World Academy of Science, Engineering and Technology
International Journal of Medical and Health Sciences
Vol:19, No:08, 2025

Unveiling the Mystery: Median Arcuate Ligament Syndrome in a Middle-Aged Female Presenting with Abdominal Pain

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Abstract : 47-year-old female, known to have a liver cyst and hemangiomas, presented to the gastroenterology clinic for chronic moderate postprandial epigastric pain, which is aggravated by food, leaning forward and relieved on lying flat. The pain was associated with nausea, vomiting, heartburn and excessive burping. She opened her bowel daily, having well-formed stools without blood or mucus. The patient denied NSAID intake, smoking or alcohol. On physical examination during the episode of pain abdomen revealed a soft, lax abdomen and mild tenderness in the epigastric region without organomegaly. Bowel sounds were audible. Her routine hematological and biochemical parameters were within normal, including CBC, Celiac serology, Lipase, Metabolic profile and H pylori stool antigen. The patient underwent an Ultrasound of the abdomen which showed multiple liver cysts, hemangioma, normal GB and biliary tree. Based on the clinical picture and to narrow our differential diagnosis, an ultrasound Doppler for the abdomen was ordered, and it showed celiac artery peak systolic velocity in expiration is 270cm/s, suggestive of median arcuate ligament syndrome. She Had computerized tomography abdomen done and showed a Narrowing of the celiac artery at the origin, likely secondary to low insertion of the median arcuate ligament. Furthermore, Gastroscopy and, later on colonoscopy were done, which was unremarkable. A laparoscopic decompression of the celiac trunk was indicated, for which the patient was referred to vascular surgery. This case confirms that Median Arcuate Ligament syndrome is an unusual diagnosis and is always challenging. Usually, patients undergo extensive workups before a final diagnosis is achieved. Our case highlights the challenge of diagnosing MALS since this entity is rare. It is a good choice to perform abdominal ultrasound with Doppler imaging on a patient with symptoms such as postprandial angina.

Keywords : Unveiling the Mystery, MALS, rare entity, Rare vascular phenomenon
Conference Title : ICGHN 2025 : International Conference on Gastroenterology, Hepatology and Nutrition
Conference Location : Istanbul, Türkiye
Conference Dates : August 16-17, 2025