Case Report

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Gastric Duplication Cyst Presenting as Haemoptysis

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Abstract

We report a rare case of a 3 year-old boy with a gastric duplication cyst located in the stomach, presenting with vague abdominal pain, recurrent cough, haemoptysis and a persistent patch in the left lower lobe of the lung on X-ray appeared to be a sequestration. The duplication cyst was attached to the diaphragm and lungs by a narrow tract confirmed by MRCP scan delineating usefulness of scan. The cyst was excised.

Keywords: Gastric Duplication Cyst; Pneumonia; Pseudopancreatic Cysts.

Introduction

Duplication cyst of the alimentary tract is a rare congenital anomaly. Gastric duplication cysts (GDCs) represent 4% of all alimentary tract duplications, and approximately 67% manifest within the first year of life. We are presenting 3 year old male child presenting with symptomatic gastric duplication cyst presented with haemoptysis with persistent lingular lobe consolidation on Xray causing diagnostic dilemma.

Case History

A 3 year old first born male child born out of nonconsanguinous marriage, a known case of sickle cell anemia presented with complaints of recurrent episodes of haemoptysis. Child had been hospitalised three times prior with pneumonia involving left lower lobe of lung. Child was immunised for age and breastfed and had no significant antenatal, perinatal history. There was no history of TB or TB contact. On examination child had pallor and failure to thrive with weight 10 kg and length of 80cm for age 3 years. Diagnosis of left lingular lobe consolidation in a case of sickle cell anemia was made. HB was 8 gm/dl, total count was 110000/cu.mm and platelet count was 260000/cu.mm. Repeat X-ray had persistent patch on left lower lobe of lung with minimal pleural effusion. An ultrasound was done for the same showed marginal collection trickling down across diaphragm in abdomen. Serum amylase level was 100U/L and diagnosis of added chronic pancreatitis was suspected. The haematological parameters including HB and serum amylase normalises within few weeks. In view of persistent patch on X-ray CT scan advised. HRCT done s/o consolidation of left lingular lobe with air bronchogram most likely infective etiology also thick irregular enhancing wall collection seen along greater curvature of stomach in body region extending superiorly forming irregular hypodense tract ending in left lower lobe consolidation. Tuberculosis was ruled out by extensive work up. Flexible bronchoscopy was not feasible. MRCP done s/o gastric duplication cyst . Cyst was surgically excised and confirmed on histopathology .

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Discussion

Duplication cysts of the stomach are quite rare, and most of them have been reported in children [1, 4, 5]. The essential criteria for diagnosis of gastric duplication cysts are a) the wall of cyst is continuous with stomach wall b) The cyst wall is surrounded by smooth muscle which is continuous with muscles of stomach c)Cyst wall is lined by epithelium of gastric or any other cyst mucosa [1,3,8]. Gastric duplication cyst compromises 4% of gastrointestinal cysts [7]. There malformations are believed to be congenital , formed before differentiation of epithelium lining and therefore named for the organ with which they are associated [2,9]. Gastric duplications cysts typically become symptomatic during childhood, 67% diagnosed within first year of life and less than 25% are diagnosed by the age 12 [3]. So the clinical presentation of these cysts can be variable and non specific ranging from vague abdominal pain, nausea, vomiting, epigastric fullness, weight loss, anemia, dyspepsia, dysphagia, epigastric mass on examination [3,9]. Because most cysts occur along greater curvature of stomach the cyst can potentially compress the adjacent organs such as pancreas, kidney, spleen and adrenal gland. cyst may also be manifested by complications such as infection, gastrointestinal bleed , perforation , ulceration , fistula formation , obstruction , carcinoma arising from cysts [6,7]. Upto 10% of cysts may contain ectopic pancreatic tissue which may lead to pancreatitis and may mimic pseudocyst [2,7]. Duplication cysts may have potential for neoplastic transformation , production of oncofetal antigens raises the possibility of precancerous condition in long standing intestinal duplication [7]. CT SCAN and Endoscopic ultra sound are by far the best ways to indetify gastic duplication cysts [7] Complete removal of cyst is the treatment of choice to avoid the risk of possible complications such as obstruction, tortion, perforation,haemorrhage and malignancy [8,9]. Noncommunicating gastric duplication cyst is classically treated by complete excision of cyst and resection of shared wall between stomach and duplication cyst [7]. Communicating duplication cysts usually require no interventions when both gastric lumens are patent [7]. Drainage and marsupialisation of cyst have been suggested but marsupialisation into the stomach wall exposes the unprotected mucosa of cyst to gastric content with risk of ulceration [3]. Drainage procedures such as cystojejunostomy may be complicated by stenosis at the anastomosis site or blind loop syndrome and therefore discouraged [3]. Also leaving cyst in place carries risk of malignant transformation [3].

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