ISSN: 2581 – 3633
PubMed - National Library of Medicine - ID: 101745081

International Journal of Medical Science and Advanced Clinical Research (IJMACR)

Available Online at:www.ijmacr.com

Volume – 9, Issue – 2, April – 2026, Page No.: 01 – 03

Surgical Management of Dunbar Syndrome

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How to citation this article: Dr Maaz M Qureshi, Dr. Vijayendra Kedage, Dr. K Rajgopal Shenoy, "Surgical Management of Dunbar Syndrome", IJMACR – April – 2026, Volume – 9, Issue – 2, P. No. 01 – 03.

Type of Publication: Case Report

Conflicts of Interest: Nil

Introduction

Median Arcuate Ligament Syndrome (MALS) / Dunbar syndrome is a with an incidence of about 2 cases per 100,000 patients caused by compression of the celiac trunk by the MAL. The etiology is not well known.

We report a case of 22 year old nil premorbid female, thin built with c/o post prandial abdominal pain and vomiting diagnosed to have median arcuate ligament syndrome for which she underwent median arcuate ligament release.

Keywords: Abdominal Pain, CECT, Superior Wall

Case capsule

A CECT of a 22 year old nil premorbid female with c/o post prandial vomiting and pain of 4 months duration with weight loss of 5kg over 4 months showed thickening of median arcuate ligament causing narrowing of the proximal celiac trunk forming a hooked or "J" appearance and CT angiography showed focal narrowing 50% of coeliac trunk origin with hooked appearance of coeliac trunk due to indentation of its superior wall by median arcuate ligament.

CT images

Figure 1:

Outcome

Patient was discharged on POD 5.

During follow up 2 weeks after the surgery patient's postprandial vomiting complaints had significantly reduced and was tolerating normal diet with significant

relief of complaints of post prandial pain. During 6th month follow up patient had started to gain weight of 3 kgs

Figure 2:

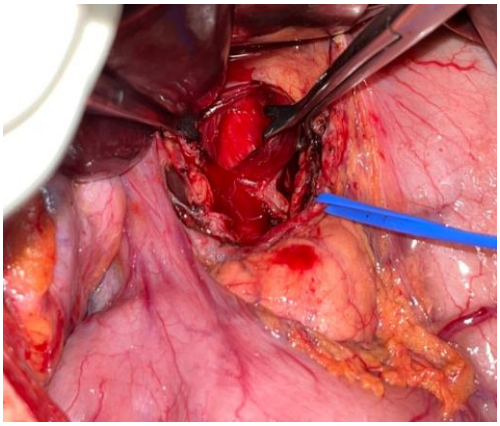

Figure 3:

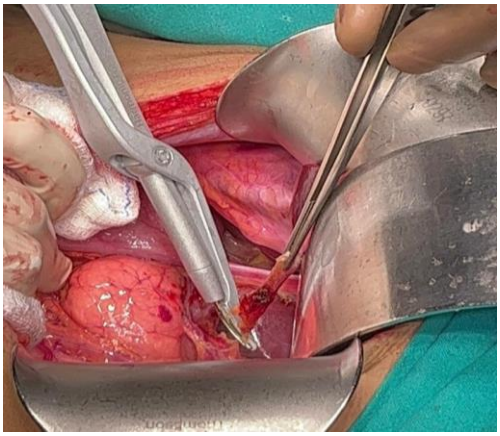

Figure 4:

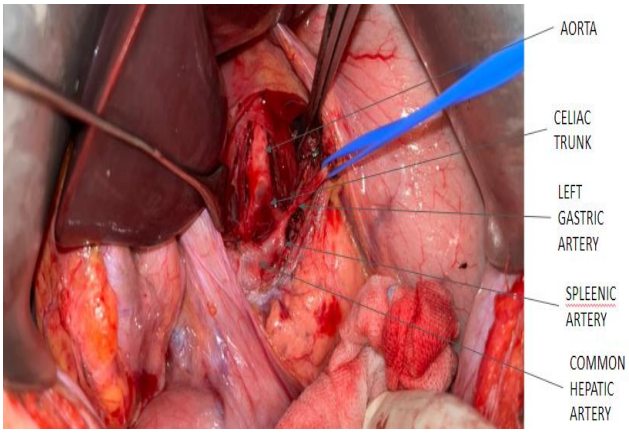

Figure 5:

Discussion

The median arcuate ligament is fibrous arch that connects the diaphragmatic crura to form anterior margin of aortic hiatus.

The different techniques for the surgical release of celiac artery compression consist of open, laparoscopic, and robotic procedures (all of which have been shown to be safe and effective) without any evidence to support one approach being better than the other.

Currently, there are no international guidelines on MALS diagnostic criteria.

The general principles of the operation are: division of the median arcuate ligament including overlying lymphatics and soft tissue to relieve the compression of the celiac artery with or without division of the celiac nerve plexus.

For those patients with recurrent or persistent abdominal pain, they are re-evaluated for possible re-narrowing of the celiac artery probably due to formation of scar tissue in the artery wall. These patients may require additional procedures like balloon angioplasty.

MALS prognosis is good and has a high response rate to surgical decompression. The largest series report a symptom free index of 75% with a mean follow-up of 9 years

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