International Surgery Journal
Pareek P et al. Int Surg J. 2016 Nov;3(4):2329-2330
http://www.ijsurgery.com
pISSN 2349-3305 | eISSN 2349-2902

DOI: http://dx.doi.org/10.18203/2349-2902.isj20163627

Case Report

Pancreatic pseudocyst in children: a rare medical entity

Prashant Pareek, Neelabh Agrawal*

Department of Surgery, S. N. Medical College, Agra, Uttar Pradesh, India

Received: 18 August 2016
Accepted: 24 September 2016

***Correspondence:**
Dr. Neelabh Agrawal,
E-mail: neelabhkgmu@gmail.com

ABSTRACT

Pancreatic pseudocyst (PCC) is an extremely rare medical condition in pediatric population. The history of acute pancreatitis holds significance as it may progress into formation of such pseudo cyst in children. Acute pancreatitis may result from abdominal injury, biliary tract disease, viral illness, states of intracranial hypertension and steroids. However blunt abdominal trauma is the most common cause of pancreatic pseudocysts in children. Here we report a case of blunt abdominal trauma in a six-year-old child that resulted in pancreatic pseudocyst which was treated effectively with cystogastrostomy.

Keywords: Abdominal trauma, Cystogastrostomy, Pancreatic pseudocyst, Pancreatitis

INTRODUCTION

Pseudocyst of the pancreas is localized fluid collection rich in amylase and other pancreatic enzymes and is surrounded by a wall of fibrous tissue that is not lined by epithelium.[1] The communication of such a cyst with the pancreatic ductal system may be direct or indirect via the pancreatic parenchyma.

Regardless of the etiology of pseudocyst, the incidence is low, 1.6%-4.5%, or 0.5-1 per 100 000 adults per year.[2] Pancreatic pseudocyst (PPC) in childhood is primarily a consequence of traumatic abdominal injury. Abdominal trauma is usually secondary to handlebar bicycle injury or seatbelt injury during car accidents.[3] The incidence of pseudocyst of the pancreas formation following post-traumatic pancreatitis varies from 0% to 69% according to different studies, and this reflects the diversity of the severity of the pancreatic injury.[4,5]

CASE REPORT

A six-year-old male child presented with abdominal distention and vomiting following road traffic accident (hit by a running vehicle) 1 month back (Figure 1).

Figure 1: preoperative abdominal distension in a case of pseudo-pancreatic cyst.

Initially the patient had epigastric pain post trauma after which he was admitted in a nearby hospital where he was managed conservatively by keeping him nil per oral and on intravenous fluids. Swelling progressed to its current size in a span of about 1 month. Swelling involved mainly the epigastric and umbilical region without any significant pain. Patient experienced several episodes of vomiting especially following meals and was able to take

only liquids. A contrast enhanced computed tomography scan of abdomen was done which revealed pancreatic pseudocyst. Cystogastrostomy was done and the cyst fluid was sent for biochemical examination (Figure 2).

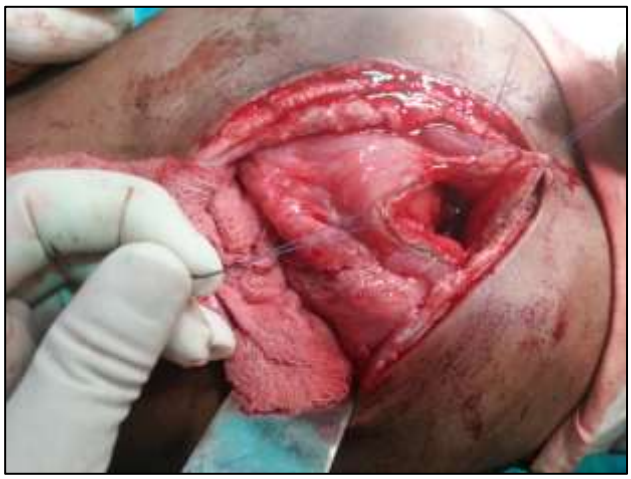

Figure 2: Opened anterior gastric wall with visualization of cyst cavity through post stomach wall.

DISCUSSION

Pancreatic pseudocyst in pediatric population is quite rare, although it is well-documented as sequelae of pancreatic insult with ductal disruption and leakage of pancreatic enzymes into surrounding soft tissues.

Primary symptoms of pseudocyst of the pancreas include abdominal pain and bloating, nausea and vomiting. Other symptoms associated with such pseudocysts are loss of appetite, diarrhea, weight loss, fever etc. The size of pseudocyst of the pancreas varies widely.

Spontaneous regression of pseudocyst of the pancreas is likely with conservative management with bowel rest and total parenteral nutrition, and non-operative management is successful, particularly when the pseudocyst is less than 5 cm in diameter.[6,7] In cases where the size of the Pseudocyst of the pancreas exceeds 5 cm the conservative management is ineffective thus the choice of treatment includes surgical internal drainage, endoscopic drainage procedures and percutaneous catheter drainage methods.

Possible complications associated with pseudocyst of the pancreas include pancreatic abscess, rupture, hemorrhage or gastric outlet obstruction.

CONCLUSION

Pseudocyst of the pancreas in children is a very rare but potentially troublesome clinical entity, whose management depends upon the severity of pancreatic trauma, size and symptoms of such a pseudocyst.[8] Small asymptomatic pseudocyst of the pancreas are managed conservatively whereas the treatment of persistent, large and symptomatic pseudocyst remains surgical drainage procedures.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

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Cite this article as: Pareek P, Agrawal N. Pancreatic pseudocyst in children: a rare medical entity. Int Surg J 2016;3:2329-30.