



Acute Gastric Ischemia Caused by Median Arcuate Ligament Compression Syndrome

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INTRODUCTION

- Gastric ischemia (GI) results from diffuse or local vascular insufficiency
- Infrequently reported in medical literature
- Poor prognosis
- We report a case of acute GI in a healthy woman due to median arcuate ligament compression and orthostatic hypotension

CASE PRESENTATION

HPI

- Healthy 28-year-old woman
- CC: severe, acute epigastric pain
- ROS: emesis, diarrhea, chronic postural presyncope

Physical Exam

- Vitals normal
- Uncomfortable-appearing, epigastric tenderness

Labs: Normal

Imaging

- CT: mesenteric, portal venous gas
- CTA: median arcuate ligament compression of celiac artery
- EGD: 20mm x 30mm non-bleeding ulcer

Biopsy: Acute hemorrhagic gastritis

Management

- NG tube
- IV fluids
- Antibiotics
- PPI

Course

- Pain resolved with supportive care
- Repeat EGD: grossly normal mucosa
- Repeat biopsy: chronic, mild gastritis

FIGURE 1

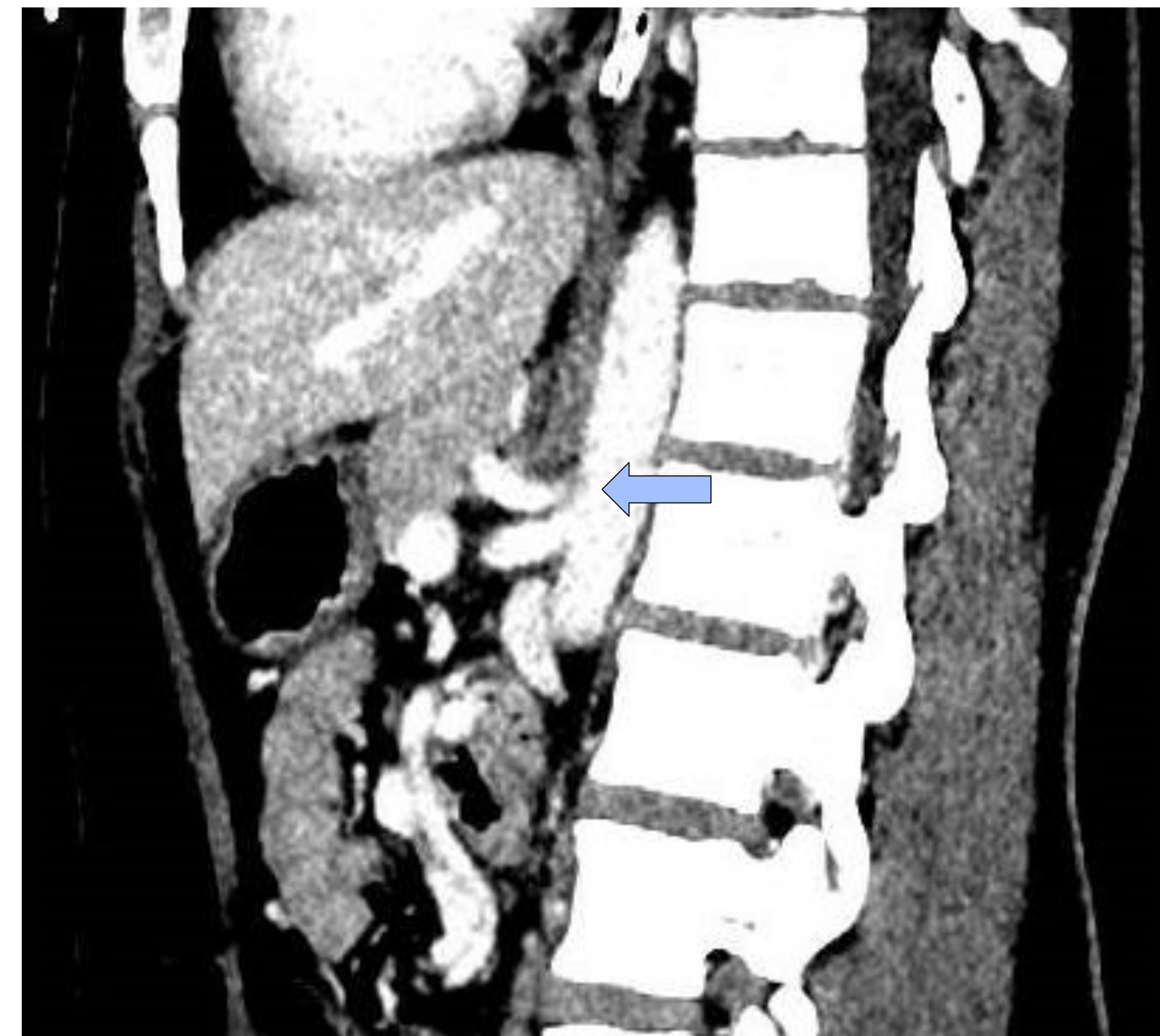


Figure 1: CT angiogram, sagittal view. Arrow denotes narrowing of celiac artery at level of median arcuate ligament.

FIGURE 2

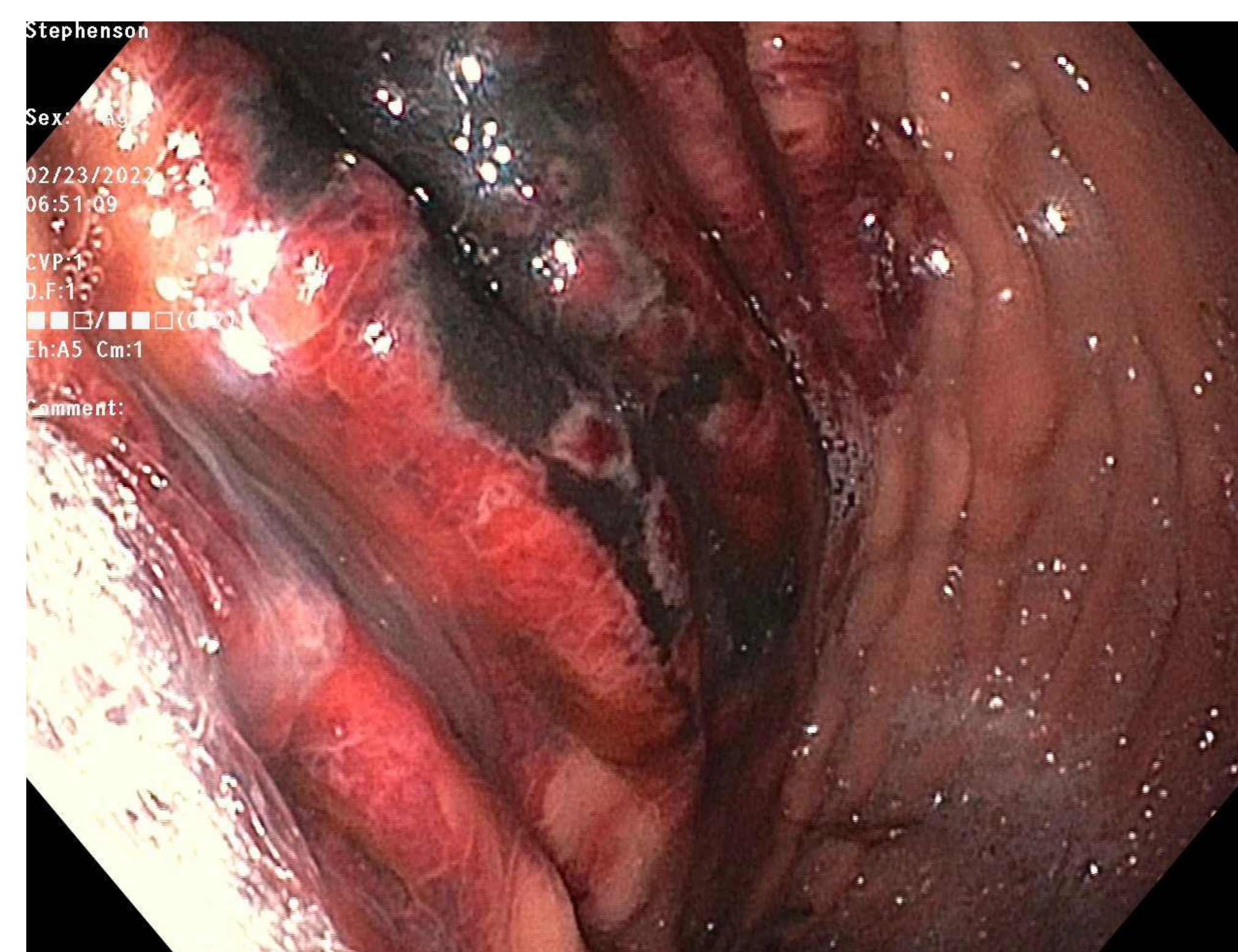


Figure 2: Endoscopic appearance of gastric ulcer.

DISCUSSION

- GI results from diffuse or localized vascular insufficiency
- Etiologies include arterial atherosclerosis, vasculitis, disseminated thromboembolism, and systemic hypotension
- Etiology can be multifactorial
- GI is infrequently reported in the medical literature and under-recognized clinically and histopathologically
- Features of presentation include acute epigastric pain, nausea, vomiting, and coffee-ground emesis
- Pathology typically shows oxyntic-type gastric mucosa with acute hemorrhagic gastritis
- Differential diagnosis for acute hemorrhagic gastritis includes stimulant (e.g. cocaine) use, cancer, and ischemia
- Complications include gastric perforation and sepsis
- Thought to carry a poor prognosis
- GI is a rare presentation of median arcuate ligament compression syndrome (MALS)
- Median arcuate ligament compression occurs in about 10% to 25% of the population and is typically asymptomatic
- MALS is a challenging and controversial diagnosis, and typically affects women between ages 20 to 40
- Our patient's GI was likely caused by transient mesenteric hypoperfusion due to orthostatic hypotension, superimposed on previously asymptomatic relative hypoperfusion due to median arcuate ligament compression

CONCLUSIONS

- GI may be clinically under-recognized in part due to bias toward more severe presentations in case report literature
- GI should be considered in the differential diagnosis of acute and chronic abdominal pain, especially in those with known vascular disease
- Etiology of GI can be multifactorial