

Epigastric Pain in Emergency Room: Median Arcuate Ligament Syndrome

Authors : Demet Devrimsel Dogan, Ecem Deniz Kirkpantur, Muharrem Dogan, Ahmet Aykut, Ebru Unal Akoglu, Ozge Ecmel Onur

Abstract : Introduction: Median Arcuate Ligament Syndrome (MALS) is a rare cause of chronic abdominal pain due to external compression of the celiac trunk by a fibrous arch that unites diaphragmatic crura on each side of the aortic hiatus. While 10-24% of the population may suffer from compression of celiac trunk, it rarely causes patients to develop symptoms. The typical clinical triad of symptoms includes postprandial epigastric pain, weight loss and vomiting. The diagnosis can be made using thin section multi-detector computed tomography (CT) scans which delineate the ligament and the compressed vessel. The treatment of MALS is aimed at relieving the compression of the celiac artery to restore adequate blood flow through the vessel and neurolysis to address chronic pain. Case: A 68-year-old male presented to our clinic with acute postprandial epigastric pain. This was patients' first attack, and the pain was the worst pain of his life. The patient did not have any other symptoms like nausea, vomiting, chest pain or dyspnea. In his medical history, the patient has had an ischemic cerebrovascular stroke 5 years ago which he recovered with no sequel, and he was using 75 mg clopidogrel and 100 mg acetylsalicylic acid. He was not using any other medication and did not have a story of cardiovascular disease. His vital signs were stable (BP:113/72 mmHg, Spo2:97, temperature:36.3°C, HR:90/bpm). In his electrocardiogram, there was ST depression in leads II, III and AVF. In his physical examination, there was only epigastric tenderness, other system examinations were normal. Physical examination through his upper gastrointestinal system showed no bleeding. His laboratory results were as follows: creatinine:1.26 mg/dL, AST:42 U/L, ALT:17 U/L, amylase:78 U/L, lipase:26 U/L, troponin:10.3 pg/ml, WBC:28.9 K/uL, Hgb:12.7 gr/dL, Plt:335 K/uL. His serial high-sensitive troponin levels were also within normal limits, his echocardiography showed no segmental wall motion abnormalities, an acute myocardial infarction was excluded. In his abdominal ultrasound, no pathology was founded. Contrast-enhanced abdominal CT and CT angiography reported 'thickened diaphragmatic cruras are compressing and stenosing truncus celiacus superior, this is likely compatible with MALS'. The patient was consulted to general surgery, and they admitted the patient for laparoscopic ligament release. Results: MALS is a syndrome that causes postprandial pain, nausea and vomiting as its most common symptoms. Affected patients are normally young, slim women between the ages of 30 and 50 who have undergone extensive examinations to find the source of their symptoms. To diagnose MALS, other underlying pathologies should initially be excluded. The gold standard is aortic angiography. Although diagnosis and treatment of MALS are unclear, symptom resolution has been achieved with multiple surgical modalities, including open, laparoscopic or robotic ligament release as well as celiac ganglionectomy, which often requires celiac artery revascularisation.

Keywords : differential diagnosis, epigastric pain, median arcuate ligament syndrome, celiac trunk

Conference Title : ICEM 2017 : International Conference on Emergency Medicine

Conference Location : Lisbon, Portugal

Conference Dates : August 17-18, 2017