Case	(224) Aortocaval fistula: a deadly finding with few symptoms.
Authors	R. Giovanetti González, P.a. Barón Rodiz, A. Rodríguez Sánchez, M.j. Lucena González, M. Bernabéu Rodríguez, A. Pérez Martínez.
Centre	Complejo Hospitalario De Toledo.

CASE PRESENTATION

A 75-year-old man presented to the emergency department for sudden syncope lasting ten minutes, with spontaneous recovery. He had a slight feeling of dizziness, but he was conscious, without any other symptomatology.

On examination, a pulsatile mass had been observed in mesogastrium, which is why a computed tomography angiography (CTA) was requested. CTA showed an infrarenal aortic aneurysm of 105 x 103 mm, with extravasation of contrast to inferior vena cava (IVC), in relation to an aortocaval fistula.

The patient underwent emergency surgery, with the placement of a bifurcated endoprosthesis. Finally, he died after 12 days due to respiratory failure refractory to oxygen therapy.

DISCUSSION

The formation of a fistula to the IVC is a known but rare complication of abdominal aortic aneurysms (3-7% of all ruptured aneurysms), which entails difficulties in the diagnosis and management of the patient.

Classic clinical signs (pulsatile abdominal mass, low back pain, and continuous abdominal bruit) are present in most cases. Besides, the presence of a left-right shunt results in high-output congestive heart failure. CTA is the primary imaging technique in the evaluation of aortic aneurysms and their complications. The main findings of an aortocaval fistula are:

- Early opacification of the IVC during the arterial phase.

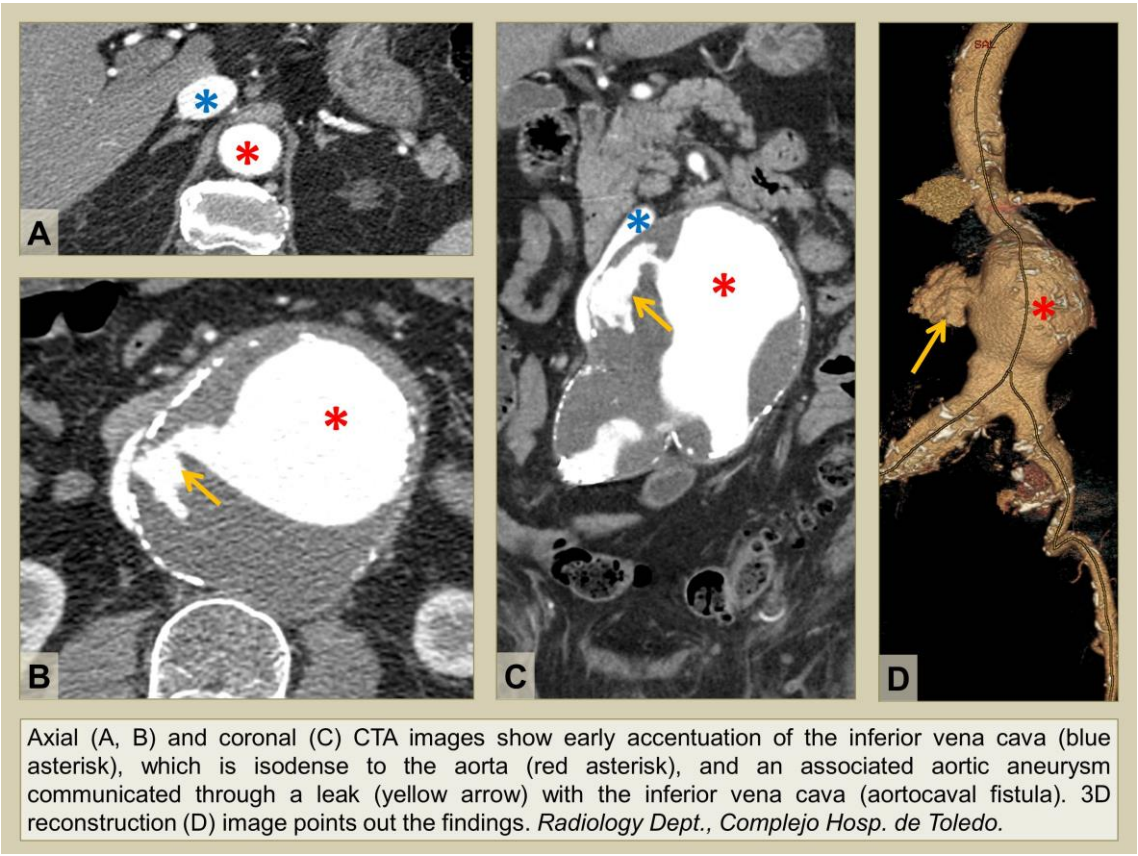
- A large abdominal aortic aneurysm, whose wall is eroded towards the IVC (fistula is usually located in the right posterolateral portion of the aneurysm).

- Compression of the IVC by the aneurysm, or on the contrary, distention of IVC and renal veins due to the highpressure shunt.

- Associated pulmonary embolism has also been described (secondary to paradoxical embolism from aortic atheromatous plaques).

CONCLUSION

Abdominal aortic aneurysms may rupture into the vena cava, producing an arteriovenous fistula. The radiologist must know the main imaging findings in CTA to assist in the diagnosis and emergency surgery planning.



Axial (A, B) and coronal (C) CTA images show early accentuation of the inferior vena cava (blue asterisk), which is isodense to the aorta (red asterisk), and an associated aortic aneurysm communicated through a leak (yellow arrow) with the inferior vena cava (aortocaval fistula). 3D reconstruction (D) image points out the findings. *Radiology Dept., Complejo Hosp. de Toledo.*

BIBLIOGRAPHY

- Ravi R, Peter SB, Swaminathan TS, Chandrasekar V. Spontaneous aortocaval fistula due to abdominal aortic aneurysm rupture - a case report. Indian J Radiol Imaging 2006; 16: 453-6.

- Schott EE, Fitzgerald SW, McCarthy WJ, Nemcek AA, Sonin AH. Aortocaval fistula: diagnosis with MR angiography. Am. J. Roentgenol. 1997; 169: 59-61.