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Pancreatic Pseudocyst in Hypertriglyceridemia – A Case Report.

KEYWORDS: Pseudo cyst pancreas, Hypertriglyceridemia, children, current trends.

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ABSTRACT *We report a case of 4 yr old male child presenting with history of epigastric pain and abdominal distension. He was diagnosed to have pancreatic pseudo cyst by USG abdomen. On further evaluation the child was found to be a case of Hypertriglyceridemia. There was no history of similar illness in the past. Hypertriglyceridemia usually presents as recurrent pancreatitis. There is no reported case of pancreatic pseudo cyst and Hypertriglyceridemia in children in the literature. We report such a case with discussion on current trends in the diagnosis and management of acute pancreatitis in children.*

Case presentation:
Master XY, a four year old male child was admitted in medical ward for complaints of epigastric pain for 1 month duration and multiple episodes of nonbilious vomiting over the past 2 days. Ultrasonogram abdomen revealed a (8*7.1*6) cm cyst with wall thickness 3mm in the body and tail of pancreas (fig.1). There was also pancreatic edema present. He was referred to surgical department for further management. Routine blood investigation revealed an elevated total count 14000 /mm3 cells and serum amylase – 485/IU/L LFT and blood sugar levels were normal and lipid profile showed abnormal elevation of triglyceride and total cholesterol levels which were 1234mg/dl and 250mg/dl respectively. The patient also had a classical lactescent serum. The child had no history of antecedent trauma and similar painful episodes in the past. A contrast enhanced CT abdomen confirmed USG findings, with no areas of pancreatic necrosis (fig.2).

Gall bladder and biliary tree were free off any stones or sludge. A medical gastro enterologist opinion was sought and the child managed conservatively with Nil by mouth, IV fluids, lipid lowering agents, Somatostatin analogues and Proton pump inhibitors. Early enteral feeding was started from the 3rd day of admission. The child improved well, tolerating oral feeds and a repeat scan 2 weeks later showed a resolving pseudo cyst of (1.8*2*1.5) cm with resolution of pancreatic edema. There was a fall in triglyceride and cholesterol levels to 532 and 143 mg /dl at the end of second week. At the time of discharge, about 1 month after admission, there was a further fall in levels. The serum amylase level bottomed to 41 IU/L. A fundus examination of the eyes revealed "lipemia-retnalis" – a classical feature of Hypertriglyceridemia. The child is doing well on Lipid Lowering Agents and is on follow up. A repeat scan after 3 months revealed a normal pancreas.

Discussion:
Hypertyriglyceridemia is a rare cause of acute pancreatitis. Triglyceride levels more than 1000 mg/dl usually triggers an acute attack. Gene defects account for only 5% of cases of hypertriglyceridemia. Others are secondary to diabetes mellitus, alcohol, pregnancy, obesity and certain drugs like estrogens, steroids, thiazide diuretics and tamoxifen [3].

In cases of hypertriglyceridemia, large particles of chylomicron are released which occlude the capillaries and lead to ischaemia of the pancreas. This results in acinar cell destruction and release of pancreatic lipase within the lumen. The resulting lipolysis increases the free fatty acid levels which subsequently triggers an acute inflammation [4]. Acute pancreatitis in children differs from that of in adults in unique presentations like bilious vomiting, abdominal distension and acute abdomen. The fate of the Pseudocyst following acute pancreatitis are resolution, persistent symptomatic cyst and cyst infection or rupture.

Fredickson's Classification of Hyperlipidemia

Type	Serum Elevation	Lipoprotein Elevation
I	Cholesterol and triglycerides	Chylomicrons
IIa	Cholesterol	LDL
IIb	Cholesterol and triglycerides	LDL, VLDL
III	Cholesterol and triglycerides	IDL
IV	Triglycerides	VLDL
V	Cholesterol and triglycerides	VLDL, chylomicrons

IDL = intermediate-density lipoprotein; LDL = low-density lipoprotein; VLDL = very low-density lipoprotein

In our patient, after initiation of lipid lowering agents and other conservative medical management, there was complete resolution of the cyst and remarkable recovery. Hence, this case is learning lesson as to how a large pancreatic pseudocyst due to hypertriglyceridemia can disappear following medications.

Conclusion:
Hypertriglyceridemia usually presents as recurrent pancreatitis in children. Acute pancreatitis due to Hypertriglyceridemia presenting as pseudo cyst in children is rare, which responded very well to lipid lowering agents. Surgery is warranted in case of Pseudo cyst infection or rupture.

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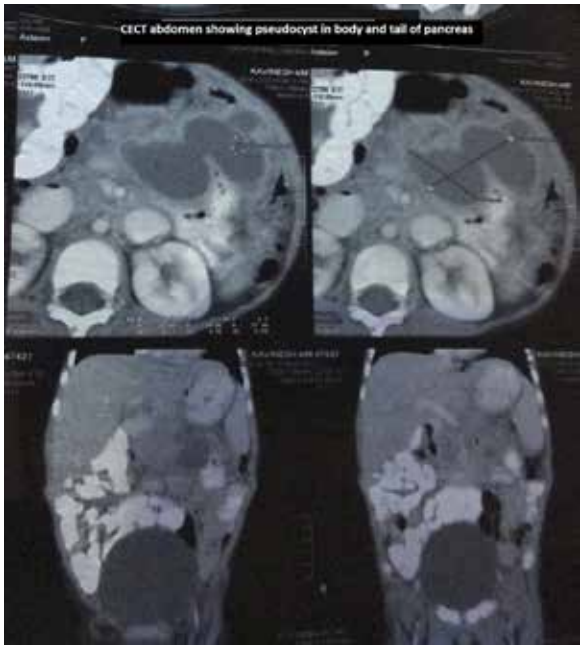

REFERENCE

1. Seales CE, Ooi TC. Underrecognition of chylomicronemia as a cause of acute pancreatitis. CMAJ.1992;147:1806-8. | 2. Hypertriglyceridemia induced recurrent pancreatitis – a case based review. IJEM 2012 . JAN-FEB: 141-143. | 3. 10. Hegele RA. Monogenic dyslipidemias: Window on determinants of plasma lipoprotein metabolism. Am J Hum Genet. 2001;69:1161–77. | 4. 11. Kimura W, Mossner J. Role of hypertriglyceridemia in the pathogenesis of experimental acute pancretitis in rats. Int J Pancreatol. 1996;20:177–84. | 5. Acute relapsing pancreatitis with pseudocyst formation due to sporadic hypertriglyceridaemic p[ancreatitis: a case report. IJS 2013 Jun;340-344. |