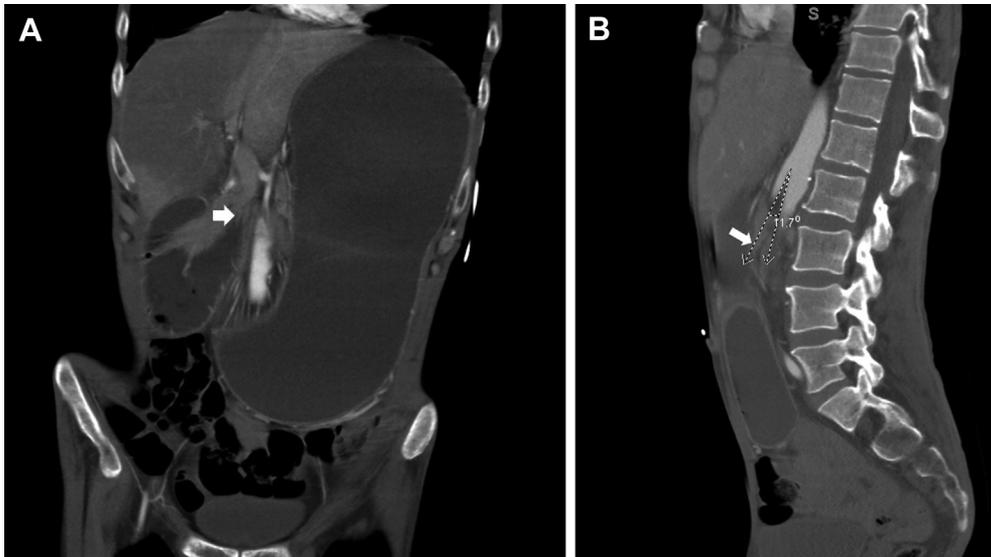


# IMAGE OF THE MONTH

## Superior Mesenteric Artery Syndrome

Kwabena Oware Adu-Gyamfi, Praneeth Kudaravalli, and John Erikson L. Yap

Division of Gastroenterology & Hepatology, Medical College of Georgia/Augusta University, Augusta, Georgia



A 52-year-old Caucasian man with history of severe emphysema, chronic pulmonary nocardiosis, and severe protein-calorie malnutrition, presented to the emergency room with mild abdominal pain and postprandial vomiting for a month. He reported 40 pounds weight loss over 8 months with current body mass index of 13.8 kg/m<sup>2</sup>. On examination, an emaciated man with a distended abdomen with succussion splash was noted. A computed tomography angiogram of the abdomen (Figure A) showed marked dilation of the stomach, first and second part of the duodenum with obstruction of the third portion of the duodenum (arrow), as it crosses the spine between the aorta and superior mesenteric artery (SMA). An aorta-SMA angle of 11.7° was noted at the point of obstruction (Figure B, arrows), consistent with superior mesenteric artery syndrome. After nasogastric tube decompression, post-pyloric nasojejunal tube feeding was started. He was discharged in stable condition for outpatient follow-up.

Severe weight loss from any etiology may cause loss of the mesenteric fat pad, which reduces the aorta-SMA angle (normal 38°–65°) and aortomesenteric distance (normal 10–28 mm). This is one of the mechanisms underlying SMA syndrome. Conservative approach to management includes nasojejunal tube feeding for weight gain and mesenteric fat pad restoration.

Received May 10, 2022. Accepted May 13, 2022.

### Correspondence:

Address correspondence to: Kwabena Oware Adu-Gyamfi, MD, Division of Gastroenterology and Hepatology, Augusta University, 1120 15th Street, AD-2226, Augusta, Georgia 30912. e-mail: [owadu@yahoo.com](mailto:owadu@yahoo.com).

### Conflicts of Interest:

The authors disclose no conflicts.

### Funding:

The authors report no funding.

### Ethical Statement:

The corresponding author, on behalf of all authors, jointly and severally, certifies that their institution has approved the protocol for any investigation involving humans or animals and that all experimentation was conducted in conformity with ethical and humane principles of research.

### Most current article

Copyright © 2022 The Authors. Published by Elsevier Inc. on behalf of the AGA Institute. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

2772-5723

<https://doi.org/10.1016/j.gastha.2022.05.008>