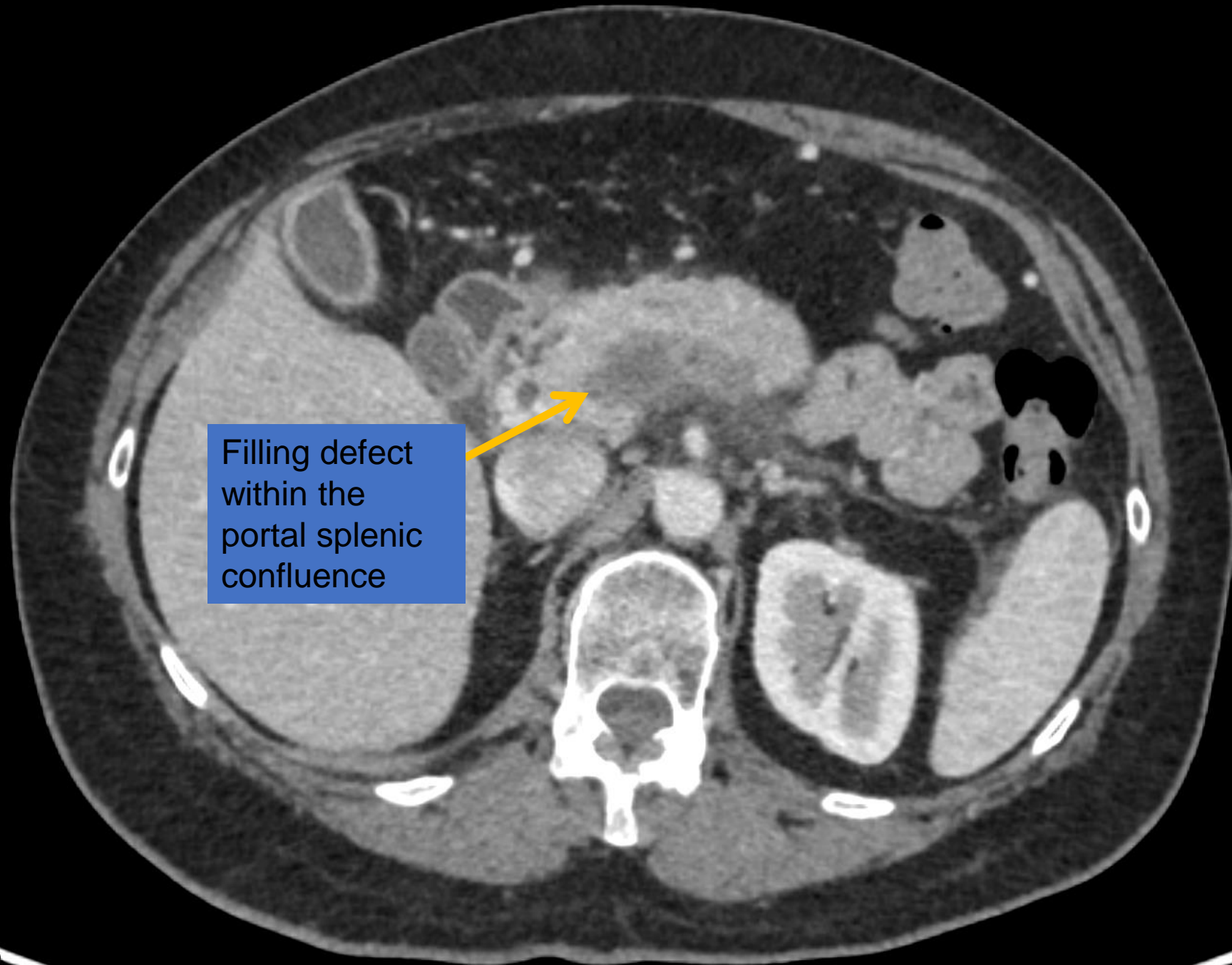
Filling defect within the portal splenic confluence

Filling defect within the SMV

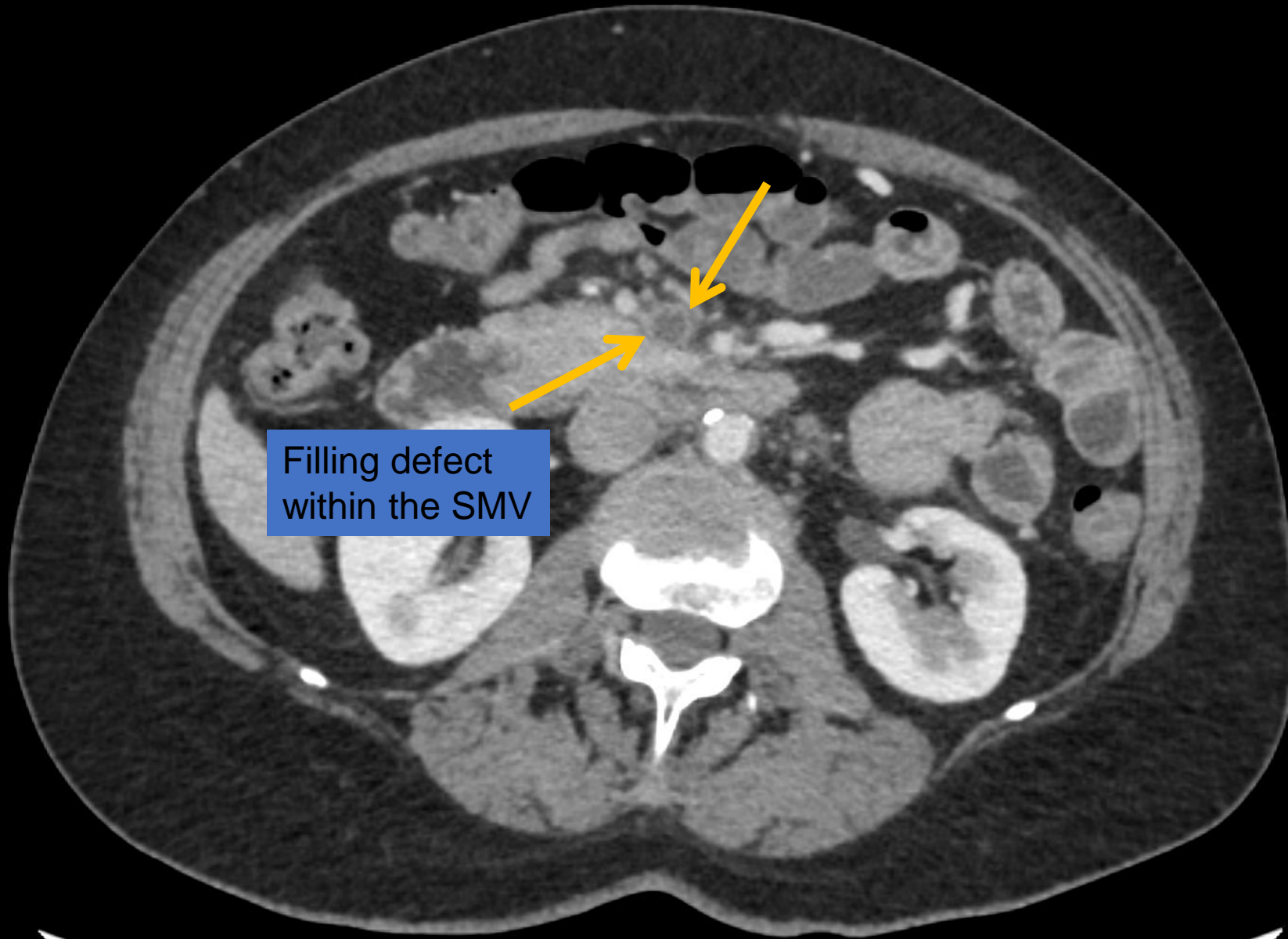




Filling defect within the portal vein



Filling defect  
within the  
portal splenic  
confluence



Filling defect  
within the SMV

Final Dx:

Extensive mesenteric thrombosis of the main portal vein, portal splenic confluence and superior mesenteric vein

# Case Discussion (1-3 slides)

- Portomesenteric venous thrombosis accounts for up to 15% of all mesenteric ischemic events, and is particularly prevalent in patients post-laparoscopy, where it has been postulated that procedural insufflation leads to venous stasis.
- Presenting symptoms of PVT are non-specific, including nausea, cramping and pain out of proportion to exam. Peritoneal signs are often absent.
- CT with contrast is >90% sensitive in the detection of PVT and potentiates prompt diagnosis and treatment.
- Delay in diagnosis can result in bowel necrosis and in rare cases, death.
- Therapy is prompt anticoagulation with heparin, followed by long term anticoagulation with factor Xa inhibitors or Warfarin, with successful recanalization demonstrated in up to 90% of nonsurgical patients who develop PVT.
- For acute cases, management includes IV fluids, pain control and bowel rest, and broad spectrum antibiotics when septic thrombophlebitis is suspected. Escalation to laparotomy may be necessary.
- Outcomes are better when there is early identification.



# References:

Condat et Al. (2000) Recent portal or mesenteric venous thrombosis: increased recognition and frequent recanalization on anticoagulant therapy. *Hepatology*. doi: 10.1053/jhep.2000.16597.

James, A. W., & et. Al. (2009). Portomesenteric Venous Thrombosis After Laparoscopic Surgery. *Archives of Surgery*, 144(6), 520. <https://doi.org/10.1001/archsurg.2009.81>

Russell, C. E., Wadhera, R. K., & Piazza, G. (2015). Mesenteric venous thrombosis. *Circulation*, 131(18), 1599–1603. <https://doi.org/10.1161/circulationaha.114.012871>

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