Case Report

Median arcuate ligament syndrome presenting with unintentional weight loss and epigastric pain

Mohammed Taher Mujahid*, Virendra Kumar Soni, Rahul Saini

Department of Surgery, Maulana Azad Medical College, New Delhi, India

Received: 28 July 2019
Accepted: 10 September 2019

*Correspondence: Dr. Mohammed Taher Mujahid, E-mail: dr.taher1991@gmail.com

ABSTRACT

Median arcuate ligament syndrome is a rare condition characterized by extrinsic compression of celiac artery and celiac plexus by the median arcuate ligament. Patients typically present with chronic postprandial pain, nausea and occasionally, vomiting and weight loss. Treatment of this syndrome is laparoscopic or open surgical release of median arcuate ligament and gangliectomy. We report a rare case of median arcuate ligament syndrome in a patient who presented with abdominal pain and nausea. The patient was evaluated, investigated and planned for surgical intervention but the patient refused for treatment.

Keywords: Median arcuate ligament syndrome, Epigastric pain, Hooked appearance, Post prandial steal phenomenon

INTRODUCTION

The median arcuate ligament is a fibrous arch that unites the diaphragmatic crurae on either side of the aortic hiatus. The ligament is usually present superior to the origin of the celiac axis. In some people, the ligament inserts low and thus crosses the proximal portion of the celiac axis, causing compression of the celiac artery and celiac ganglion. Symptoms are chronic recurrent postprandial pain with associated nausea and vomiting.1-3

CASE REPORT

A 50 year old gentleman was evaluated for 4 month history of complaint of epigastric pain that started 2 hours after taking meal and persisted for the next couple of hours. The pain radiated to his back, sometimes associated with nausea and non-bilious vomiting. Patient also complained of significant weight loss in last 4 months. He had no significant past medical or surgical history, with no history of any addiction.
We discussed the diagnosis with the patient and presented the surgical option to him, but he refused further treatment.

**DISCUSSION**

The first case describing celiac artery compression was reported by Lipshutz in an autopsy study in 1917. Harjora, in 1967, first described a clinical case with postprandial pain as a presenting complaint. Incidence of celiac artery compression by arcuate ligament is 10-24% in the healthy population. This syndrome typically occurs in the young (20-40 years), thin population and in the females (71%).

Although, the triad of postprandial epigastric pain, unintentional weight loss and/or abdominal bruit is a classical manifestation of celiac artery compression syndrome; the actual clinical presentation of this syndrome is variable and often diagnosed through exclusion.

Pain in median arcuate ligament syndrome is explained by mesenteric ischemia through steal phenomenon, namely postprandial steal via collaterals from superior mesenteric artery. Another theory suggests pain is caused by chronic compression of celiac plexus with subsequent splanchnic vasoconstriction and ischemia.

Diagnosis remains a challenge although CT angiography is considered to be the gold standard. During expiratory phase isolated compression of the celiac axis may be clinically insignificant. Up to 13-50% of healthy population may show the angiographic feature of compression to a variable degree usually during expiration. Vast majority of patients may show only incidental finding without any symptom therefore imaging finding must be correlated with the patient’s clinical history.

Various surgical modalities have been described to treat median arcuate ligament syndrome. These are the decompression and surgical division of median arcuate ligament, celiac plexus block and resection of stenotic artery. Surgery can be performed minimally invasive (laparoscopic or robotic) or traditional open laparotomy approach.

**Funding: No funding sources**

**Conflict of interest: None declared**

**Ethical approval:** Not required

**REFERENCES**


**Cite this article as:** Mujahid MT, Soni VK, Saini R. Median arcuate ligament syndrome presenting with unintentional weight loss and epigastric pain. Int Surg J 2019;6:3839-40.