

## Rare Case of Spontaneous Splenic Hematoma Following Chronic Pancreatitis- A Case Report

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**Abstract:**Spontaneous splenic hematoma is a rare complication of acute or chronic pancreatitis when compared with traumatic origin of subcapsular hematoma. Local factors such as thrombosis of the splenic artery or veins, intrasplenic pseudocysts, perisplenic adhesions, enzymatic digestion and coagulation disorders may play a role in the pathogenesis of splenic hematoma. Here we report a case of a 57 years old gentleman who presented to Emergency Department with complains of severe pain and mass in the left upper abdomen for the past 2 weeks. On examination he was haemodynamically stable, with a palpable mass in the left hypochondrium. On blood investigation serum amylase and lipase were significantly raised. His Hb was 7gm%. CECT of abdomen revealed features of chronic pancreatitis and large subcapsular splenic haematoma 17x12cm in size. He was managed with intravenous fluid, blood transfusions, prophylactic antibiotic and pain killers. Patient responded well to the conservative management. His blood parameters improved and splenic haematoma showed gradual resolution on serial USG examination. The management of subcapsular splenic hematoma in pancreatitis is not established. Treatment option includes conservative management, splenectomy and percutaneous drainage. Some authors suggested that most splenic complications of pancreatitis regress spontaneously and may be managed conservatively. It is suggested that conservative approach to the management of splenic subcapsular hematoma is appropriate when the patient is haemodynamically stable and is showing improving signs and symptoms.

**key words:** spontaneous splenic hematoma, chronic pancreatitis, conservative management.

Date of Submission: 27-01-2018

Date of acceptance: 15-02-2018

### I. Introduction

The spleen is the most vascular organ of the body, with a blood flow of ~350 l/day. Splenic hematomas with subsequent calcification or immediate rupture are most commonly the result of blunt abdominal trauma, atraumatic hematomas of the spleen, which constitute 23% of cases, may result from a multitude of systemic diseases which may be infectious, hematologic, neoplastic or infiltrative in nature. Spontaneous splenic hematoma is a rare complication of acute or chronic pancreatitis<sup>1</sup>. It includes splenic vein thrombosis, arterial pseudo aneurysm, sub capsular splenic hematoma, and splenic rupture. The management of sub capsular splenic hematoma in pancreatitis is still controversial<sup>2,3</sup>.

### II. Case report

Here, we report an interesting case of subcapsular splenic hematoma in patient with severe pancreatitis which was managed non-operatively. A 57 years old male chronic alcoholic who presented to our Emergency Department with complains of severe pain and mass in the left upper abdomen for the past 2 weeks. There was Occasional H/o nausea and vomiting present but no h/o fever, bowel complaints or trauma. He had a history of hospitalization 2 months back due to acute abdomen and he it was managed conservatively. On examination patient with vitals are stable. Per abdomen revealed a tender lump of ~15x12cm diameter extending over left hypochondriac, lumbar region reaching umbilicus.

On routine blood investigation, complete haemogram was done, only significant finding was Hb – 7%, Kidney function tests were normal and liver function tests – ALP was slightly deranged, albumin was 2.3g/dl. Serum amylase levels were raised twice the normal, Lipase levels were almost normal. Abdominal ultrasound scan showed hepatomegaly with fatty changes, splenic hematoma/abscess and min pericardial effusion. Following that a contrast enhanced CT was done and it showed large 17\*12cm subcapsular splenic hematoma sequelae of chronic pancreatitis with associated dilated portal vein, b/l pleural effusion with basal segmental collapse of the left lung (fig.2, fig.3).



Fig. 1

Fig.2



Fig. 3

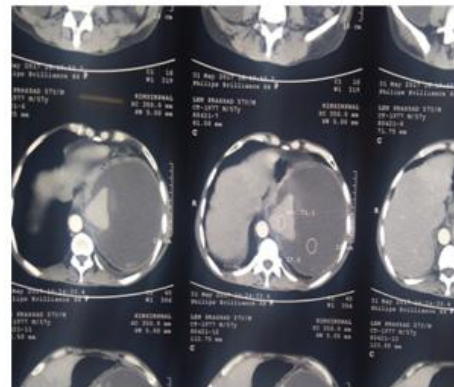


Fig. 4



### III. Results

Following the result patient has been shifted to ICU for close monitoring. Vitals, abdominal girth, urine output monitored regularly, 2 units of PRBC have been transfused from ICU. As the patient was hemodynamically stable we managed the condition conservatively with good hydration, analgesics and broad

spectrum iv antibiotics. Serial ultrasound abdomen has done to monitor the nature of the hematoma. After two weeks patient was shifted to ward. CECT was repeated after 5 weeks ,it was found that hematoma was resolving(fig.4). Repeated serial usgs also showed the same. Patient was discharged after 6wks.

#### IV. Discussion

Splenic complications are considered rare events during the course of acute and chronic pancreatitis and have varied descriptions, including pseudocyst, subcapsular hematoma, splenic infarction, intrasplenic hemorrhage, and splenic rupture. Subcapsular hematomas, pseudocysts, and splenic rupture are more common in chronic pancreatitis, whereas splenic infarctions and intrasplenic hemorrhage tend to be more frequent in acute pancreatitis.

The anatomic relationship between the pancreatic tail and the splenic hilum contributes to the pathology of splenic complications. For example, splenic rupture is more often described as a complication of chronic pancreatitis, where it occurs secondary to the enzymatic erosion of pseudocysts or as a result of direct action in the splenic parenchyma. In contrast, it has been reported in acute pancreatitis following splenic vein thrombosis, perisplenic adhesions, and acute inflammation of ectopic intrasplenic pancreatic tissue. The splenic hematoma in this case was probably caused by the erosion of cystic pancreatic inflammation from the tail of the pancreas into the hilum of the spleen as demonstrated on initial abdominal CT [Figure2]. The hematoma is contained within the splenic capsule [Figure3]. Patients with pancreatitis exhibiting a mass in the left upper quadrant, pain radiating to the left shoulder, elevation of the left diaphragm, and persistent symptoms despite normal laboratory results should be suspected to have splenic complications. Abdominal CT should be performed early in questionable patients. A splenic hematoma can be distinguished from simple fluid collection based on density (Hounsfield units > 30).

The management of subcapsular splenic hematoma in pancreatitis remains controversial. Surgical treatment with splenectomy, percutaneous drainage, and observation are management options<sup>4,5,6</sup>. They suggested that in cases of large splenic hematoma (> 5 cm) as a complication of pancreatitis, pressure reduction by percutaneous drainage or laparotomy should be administered as early as possible. Some reports have advocated aggressive management with early splenectomy to avoid splenic rupture<sup>7,8,9</sup>. Time for healing of splenic lesions varied from 1 week to 4 months. The authors suggested that most splenic complications of pancreatitis regress spontaneously and may be managed conservatively. Surgical indication is based on clinical findings. Patel et al reported a case of large subcapsular splenic hematoma (11.1x9.5 cm) resulting from pancreatitis that was managed conservatively with a good outcome. A CT scan performed 4 months later showed marked resolution of the hematoma<sup>10</sup>. They suggested that it is appropriate to manage splenic subcapsular hematoma conservatively in a hemodynamically stable patient who is showing improving symptoms and signs.

#### V. Conclusion

Conservative approach to the management of splenic subcapsular hematoma is appropriate option when the patient is hemodynamically stable.

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Dr.Sreejith V "Rare Case of Spontaneous Splenic Hematoma Following Chronic Pancreatitis- A Case Report." IOSR Journal of Dental and Medical Sciences (IOSR-JDMS), vol. 17, no. 2, 2018, pp. 45-47.