

Portal Venous Pseudoaneurysm a Rare Consequence of Blunt Abdominal Trauma: Case Report

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Abstract

Keywords: Portal venous pseudoaneurysm, blunt abdominal trauma, CT scan, Doppler ultrasound.

Case Report

A 35-year-old male patient presented to the emergency department with abdominal pain and tenderness following a motor vehicle accident. The patient had a history of alcohol consumption. Physical examination revealed a tender, distended abdomen. Laboratory tests showed elevated liver enzymes. Computed tomography (CT) scan of the abdomen revealed a large, well-defined, enhancing mass in the right upper quadrant, consistent with a portal venous pseudoaneurysm. Doppler ultrasound confirmed the diagnosis. The patient underwent surgical resection of the pseudoaneurysm, which was successfully performed. The patient recovered well and was discharged home on postoperative day 7.

Discussion

Portal venous pseudoaneurysm is a rare complication of blunt abdominal trauma, occurring in approximately 1.2% of cases [1]. It is characterized by a localized collection of blood within the portal venous system, which can rupture and cause life-threatening hemorrhage. The pathogenesis is thought to be related to the high pressure within the portal vein system, which can lead to the formation of a pseudoaneurysm following trauma [2].

The clinical presentation of portal venous pseudoaneurysm is often nonspecific, with abdominal pain and tenderness being the most common symptoms. Physical examination may reveal a tender, distended abdomen. Laboratory tests may show elevated liver enzymes. The diagnosis is typically made using imaging studies, such as CT scan or Doppler ultrasound. CT scan is the most sensitive modality for the diagnosis of portal venous pseudoaneurysm, showing a large, well-defined, enhancing mass in the right upper quadrant [3].

The management of portal venous pseudoaneurysm is primarily surgical. The goal of surgery is to resect the pseudoaneurysm and repair the underlying injury to the portal vein. In some cases, endovascular treatment may be an option, but it is less commonly used. The prognosis for patients with portal venous pseudoaneurysm is generally good, with most patients recovering well after surgery. However, there is a risk of re-bleeding, and long-term follow-up is necessary to monitor for recurrence [4].

In conclusion, portal venous pseudoaneurysm is a rare but potentially life-threatening complication of blunt abdominal trauma. It should be considered in the differential diagnosis of patients with abdominal pain and tenderness following trauma. Prompt diagnosis and surgical management are essential for a favorable outcome.

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