Young Boy with Abdominal Pain

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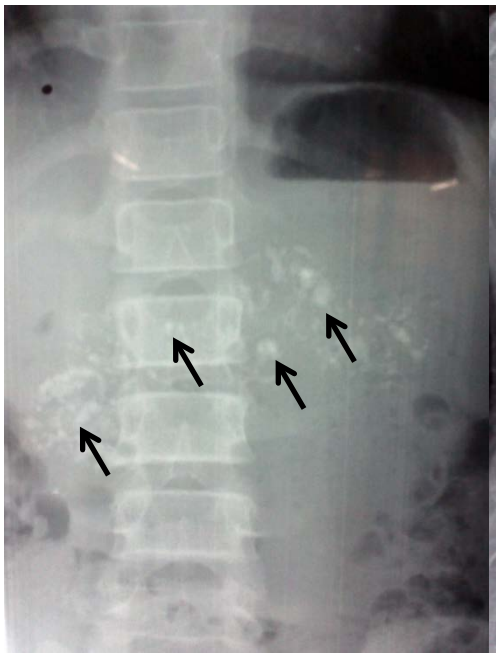

Figure 1. Plain x-ray of the abdomen shows calcifications (arrows) on either side of midline across the midline.

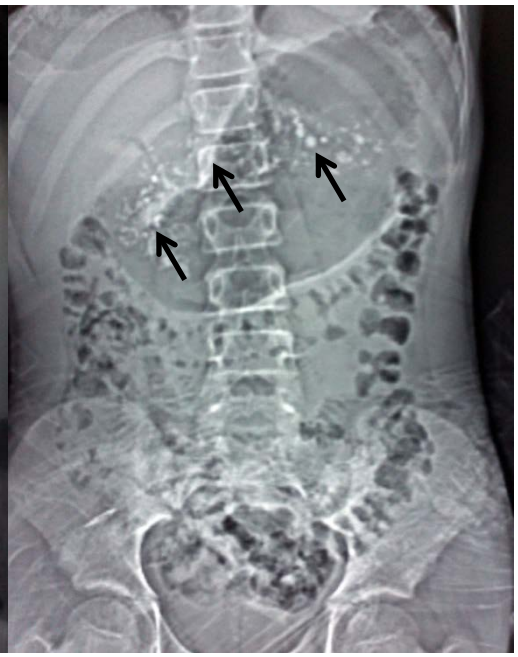

Figure 2. CT skiagram showing calcifications (arrows) across the midline.

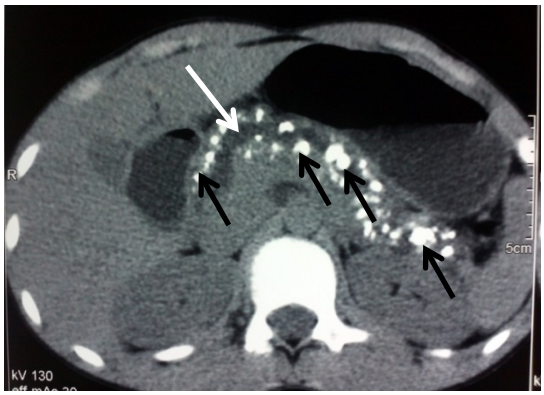

Figure 3. CT of the abdomen showing diffuse pancreatic calcification (black arrows) and dilated pancreatic duct (white arrow).

A 12-year-old boy presented with abdominal pain of three days duration. Pain involved the epigastrium and radiated to the back. He had history of multiple similar episodes of abdominal pain over the past six months. Parents noticed the boy sitting up and leaning forward during the episodes of pain and he reported to have pain relief. He had no significant comorbid illnesses, had neither addictions nor any chronic drug abuse including complementary and alternative medications. He had no significant family history. Physical examination was non-contributory except for emaciation and epigastric tenderness. Hemogram was normal. Blood sugar, amylase, and lipase levels were elevated and the rest of the biochemical parameters were normal.

Plain x-ray of the abdomen revealed calcification in the upper abdomen on either side of midline (Figure 1). Contrast computed tomography revealed diffuse pancreatic calcification and a dilated pancreatic duct suggestive of calcific pancreatitis (Figures 2 and 3). The diagnosis of chronic calcific pancreatitis with acute exacerbation was made. The patient was treated with intravenous fluids, analgesics, pancreatic enzyme supplements, and other supportive measures. He improved with treatment.

Discussion

Intra-abdominal calcification on plain x-ray of the abdomen can be due to pancreatic calcification, renal calculi, biliary stones, calcified mesenteric nodes, tumor calcifications, fecaliths, vascular calcifications, and calcified costal cartilages.[1-3] The location of calcification helps in differentiating the organ of involvement. Pancreatic calcification typically occurs at the level of T9-T12 vertebrae, may cross the midline or overlies the spine, and can be diffuse or focal.[2] Pancreatic calcification most often is due to chronic pancreatitis and rarely due to calcified tumors or cysts.[1,2] Chronic pancreatitis is characterized by irreversible inflammatory damage of the pancreas with or without loss of exocrine and endocrine functions. Etiologies include alcoholism, gall stones, hereditary, autoimmune, tropical, and idiopathic causes.[3] Advanced cases of chronic pancreatitis may be associated with varying degrees of pancreatic calcification. Calcification is reported commonly with tropical, idiopathic, and alcoholic variants of chronic pancreatitis. Being a youth from southwest India, presenting with diffuse pancreatic calcification and ductal dilatation with early onset of endocrine deficiency, the most probable diagnosis in our case was tropical pancreatitis. Treatment options include medical management with analgesics and pancreatic enzyme therapy, endoscopic therapy, and surgery.[4]

References

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