DOI: https://doi.org/10.4038/jmj.v35i2.199

Case Report

Rare Complication of Chronic Pancreatitis: Chronic Portal Vein Thrombosis and Splenic vein thrombosis causing non cirrhotic portal hypertension

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Abstract

Splenic vein thrombosis is a well-established complication of chronic pancreatitis, while portal vein thrombosis is a rare complication. In this case, we present an interesting instance of chronic pancreatitis associated with both portal and splenic vein thrombosis, causing non-cirrhotic portal hypertension. A forty-six-year-old male patient presented to us with clinical features of chronic pancreatitis. He underwent a CECT abdomen, which showed chronic pancreatitis with portal vein and splenic vein thrombosis. Screening for thrombophilic conditions and malignancies were negative. An upper gastrointestinal endoscopy showed fundal varices. Chronic portal vein thrombosis and splenic vein thrombosis are rare complications of chronic pancreatitis, which can cause non-cirrhotic portal hypertension.

Keywords

Chronic Pancreatitis, Chronic Portal Vein thrombosis, Splenic vein thrombosis

Introduction

Chronic pancreatitis is a progressive inflammatory disorder that leads to the irreversible destruction of exocrine and endocrine pancreatic parenchyma. (1) Splenic vein thrombosis is a well-established complication of chronic pancreatitis, while portal vein thrombosis is a rare complication (2). Here, we present a case of chronic pancreatitis associated with both portal and splenic vein thrombosis, causing non cirrhotic portal hypertension.

Case

A 46-year-old male patient from Manipay, Jaffna presented with a complaint of weight loss for a duration of Five months. He experienced epigastric pain that worsened postprandially. He had been a chronic alcohol consumer since the age of twenty. There was no family history of thrombophilic conditions. On examination, he had a thin body built with a BMI of 21 kg/m2, was not pale or icteric, and showed no peripheral stigmata of chronic liver cell disease. Abdominal examination revealed mild epigastric tenderness, no organomegaly, and no free fluid. Cardiovascular and respiratory examinations were unremarkable.

The patient's complete blood count was normal except for mild thrombocytopenia (WBC 6.23 x 10^9/L; Hb 13.2 g/dL; PLT-110), and inflammatory markers were normal (ESR 05 mm/1st hour, CRP-6 mg/L). A blood picture revealed mild thrombocytopenia with no evidence of hemolysis. The patient had transaminitis with AST higher than ALT (ALT-60 U/L, AST-75 U/L), and normal renal function. An ultrasound of the abdomen followed by a CECT of the chest, abdomen, and pelvis revealed chronic pancreatitis with portal vein and splenic vein thrombosis, but no chronic liver cell disease. His thrombophilia screening with antiphospholipid screening also negative.

The patient was advised on lifestyle modification, such as alcohol and smoking cessation. He underwent an upper gastrointestinal endoscopy, which showed fundal varices, and was started on carvedilol. He is under endoscopy surveillance for varices. Premixed insulin was started for his diabetes, and pancreatic enzyme supplementation was also initiated with meals. There was no propagation of thrombus observed on follow-up, and anticoagulation was not started.

Discussion

Common vascular complications of chronic pancreatitis include splenic vein thrombosis and splenic artery pseudoaneurysm (3). Splenic vein thrombosis can occur in combination with portal vein thrombosis, but this is

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very rare (4). Thrombosis occurs in chronic pancreatitis due to endothelial inflammation and associated pancreatic malignancies. This 46-year-old male patient, with a history of chronic alcohol consumption, presented with features of chronic pancreatitis such as weight loss due to exocrine dysfunction, pancreatogenic diabetes, and abdominal pain. A diagnosis was made with the help of a contrast-enhanced CT scan of the abdomen. During the evaluation of the pancreatitis, it was accidentally discovered that the patient had splenic and portal vein thrombosis with cavernous transformation. There was no evidence of solid organ malignancies on the CT scan, and thrombophilia screening was also negative. Splenic and portal vein thrombosis can cause portal hypertension, and this patient should be managed with non-selective beta-blockers and endoscopy surveillance for varices (5). The endoscopy showed fundal varices, and he was started on carvedilol. Anticoagulation for thrombosis in chronic pancreatitis is subject to controversy. It is indicated if the thrombosis is acute, if there is propagation of the thrombus to the mesenteric vein, if it is associated with hemophilia or if there is a history of bowel ischemia (5). Anticoagulation was not started in our patient.

Conclusion

Chronic portal vein thrombosis and splenic vein thrombosis are rare complications of chronic pancreatitis, which can cause non-cirrhotic portal hypertension. Therapeutic considerations for non-cirrhotic portal hypertension are mainly focused on the prevention of variceal hemorrhage. Medical and endoscopic therapy is the standard of care. Anticoagulation for thrombosis related to chronic pancreatitis needs to be decided on an individual basis.

Consent

Written consent was obtained from the patient for publication of this study.

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