

Title:

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Aortomesenteric clamp: association with Wilkie syndrome and nutcracker syndrome.

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CASE REPORT

A 67-year-old woman was referred due to epigastric pain, vomiting and weight loss of 6 kg in the past months.

Blood tests were performed showing hematuria. An abdominal doppler ultrasound does not show anything abnormal. So, an abdominal angio-CT and an enterography-MRI were performed, objectifying an aortomesenteric angle of 10.8° (reference range 38-56°) which cause complete collapse of the left renal vein ("nutcracker phenomenon") (Figure 1) and duodenal compression with retrograde dilatation ("Wilkie syndrome") (Figure 2). Conservative measures and nutritional support were adopted during the hospitalization. She is discharged due to good tolerance to oral diet, absence of symptoms and good contrast pass in esophagogastroduodenal transit.

DISCUSSION

Wilkie syndrome and nutcracker syndrome are two rare pathologies produced by the entrapment effect of the clamp formed by the abdominal aorta and the superior mesenteric artery. The coexistence of both syndromes is very unusual. Doppler-US, angio-CT and angio-MRI are the gold standard for diagnosis to assess the angle formed by the clamp, duodenal narrowing, vascular filling defect and possible collateral growth¹.

In the case of Wilkie syndrome, the first therapeutic option is conservative management, based on reintroducing oral diet in several small-volume daily intakes, correct nutritional support and control of the hydroelectrolyte balance. This should be combined with prokinetic and antiemetic drugs. The indications for surgery are difficult to establish, although it is recommended in case of failure of the conservative managements; long-term disease with progressive weight loss and duodenal dilation with stasis; and complicated peptic ulcer disease secondary to bile stasis and reflux²⁻³.

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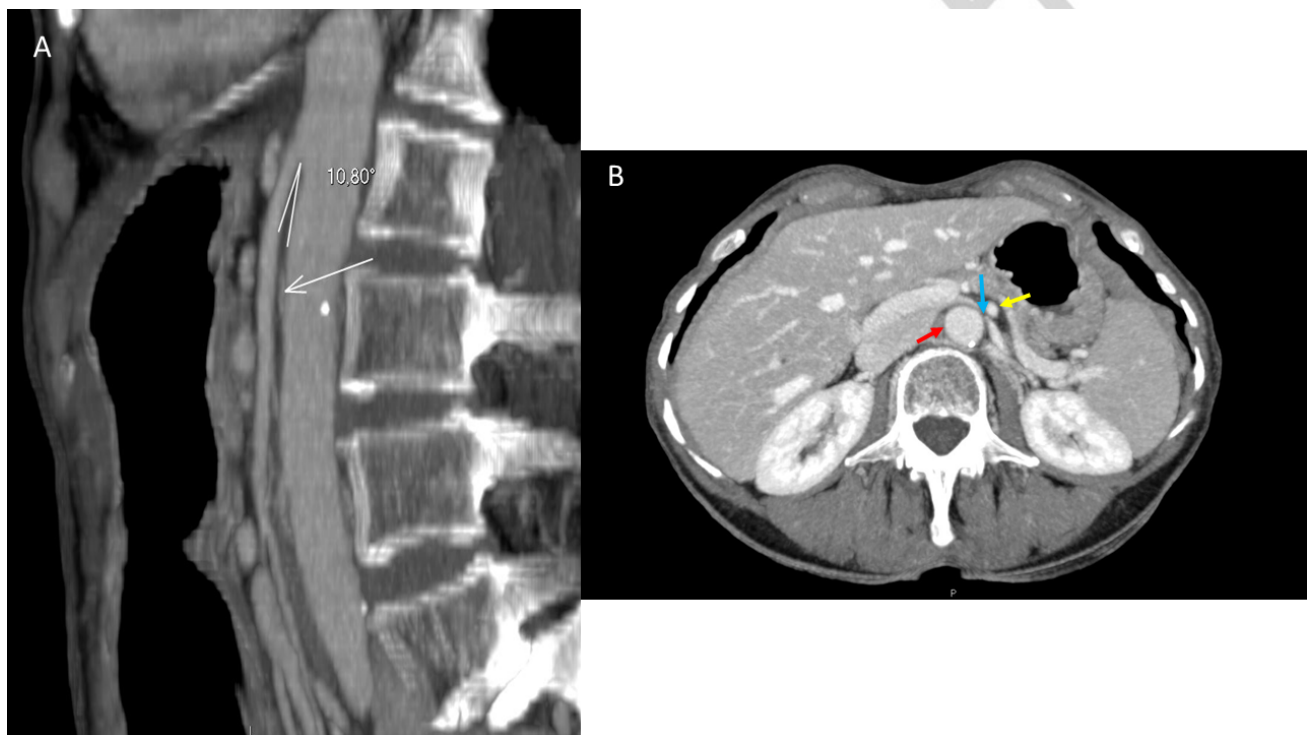


Figure 1: Sagittal plane of abdominal CT (A) showing aortomesenteric angle of 10.8° (reference range 38-56°) causing compression of the left renal vein (white arrow). Axial plane of abdominal CT (B) showing stenosis of the left renal vein (blue arrow) with significant pre and post-stenotic dilation between the aorta artery (red arrow) and the superior mesenteric artery (yellow arrow).

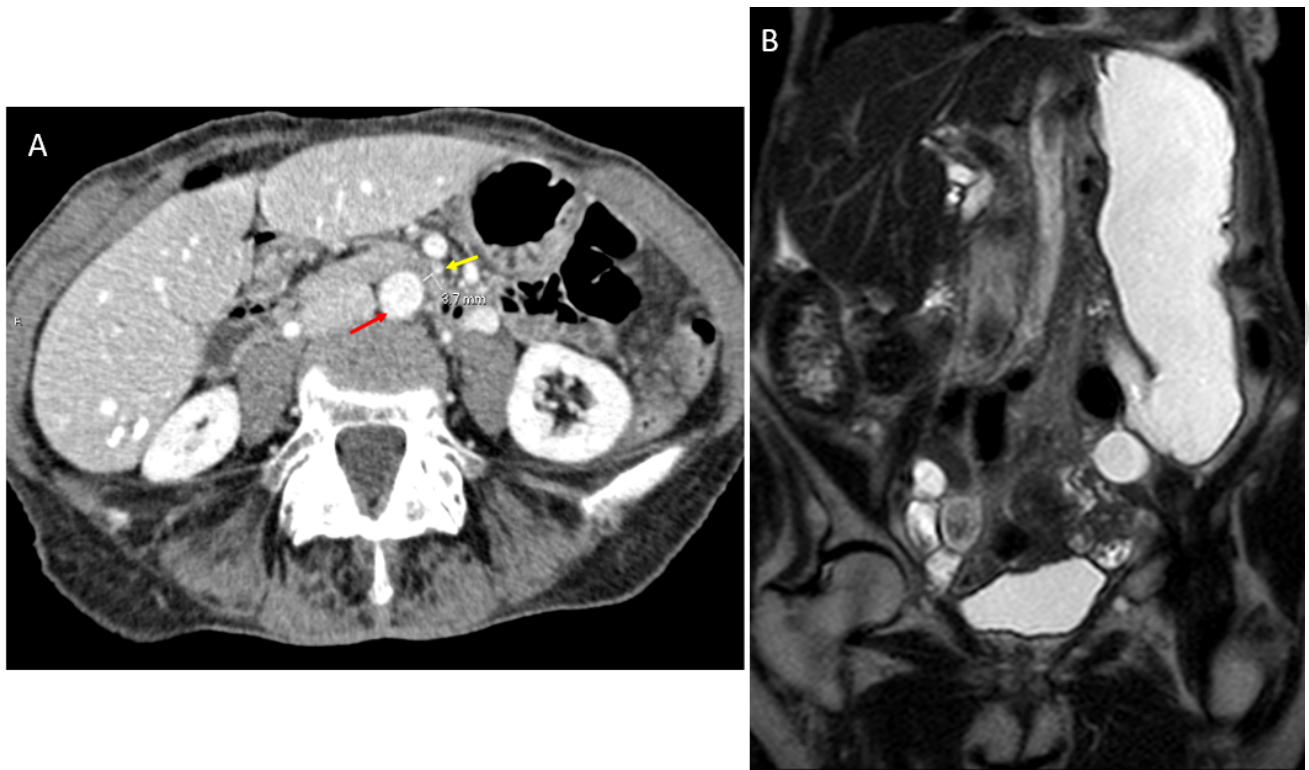


Figure 2: Axial plane of abdominal CT (A) showing narrowing of the third duodenal portion (approximate caliber of 3.7mm) between the aorta artery (red arrow) and the superior mesenteric artery (yellow arrow). Sagittal plane of entero-MRI (B) showing a great retrograde gastric distension due to duodenal compression.