Ischemic Colitis of Unknown Source: A Case Report of Idiopathic Myointimal Hyperplasia of the Mesenteric Veins

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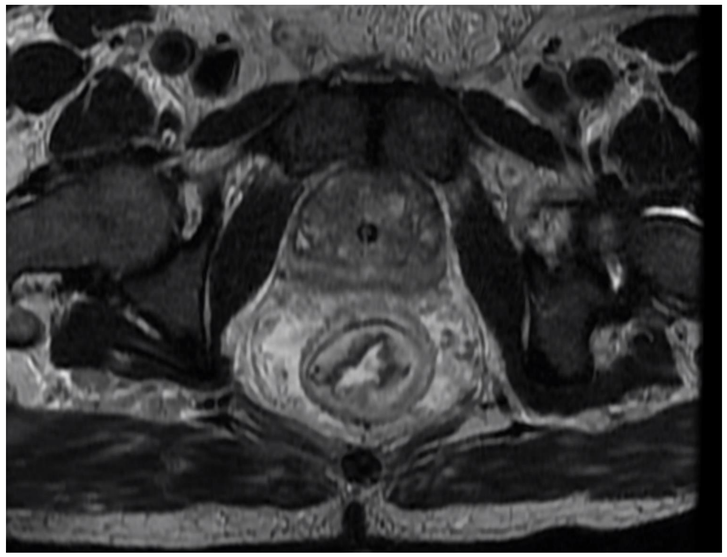
Background

- Idiopathic myointimal hyperplasia of the mesenteric veins (IMHMV) is an extremely rare non-thrombotic mesenteric veno-occlusive disease
- Given its non-specific symptoms and imaging findings, preoperative diagnosis is exceedingly difficult

Case Presentation

- A previously healthy 69-year-old male presented with a 12-day history of severe rectal pain accompanied by non-bloody diarrhea, urgency, and tenesmus
- Flexible sigmoidoscopy revealed severe colitis with ulcerations, edema, and friable mucosa from the anus to 25 cm proximally
- Patient was started on high-dose IV steroids for presumed ulcerative colitis, however he remained symptomatic
- CT and MRI revealed marked wall thickening and inner wall hyperenhancement involving the rectum in a contiguous manner
- Patient underwent laparoscopic diverting transverse loop colostomy without improvement in his symptoms
- Subsequently he underwent open low anterior resection (LAR) with creation of end colostomy
- Intraoperative findings included ascites, dilated, thickened rectum, pronounced congestion and thickened mesorectum
- Postoperative histopathology revealed acute and chronic transmural ischemic injury. The veins demonstrated thickened walls, reactive endothelial cells and frequent thrombosis. Smaller diameter proliferative vessels showed fibrinoid necrosis and thrombosis consistent with IMHMV
- Patient's symptoms gradually improved after LAR and he was able to discharge from the hospital to home

Diagnosis of IMHMV



Flg 1. Axial T2-sequence MRI showing transmural wall thickening with perirectal and presacral edema consistent with severe proctitis



Flg 2A. Endoscopic image of rectosigmoid showing inflammation, friability, and congested mucosa extending up to 25 cm

Fig 2B. Intraoperative rectum specimen with transmural edema, inflammation, congestion, and luminal narrowing

Discussion

- The hallmark of IMHMV is smooth muscle hypertrophy of the mesenteric veins causing a non-thrombotic, noninflammatory occlusion leading to venous ischemia[1]
- There is no pathognomic preoperative test to diagnose IMHMV
- Due to the similarity in presentation and endoscopic findings to ulcerative colitis, patients often experience a delay in diagnosis while suffering debilitating symptoms
- Hartmann procedure with segmental colectomy and end colostomy creation is the most frequently performed surgery for IMHMV
- Completion proctectomy is reserved for cases with extensive rectal involvement
- Creation of ileal-pouch anal anastomosis remains an option for patients who elect to have their colostomy reversed after resolution of the acute disease process[2]

Conclusion

IMHMV is frequently misdiagnosed as inflammatory bowel disease due to its similarities in presentation. A high index of suspicion and knowledge of the disease progression is imperative for prompt treatment. Often, these patients spend weeks to months with debilitating symptoms while undergoing treatment for suspected inflammatory bowel disease.

References

1. Han GR, Mehrotra AP, Gomez AJ, Romanucci E, Halpern VJ. Capturing the often-elusive diagnosis of idiopathic myointimal hyperplasia of mesenteric veins. *J Vasc Surg Cases Innov Tech*. 2022;8(3):520-533. doi:10.1016/j.jvscit.2022.05.014
2. Lincango EP, Cheong JY, Prien C, et al. Idiopathic myointimal hyperplasia of the mesenteric veins: A systematic review of surgical management. *Surgery*. 2023;174(3):473-479. doi:10.1016/j.surg.2023.04.014

This research was supported (in whole or in part) by HCA Healthcare and/or an HCA Healthcare affiliated entity. The views expressed in this publication represent those of the author(s) and do not necessarily represent the official views of HCA Healthcare or any of its affiliated entities.