ORIGINAL RESEARCH PAPER
Volume - 11 | Issue - 11 | November - 2022 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

A RARE CASE REPORT OF TOTAL PANCREATIC LIPOMATOSIS SECONDARY TO CHRONIC PANCREATITIS

General Medicine

Dr. Avula Dileep Postgraduate student, Department of General Medicine, Sri Venkateswara Ramnarain Ruia Government General Hospital, Tirupati.

Dr. Cheemalapenta Mamatha Priya Postgraduate student, Department of General Medicine, Sri Venkateswara Ramnarain Ruia Government General Hospital, Tirupati.

Dr. J C Madhusudan Rao M.D, Assistant Professor, Department of General Medicine, Sri Venkateswara Ramnarain Ruia Government General Hospital, Tirupati.

ABSTRACT

This is a 45- year old male presenting with chronic abdominal pain for 2 months, who is a chronic alcoholic. On further work up found to have atrophic pancreas completely replaced by fat with no demonstrable pancreatic parenchyma and a solitary intraductal pancreatic calculus on CT Abdomen leading to a provisional diagnosis of Pancreatic Lipomatosis secondary to pancreatic duct obstruction.

KEYWORDS

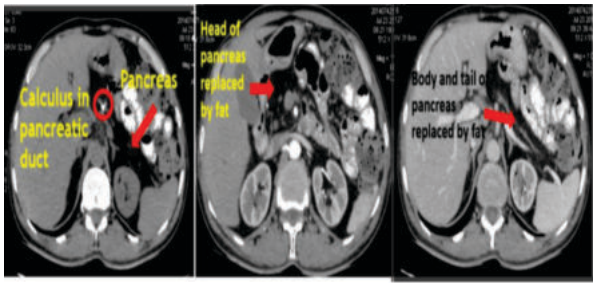
Chronic Pancreatitis, Pancreatic Lipomatosis, Abdominal pain

INTRODUCTION:

Pancreatic lipomatosis (PL) is also called as adipose atrophy of pancreatic parenchyma. The pancreas may appear normal or may be massively enlarged, resulting in lipomatous pseudohypertrophy. [1] It is also seen in diseases like diabetes mellitus, Cushing's disease, steroid therapy, viral infections, hereditary and chronic pancreatitis, pancreatic duct obstruction by calculus or tumor, hemochromatosis. Patients with obesity, metabolic syndrome are associated with increased incidence. It associated with few congenital diseases like Cystic fibrosis, Shwachman-Diamond syndrome and Pearson syndrome. [2]

Case Presentation:

A 45-year-old male patient presented with chief complaints of abdominal pain of 2 months duration. Abdominal pain was of dull aching type located in the epigastric region, pain radiating to the back, not associated with vomiting and constipation. Pain aggravated on taking meals and was relieved by taking medication. No history of fever, altered bowel habits, loss of weight, and loss of appetite. No history of hematemesis and malena. No past history of tuberculosis, diabetes mellitus, hypertension, or any surgery. He was chronic alcoholic since 18 years, consumes alcohol daily. On physical examination pulse was 90/min, Blood pressure was 114/76 mm Hg, Respiratory rate was 16cycles/min. On abdominal examination mild epigastric tenderness present, no organomegaly, bowel sounds heard. Blood investigations shows normal serum amylase (170 U/L), normal lipase (70 U/L), Renal and Liver function tests were normal with raised blood sugars (FBS- 186 mg/dl, PPBS- 280 mg/dl, RBS- 264 mg/dl). Faecal fat estimation was done that showed absence of fat in stools. Chest X-Ray was normal. Ultrasound abdomen revealed increased echogenicity of pancreas. CT abdomen revealed atrophic pancreas, completely replaced by fat with no demonstrable normal pancreatic parenchyma. A solitary intraductal calculus of 6 mm size was noted in neck region of pancreas without dilatation of duct. On the basis of abdominal computed tomogram assessment, a provisional diagnosis of diffuse pancreatic lipomatosis secondary to pancreatic duct obstruction by calculus was made.



DISCUSSION:

Fat replacement vary from mild fatty infiltration to massive replacement of pancreas by adipose tissue, resulting in malabsorption syndrome due to pancreatic insufficiency [3]. The exact etiopathogenesis behind fatty replacement of pancreas is not known; however, several predisposing factors have been suggested. Most cases remain asymptomatic, only some rare extreme cases of lipomatosis may be associated with a significant decline in pancreatic function. However, in this case, the patient presented with atypical abdominal pain, diabetes mellitus due to endocrine pancreatic insufficiency. In normal individuals, only 10% of parenchyma is sufficient for the maintenance of normal exocrine function. Exocrine deficiency manifestations (maldigestion) are seen only after severe parenchymal destruction and atrophy. Even though the total parenchyma of pancreas was replaced by fat in our patient, he had no exocrine deficiency symptoms. Nevertheless, only a few case reports have suggested a direct relation between PL and exocrine pancreatic insufficiency [4], and further functional studies are necessary to establish this association. The typical islets of Langerhans are paradoxically noteworthy for being resistant to PL.

CONCLUSION:

In most cases, fatty replacement of pancreas is asymptomatic, and may present with atypical abdominal pain, malabsorption & diabetes mellitus – Probably due to exocrine & endocrine dysfunction. Pancreatic lipomatosis is visualized on abdominal sonography, CT & magnetic resonance imaging (MRI). Total pancreatic lipomatosis with chronic pancreatitis has been extremely unusual. Extensive fatty replacement of pancreas has been rarely reported in past.

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