A Rare Case of Synchronous Abdominal and Thoracic Duplication Cyst in A New born

[1]Dr.Mohd Azher Ahmed Ansari, [2]Dr. Adithyan A, [3]Dr. Shaikh Irshad

[1,2,3]Junior Resident -3
Department of Surgery
Government Medical College and Hospital, Miraj

***Abstract*- Enteric duplication cysts are rare congenital malformations formed during the embryonic development of the digestive tract found anywhere along the GI tract from mouth to the rectum, MC in the ileum.**
We report a case of 1-day old male child born at full term by lower segment caesarean section and had respiratory distress on admission with lump in abdomen and abdominal distension. X-ray showed lobulated radio-opacity in right lower zone with separate cardiac silhouette s/o posterior mediastinal mass, findings were confirmed with MRI of chest and abdomen s/o paravertebral neurogenic cyst or lymphangioma with mesenteric or duplication cyst. Patient had signs of acute intestinal obstruction such as abdominal distension and recurrent episodes of vomiting after feeding, hence exploratory laparotomy was performed. jejunal cyst with jejunoileal duplication cyst was noted intra-operatively. Resection and anastomosis were done. Procedure was un-eventful. The other posterior mediastinal cyst was operated electively at 6 months of age. Patient also had multiple hemivertebrae, butterfly vertebrae (MC association with duplication cyst-16 to 20% cases)

Keywords: Lymphangioma, Butterfly vertebrae, neurogenic cyst

INTRODUCTION

- Gastrointestinal duplication (GID) cysts are rare congenital anomalies and most frequently occur in the small intestine (mostly in the ileum,as 33%).
- Jejunal duplications cyst account for 10%.
- Thoracoabdominal GIDs constitute <2-5% of all GID.
- They arise in the abdomen and after passing through the right crus of the diaphragm, surpass behind the esophagus and aorta, through their own cavities, through the diaphragm.
- They are usually closed cranially and connect caudally to the small intestine.
- The prevalence of accompanying thoracic vertebral anomalies is high(88%).

CASE REPORT

• We report a case of 1 day old male child born at full term by lower segment caesarean section and had respiratory distress on admission with lump in abdomen and abdominal distesnsion.X-ray showed lobulated radio-opacity in right lower zone with separate cardiac silhouette s/o posterior mediastinal mass,findings were confirmed with MRI of chest and abdomen s/o paravertebral neurogenic cyst or lymphangioma in chest with mesenteric duplication cyst in abdomen with multiple hemivertebrae and butterfly vertebrae.

INVESTIGATIONS

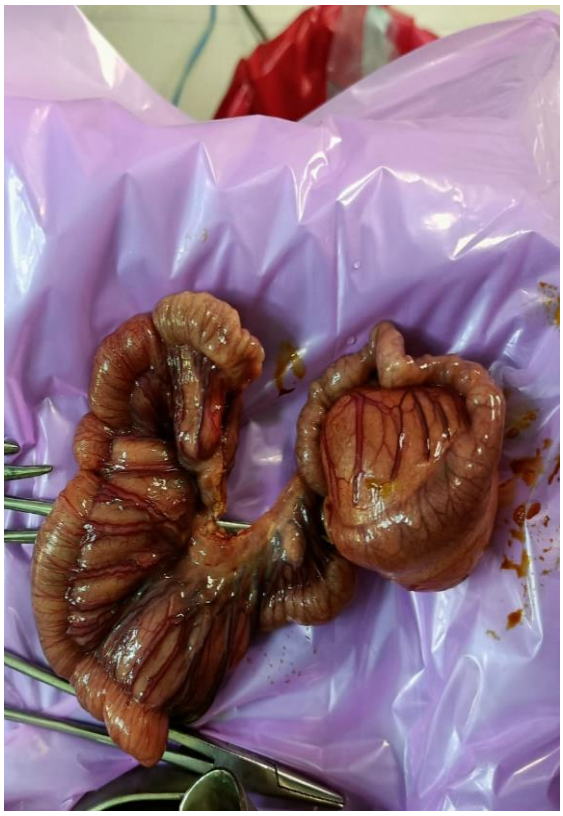

Image 1: Mesenteric Duplication Cyst

Image 2: Mediastinal Cyst

MANAGEMENT

• Patient had signs of acute intestinal obstruction such as abdominal distension and recurrent episodes of vomiting after feeding, hence exploratory laparotomy was performed. jejunal cyst with jejunoileal duplication cyst was noted intra-operatively. Resection and anastomosis was done. Procedure was un-eventful. The other posterior mediastinal cyst was operated electively at 6 months of age. Patient also had multiple hemivertebrae, butterfly vertebrae

DISCUSSION

- Although GID cysts in children are usually symptomatic in the first year of life, clinical diagnosis may be challenging since they are rare and symptoms are non specific.
- In the literature GIDs are generally in the form of case rescords.
- These cysts presents as palpable masses in the first year of life in one third of cases, there may be bleeding or intussusception in 15% of cases, vomiting due to obstruction can also occur.
- Duplication cysts usually create a dilemma in diagnosis and treatment with their radiological findings.
- In our case respiratory distress with distension of the abdomen was the most prominent symptoms.
- Most commonly used imaging method for diagnosis are x ray and ultrasonography.
- In our case rt thoracic cystic lesion was detected on x ray, but it could not be differentiated on usg ,however persistence of symptoms revealed need for further investigation like CT and MRI , the diagnosis was confirmed histopathologically

CONCLUSION

- Thoraco-abdominal duplication as extremely rare in children and cases reported in the literature are lacking.
- Clinical manifestations, most often non-specific, are the most common mode of revelation.
- Complete surgical resection, at best performed in a single time, is imperative and can be done by mini-invasive approach. Prognosis remains dependent on the nature of the malformations associated.

REFERENCES:

1. Sharma P, Singh H, Nazar AH. 99mTc-pertechnetate SPECT/CT for detecting recurrent foregut duplication cyst in a case with negative planar scintigraphy. Clin Nucl Med. 2013;38:641–42. [Abstract] [Google Scholar]
2. Kumar R, Dasan JB, Chandrashekar N. Diagnosis of ectopic gastric mucosa using 99Tcm-pertechnetate: Spectrum of scintigraphic findings. Br J Radiol. 2005;78:714–20. [Abstract] [Google Scholar]
3. Singal AK, Bhatnagar V, Mitra DK. Oesophageal duplication cyst causing neonatal haemoptysis. Trop Gastroeneterol. 2004;25:99–100. [Abstract] [Google Scholar]
4. Kumar K, Dhull VS, Karunanithi S. Synchronous thoracic and abdominal enteric duplication cysts: Accurate detection with 99mTc-pertechnetate scintigraphy. Indian J Nucr Med. 2015;30:59–61. [Europe PMC free article] [Abstract] [Google Scholar]
5. Kiratli PO, Aksoy T, Bozkurt MF. Detection of ectopic gastric mucosa using 99mTc pertechnetate: reiview of literature. Ann Nucl Med. 2009;23:97–105. [Abstract] [Google Scholar]
6. Gross RE, Holcomb GW, Farber S., Jr Duplications of the alimentary tract. Pediatrics. 1952;9:448–68. [Abstract] [Google Scholar]
7. Bower RJ, Sieber WK, Kiesewetter WB. Alimentary tract duplications in children. Ann Surg. 1978;188:669–74. [Abstract] [Google Scholar]