Superior Mesenteric Artery Syndrome in a Young Adult

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CASE

HPI
• 19-year-old male with history of substance abuse
• One day h/o diffuse postprandial abdominal pain

ROS:
• + Nausea, dizziness
• Normal bowel movements, no recent weight loss

Physical exam
• Body mass index: 20.5
• Epigastric tenderness w/o peritoneal signs

Lab
• + Methamphetamine and cannabinoids
• Serum albumin 3.1, protein 5.6
• White blood cells and lactate within normal limits

CT
• Severely distended stomach
• Obstruction at 3rd portion of duodenum.
• Tapered as coursed between aorta and SMA.

DISCUSSION

Superior Mesenteric Artery (SMA) syndrome: rare gastro-vascular disorder
• 0.013-0.3% of general population
• ↑ incidence women 10-39 years of age
• 3rd and final portion of duodenum compressed between abdominal aorta & SMA as it originates of AA.
• Depletion of mesenteric fat pad cushioning duodenum: ↓ aortomesenteric angle, ↑ pressure on duodenum

Common causes
• Anatomic anomalies, postoperative changes, local pathologies
• Risk factors: Low BMI, malignancy, HIV infection, malabsorption, anorexia

Diagnosis
• Upper GI radiography, aortomesenteric angle <25° and aortomesenteric distance <8mm.

Treatment
• Initially conservative with decompression, parenteral nutrition, electrolyte imbalance correction
• Duodenojejunostomy and Strong’s operation in refractory cases

Outcome
• Plan: NG decompression, IR Dobhof tube past obstruction and nutritional supplementation x 4-6wks
• However patient left AMA
• Case unusual as rare disease entity in patient without risk factors or cause for symptoms

REFERENCES