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EMPYEMA THORACIS WITH GI BLEED : A DIAGNOSTIC DILEMMA- A CASE REPORT

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ABSTRACT Gastric duplication cysts are rare variety of gastrointestinal duplications. Sometimes they may present with complications like hemorrhage, infection, perforation, volvulus, intussusception and rarely neoplastic changes in the gastric duplication cyst. We present one and half year old male child who presented with recurrent history of respiratory distress &haemoptysis .Child was diagnosed as case of rt sided empyema and undergone thoracotomy for same.1 month later child presented with respiratory distress and haemoptysis Clinical presentation resemble like empyema. Haematological workup were normal. CT imaging solved diagnostic dilemma which revealed secondary infected forgut duplication cyst with possible rupture into right pleural cavity. On exploration an infected and perforated gastric duplication cyst was found. Surgical excision of most part of cyst wall with mucosal stripping of the rest was performed. Histopathology confirmed the diagnosis of gastric duplication cyst with ectopic pancreatic tissue.

KEYWORDS : gastric duplication cyst,empyema CT imaging

Introduction

Gastric duplication cysts constitute about 2-7 % of all gastrointestinal duplications. Majority of gastric duplication cysts are large and non-communicating. Most of the cases of gastric duplication cysts present in early age, however, in some cases patient may remain asymptomatic for a long period and might present with sudden onset of abdominal distension, pain, signs of obstruction, peritonitis etc1 In this report we present a patient with complicated gastric duplication cyst.

Alimentary tract duplication is a relatively rare congenital anomaly. It can be found anywhere from the mouth to the anus and can be symptomatic or are discovered incidentally. W. E. Ladd first introduced the term duplication in 19342. Most duplications are benign, but the presence of ectopic gastric mucosa and the potential for malignant degeneration remain a concern.[3]

Congenital duplication can occur anywhere in the gastrointestinal (GI) tract, although it most commonly occurs in the ileum, esophagus, and colon. One third of all duplications arise from the foregut (esophagus, stomach, and first and second part of the duodenum).4Enteric duplication varies widely in size and is usually single, more often spherical than tubular, and lined with alimentary tract mucosa. Foregut duplication is more common in girls, particularly if there is bronchopulmonary involvement.5 Some duplications are identified incidentally but many cause problems in early childhood. Respiratory symptoms are common in foregut duplication, especially when there is involvement of the bronchial tree. In some cases, the patient may present with respiratory distress and hemoptysis.[6]

Case report-A male baby of one and half year presented in emergency with fever, abdominal pain and distension for two days. Fever was high grade and not associated with rigors and chills. Pain abdomen was continuous and patient had with few bouts of non bilious, non projectile vomiting. General physical examination revealed temp 101oF, pulse 100/min and respiratory rate 30/min. 1 month later child presented with respiratory distress and haemoptysis. Clinical presentation resemble like empyema. On abdominal examination generalized rigidity and guarding were present. No mass or viscera could be palpated. Bowel sounds were audible. Past history suggestive of right sided empyema patient had undergone thoracotomy for same.(Fig1)

Haematological workup were normal.

CT imaging solved diagnostic dilemma which revealed secondary infected forgut duplication cyst with possible rupture into right pleural cavity.(Fig2)

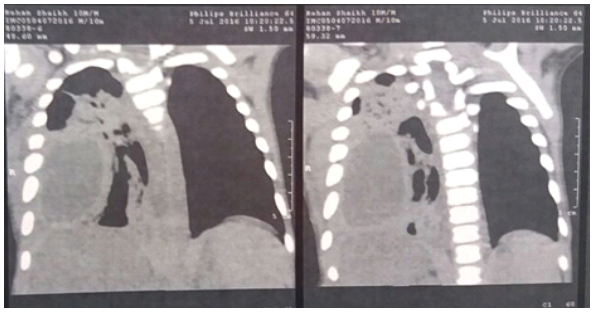

Fig 1-CT scan at first presentation

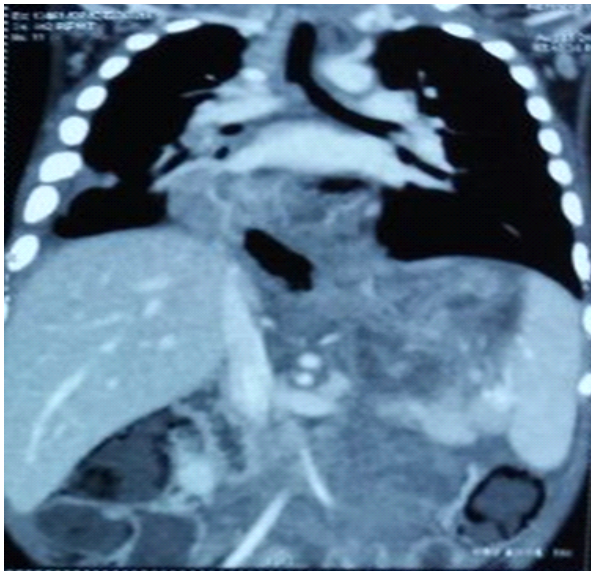

Fig-2 CT Scan at 2nd presentation

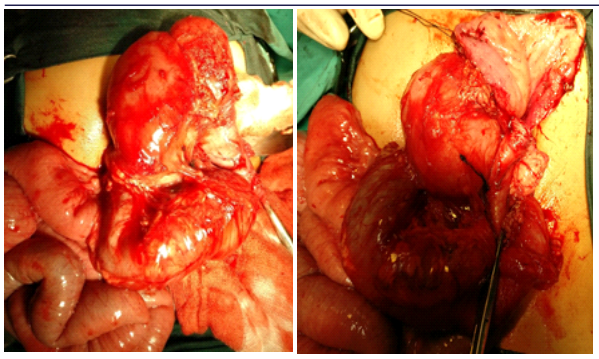

Fig-3-Operative photograph

Diagnostic laparoscopy reveals gastric duplication cyst communicating posteriorly to right pleural cavity Laparoscopic procedure was converted to open exploration in view of complex scenario. On exploration an infected and perforated gastric duplication cyst was found. Surgical excision of most part of cyst wall with mucosal stripping of the rest was performed. (Fig 3) Cyst excised and the fistulous communication with pleural cavity divided as high as high possible.

Discussion

Gastric duplications are very uncommon congenital anomalies. They usually arise at greater curvature of stomach. Almost all gastric duplications are cystic in nature. Usually they are non-communicating. In our case gastric duplication was at greater curvature, cystic in nature and non-communicating. The clinical presentations of gastric duplication cysts depends upon site, size, communication with part of the alimentary tract and associated complications. [7-8]

In complicated cases patient may present with an acute abdomen, peritonitis or even pancreatitis. Other complications include hemorrhage, infection, perforation of the cyst and compression on surrounding structures. Clinical features thus vary. Our patient presented with fever, pain and abdominal distension suggestive of complications like infection and perforation of the cyst.[9-10]

The differential diagnoses of gastric duplication cyst include omental cyst, mesenteric cyst, choledochal cyst, ovarian cyst, hydronephrosis etc. Ultrasound abdomen, contrast GI studies, CT-scan and MRI are helpful diagnostic modalities.[1-10].The treatment of gastric duplication cyst is surgical resection of the cyst. Due to its close connection with the adjacent gut usually it is very difficult to completely excise therefore partial resection with the mucosal stripping of the remaining cyst is recommended as done in present case. The diagnosis of duplication cyst is based upon presence of GIT mucosa in cyst with smooth muscle coat in the wall. Cyst must have an intimate contact with any part of GIT. In our patient all these features were present. Early diagnosis and prompt surgical intervention with optimal surgical procedure carries a good prognosis.[18]

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