



RESEARCH ARTICLE

CHRONIC MESENTRIC ISCHEMIA- AN UNCOMMON ENTITY

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ARTICLE INFO

Article History:

Received 09th March, 2025
Received in revised form
21st April, 2025
Accepted 19th May, 2025
Published online 30th June, 2025

Key words:

Chronic mesenteric ischemia,
Atherosclerosis, Abdominal aorta,
Calcification, Abdominal angina.

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ABSTRACT

Back ground: Chronic mesenteric ischemia (CMI), often a consequence of atherosclerosis in the abdominal aorta, occurs when the blood supply to the intestines is reduced or blocked. This condition can lead to a variety of symptoms, including postprandial abdominal pain (abdominal angina), weight loss, and food avoidance. **Case Report:** A forty five-year-old male chronic smoker, patient presented with pain abdomen for last one year. The pain abdomen used to occur typically after meals, it used to start after 30-45 minutes of taking meal and used to slowly reach to its peak within next one hour and get resolved after two to three hours. He developed phobia of eating food and lost ten Kg of weight in last one year. The pain was associated with nausea & vomiting but there was no history of hematemesis or melena. All his baseline biochemical labs were essentially normal except for anemia and hypoproteinemia. The chest x-ray and ultrasonogram abdomen were normal. In view of classical history of abdominal angina, abdominal aortogram was done which revealed diffuse atherosclerotic changes in aortic arch, abdominal aorta, common iliac, external and internal iliac arteries. **Conclusion:** Chronic mesenteric ischemia is a diagnostic challenge but symptoms like unexplained weight loss and post prandial abdominal pain should alarm the treating team for considering it as a differential diagnosis and detailed work up for the same will lead to timely diagnosis and proper management which will lead to morbidity as well as mortality

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Citation: Parveen Malhotra, Chitrakshi Bhardwaj, Anuj Sharma, Rajasvi Khurana, Himanshu, Shivanshu, Pranav Malhotra, Yogesh Sanwariya. 2025. "Chronic mesenteric ischemia- an uncommon entity". *International Journal of Current Research*, 17, (06), 33491-33492.

INTRODUCTION

The most common cause of chronic mesenteric ischemia (CMI) is atherosclerosis, where fatty deposits (plaque) build up in the arteries, narrowing them and restricting blood flow. In CMI, the celiac, superior mesenteric, or inferior mesenteric arteries, which supply blood to the intestines, become narrowed due to atherosclerosis. This narrowed state reduces the amount of oxygen-rich blood reaching the intestines, leading to ischemia. The pain, often described as abdominal angina, occurs after eating, typically within 30 minutes and lasting up to 4 hours. Due to the pain and fear of eating, individuals with CMI may experience significant weight loss. The pain associated with eating can lead to a reluctance to eat, further contributing to weight loss. Additional symptoms may include nausea, vomiting, diarrhea, constipation, and early satiety. The risk factors for causing atherosclerosis are smoking, high blood pressure, high cholesterol, diabetes, and heart disease which in turn can lead to CMI. The diagnosis depends upon detailed medical history, assessing clinical symptoms and a good physical examination. The imaging tests including Doppler ultrasound, CT angiogram (CTA), or angiogram may be used to visualize the arteries and assess

blood flow. The treatment part includes medical management with drugs like statins to lower cholesterol, blood pressure medications, and anticoagulants to prevent blood clots. The interventional procedure is angioplasty and, in some cases, open surgery may be needed to bypass blocked arteries and restore blood flow. The preventive methods include lifestyle modifications like quitting smoking, maintaining a healthy weight, managing blood pressure, diabetes mellitus & cholesterol, and engaging in regular exercise can help prevent atherosclerosis and CMI.

CASE REPORT

A forty five-year-old male patient, chronic smoker, occasional alcoholic, presented with pain abdomen for last one year. The pain abdomen used to occur typically after meals, it used to start after 30-45 minutes of taking meal and used to slowly reach to its peak within next one hour and get resolved after two to three hours. He developed phobia of eating food and lost ten Kg of weight in last one year. The pain was associated with nausea & vomiting but there was no history of hematemesis or melena. On physical examination, the patient



was conscious, co-operative and afebrile. The systemic examination including chest, cardiovascular, central nervous system and ophthalmological was normal. The per abdominal examination revealed soft abdomen but no lump was appreciated. The complete hemogram revealed hemoglobin of 9.3 g/dL with microcytic hypochromic picture, white blood cell counts 9,600/L with raised erythrocyte sedimentation rate (ESR) of 30. The renal function test, blood sugar, serum amylase & electrolytes, urine complete, thyroid & complete lipid profile, viral screen including hepatitis B, C, HIV, Electrocardiogram, chest x-ray and ultrasonogram abdomen were all essentially normal but liver function test showed hypoproteinemia and hypoalbuminemia. The chest x-ray and ultrasonogram abdomen were normal. In view of classical history of abdominal angina, abdominal aortogram was done which revealed diffuse atherosclerotic changes in aortic arch, abdominal aorta, common iliac, external and internal iliac arteries. The patient and family members were counselled for treatment options but left against medical advice and were lost on follow up.

DISCUSSION

Chronic mesenteric ischemia (CMI) is uncommon and accounts for approximately 5% of cases. CMI presents with non-specific symptoms, making it difficult to diagnose, and requires complex management involving interprofessional teams. Chronic mesenteric ischemia (CMI) is a rare cause of abdominal pain, caused by atherosclerotic stenosis of at least two mesenteric vessels. The diagnosis is often delayed, thus patients usually present at the time of advanced disease, subjecting them to malnutrition and bowel infarction. Reduction of abdominal angina, prevention of bowel infarction and return to normal diet and nutrition are the main goals of treatment.

Multi-vessel surgical recanalization of the celiac artery and the superior mesenteric artery (SMA) is the current line of management (1-4). CMI is a rare condition. The symptoms like post prandial abdominal pain and unexplained weight loss should raise it suspicion. Abdominal angina occurs when the blood vessels can no longer compensate for the increased post prandial demand by the gastrointestinal tract (5,6). CMI is more prevalent in women in the fifth to seventh decade of life and in patients predisposed to atherosclerotic diseases. Major risk factors include a history of smoking, hypertension, coronary artery disease, cerebrovascular disease and diabetes mellitus (7).

CONFLICT OF INTEREST

The authors declare that there was no conflict of interest and no financial help was taken from any source for publishing of this case report.

CONCLUSION

Chronic mesenteric ischemia is a diagnostic challenge but symptoms like unexplained weight loss and post prandial abdominal pain should alarm the treating team for considering it as a differential diagnosis and detailed work up for the same will lead to timely diagnosis and proper management which will lead to morbidity as well as mortality.

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