REVISTA ESPAÑOLA DE
ENFERMEDADES DIGESTIVAS
The Spanish Journal of Gastroenterology

Title:
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DOI: 10.17235/reed.2020.6945/2020
Link: PubMed (Epub ahead of print)

Please cite this article as:
A. Cienfuegos Javier, Vivas Pérez Isabel, Rotellar Fernando. Co-occurrence of compression syndromes: celiac axis stenosis, superior mesenteric artery and nutcracker syndrome. Rev Esp Enferm Dig 2020. doi: 10.17235/reed.2020.6945/2020.

CC 6945

Co-occurrence of compression syndromes: celiac axis stenosis, superior mesenteric artery and nutcracker syndrome

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Keywords: Superior mesenteric artery syndrome. Left renal vein. Nutcracker syndrome.

Dear Editor,

Moreno Márquez et al. (1) report an association between arcuate ligament syndrome (ALS) and the "nutcracker" phenomenon (compression of the left renal vein). The case illustrates the association between several syndromes, which all involve compression of vascular or gastrointestinal structures: arcuate ligament syndrome, superior mesenteric artery syndrome (SMAS) or Wilkie's syndrome, the "nutcracker" syndrome and May-Thurner syndrome (compression of the left iliac vein).

In a recent study in our center, we surgically treated four patients with ALS in association with SMAS and three patients with SMAS associated with the "nutcracker" phenomenon. The term syndrome should be reserved for those cases in which functional renal abnormalities such as micro/macrohematuria, proteinuria exist (2,3). The case reported by Moreno-Márquez shows the phenotype and the most frequent symptoms in these patients, who are normally young women with chronic abdominal pain (> 4 weeks), postprandial fullness, nausea, vomiting and weight loss. The

differential diagnosis should exclude gastric motility disorders such as gastroparesis or cyclic vomiting (4,5).

Given the lack of correlation between radiologic findings and the severity of symptoms, establishing indications for surgery and the prediction of outcomes may be difficult. We agree with the authors that surgery is required when radiologic findings are evident, ideally using a laparoscopic approach.

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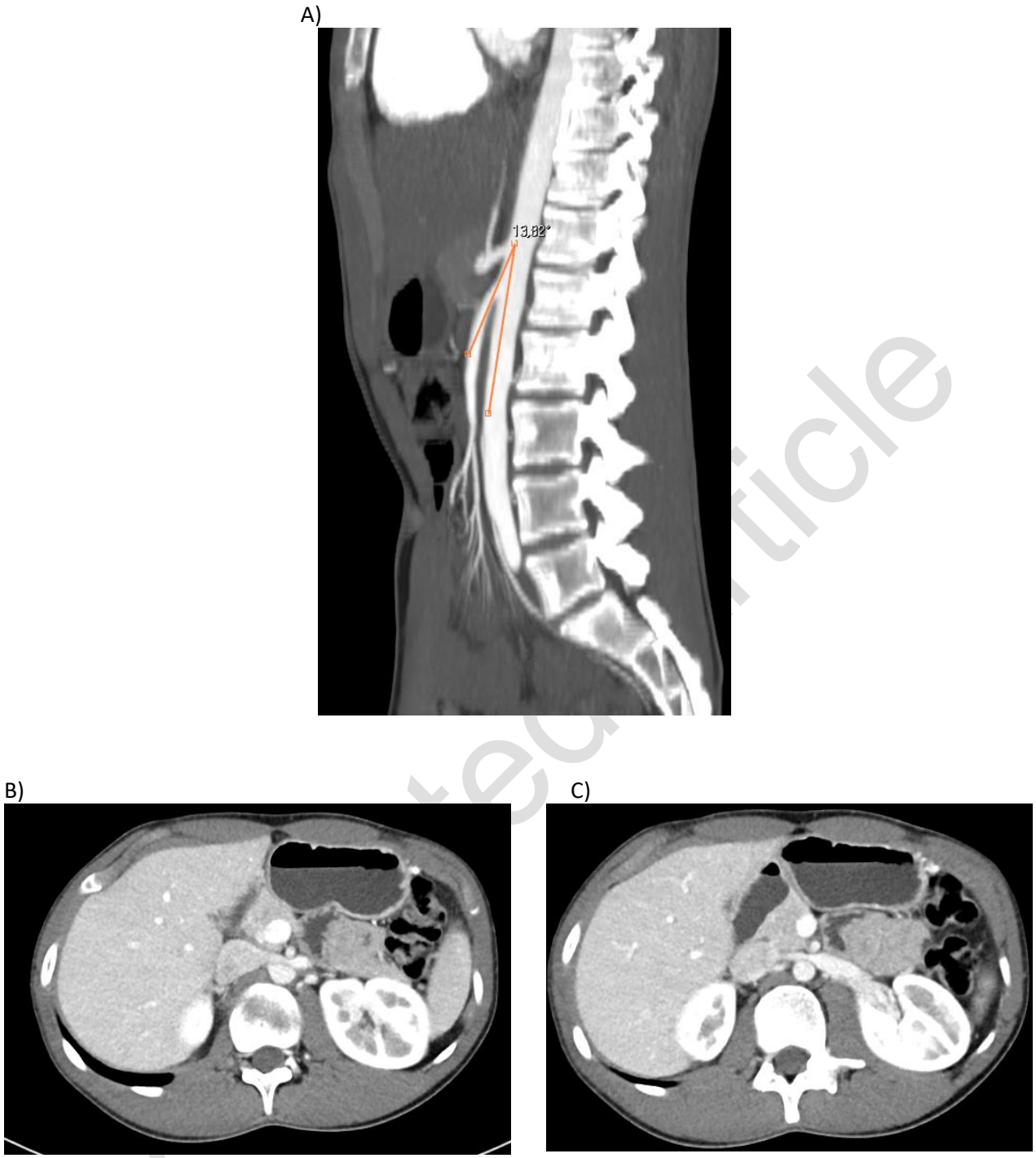

Fig. 1. A. Sagital computed tomography imaging demonstrating the narrowing angle (< 35°) between the superior mesenteric artery and the aorta. B. Axial computed tomography scan (CT) showing duodenal compression between the superior mesenteric artery and the aorta. C. Axial CT imaging showing impingement of the left renal vein by the superior mesenteric artery and the aorta.