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Idiopathic Calcific Pancreatitis: A Rare Case Report

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I. Introduction

Pancreatitis is defined as inflammation of the pancreas resulting in acinar cell injury by pancreatic enzymes. Pancreatitis is uncommon in children and a diagnostic challenge for the Pediatricians. Importantly, the clinicians evaluating pediatric patients with abdominal pain should have a high index of suspicion for pancreatitis, as it is associated with significant morbidity and mortality. Chronic pancreatitis in children can be due to hereditary pancreatitis, idiopathic chronic pancreatitis, cystic fibrosis, tropical chronic pancreatitis, hyper-triglyceridemia or hyperparathyroidism. All these types of pancreatitis can present with repeated acute attacks progressing to chronic calcific pancreatitis. Here a case report of a 10 year old female child diagnosed as idiopathic chronic calcific pancreatitis.

II. Case Report

A 10 year old girl, presented to our department with complaints of chronic abdominal pain for 2 years. Her parents consulted various doctors on out Patient basis and got treated with symptomatically, but the symptoms were recurred now and then. Pain was in the epigastric region, radiating to the back and episodic . The child had history of greasy stools with abdominal distension and without any history of vomiting/ drug intake/ trauma. There was no family history of chronic abdominal problem. On examination the child was malnourished without any epigastric tenderness or abdominal distension. Vital signs were within normal limits. There was mild pallor and other systemic examination was normal. Results of laboratory studies like serum amylase and lipase concentrations were within normal limits; Serum calcium, glucose, triglyceride levels were normal. An abdominal sonogram revealed dilatation of the main pancreatic duct (MPD) with calcifications and multiple cystic areas. Computed tomography (CT) scan of the patient showed inhomogeneous parenchyma of pancreas. Multiple focal hyperdensites were seen in the pancreas (Hounsfield units >900) and intraductal region of various sizes. The largest hyper density is measuring 18mm at tail region. There was a dilated main pancreatic duct (5 to 7mm) and no peri-pancreatic collection with an impression of chronic Calculus Pancreatitis. The patient was treated with enzyme supplements and the patient was on follow-up without symptoms.

III. Discussion

Chronic pancreatitis is a longstanding inflammation of the pancreas that alters its normal structure and functions. It can present as episodes of acute inflammation in a previously injured pancreas or as a chronic damage with persistent pain or malabsorption. In chowdry et al study, the prevalence of chronic calcific pancreatitis is 2.5%, out of which 95.9% were idiopathic calcific pancreatitis. The mean age of presentation is 15.2 yr, age at the onset of disease is 11yr and around 60.6% were males.[1] In our case the female child presented at the age of 10. In chowdry et al study, out of 32 patients 28% had height less than 3rd percentile and 50% had weight less than 3rd percentile.[1] In our child both height and weight were between 3rd and 50th percentile. Almost all cases present with abdominal pain. Our case also presented with abdominal pain for past 2 years. Those painful episodes were treated symptomatically. Various genes were implicated in hereditary pancreatitis like PRSS1, PRSS2, SPINK 1 and CFTR.[2,3] There are a number of reports on hereditary pancreatitis from various countries including India.[4,5] Clinical features of hereditary pancreatitis include recurrent episodes of acute pancreatitis in 80% of the family members and eventual chronic pancreatitis in about 20 to 30% of family members.[6,7] In Chowdry et al study, the family history was present in only 3 out of 99 cases.[1] Our case also had no family history Radiological dilatation of main pancreatic duct is seen in 89% and pancreatic calcification in 70% cases.[1] Dense calcification is seen in pancreatic parenchyma.[8] In our case there were multiple calculi with dilatation of main pancreatic duct was found.

In idiopathic pancreatitis the clinical presentation is the same as hereditary pancreatitis but complications like pancreatic ascites, pseudo cyst and portal vein thrombosis are uncommon.[9] Idiopathic chronic pancreatitis is further classified into calcific and non- calcific pancreatitis.[1] As with other forms of chronic pancreatitis, treatment of chronic calcific pancreatitis includes control of diabetes, relief of pain with analgesics, pancreatic enzyme replacement, endoscopic and surgical decompression of dilated pancreatic ducts and removal of calculi. In chowdry et al study, around 56% of cases had a symptomatic relief of abdominal pain with pancreatic enzymes.[1] Our case was also treated and improved with supplemental pancreatic enzymes with proton pump inhibitors. Immediate and long-term results from the surgical procedures have shown encouraging

results and confirmed the beneficial effect of surgery in well selected cases with a goal of avoiding total pancreatectomy.[10]

IV. Conclusion

The present case stresses the need to diagnose chronic pancreatitis in the pediatric population and not to underestimate the importance of this relatively uncommon entity in this age group. It also stresses the importance of various etiologies of chronic pancreatitis in children and timely management so as to avoid long-term complications and/or pancreatectomy.

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