

Case of omental cyst in a child - A Rare Entity

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Abstract

Introduction: Omental cysts are rare intra abdominal masses in the paediatric population. Omental cysts can either be simple or multiple, unilocular or multilocular and may contain haemorrhagic, serous, chylous or infected fluid.

Case Report: We hereby report a case of 3 year old female child with history of vague upper abdominal discomfort and pain since 2 weeks associated with mild fever on and off. The child was evaluated with USG and CECT abdomen and was diagnosed to have a large well defined encapsulated cystic lesion with multiple septations in the epigastrium measuring 14.5x11.6x8.6cm. The child was taken up for exploratory laparotomy and cyst excision under general anaesthesia. The diagnosis of Omental cyst was confirmed by histopathology.

Results: The child was managed successfully with exploratory laparotomy and cyst excision. The child is currently 3 month post op and is doing well.

Conclusion: Omental cysts are rare intraabdominal masses in the paediatric population causing vague symptoms and can be managed effectively with cyst excision with good postoperative results.

Keywords: Omental cyst, abdominal pain.

Introduction

Omental cyst is rare intra-abdominal lesions in the pediatric population with incidence of approximately 1:140000. The etiology of these benign cysts remains unknown but several theories exist regarding their development. The treatment of choice is complete surgical excision of the cyst. Since it is a rare condition and there is lack of specific symptoms, a correct pre-operative diagnosis is difficult. Due to the various complications associated with suboptimal surgical management, knowledge of these lesions is important.

Case Report

A 3year 7month old female child presented with History of pain abdomen in the epigastric and periumbilical region since 3-4 months, Exaggerated since 3 days and associated

with intermittent fever. No History of nausea/vomiting, No History of similar complaints in the past.

On Examination her Vitals were stable, she was Febrile and pale at the time of examination.

On Per abdomen examination Epigastric fullness was present with tenderness in epigastric and umbilical regions with Guarding and rigidity. Ill defined cystic mass felt in predominantly in the epigastric region extending upto the umbilicus measuring approximately 10*8 cm.

Investigations includes Ultrasound abdomen and pelvis which showed Large cystic lesion/collection measuring 14*6*7.7cm in the epigastric and mid abdomen with multiple septae and thick wall.

CECT Abdomen and pelvis was done which showed Large well defined encapsulated cystic lesion measuring 14.5*11.8*8.6cm noted predominantly in epigastrium with displacement of stomach superiorly and pancreas inferiorly with multiple septations and few solid components. The child was first managed conservatively with antibiotics and antipyretics, then taken up for elective laparotomy and proceed.

Intraoperatively Large cystic lesion with a haemorrhagic wall is seen situated between the stomach and transverse colon. The cyst was resected in toto from the adjacent transverse colon and stomach. Post-operative period uneventful. Histopathology, Grossly grey brown multiloculated cysts with uniform cyst wall thickness seen. Microscopy showed fibrocollagenous cyst wall with smooth muscle cells with lymphoid aggregates, lymphoplasmacytic infiltrate and extensive areas of haemorrhage which was reported as Omental cyst:cystic lymphangioma with torsion.

Discussion

Omental cysts are benign abdominal anomalies with uncertain etiologies. About 150 cases have been reported

upto now, 25% of which have been detected in children less than 10 years of age.

Different etiological factors have been proposed for development of these masses including a benign proliferation of mesenteric lymphatics, failed fusion of the mesenteric leaves, and deficiency of the lymphaticovenous shunts. Other etiologic hypotheses include trauma, degeneration of the lymph nodes, and neoplasia. These cysts may present either incidentally with abdominal pain and distention and/or palpable abdominal mass. This case presented with a short history of abdominal pain and distension. Of the children with omental cyst 11-19% present with acute abdominal symptoms including torsion, bleeding or rupture of the cyst. Our case with a 4months duration of symptoms, had a large Omental cyst originating from the greater omentum in the region of transverse colon. The cyst with a dimension of 14x8 cm with haemorrhaging wall situated between stomach and transverse colon was totally excised. Histopathological examination revealed findings compatible with Omental cyst (cystic lymphangioma with torsion).

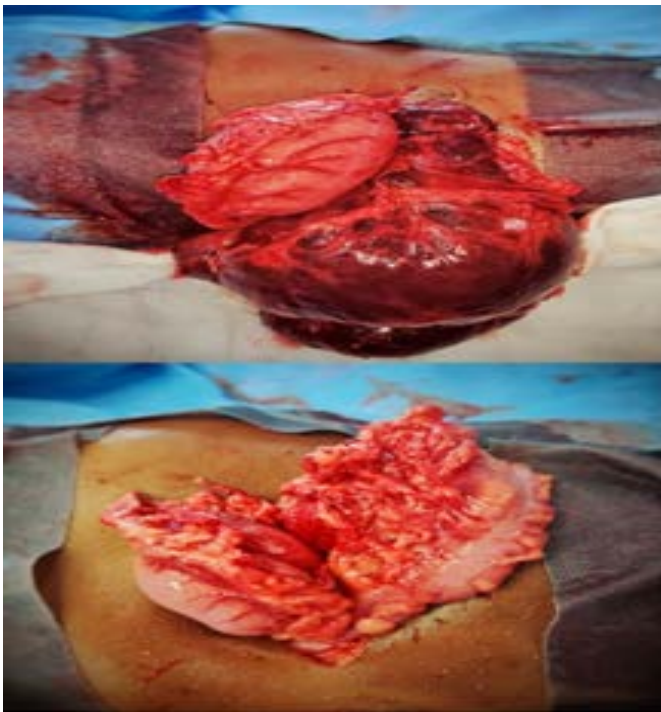
From the pathological point of view, these cysts can be unilocular or multilocular majority of which are mesothelial and lined by mesothelial and endothelial cells. Radiological imaging modalities are helpful in diagnosing these cysts preoperatively. The preferred treatment of Omental cyst is complete excision and resection of the bowel is rare. Laparoscopic management and hand-assisted laparoscopic excision and aspiration has also been advocated. No matter which type of surgical intervention is performed, total excision should be the goal for avoiding recurrence of these cystic masses.

The main complication after surgical treatment is recurrence which has been reported to occur in 9.5% of patients especially when resection is incomplete.

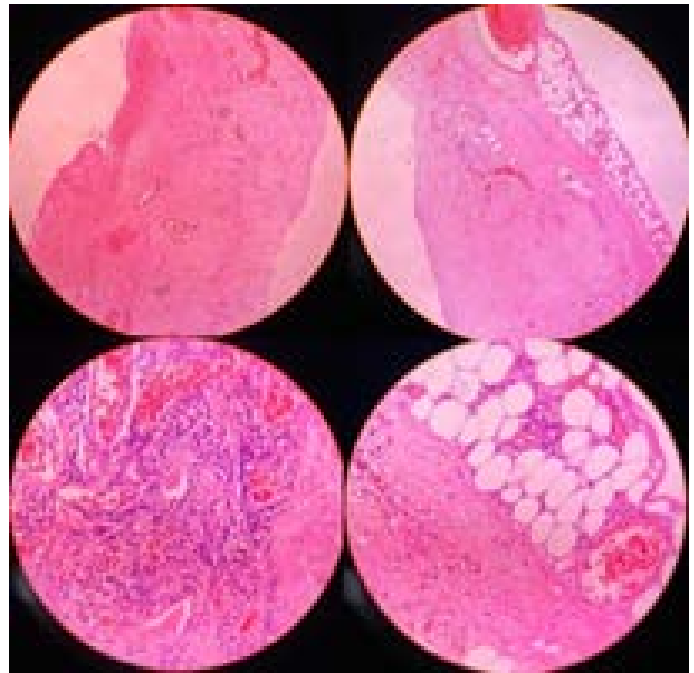
Other complications include hemorrhage, torsion, infection, rupture and symptoms related to pressure effects of the cystic mass to adjacent structures. The present case was cured by total resection of the cyst that was free of disease during the 3 months of follow up.



Intraoperative findings: Large cystic lesion with haemorrhaging wall is seen situated between the stomach and transverse colon.



CECT abdomen and pelvis: showing large well encapsulated cystic lesion.



Fibrocollagenous cyst wall with smooth muscle cells with lymphoid aggregates, lymphoplasmacytic infiltrate and extensive and extensive areas of hemorrhage.

Conclusion

Omental cysts are rare conditions, but when encountering abdominal pain with or without a mass, it should be taken into consideration. The initial diagnosis should be made by performing ultrasonography and CT scanning. After confirming the diagnosis, the main treatment would be surgical excision.

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