

## Wilkie's Syndrome: A Rare Cause of Upper Gastrointestinal Obstruction

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### Abstract

A 19-year-old male with a history of Soto’s Syndrome was admitted to the ER for a case of upper GI obstruction. A CT angiography showed a narrow aorto-mesenteric angle.

Wilkie's syndrome consists of an extrinsic compression and obstruction of the third portion of duodenum between the Superior Mesentery Artery (SMA) and the aorta. This syndrome usually develops after an important weight loss. Treatment is usually corrective o derivative surgery, with good postoperative outcomes.

**Keywords:** Superior mesenteric artery syndrome; Wilkie’s syndrome; Vascular; Duodenum; Obstruction

### Clinical Case

A 19-year-old male with a history of Soto’s Syndrome, bed-ridden for many years and cachectic was admitted to the ER for abdominal pain and vomits, compatible with an upper GI obstruction. A CT showed a distended stomach and the upper GI series demonstrated an extrinsic compression at the third duodenal portion (D3) (Figure 1), later confirm with a CT angiography.

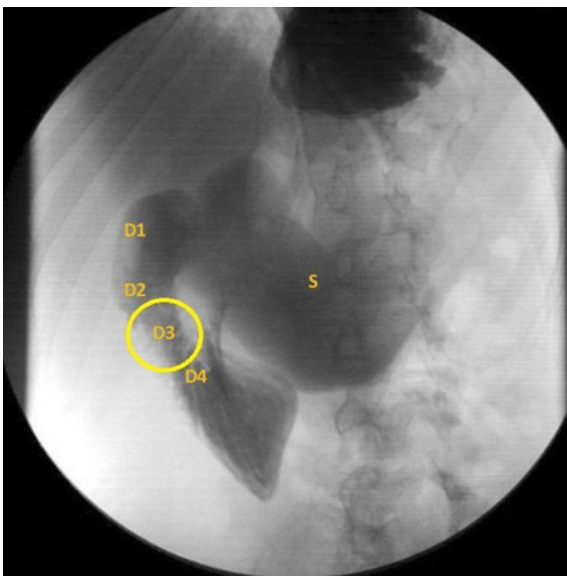


Figure 1: GI series demonstrating a compression of the 3rd duodenal portion.

\*D1, D2, D3, D4: 1st, 2nd 3rd and 4th segments of duodenum; S: Stomach

Superior mesenteric artery (Wilkie's syndrome, an unusual cause of upper intestinal obstruction, is characterized by an extrinsic compression of the duodenum in its third portion

between the superior mesentery artery (SMA) and the aorta, resulting in a functional obstruction. It is due to a narrowing of the aorta-SMA angle of  $<25^\circ$ , causing a decrease in the distance between both vascular structures as little as 8-2mm [1]. This syndrome has usually been described after corrective spinal surgery and in those with a severe wight loss. The clinical picture is commonly characterized by symptoms of upper GI obstruction, abdominal pain, anorexia and weight loss. The diagnosis is confirmed with a CT angiogram (Figure 2) [2]. Treatment can range from conservative to surgical. Surgery consists on the mobilization of the duodenum by dividing the ligament of Treitz (Strong's procedure) or a duodenojejunostomy, the latter being the procedure of choice in adult patients, with a success rate near 100% [3].



Figure 2: CT angiography showing a narrow aorto-mesenteric angle.

**Authorship Criteria:**

**Wence Villalvazo-Zuñiga, MD:** Concept and design. Data acquisition. Carlos A. Bautista-López, MD, MSc: revision and drafting.

**José M. Aceves-Ayala, MD:** Drafting, final revision and approval. Guarantor author.

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mat that the patient signed to authorize the use of his personal information.

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