

Spontaneous Rupture of Splenic Artery Pseudoaneurysm; A Rare Presentation of Acute Abdominal Pain in the Emergency Department: Case Report

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Abstract : Background: Spontaneous Splenic artery pseudoaneurysm rupture is a rare condition which is potentially life threatening, if not detected and managed early. We report a case of abdominal pain with intraperitoneal free fluid, which turned out to be spontaneous rupture of a splenic artery pseudoaneurysm, and was treated with arterial embolization. Case presentation: A 28-year old, previously healthy male presented to the ED with a history of sudden onset upper abdominal pain and fainting attack. The patient denied any history of trauma or prior similar attacks. On examination, the patient had tachycardia and a low-normal BP (HR 110, BP 106/66) but his other vital signs were normal (Temp. 37.2, RR 18 and SpO2 100%). His abdomen was initially soft with mild tenderness in the upper region. Blood tests showed leukocytosis of 12.3 X10⁹/L, Hb of 12.6 g/dl and lactic acid of 5.9 mmol/L. Ultrasound showed trace of free fluid in the perihepatic and perisplenic areas, and a splenic hypoechoic lesion. The patient remained stable; however, his abdomen became increasingly tender with guarding. We made a provisional diagnosis of a perforated viscus and the patient was started on IV fluids and IV antibiotics. An erect abdominal x-ray did not show any free air under the diaphragm so a CT abdomen was requested. Meanwhile, bedside ultrasound was repeated which showed increased amount of free fluid, suggesting intra-abdominal bleeding as the most probable etiology for the condition. His CT abdomen revealed a splenic injury with multiple lacerations, a focal intrasplenic enhancing area on venous phase scan (suggesting a pseudoaneurysm with associated splenic intraparenchymal, sub capsular and perisplenic hematomas). Free fluid in the subhepatic and intraperitoneal regions along the small bowel was also detected. Angiogram was done which confirmed a diagnosis of pseudoaneurysm of intrasplenic arterial branch, and angio-embolization was done to control the bleeding. The patient was later discharged in good condition with a surgery follow-up. Conclusion: Splenic artery pseudoaneurysm rupture is a rare cause of abdominal pain which should be considered in any case of abdominal pain with intraperitoneal bleeding. Early management is crucial as it carries a high mortality. Bedside ultrasound is a useful tool to help for early diagnosis of such cases.

Keywords : abdominal pain, pseudo aneurysm, rupture, splenic artery

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