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A Rare Case of Splanchnic Vessel Thrombosis in Autoimmune Hepatitis

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Abstract: ***Acute mesenteric venous thrombosis (MVT) is a rare cause of bowel ischemia, accounting for 5–10% of cases, often linked to portal hypertension and liver cirrhosis. This report describes a 40 - year - old female with autoimmune hepatitis and liver cirrhosis presenting with acute superior mesenteric vein thrombosis leading to intestinal ischemia. The patient exhibited severe abdominal pain, nausea, vomiting, and black stools. Diagnostic evaluation revealed elevated inflammatory markers, altered liver function tests, and imaging evidence of extensive mesenteric thrombosis and intestinal ischemia. Initial management included intravenous fluids, broad - spectrum antibiotics, and anticoagulation therapy with unfractionated heparin, later transitioned to low molecular weight heparin due to heparin - induced thrombocytopenia. Over a month, her symptoms resolved, with imaging confirming thrombus resolution. This case emphasizes the critical role of early diagnosis, multidisciplinary management, and anticoagulation therapy in improving outcomes in cirrhosis - associated splanchnic vein thrombosis.***

Keywords: mesenteric venous thrombosis, liver cirrhosis, autoimmune hepatitis, intestinal ischemia, anticoagulation therapy

1. Introduction

Acute mesenteric venous thrombosis is uncommon and accounts for 5 - 10%cases of acute bowel wall ischemia. Portal hypertension and liver cirrhosis are recognised aetiologies with thrombosis occurring spontaneously. Its prevalence in cirrhotic patients has been attributed to a hyper coagulable state, contrary to bleeding tendencies in these patients. The superior mesenteric vein is not as frequently involved compared to main portal vein or it's intra hepatic branches. This is a case 40yr female presenting with acute superior mesenteric vein thrombosis with intestinal ischemia secondary to liver cirrhosis

Patient Background:
A 40 - year - old female presented to the emergency department with complaints of severe post prandial pain, nausea, vomiting, and Black coloured stools diarrhoea for the past three days. She reported a history of autoimmune hepatitis, which had been diagnosed and managed for the past five years. The patient's medical history also included hypothyroidism, which was well - controlled with levothyroxine.

Clinical Presentation:
The patient appeared visibly distressed and was experiencing significant discomfort due to severe abdominal pain. The pain was localised in the peri umbilical area and was described as cramp and constant. She rated her pain as 8 out of 10 on the pain scale. On examination, her vital signs were stable, but she had a slightly elevated heart rate (102 bpm). Abdominal examination revealed tenderness on palpation over the peri umbilical region without signs of rebound tenderness or guarding.

Diagnostic Workup:
Laboratory tests showed an elevated white blood cell count (14, 500/mm^3) with a left shift, indicating an inflammatory response.

Liver function tests revealed elevated levels of AST (aspartate aminotransferase) and ALT (alanine aminotransferase), consistent with her history of autoimmune hepatitis. However, her bilirubin levels are mildly elevated. Coagulation studies showed an elevated D - dimer level (1.2 mg/L), INR is elevated suggesting a potential thrombotic event.

Antibodies suggesting autoimmune hepatitis (SMA), anti nuclear antibody (ANA) are positive. Usg abdomen and pelvis: altered echotexture of liver An abdominal CT scan with contrast was performed, which revealed acute superior mesenteric vein thrombosis with evidence of intestinal ischemia. The thrombus extended from the superior mesenteric vein into the splenic vein and portal vein. Signs of bowel wall thickening and pneumatosis intestinalis were also observed, indicating possible ischemic bowel changes.

Treatment and Management:
The patient was promptly started on intravenous fluids and broadspectrum antibiotics to address the suspected intestinal ischemia and prevent any potential infections. In view off ischaemia and impending perforation. surgery and interventional radiology were immediately consulted. The patient remained hemodynamically unstable. Due to her state of high risk for surgical thrombectomy, she was continued on medical management Anticoagulation with unfractionated heparin was initiated with regular monitoring of pt and aptt 12th hrly. After 3 days patient developed hepatic induced

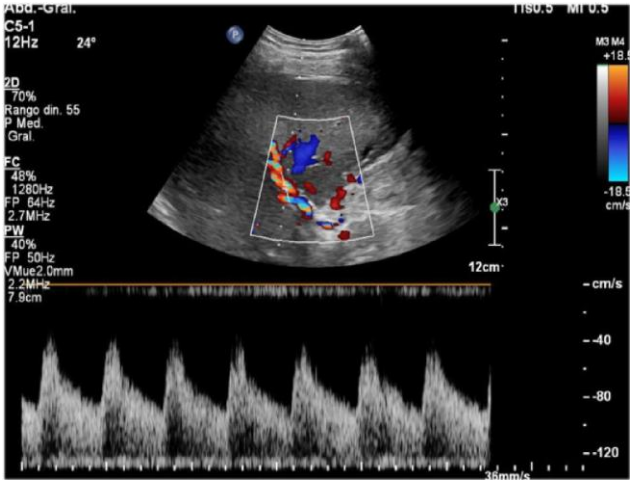
thrombocytopenia then patient was started on low molecular weight heparin 200 IU/ kg / day. Clinical and radiological signs of intestinal ischemia improved in about 4 days. So, the patient was given oral feeds. Surgical gastroenterologist was asked for review opinion. Ct abdomen showed resolving mesenteric vein thrombosis at the end of 1 month.

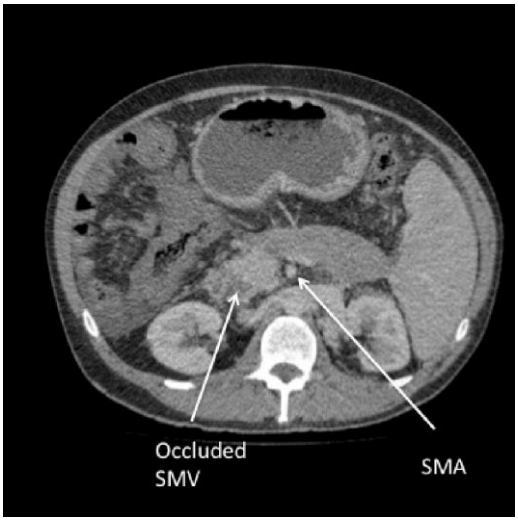
Clinical Course and Outcome:

Over the next few days, the patient's abdominal pain gradually improved, and signs of ischemia on repeat imaging diminished. The anticoagulation therapy was continued and monitored closely to ensure effective treatment without complications. The patient was closely monitored for signs of bleeding due to her liver disease and anticoagulation. After a week of hospitalisation, the patient's symptoms had significantly resolved, and she was transitioned to oral anticoagulant therapy. She was discharged with strict instruction for follow - up appointments with hepatologist, gastroenterologist, and haematologist. Long - term management involved close monitoring of her autoimmune hepatitis and anticoagulation status to prevent recurrent thrombosis

2. Conclusion

This case highlights the importance of considering thrombotic complications in patients with autoimmune hepatitis and managing them with a multidisciplinary approach. Splanchnic vein thrombosis is an uncommon complication of liver. In cirrhosis associated SVT anticoagulant treatment reduces mortality rates, thrombosis extension, major bleeding and increases rate of recanalization. early treatment is associated with higher probability of achieving vessel recanalization.





References

[1] Caiano LM, Riva N, Ageno W. Anticoagulant therapy for splanchnic vein thrombosis: recent updates for patients with liver cirrhosis. Expert Rev Hematol.2023; 16 (2): 121 - 129. doi: 10.1080/17474086.2023.2184340.

[2] Pan J, Wang L, Gao F, et al. Epidemiology of portal vein thrombosis in liver cirrhosis: a systematic review and meta - analysis. Eur J Intern Med.2022; 104: 21 - 32. doi: 10.1016/j. ejim.2022.05.032.

[3] Ageno W, Riva N, Schulman S, et al. Long - term clinical outcomes of splanchnic vein thrombosis: results of an international registry. JAMA Intern Med.2015; 175 (9): 1474 - 1480. doi: 10.1001/jamainternmed.2015.3184.

[4] Thatipelli MR, McBane RD, Hodge DO, Wysokinski WE. Survival and recurrence in patients with splanchnic vein thromboses. Clin Gastroenterol Hepatol.2010; 8 (2): 200 - 205. doi: 10.1016/ j. cgh.2009.09.019.

[5] Turon F, Driever EG, Baiges A, et al. Predicting portal thrombosis in cirrhosis: a prospective study of clinical, ultrasonographic and hemostatic factors. J Hepatol.2021; 75 (6): 1367 - 1376. doi: 10.1016/j. jhep.2021.07.020.

[6] Northup PG, Garcia - Pagan JC, Garcia - Tsao G, et al. Vascular liver disorders, portal vein thrombosis, and procedural bleeding in patients with liver disease: 2020 practice guidance by the American Association for the Study of Liver Diseases. Hepatology. 2021; 73 (1): 366 - 413. doi: 10.1002/hep.31646.

[7] Senzolo M, Riva N, Dentali F, et al; IRSVT study investigators. Long - term outcome of splanchnic vein thrombosis in cirrhosis. Clin Transl Gastroenterol.2018; 9 (8): 176. doi: 10.1038/s41424 - 018 - 0043 - 2.

[8] Miñano C, Garcia - Tsao G. Clinical pharmacology of portal hypertension. Gastroenterol Clin North Am.2010; 39 (3): 681 - 695. doi: 10.1016/j. gtc.2010.08.015.

[9] Adams L, Ball S. Diagnosis and management of portal vein thrombosis in patients with cirrhosis of liver. Southwest Resp Crit Care Chronicles.2018; 6 (26): 1 - 7. doi: 10.12746/swrccc. v6i26.496.

[10] Cool J, Rosenblatt R, Kumar S, et al. Portal vein thrombosis prevalence and associated mortality in

cirrhosis in a nationally representative inpatient cohort. J Gastroenterol Hepatol. 2019; 34 (6): 1088 - 1092. doi: 10.1111/jgh.14501.

[11] Xian J, Tang Y, Shao H, Wang X, Zhang M, Xing T. Effect of portal vein thrombosis on the prognosis of patients with cirrhosis without a liver transplant: a systematic review and meta - analysis. Medicine (Baltimore).2021; 100 (16): e25439. doi: 10.1097/MD.0000000000025439.

[12] Candeloro M, Valeriani E, Monreal M, et al. Anticoagulant therapy for splanchnic vein thrombosis: an individual patient data meta - analysis. Blood Adv.2022; 6 (15): 4516 - 4523. doi: 10.1182/bloodadvances.2022007961.

[13] Pettinari I, Vukotic R, Stefanescu H, et al; BO - LIVES (Bologna LIVEr vascular Studies). Clinical impact and safety of

[14] anticoagulants for portal vein thrombosis in cirrhosis. Am J Gastroenterol.2019; 114 (2): 258 - 266. doi: 10.1038/s41395 - 018 - 0421 - 0.

[15] Naymagon L, Tremblay D, Zubizarreta N, Moshier E, Mascarenhas J, Schiano T. Safety, efficacy, and long – term outcomes of anticoagulation in cirrhotic portal vein thrombosis. Dig Dis Sci.2021; 66 (10): 3619 - 3629. doi: 10.1007/s10620 - 020 - 06695 - 4.

[16] Valeriani E, Di Nisio M, Riva N, et al. Anticoagulant treatment for splanchnic vein thrombosis in liver cirrhosis: a systematic review and meta - analysis. Thromb Haemost.2021; 121 (7): 867 - 876. doi: 10.1055/s - 0040 - 1722192.

[17] de Franchis R, Bosch J, Garcia - Tsao G, Reiberger T, Ripoll C; Baveno VII Faculty.