



Medical Imagery

Aortoduodenal Syndrome in an Elderly Patient

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An 88-year-old male with a medical history of hypertension, was brought to emergency room for abdominal fullness, and vomiting for 2 days. Physical examinations disclosed slight tenderness and a pulsatile mass in the epigastric region. Emerging computed tomography (CT) of the abdomen demonstrated the abdominal aortic aneurysm (AAA) with intramural hematoma and a dilated stomach and partial duodenal obstruction (Figure 1 A and B), suggesting aortoduodenal syndrome. Our patient was managed conservatively and his symptoms gradually improved and discharged with stable condition.

Aortoduodenal syndrome is an exceedingly rare condition characterized by obstruction of the third portion of the duodenum by a large AAA, is a very rare cause of intestinal obstruction. This condition was initially described by William Osler in 1905,¹ the mechanism of the obstruction is related to direct compression of the duodenum by an abdominal aortic aneurysm against the superior mesenteric artery or the abdominal wall. The combination of a gastric outlet obstruction and a pulsatile abdominal mass or known aneurysm should raise suspicion for this clinical entity.² Smoking, hypertension, a family history of AAA and male sex are clinical risk factors for the development of an aneurysm.³ Aortoduodenal syndrome should be suspected when patients greater than 60 years of age present with symptoms of gastric outlet obstruction are chronic smokers and/or have a known AAA.⁴ Abdominal CT with contrast, followed by upper endoscopy established confirmation of the diagnosis and ruled out other causes of duodenal obstruction,⁵ such as superior mesenteric artery syndrome, pancreatic tumor. Endovascular aneurysm repair improved prognosis significantly.⁵ Although endoscopy can help to the different diagnoses of the cause of duodenal obstruction, endoscopy is a relative risk of such case.

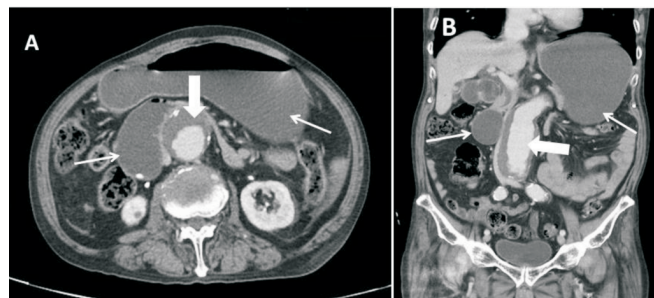


Figure 1. (A and B) Abdominal computed tomography showing the abdominal aortic aneurysm with intramural hematoma (big arrows) and a dilated stomach and partial duodenal obstruction (arrows).

Funding sources and related paper presentations

None.

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