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A STUDY ON PROFILE OF PANCREATITIS IN CHILDREN

Gastroenterology

Dr. G. Thiyagarajan Department of Medical Gastroenterology, Govt MohanKumaramangalam Medical college, Salem, 636030, Tamilnadu ,India

Dr. C. Krishnan* Department of Medical Gastroenterology ,Govt MohanKumaramangalam Medical college, Salem, 636030, Tamilnadu , India *Corresponding Author

Dr. E. Kandasamy alias Kumar Department of Medical Gastroenterology, Govt MohanKumaramangalam Medical college, Salem, 636030, Tamilnadu ,India

ABSTRACT

Aim: (1) To discuss the various presentation and clinical profile of pancreatitis occuring in children.. Design: Cross sectional evaluation of various presentation of pancreatitis in children (14months-16 years)

Methods: Children admitted in ,GovtMohanKumaramangalam Medical college,Salem, with a diagnosis of pancreatitis based on symptoms, lab and imaging findings were included in this study.They were evaluated for the cause, presentation and outcome and followed for a period of six months..

Results: 240 children were admitted for pain abdomen from January 2015 to January 2017 ,64patients were diagnosed to have pancreatitis. Age ranges from 14 months to 16 years. Males were more affected than female 24 had acute pancreatitis, 14 with chronic pancreatitis and 26 presented with recurrent acute pancreatitis..

Conclusions: Pancreatitis is not uncommon in children. Clinical presentation varies from adult. All children with recurrent pain abdomen has to be evaluated for pancreatitis.

KEYWORDS

Pain Abdomen , Pancreatitis In Children

Back ground:

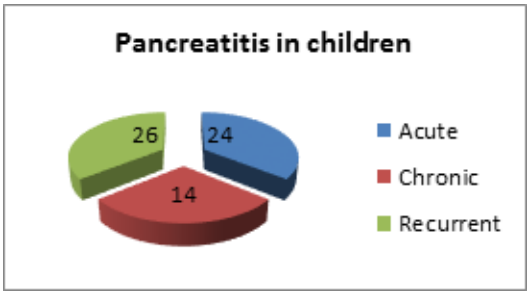
In pediatric age group pancreatitis is an uncommon condition. It is characterized by inflammation with clinical signs of upper abdominal pain, and elevated serum amylase and lipase. [1] Pancreatitis can be classified as acute or chronic and also as inherited, necrotic, or hemorrhagic.Pancreatitis may be complicated by the development of a fibrous-walled collection filled with pancreatic enzymes, termed a pseudocyst. Pancreatic disease in children had been previously considered as uncommon, but recent evidence suggests that the incidence is increasing. Excessive alcohol use and gallstones are the most common causes of acute pancreatitis in adults .These risk factors are rarely seen in children, although biliary pancreatitis is noted in children. Structural or genetic basis are seen in cases of recurrent acute and chronic pancreatitis in children. Drugs induced pancreatitis one of the most common causes of acute pancreatitis in children.[2] .Sodium Valproate most often associated with pancreatitis in children, followed by L-asparaginase, prednisone, and multiple medications.[3][4]

The occurrence of persistent abdominal pain in a child taking any medication should suggest drug-induced pancreatitis [5]. This possibility is confirmed only by confirmation of pancreatic disease, on drug withdrawal improvement of the disease , and return of disease when the drug is reintroduced. Viruses, are relatively common causes of childhood pancreatitis; Enteroviruses, especially coxsackievirus and echovirus, have been confirmed by stool isolation and concomitant increase in serum titer in up to 8% of adults with "idiopathic" acute pancreatitis. Pancreatitis has been reported in children with Epstein-Barr virus infections, [6][7] Interstitial pancreatitis has been noted in the congenital rubella syndrome.[8] Pancreatitis in children is often attributed to mumps virus on the basis of abdominal pain and an elevated serum amylase value, with parotitis, waxing mumps antibody titers, or both.[9]**Methodology:** Study design: Cross sectional study. Study period: January 2015-January2017 Place of Study: Department of medical gastroenterology ,GovtMohan Kumaramangalam Medical college, Salem,, Tamilnadu.Study population: 64 Children with a diagnosis of pancreatitis based on symptoms, lab and imaging findings were included in this study. They were evaluated for the cause, presentation and outcome and followed for a period of six months.

Results :

Out of the 240 children who came with pain abdomen , from January 2015 to January 2017. 64 patients were diagnosed to have pancreatitis. Age ranges from 14 months to 16 years. Males were more affected than females. 24 had acute pancreatitis, 14 with chronic pancreatitis and 26 presented with recurrent acute pancreatitis. Commonest etiology for pancreatitis in children was idiopathic pancreatitis. The various other etiology were trivial injury abdomen, biliary tract disease, pancreas divism ,drugs, systemic infection and diseases. tropical pancreatitis, von hippel lindau disease, polyarthritis pancreatitis panniculitis syndrome, progressive familial intrahepatic cholestasis (PFIC),familial hyperoxaluria with pancreatitis and auto immune pancreatitis.. The clinical Presentation varies from adults. Unlike adults , most of them presented with recurrent pain abdomen. Classical stooping pain was present in few patients only. Other presentations were jaundice, cholangitis, failure to thrive . 4 were presented with pseudocyst. Pancreatic calcification and ductal changes were noted in 9 patients. None of them had diabetes. Severe pancreatitis was present in one child with etiology of blunt injury. There was no death . Median time for diagnosis from onset of symptom was 9 weeks. Serum amylase and lipase were elevated in 68 % only. All these patients were treated with pancreatic extract with PPI. With this pain subsided in 60 % only. ERCP was done for 5 patients .Of them 1 had minor ampulla spincterotomy for pancreas divism. Among them 2 had recurrence of pain . 1 patient underwent freysprocedure for the complications .

Graph:1



DISCUSSION:

Etiology of pancreatitis in children is different from adults and is mainly due to trauma, drugs, infection, structural anomalies and systemic diseases. Wang etal [10] reported that idiopathic pancreatitis is the commonest type in children. Failure to thrive was seen in children with pancreatitis. This may be due to avoidance of food due to pain.Chowdhury et al noted nutritional impairment in children with

chronic pancreatitis[11]. Acute pancreatitis is often seen in paediatric population with severe systemic diseases. [12]. Hemolytic uremic syndrome (HUS) is the most common cause of acute pancreatitis.[13][14] The mechanism of pancreatitis is not known and often multifactorial, with uremia itself is a risk factor for pancreatitis. [15] Significant pancreatitis has been noted in association with SLE and Kawasaki's disease.[16] Histologic changes occur in the pancreas during Reye's syndrome but whether these changes are specific to the disease is not known. Usually this complication is evidenced by hypotension and clinical deterioration of general condition with the treatment of progessive illness. Acute pancreatitis following organ transplantation is also common.[17] Multiple metabolic abnormalities are associated with pancreatic disease in children. Protein-calorie malnutrition is the most common. In advanced malnourished group pancreatic enzyme secretion is reduced , whereas fluid and bicarbonate secretion are normal.[18]. clinically significant pancreatitis can develop in aggressive early refeeding of these children In tropical pancreatitis malnutrition was considered a major contributing factor, but this has been argued against since tropical pancreatitis is seen primarily in normally fed children . In our study Idiopathic pancreatitis was obsevred as the most the common cause.

CONCLUSION:

Pancreatitis is not uncommon in children. Clinical presentation varies from adult. All children with recurrent pain abdomen has to be evaluated for pancreatitis.

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