An Uncommon Case of Abdominal Pain: Superior Mesenteric Artery Syndrome

Brent M. Felton, DO
Josh M. White, MD
Michael A. Racine, MD

Michigan State University, Department of Emergency Medicine, Lansing, Michigan

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A 54-year-old male presents with a chief complaint of frequent vomiting for 20 hours after drinking alcohol. Previous medical history was significant for peptic ulcer disease status post perforation and surgical repair 1 year ago. On exam, vital signs were within normal limits. Physical exam revealed a distended abdomen with diffuse guarding and tenderness. Laboratory studies were within normal limits. A computed tomography (CT) of the abdomen and pelvis was ordered to further evaluate the etiology of the patient’s symptoms revealing a severely distended stomach and distal duodenum with obstruction at the level of the superior mesenteric artery. These findings are consistent with superior mesenteric artery syndrome.

Superior mesenteric artery syndrome (SMA syndrome) is the result of compression of the third portion of the duodenum between the superior mesenteric artery and the abdominal aorta. Radiographically, SMA syndrome is characterized by several findings; compression of the duodenum between the abdominal aorta and superior mesenteric artery (Figure), dilation of the left renal vein, and distension of the stomach. In normal patients, the distance between the aorta and SMA (aortomesenteric distance) is 10–34 mm with aortomesenteric angle of 28°–65°. Our patient had an aortomesenteric distance of approximately 4 mm (2–8 mm is common in patients with SMA syndrome) with an aortomesenteric angle of approximately 30°. Following radiographic evidence suggesting SMA syndrome together with our patient’s constellation of presenting symptoms, a diagnosis of SMA syndrome was made and the patient was admitted to the general surgery service. However, our patient decided to leave against medical advice owing to improvement of his symptoms following the emptying of two liters of gastric contents via nasogastric tube evacuation.
emesis and subsequent weight loss.\textsuperscript{2,3} Surgical interventions (duodenojunostomy most commonly) are employed if conservative measures fail.\textsuperscript{2,3} Our patient underwent nasogastric tube placement with suction resulting in evacuation of 2 liters of gastric contents and was admitted to general surgery only to leave against medical advice 4 hours following admission as his symptoms had resolved.

\textit{Address for Correspondence:} Brent M. Felton, DO, Michigan State University, Department of Emergency Medicine, 401 W. Greenlawn, Lansing, MI 48910. Email: feltonbr@gmail.com.

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\textbf{REFERENCES}


\textbf{Figure.} Computed tomography of the abdomen and pelvis demonstrating compression of the duodenum between the abdominal aorta and superior mesenteric artery (A), dilation of the left renal vein (B), distension of the stomach (C), and the aortomesenteric angle (D).