Case	(506) Pyleplephlebitis secondary to diverticulitis
Authors	E. Lanz Santos, Á. Díez Tascón, F. García Marínez, A.j. Barrios López, M. Caicoya Boto, M. Martí De Gracia.
Centre	Hulp.

CASE PRESENTATION

69-year-old man diagnosed of acute diverticulitis. He received oral antibiotics as treatment. Fifteen days later he attends de emergency services referring persistence of lower left quadrant abdominal pain, fever (37,8º) and nausea. At physical examination his abdomen was soft and tender. Laboratory studies revealed leucocytosis and elevation of CRP. A new abdominopelvic contrast enhanced CT was performed.

The CT revealed several wall-thickened fluid collections and moderated fat stranding surrounding the sigma. It was also noticed an important increased of width and a repletion defect in the distal and medial third of the inferior mesenteric vein (IMV), which associated stranding of the adjacent fat. In its proximal portion, the IMV acquired a filiform stretch.

The hepatic parenchyma showed two wedge-shaped abnormal perfusion areas in segments VIII and IV (not identified in previous CT), associated to various unopacified branches of the portal vein.

The observed findings are related to subacute diverticulitis complicated with locoregional abscesses, septic thrombophlebitis of the IMV and pylephlebitis of portal branches, which originates a liver perfusion anomaly.

DISCUSSION

The term pylephlebitis refers to a septic thrombophlebitis of the portal venous system. It usually occurs in the setting of abdominal inflammatory processes, being diverticulitis, pancreatitis and appendicitis the most common causes.

The infection, usually caused by Escherichia coli or Bacteroides fragilis, spreads to the small veins draining the affected region, and subsequently extends to larger vessels, reaching de mesenteric veins and the portal system.

Patients may present with a wide range of symptoms depending on the primary focus of infection and the location and extension of the thrombus,being abdominal pain and fever the most common manifestations. It may have a subacute curse. If affected, liver involvement can cause hepatomegaly, elevation of liver enzyme levels, abscesses, jaundice and cholangitis.

Diagnosis is made on basis of a combination of clinical manifestations, blood cultures and imaging findings. Portal-venous phase contrast enhanced CT is the diagnostic modality of choice. Findings are related to venous involvement, the primary source of infection and intrahepatic anomalies. The diagnosis of pylephlebitis relies on the demonstration of thrombosis in the portal system, although it may be unperceived if only small vessels are affected. It may be also seen the presence of portal gas.

Liver imaging findings include unopacified branches of the portal vein, transient parenchymal attenuation differences and intrahepatic abscesses.

CONCLUSION

Pylephlebitis is a rare and severe condition which must be always carefully ruled out when performing a CT in the setting of an abdominal infection.

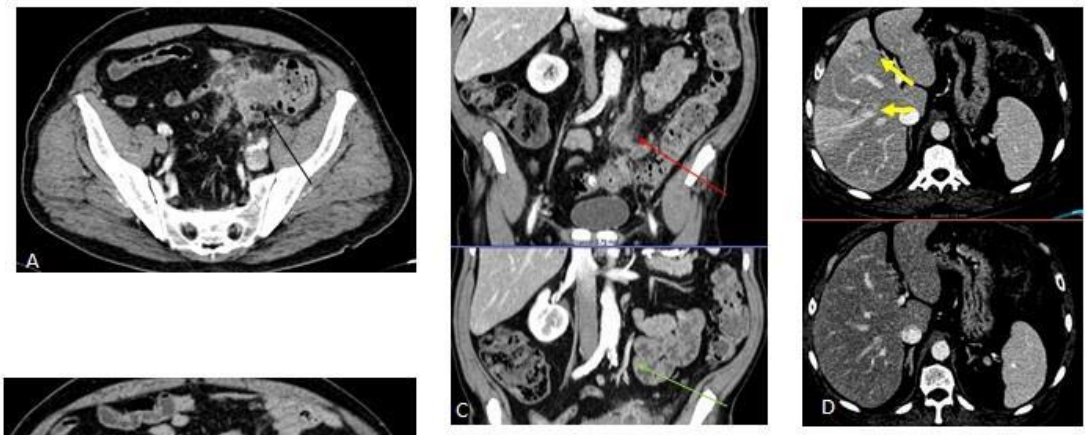

Figure 1: Abdomino-pelvic contrast-enhanced CT. **a)** Diverticulitis of the sigma complicated with locoregional abscesses. **b)** Thrombophlebitis of the inferior mesenteric vein (IMV). **(c,d)** Coronal reconstructions. Comparison between CTs performed at the onset of the diverticulitis (down) and 15 days later (up). **c)** Thrombophlebitis of the IMV (red arrow). Note the difference of with and density of the IMV. **d)** Liver perfusion anomalies. Pylephlebitis of portal branches (yellow arrows).

BIBLIOGRAPHY

- Asad J. Choudhry, Yaser M. Baghdadi, Mahmoud A. Amr, Mohammad J. Alzghari, Donald H. Jenkins, Martin D. Zielinski. Pylephlebitis: a Review of 95 Cases. J Gastrointest Surg. 2016 March; 20(3): 656–61.

- García R., Liñares M., Baleato S.,Villalba C. Pylephlebitis. Radiology 2010; 255:1003–7