Celiac Plexus Block for the Diagnosis of Median Arcuate Ligament Syndrome

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Introduction

Chronic abdominal pain in pediatric population accounts for 2-4% of all pediatric office visits [1]. Increasingly, children within this group are being worked up for Median Arcuate Ligament Syndrome (MALS). The hallmark symptoms of MALS are postprandial abdominal epigastric pain, nausea, occasional diarrhea and weight loss [2]. The etiology of MALS is thought to be vascular and inflammatory. This diagnosis is usually confirmed with duplex ultrasound and computed tomography angiogram (CTA). However, 7% of patients with positive duplex ultrasound have a negative CTA [2]. We report a case of a patient with chronic abdominal pain who underwent a diagnostic Celiac Plexus Nerve Block for MALS.

Case Presentation

A 16 year old male with postural orthostatic tachycardia, gastric reflux disease, intermittent abdominal pain and dysmotility presented for Celiac Plexus Nerve Block. The pain was so severe that the patient had not attended school for a year. He had visited multiple specialist and eventually was suspected of having MALS.

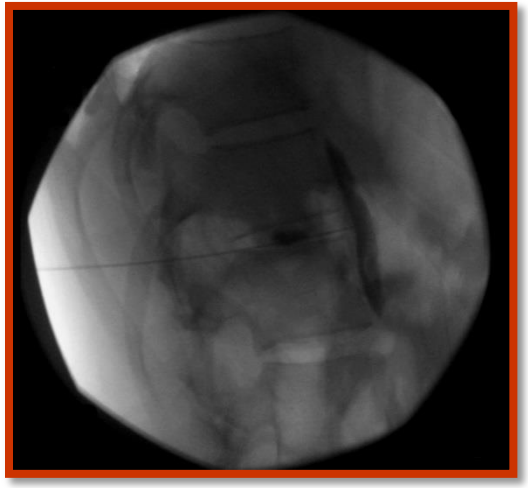
Case Presentation *(continued)*

A computed tomography angiogram was performed during his workup, suggesting MALS but not definite enough for a diagnosis. The surgeon felt that the findings warranted a celiac nerve block to confirm the diagnosis of MALS.

For the procedure, the patient was placed in the prone position, and IV sedation was administered. Using fluoroscopy the L1 vertebrae was identified. A 5" 22 gauge needle was inserted along the superior lateral aspect of the L1 vertebral body. The needle was advanced past the aorta and 2-3ml of Omnipaque 240 contrast was injected, displaying cephalad and caudal spread anterior to the aorta. 15ml of 0.5% Bupivicaine was slowly injected, with intermittent aspiration. The patient reported complete relief of symptoms, with the pain starting to reoccur the next morning. The surgeon formally gave the patient a diagnosis of MALS and the patient is currently awaiting the median arcuate ligament release.

Discussion

The diagnosis for MALS is not always clear. Median arcuate ligament release is the definitive treatment for MALS, however carries significant risks. Celiac plexus nerve block may be useful for the diagnosis of MALS.



References

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