Worm Induced Pancreatitis

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The patient, a 6-year old male child presented to the emergency department of our institute with chief complaint of intermittent severe upper abdominal pain for past 24-hours. On examination, his vitals including blood pressure, respiratory rate and heart rate were stable. The abdominal examination was positive with mild epigastric tenderness.

The results of the laboratory evaluation revealed markedly increased serum amylase & lipase levels (1089 IU/l and 1200 IU/l, respectively). The renal function and liver function tests were within the normal limits. The peripheral blood examination revealed features of eosinophilia.

Ultrasonography of the abdomen was performed which revealed bulky, inflamed pancreas (measuring 28mm in AP diameter at SMA) level with a linear hyperechoic, tubular structure with echogenic walls in the main pancreatic duct extending from the head to tail region (Fig. 1 and 2). The main pancreatic duct measured 4mm. Common Bile Duct measured 4mm with anechoic lumen. IHBRs were normal. The small bowel loops also showed multiple similar structures within the lumen. The chest and abdominal radiographs were normal. No ascitis or effusion was seen. No peripancreatic collection was noted.

Based on clinical, biochemical and sonographic evidences, the diagnosis of worm induced mild pancreatitis was formulated. The patient might had intestinal worm colic also but the biochemical evidence pointed more towards pancreatitis. The worm was labeled as *Ascaris* based on its endemic nature. The patient was managed conservatively with albendazole 15mg/kg body

weight/day and analgesic therapy. The child passed multiple worms in the stools and repeat sonography after one week revealed normal bulk of the pancreas and normal worm free MPD. The patient was discharged and the parents were advised for regular deworming of the child at 6-months interval.

Fig. 1: Sonographic images showing the bulky pancreas and double linear echogenic structure in the main pancreatic duct extending from the head to tail, suggestive of worm in the MPD causing pancreatitis.

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Fig. 2: Annotated sonographic image showing the worm in the MPD (arrow) and inflamed tail of pancreas.

The diagnosis of Ascariasis can be made by sonography, endoscopy, endoscopic retrograde cholangiopancreatography, computed tomography, and magnetic resonance cholangiopancreatography. Ultrasonography is the simplest, accurate and non-invasive technique mostly used for the diagnosis which demonstrates the worm morphology and location with real-time sonography also able to demonstrate the mobility of the worm².

The Ascariasis can cause pancreatitis, cholangitis, liver abscess, bowel obstruction and in rare cases may result in cholecystitis and appendicitis. Management of ascariasis may be conservative/endoscopic or surgical depending on case scenario. Rarely, in cases where there is severe worm-bolus obstruction or appendicitis, surgical treatment is preferred^{3,4}. Regular deworming should be the norm in the endemic areas of Ascariasis for prevention of the complications.

REFERENCES

1. World Health Organization. Deworming in children. WHO recommendations for deworming of children, last updated 11 February, 2019. <https://www.who.int/elena/titles/deworming/en/>
2. Dani RD, Gandhi V, Thakkar G, Patel P. Acute pancreatitis due to round worm in main pancreatic duct. *Ind J Radiol Imaging*, 2006;16(1):85-86.
3. Khuroo MS, Zargar SA, Yattoo GN, Koul P, Khan BA, Dar MY, Alai MS. Ascaris-induced acute pancreatitis. *Br J Surg*. 1992 Dec;79(12):1335-8.
4. Khuroo MS, Rather AA, Khuroo NS, Khuroo MS. Hepatobiliary and pancreatic ascariasis. *World J Gastroenterol*. 2016;22(33):7507-17.