

Case	(230) Porto-mesenteric thrombosis as a cause of acute abdominal pain.
Authors	P.a. Baron Rodiz, R. Giovanetti Gonzalez, A. Palomares, I. Cifuentes, A. Rodriguez Sanchez.
Centre	Hospital Virgen De La Salud; Hopital Virgen De La Salud.

## CASE PRESENTATION

A 56-year-old male presented to the emergency room with a three-day history of acute abdominal pain. No previous history of alcohol abuse, chronic hepatic disease or malignancy. The abdomen was symmetrically distended and painful to palpation in the right flank. Blood tests highlight leukocytosis and increase of acute-phase reactants. An ultrasound was performed in the face of suspected retrocecal appendicitis.

The ultrasound reveals bowel wall thickening as well as a moderate amount of free fluid between loops and pelvis. The study was completed with abdominal CT in the portal phase. CT showed signs of portal, splenic and superior mesenteric vein thrombosis, along with a bowel wall thickening predominantly in the right flank (some of them with decreased wall enhancement), mesenteric fat edema and important amount of free fluid.

All these findings were compatible with intestinal ischemia secondary to venous thrombosis. The patient was treated conservatively with anticoagulation and gradually improved during the next few days.

## DISCUSSION

Porto-mesenteric venous thrombosis is an uncommon cause (5-10% of cases) of acute mesenteric ischemia. It has a mortality rate of 15-40%, and its diagnosis is often difficult due to the nonspecific clinic.

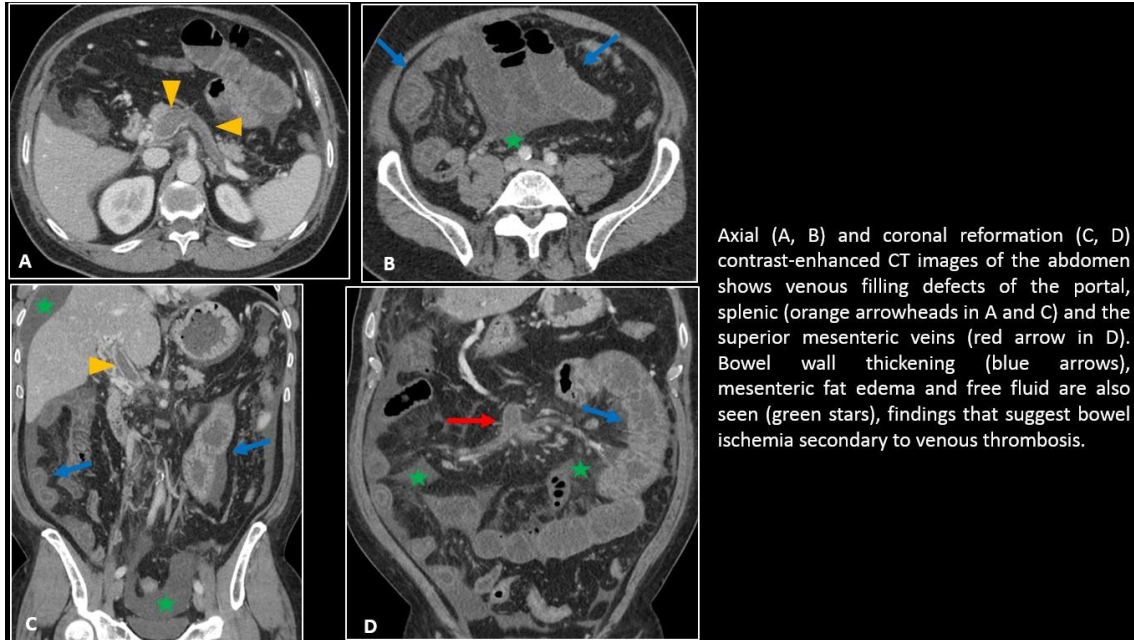
The ultrasound study can provide indirect signs of intestinal ischemia, such as bowel wall thickening or ascites; therefore, CT is the modality of choice to establish the diagnosis.

The CT features of venous bowel ischemia can be divided into mural, vascular, and extramural nonvascular signs:

- Mural Signs: bowel wall thickening, intramural edema or hemorrhage, abnormal wall enhancement, halo sign/target sign, and pneumatosis intestinalis.
- Vascular signs: venous filling defect, vein enlargement, venous engorgement, venous collateral circulation and porto/mesenteric venous gas.
- Extramural-nonvascular signs: mesenteric fat edema, ascites, bowel dilatation and free intraperitoneal air from perforation of an infarcted bowel segment.

## CONCLUSION

Porto-mesenteric acute venous thrombosis is a rare but serious cause of acute abdomen. Thus, radiologists should be familiar with the features of venous bowel ischemia at CT, the modality of choice, although these features are not specific and a systematic search for underlying venous thrombotic disease should be made.



## BIBLIOGRAPHY

- Duran R, Denys AL, Letovanec I, Meuli RA, Schmidt S. Multidetector CT features of mesenteric vein thrombosis. *RadioGraphics* 2012;32:1503-22. 2.
- Yasuhara H. Acute mesenteric ischemia: The challenge of gastroenterology. *Surg Today* 2005; 35: 185-195