

# Acute Pancreatitis Complicated by a Splenic Vein Non-Occlusive Thrombus

David Brual<sup>\*</sup> and Ali Kadhim

Department of Medicine, Saint Agnes Hospital, Baltimore, USA

<sup>\*</sup>Corresponding author: Brual D, Department of Medicine, Saint Agnes Hospital, Baltimore, USA, Tel: 602-367-0441; E-mail: [david.brual21@gmail.com](mailto:david.brual21@gmail.com)

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## Abstract

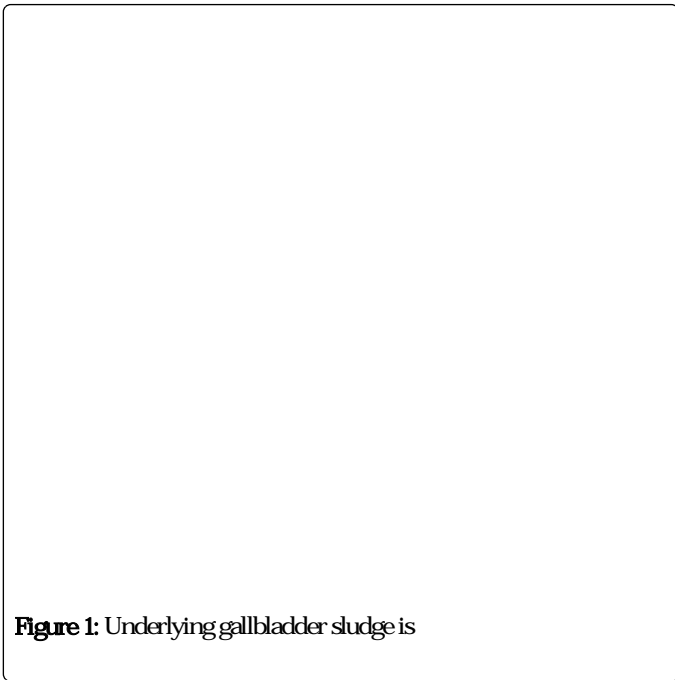
Acute pancreatitis (AP) is an acute inflammatory process of the pancreas that presents with severe epigastric pain and tenderness which can lead to splenic vein thrombosis (SVT). Affected patients can develop gastric varices as a result of associated portal hypertension which may produce a left-sided portal hypertension with gastric varices in the absence of esophageal varices. In this case study; we present a patient who developed a non-occlusive thrombosis in the setting of active alcohol use.

**Keywords:** Acute pancreatitis; Splenic thrombosis; Portal vein thrombosis; Anticoagulation; Recanalisation

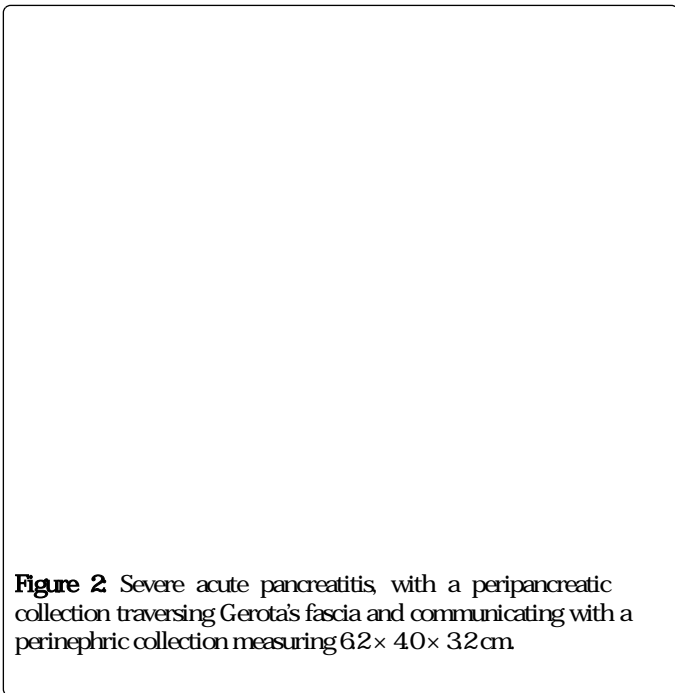
## Introduction

Acute pancreatitis is one of the most common reasons for hospital admissions. It accounts for \$25 billion of health care costs annually and 275,000 admissions per year [1]. The incidence of vascular complications in AP is low; however, it is mainly seen in severe AP such as those with pancreatic necrosis and peripancreatic collections [1]. Venous complications generally involve the splenic vein and less commonly the portal or superior mesenteric vein [2]. AP accounts for 60% of SVT diagnosis [3].

Of those patients who have developed a history of AP, they are immediately at 20% risk of developing SVT [3]. Other etiologies of SVT include malignancies, cirrhosis, pancreatic pseudocysts, and peptic ulcer disease. Alcohol consumption and damage to the splenic vein wall make



**Figure 1:** Underlying gallbladder sludge is



**Figure 2** Severe acute pancreatitis, with a peripancreatic collection traversing Gerota's fascia and communicating with a perinephric collection measuring 6.2 x 4.0 x 3.2 cm.

identify pancreatic necrosis and of those diagnosed, 53% of the patients are found to have SVT [6,7]. far; it has been reported that patients with and compression by a peripancreatic collection or pancreatic necrosis should have imaging if the patient starts to deteriorate [8]. will allow management change by diagnosing underlying hemorrhage which may have been missed due to severe pancreatitis patients will need to have multiple transfusion and embolization to be stabilized with close monitoring in the intensive care and intermediate level of care [9,10].

incidence of vascular complications is commonly seen with a necrotic pancreatitis. However; even acute pancreatitis has shown to cause thrombosis likely due to the peripancreatic Splenic vein thrombosis can increase the venous pressure giving rise to portal hypertension which manifests as further complication such as variceal bleeding [11]. imposes a challenge in managing patients with portal vein thrombosis and whether to anti-coagulate them or not depends on the risk of gastrointestinal bleeding

patient was also noted to have decompensated cirrhosis with coagulopathy during her second admission so she was not started on anticoagulation for non-occlusive splenic vein thrombosis. Subsequently, a stable splenic vein thrombosis was seen two weeks on a repeat CECT scan. was however; a new of a splenic artery aneurysm which was embolized by interventional radiology.

## Discussion

Splenic vein thrombosis is a rare complication of acute pancreatitis; however; early diagnosis is crucial to the management course [5]. Retrospective studies have demonstrated that CECT is useful to

gastrointestinal bleeding evidenced by drop in hemoglobin and endoscopy patient was ultimately deemed high risk and not started on anticoagulation given the bleeding and the history of hepatic cirrhosis.

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