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The overlooked obstruction: Wilkie syndrome in small bowel blockages – Insights from a hospital case series

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Dear Editor,

We searched for cases of Superior Mesenteric Artery Syndrome (SMAS) in the Hospital Universitario Jose E. González in Monterrey Nuevo León from 2022 to 2024 and found 9. The median age was 22 (16-29), and male predominance 5 (56%); 2 (22%) patients were smokers and had a history of substance abuse, 2 (22%) had a history of Community-Acquired Pneumonia

(CAP), 1 (11%) of Urinary Tract Infections (UTI) and other of Hospital-Acquired Pneumonia, Status Epilepticus, and intestinal perforation. All the patients had intolerance to oral intake and weight loss; 90% presented with nausea, 44% with dyspepsia and early satiety, 44% with abdominal pain, 33% with chronic diarrhea explained by other diseases, and 11% with constipation. The median of Nutritional Risk Screening (NRS) was 4 (4-5). The median of hemoglobin was 11 (10-13) g/dL, mean corpuscular volume (MCV) of 92 (86-97) Fl, leukocytes 8 (7-13) x10^9/L, albumin 3 (2-4), aspartate aminotransferase (AST) 41 (25-55), alanine aminotransferase (ALT) 34 (21-63), creatinine of .4 (.3-1), blood urea nitrogen 15 (9-24), cholesterol 114 (110-126) and triglycerides 100 (55-133). The median of the aortomesenteric angle was 16 (11-18) °, and the aortomesenteric distance 3 (4-7) mm. We placed a nasojejunal probe in 44% of patients, performed a duodenal jejunostomy in 33%, and placed a jejunostomy and a nasogastric probe each for one patient. Table 1 and Figure 1 show the individual cases and their characteristics. One patient died of septic shock after 7 months of the initial diagnosis, and the other because of pontine myelinolysis after 4 months.

SMAS is a rare cause of proximal intestinal obstruction[1]; it has a higher incidence among young individuals, females, and those with a history of weight loss; the average onset age is 23.[1-4] Current estimates suggest that SMAS occurs in 0.013–0.78% of the general population; however, the condition is more prevalent in specific clinical contexts. Patients with burns (1.2%), anorexia nervosa (2.73%), and functional dyspepsia (10.8%) are at an increased risk of SMAS.[1,4]

Symptoms include postprandial pain, vomiting, unintentional weight loss, and postprandial fullness.[5] Our case series identified chronic diarrhea as a contributing factor and highlighted neurological disorders and substance abuse as potential risk factors. Diagnosis is challenging, requiring clinical and radiological confirmation. At the same time, conservative management is the first-line treatment; 44% of our patients require surgery, emphasizing the need for a tailored approach. We achieved successful outcomes with both non-surgical and surgical strategies.

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Table 1. Clinical characteristics

Patient/Sex/Age/	Comorbidities	SAMA/AMD °/mm	NRS	Symptoms	Treatment	Death/Cause
A, M, 22	Quadriplegia secondary to GS TUD, SUD.	7.3/3.82	5	Postprandial fullness, dyspepsia, postpranc vomiting, nausea and weight loss.	Nasojejunal feeding tube	No
B, F,22	Hemicolectomy secondary to to megacolon due to *C. diffic* infection, Melas syndrome, U CAP	18/4	5	Postprandial fullness, dyspepsia, postpranc vomiting, nausea and weight loss.	Duodenojejunostomy	Yes, septic shock
C, M,89	Alzheimer, Hip fracture, chro NSAID use, stress-induced gast ulcers, BPH.	17.3/7.5	4	Postprandial vomiting, nausea and weight loss	Nasogastric feeding tube	No
D, F,24	Virologic failure HIV, *M.Kans* pneumonia	16/4	4	Postprandial fullness, dyspepsia, postpranc vomiting, nausea and weight loss	Duodenojejunostomy	Yes, ponti myelinolysis
E, M,16	Alcoholism, SUD	12.6/7.5	4	Postprandial vomiting, abdominal pain, nausea a weight loss.	Duodenojejunostomy	No
F, F,34	Major depression, subclini hyperthyroidism, seve endometriosis	20/8	5	Postprandial fullness, dyspepsia, postpranc vomiting, abdominal pain, nausea and weight loss	Jejunostomy	No
G, M,17	Neonatal hypoxia	12/3.6	4	Postprandial vomiting and weight loss.	Duodenojejunostomy	No
H, M,16	DMD	18/2.7	2	Postprandial vomiting, abdominal pa constipation, nausea and weight loss.	Nasojejunal feeding tube	No
I, F, 17	Intestinal Perforation of unkno etiology, status epileptic Hospital Acquired Pneumonia	11/.26	5	Postprandial vomiting, chronic diarrhea, abdomi pain, nausea and weight loss.	Nasojejunal feeding tubex	No

M: male, F: female, GSW: gunshot wound, UTI: urinary tract infection, CAP: community acquired pneumonia, GIB: gastrointestinal bleeding, BPH: benign prostatic hyperplasia, SUD: substance use disorder, DMD: Duchene's muscular dystrophy, SAMA: superior aortomesenteric angle, AMD: aortomesenteric distance, NRS: Nutritional risk screening

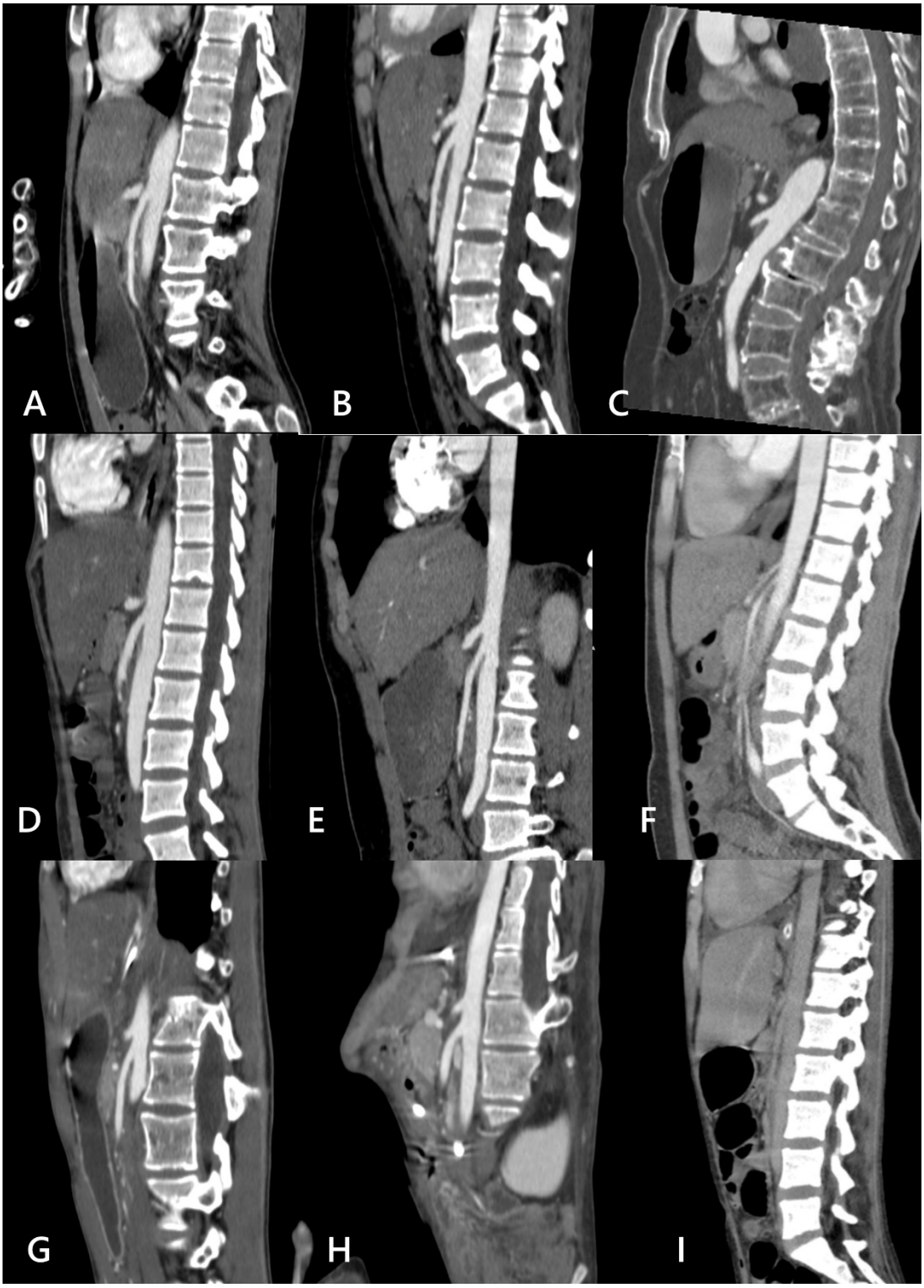

Figure 1. Sagittal Plane of Abdominal Computed Tomography (CT) in the Superior Mesenteric Artery Syndrome (SMAS).