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Case Report

Esophageal duplication cyst in an adult masquerading as hydatid cyst

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ABSTRACT

Esophageal duplication cysts are congenital anomalies of the foregut, occurring due to aberration of the posterior division of the embryonic foregut at 3-4 wk gestation. These inherited lesions usually diagnosed in early childhood and rare in adult age group. We are reporting this case as esophageal duplication cyst in an adult female patient which is masquerading as hydatid cyst of liver. We are reporting one case of esophageal duplication cyst in a adult patient which is a rare condition to occur in this age group and managed successfully by laparoscopic approach. Esophageal duplication cyst, though it is a rare condition, should keep in mind ason of the differential diagnosis for the cystic lesions arising from gastroesopahegal junction. It can be managed by laparoscopic approach.

Keywords: Esophageal duplication cysts, Gastroesophageal junction, Hydatid cyst, Endoscopic Ultrasound, Laparoscopy

INTRODUCTION

Esophageal duplication cysts (EDC) are rare and account for 10-15% of all congenital cysts involving the gastrointestinal tract. They arise from an aberration of the posterior division of the embryonic foregut at 3-4 weeksof gestation.[1] Almost 80% of them become symptomatic during childhood and only a few patients become symptomatic in their adulthood.[2] They usually present with dysphagia, chest pain, hematemesis or sometimes they are discovered incidentally[3]. The most common location is the right posterior mediastinum, the intraabdominal location is rarely seen and onlya few case reports were reported in the literature[4]. Symptoms related to intraabdominal location may be mistaken for common intraabdominal conditions and given potential complications such as bleeding, infection, or conversion to malignancy surgical excision is the treatment of choice.[5] We present a case of an esophageal duplication cyst that masqueraded as a hydatid cyst.

CASE REPORT

A 65-year female house wife by occupation presented with pain in the epigastric region for 2 months and as well as difficulty in swallowing Her biochemical parameters were within normal limits, on ultrasonographic examination cystic lesion was identified near the GE junction. Contrast-enhanced CT showed a 5×4 cm homogenous cystic lesion near the gastroesophageal junction and left lobe of the liver. Preoperative endoscopic ultrasound (Figure 1, 2) showed some mucosal irregularity with no significant intraluminal growth. Hydatid cyst, simple cyst arising from the left lobe of the liver, and duplication cyst were kept as differential diagnoses and the patient was planned for surgery by laparoscopic approach. Intraoperatively there was a cystic lesion near the GE junction, the appearance of the cyst resembled like hydatid cyst. The cyst was opened and thick seropurulent-like material was aspirated and deroofing of the cyst was done and drain

was placed near into the cyst. On histopathological examination, gastric mucosa was found in the cyst wall. Postoperatively patient was allowed orally 6 hours after surgery, on postoperative day 7, orally ingested contents were found in the drain. CECT showed a contrast leak from the distal esophagus. Endoscopy showed 2cm rent in the distal esophagus 0.5 cm above the GE junction, stenting and clip placement were not possible. The patient denied nasojejunal tube placement, feeding jejunostomy was done. After 3 weeks oral gastrograffin assay showed no leak from the esophagus and the patient tolerated oral feeds and was discharged after 45 days from the initial surgery.

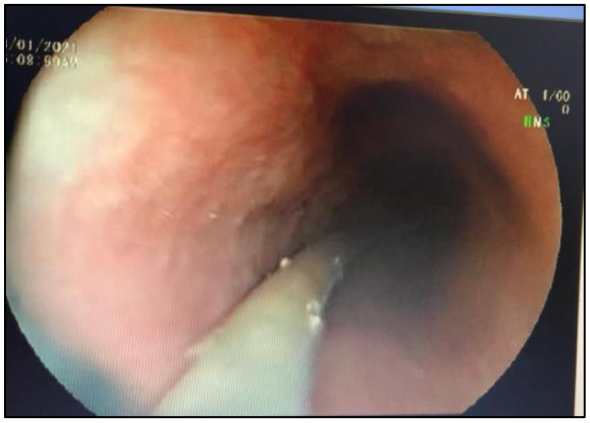

Figure 1: UGI endocopy showing some lower esopahegealmucosal irregularity with no significant intraluminal growth.

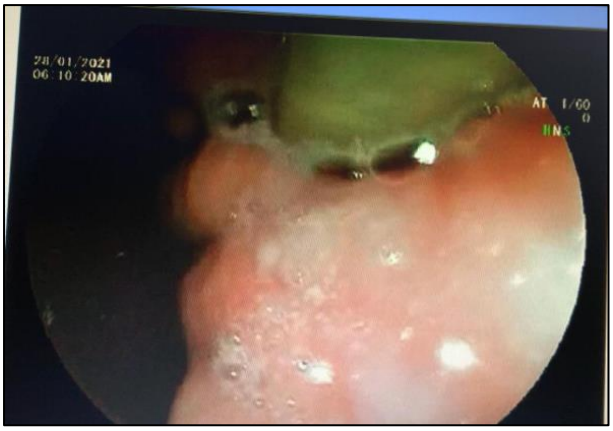

Figure 2: Endoscopic view of lower esophagus showing fluid filled cyst like structure arising from lateral side wall of esophagus with mucosal irregularity.

DISCUSSION

Esophageal duplication cysts are rare congenital malformations with varied presentations depending on the location of the cyst. In some patients EDC may be asymptomatic, therefore diagnosis can't be made clinically and radiologically with conventional tools like barium studies.[6] The lower esophagus is the most common location whereas Intraabdominal and cervical esophageal duplication cysts are rare, in our patient cyst was located intra abdominally. These cysts are lined by either columnar, cuboidal, or stratified squamous epithelium.[7] Hydatid cysts and submucosal tumours with cystic degeneration can be considered as differential diagnosis.

In the present case, in view of rarity of the EDC we considered hydatid cyst as one of the differential diagnosis in this patient. Usually, diagnosis is suspected on computed tomography, which may present as homogenous lesion with regular margins. Hypodense or heterodense lesions may occur in the presence of pus, blood or thick insipid and result in diagnostic confusion.[7] In the present case, presence of hypodense lesion with homogenous content in the cyst prompted us to keep hydatid cyst as differential diagnosis. EUS (endoscopic ultrasonography) might help in distinguishing these patients, Palmer's criteria is a useful tool in identifying the esophageal duplication cysts which includes attachment to esophageallumen, presence of gastrointestinal mucosa and presence of 2 layers of the muscularispropria.[3,8,10] Bronchogenic cysts contain cartilage and does not contain muscle layers which are present in esophageal duplication cysts.

Surgery is the main stay of treatment in these patients and can be done through laparoscopic/open or thoracoscopic approach depending on the location of the cyst.[9] In the present case, deerofing of the cyst was done which lead to morbidity. Pre operative diagnosis of esophageal duplication cysts helps in better planning and management. Morbidity in the present case would have been reduced if the cyst was excised and primary repair of the esophagus was performed. Other options like clip placement and stent placement were not utilized in view of difficult location of the cyst near gastroesophageal junction. It has been reported that ectopic gastric mucosa was seen in around 43% of the patients and presence of gastric mucosa in the cyst wall should raise concern during the surgery and should think of esophageal duplication cyst as one of the diagnosis.[10] Once diagnosed excision of the cyst should be done with maintaining mucosal/muscular integrity of the esophageal wall and preserving the vagal nerves.[11]

CONCLUSION

To conclude one should consider esophaegal duplication cysts as one of the differential diagnosis especially those near gastro esophageal junction. Preoperative diagnosis and excision of the cyst and maintaining the mucosal and muscular integrity decreases the morbidity. This clinical condition can be managed by laparoscopic approach.

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REFERENCES

1. Wiechowska-Kozłowska A, Wunsch E, Majewski M, Milkiewicz P. Esophageal duplication cysts: Endosonographic findings in asymptomatic patients. World J Gastroenterol. 2012;18(11):1270-2.
2. Duan X, Cui Y, He Y, Xu S. Acute attack of recurrent esophageal duplication cyst in an adult: Case report and literature review. J Thorac Dis. 2018;10(5):E335-9.
3. Chaudhary V, Rana SS, Sharma V, Sharma AR, Nada R, Gupta R, et al. Esophageal duplication cyst in an adult masquerading as submucosal tumor. Endosc Ultrasound. 2013;2(3):165-7.
4. Castelijns PSS, Woensdregt K, Hoevenaars B, Nieuwenhuijzen GAP. Intra-abdominal esophageal duplication cyst: A case report and review of the literature. World J Gastrointest Surg. 2014;6(6):112.
5. Kumar D, Gupta G, Jhamb U. Esophageal duplication cyst: Two cases presenting as recurrent chest infection and stridor. J Pediatr Surg Case Reports. 2017;18:10-2.
6. Olajide ARL, Yisau AA, Abdulraseed NA, Kashim IOO, Olaniyi AJ, Morohunfade AOA. Gastrointestinal duplications: Experience in seven children and a review of the literature. Saudi J Gastroenterol. 2010;16(2):105-9.
7. Mansard MJ, Rao U, Rebala P, Rao G V., Reddy DN. Esophageal Duplication Cyst Masquerading as a Stromal Tumor in an Adult. Indian J Surg. 2011;73(6):441-3.
8. Singh S, Lal P, Sikora SS, Datta NR. Squamous cell carcinoma arising from a congenital duplication cyst of the esophagus in a young adult. Dis Esophagus. 2001;14(3–4):258-61
9. Report C. Laproscopic management of esophageal duplication cysts presenting in adults . 2018;2(2):2-4.
10. Macpherson RI. Gastrointestinal tract duplications: clinical, pathologic, etiologic, and radiologic considerations. Radiographics. 1993;13(5):1063-80.
11. Cioffi U, Bonavina L, De Simone M, Santambrogio L, Pavoni G, Testori A, et al. Presentation and surgical management of bronchogenic and esophageal duplication cysts in adults. Chest. 1998;113(6):1492-6.

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