

Answer

Superior Mesenteric Artery Syndrome

Superior mesenteric artery syndrome is an unusual cause of bowel obstruction that results from extrinsic duodenal compression as it passes between the superior mesenteric artery and aorta. Synonymous with the phrases Wilkie syndrome, Cast syndrome, arteriomesenteric duodenal compression, and chronic duodenal ileus, this disease process is typically precipitated by factors that create a narrowing of the angle between the 2 vascular structures.¹ Predisposing factors include weight loss, lordosis, presence of an abdominal aortic aneurysm, an abnormally high fixation of the ligament of Treitz, or extensive loss of retroperitoneal and mesenteric fat.^{2,3} This syndrome is seen in patients with wasting disorders, severe head injuries, or spinal deformities.³ First described by Karl von Rokitansky in 1861, vascular compression of the duodenum has been noted in 0.013% to 0.13% of all upper gastrointestinal tract barium series performed.⁴

Patients with this disease process typically have chronic, intermittent abdominal pain that is associated with nausea, anorexia, and weight loss. Given that acute bowel obstruction is an uncommon presentation, this diagnosis is often delayed and sometimes missed.⁵ Computed tomographic scans with oral and intravenous contrast are helpful not only in locating the intestinal obstruction but also in assessing the relationship between the superior mesenteric artery and aorta. Upper gastrointestinal tract contrast radiography is often used to confirm this diagnosis by delineating vertical compression of the third portion of the duodenum as was done in our patient. Less frequently, an angiographic image is used to show the dimi-

nution in the angle between the superior mesenteric artery and aorta, which is best visualized in the lateral projection. Surgical therapy remains the treatment of choice for patients who fail conservative management. As in our patient, bypassing the compressed portion via a duodenojejunostomy has been noted to be successful in up to 90% of cases.³ In patients who are deemed high-risk operative candidates, enteral feedings via a nasojejun tube can be used with some benefit.⁶

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