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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Superior mesenteric artery (SMA) syndrome is a rare cause of abdominal pain, nausea and vomiting that may be undiagnosed in patients presenting to the emergency department (ED). We report a 54-year-old male presenting to a community ED with abdominal pain and the subsequent radiographic findings. The patient’s computed tomography (CT) of the abdomen and pelvis demonstrates many of the hallmark findings consistent with SMA syndrome, including; compression of the duodenum between the abdominal aorta and superior mesenteric artery resulting in intestinal obstruction, dilation of the left renal vein, and gastric distension. Patients diagnosed with SMA syndrome have a characteristically short distance between the superior mesenteric artery and the aorta (usually 2–8 mm) in contrast to healthy patients (10–34 mm). Our patient’s aortomesenteric distance was measured to be approximately 4 mm. Furthermore, the measured angle between the superior mesenteric artery and the aorta is reduced in patients with SMA syndrome from a normal range of 28°–65° to a measurement between 6°–22°. Our patient’s aortomesenteric angle was difficult to measure secondary to poor sagittal reconstructions, but appears to be 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.  

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emesis and subsequent weight loss.2,5 Surgical interventions (duodenojunostomy most commonly) are employed if conservative measures fail.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.

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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REFERENCES