

A CASE OF WILKIE'S SYNDROME

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INTRODUCTION

Wilkie's syndrome, more commonly called superior mesenteric artery (SMA) syndrome or cast syndrome is characterised by compression of the third part of the duodenum between the SMA and aorta leading to a range of symptoms caused by external obstruction of the duodenum including weight loss, abdominal pain, nausea and vomiting.

It has a prevalence of 0.013 to 0.3% and is commonly seen in patients with rapid weight loss, scoliosis surgery and trauma.

We present a case of a patient with questionable weight loss and acute onset nausea, vomiting and abdominal pain found to have SMA syndrome on evaluation.

CASE DESCRIPTION

A 47-year-old male with PMH of ischemic stroke with chronic left sided hemiparesis, epilepsy and schizoaffective disorder who presented from a nursing home due to a 3-day history of fever, nausea, vomiting and abdominal pain.

Initial lab findings included leukocytosis with left shift (WBC 17.73 [4.00-11.00K/mL]) and lactic acidosis (5.0 [0.7-2.0mmol/L]). Imaging done demonstrated bibasilar consolidation suggestive of pneumonia as well as marked distension of the stomach and duodenum with transition in the third portion of the duodenum at the level of the superior mesenteric artery. A seven-day course of Ceftriaxone was initiated, and GI consulted.

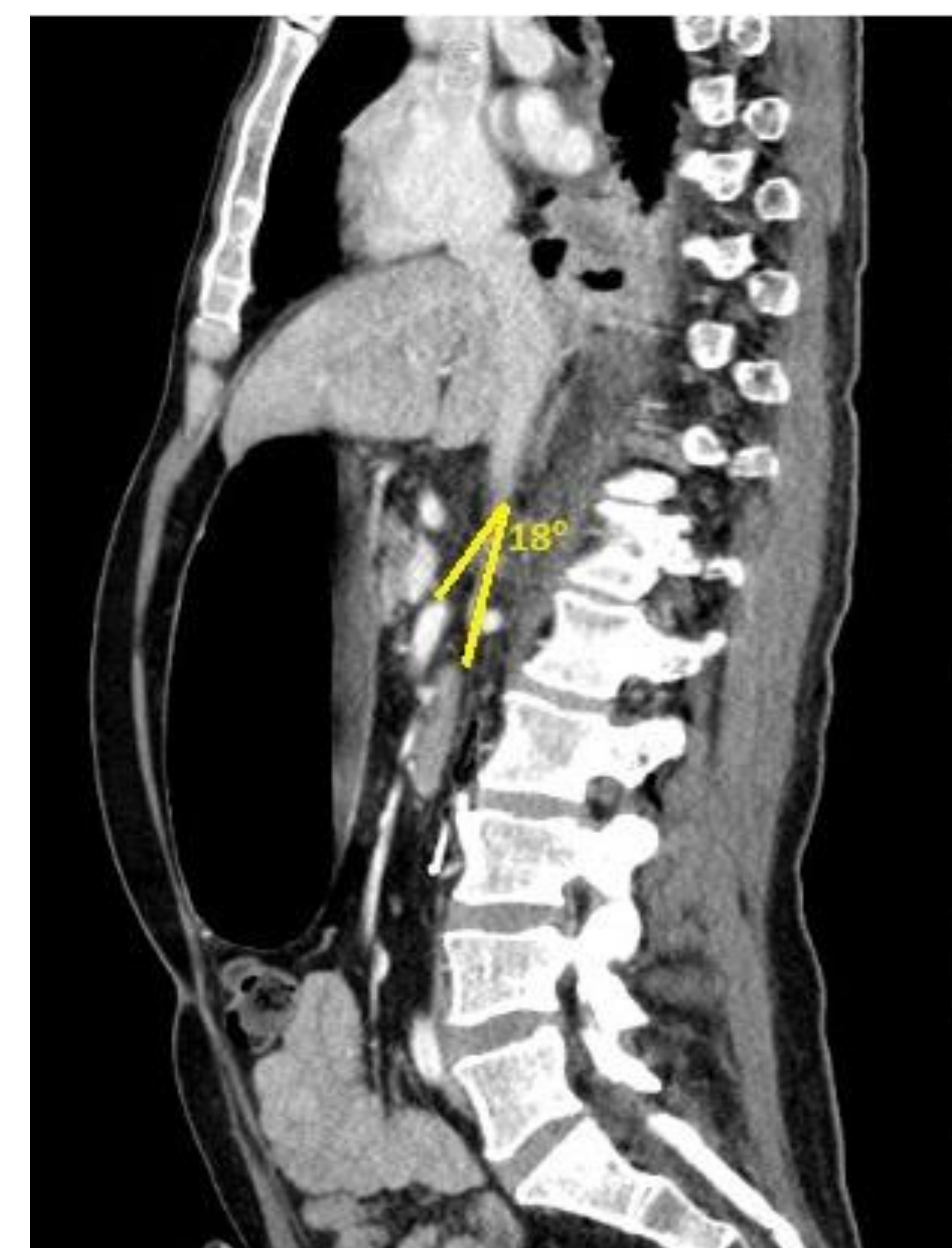
Gastroscopy exhibited moderate to severe erythema in the gastric body and antrum and retained food contents. Subsequently, an upper gastrointestinal series was ordered which showed markedly increased small bowel transit time with barium contrast reaching the colon after 7 hours with initial holdup of contrast at the level of the proximal third of the duodenum.

General surgery contacted with a decision made to perform duodenojejunostomy with observed significant improvement in all symptoms in the postoperative period.

FIGURE 1: UPPER GASTROINTESTINAL SERIES DEMONSTRATING INITIAL HOLDUP AT THE LEVEL OF THE PROXIMAL THIRD PORTION OF THE DUODENUM



FIGURE 2: SAGGITAL CT SCAN IMAGE SHOWING THE AORTOMESENERIC ANGLE <22 DEGREES DIAGNOSTIC OF SMA SYNDROME



DISCUSSION

Wilkie's syndrome is rare and can be challenging to diagnose due to its nonspecific symptoms, however with CT scan (the modality of choice for diagnosis), the narrowing of the angle between the SMA and aorta with duodenal compression can be demonstrated leading to early diagnosis.

In our case, the patient presented acutely compared to other patients who tend to go undiagnosed with chronic intermittent symptoms causing a delay in diagnosis.

Early recognition and prompt treatment are essential for prevention of complications such as dehydration and malnutrition.

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