

Arque Median Ligament Syndrome: A Cause of Abdominal Pain

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Abstract

Case Report

Median arcuate ligament syndrome (MALS) is a condition in which the median arcuate ligament presses too firmly against the celiac trunk and the nerves in the region. This anatomical variant affects 10 - 24% of the general population. It occurs most often in slender, younger women and the clinical manifestation is dominated by abdominal pain, vomiting and weight loss. It is treated surgically by dividing the medial arcuate ligament to release the celiac trunk. The usual approach is described as supraumbilical median laparotomy. We report the case of a 36-year-old female patient admitted with abdominal pain and weight loss.

Keywords: Median arcuate ligament syndrome, clinical manifestation, vomiting and weight loss.

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OBSERVATION

This is a 36-year-old female patient with no previous pathological history who presented with recurrent epigastric pain, vomiting and a notion of progressive weight loss. An abdominal angioscan was performed and showed a non-atheromatous tight stenosis of the ostium of the celiac trunk with good opacification and dilatation of the downstream segment (figure 1 a, b and c). The mesenteric arteries as well as the hepatic and splenic arteries were of normal caliber with good opacification of the latter. In addition we noted the presence of an inter vesico uterine collateral venous circulation and a small pelvic effusion.

DISCUSSION

The celiac trunk is a short artery, the first major branch arising from the abdominal aorta. Arterial blood flow to the organs of the supramesocolic level of the abdomen originates from the celiac trunk and the superior mesenteric artery which communicate via the gastroduodenal artery, the anterior and posterior pancreaticoduodenal arches, branches of the dorsal pancreatic artery and, inconsistently, via an additional arch directly connecting the celiac trunk (CT) and the superior mesenteric artery (Bühler arch).

CT stenosis may or may not have a haemodynamic impact on the splanchnic circulation. When it is haemodynamically significant, it may be

asymptomatic, or symptomatic with protean clinical consequences.

The therapeutic management then depends on the extrinsic or intrinsic mechanism of this stenosis. When interventional radiology or supra-mesocolic surgery is indicated, CT stenosis may cause technical difficulties or serious ischaemic phenomena requiring a good understanding of this entity, planning of the procedures and adapted management.

Its management is therefore multidisciplinary and involves the interventional radiologist, the digestive surgeon, the vascular surgeon and the vascular physician. Although its prevalence is relatively low, between 5 and 10%, CT stenosis, whatever its aetiology, is an entity that should be known to surgeons, radiologists and physicians because of its importance in the management of supra-mesocolic pathologies. It needs to be investigated and treated in a manner adapted to each situation in order to avoid potentially serious complications.

CONCLUSION

Median arcuate ligament syndrome is a rare variant, most often affecting women. Its diagnosis is based on an angioscanner which allows the study of the celiac trunk and the search for complications. Treatment is surgical if complications arise.

FIGURE

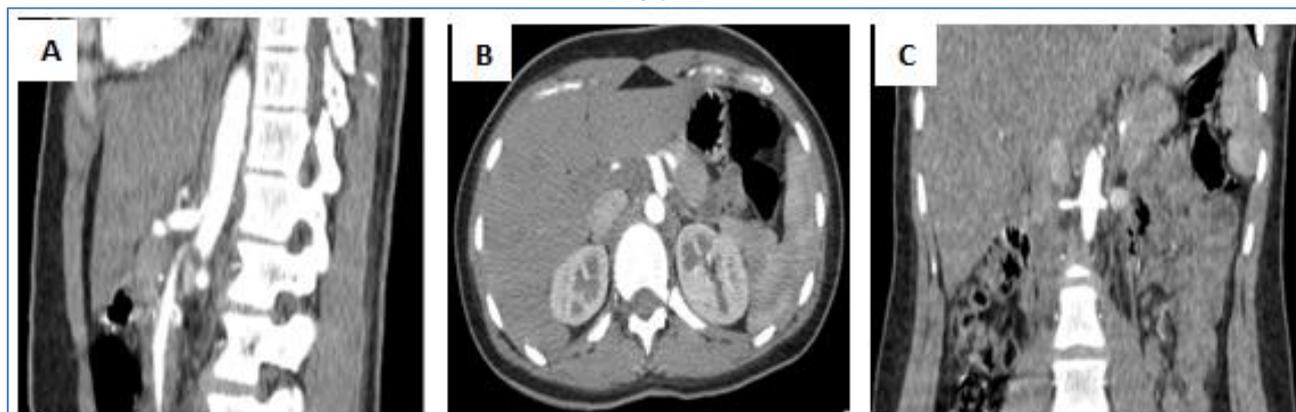


Fig-1: Abdominal angioscanner arterial time; A: sagittal section, B: axial section and C: coronal section showing tight stenosis of the ostium of the celiac trunk with opacification and dilation of the downstream segment

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