ORIGINAL RESEARCH PAPER
Volume - 10 | Issue - 12 | December - 2021 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

POST-PANCREATITIS FAT NECROSIS MIMICKING A RETROPERITONEAL MASS: A CASE REPORT.

Radio-Diagnosis

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ABSTRACT

Acute pancreatitis can result in retroperitoneal fat necrosis typically occurring in the peripancre¬atic region with extension into the transverse mesocolon, omentum and mesenteric root. When evaluated with contrast enhanced computed tomography (CECT), acute peripancreatic post necrotic collections generally appears lower in attenuation with minimal heterogeneity . Saponification as a complication of fat necrosis in patients with acute pancreatitis is a well recognized clinical entity. While retroperitoneal fat necrosis is commonly seen on CECT, saponification is not a prominent imaging feature. We present a case with history of recurrent episodes of pain abdomen showing mass forming peripancreatic fat saponification on CECT abdomen with no imaging features of acute pancrea¬titis.

KEYWORDS

Peripancreatic fat saponification , contrast enhanced computed tomography (CECT).

INTRODUCTION

Retroperitoneal fat necrosis may be caused by fat saponification from pancreatitis, in which the damaged pancreas releases lipolytic enzymes which auto digest the pancreatic parenchyma and peripancreatic fat tissues. After resolution of the acute exudate and ascites in pancreatitis, scattered areas of fat necrosis may be seen throughout the retroperitoneum and abdominal cavity which exhibit mass effect and show delayed contrast enhancement, possibly due to slow diffusion of contrast material through small capillaries in granulation tissue. A clinical history or imaging studies that demonstrate previous episodes of pancreatitis may be necessary to distinguish nodular fat necrosis at imaging [1].

Case Report

A 36-year-old female presented to the emergency room with pain epigastrium associated with nausea and vomiting for 2 days. Patient also have history of similar episodes one year back. No localized tenderness was appreciated. Laboratory evaluation revealed amylase - 284, lipase - 136, calcium - 9.5, haematocrit – 28 and white blood cell count was 16,000.

Contrast enhanced abdominal CT (CECT) demonstrated soft tissue attenuation mass with lobulated margins showing subtle homogenous post contrast enhancement. Multiple fat attenuation foci were seen within this mass. Mild perilesional fat stranding noted. It was encasing the distal body and tail of pancreas, however no infiltration was seen into the pancreatic parenchyma and pancreas showed normal enhancement . It was also abutting the greater curvature of stomach, spleen, left kidney and distal transverse colon [fig1 (a,b,c & d)]. On CECT, possibility of neoplastic etiology was given.

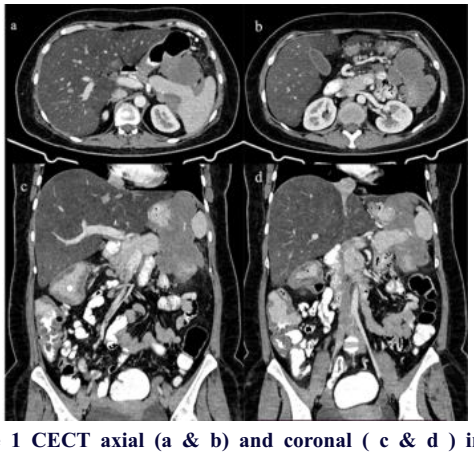

Figure 1 CECT axial (a & b) and coronal (c & d) images demonstrates lobulated soft tissue mass encasing the tail of pancreas showing subtle homogenous enhancement and abutting the spleen, greater curvature of stomach and splenic flexure. Few foci of fat attenuation also seen within this mass.

Because of the unusual appearance, diagnostic laparoscopy was performed which showed a grey white fibrofatty irregular soft tissue mass adherent to the pancreas, spleen and transverse colon.

Histopathology of the mass did not identify any malignant process, but instead showed fibroadipose tissue with large area of saponification of fat. Focal collections of foamy histiocytes, macrophages along with lymphomononuclear cells noted along with fibrosis. PAS stain was negative for fungus. So conclusion of fat necrosis was given.

DISCUSSION

CT findings of acute pancreatitis with resultant retroperitoneal fat necrosis are well known. The distribution is typically peripancreatic, with extension into the mesenteric root, transverse mesocolon and omentum in severe disease. The appearance is usually homogeneous, sometime slightly heterogeneous, but predominantly low attenuation [2] , which may imitate certain malignancies, such as carcinomatosis and liposarcoma and may lead to further invasive studies for evaluation.

CONCLUSION

The retroperitoneal fat stranding was consistent with a typical distribution; however, CECT findings of extensive mass forming fat necrosis, to our knowledge, not previously been reported in association with pancreatitis.

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