

BRONCHOGENIC CYST IN THE INFERIOR THIRD OF THE ESOPHAGUS SURGICALLY REMOVED THROUGH ABDOMINAL LAPAROSCOPY: CASE REPORT

Cisto broncogênico em terço inferior do esôfago removido por laparoscopia abdominal. Relato de caso

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CASE REPORT

Patient of 23 years old, followed in the Department of Medical Clinic of Clementino Fraga Filho's University Hospital, with the symptoms of upper abdominal pain, dysphagia and plenitude in the last three years, referring augmentation of those symptoms in the last three months. Denied use of tobacco or loss of weight. The physical exam did not showed any important findings.

Total Abdomen Ultrasound diagnosed a cystic lesion in the hepatic topography. Abdomen Computadorize Tomography showed a cystic lesion, measuring 4,4 x 3,5 cm referring intimal relation with the distal esophagus, in the anterior wall, suggesting an esophageal duplication cyst (Figure 1). Findings were confirmed in the nuclear magnetic resonance. Endoscopic ultrasonography verified that the cyst did not had any communication with the esophageal lumen, did not had any septa' and that its interior was filled with mucous substance.



FIGURE 1 - Cystic lesion of 4,4 x 3,5 cm in intimal contact with distal esophagus, anterior wall

SURGERY

During the Surgery, we found a cystic lesion adherent to the inferior third of the esophagus, anterior region, right above the diaphragmatic pillars, with a smooth superficie, round and a posterior region well adherent to the esophagus (Figure 2). After cranial traction of the left hepatic lobe, the phrenic-esophageal membrane was dissected, the

esophagus mobilized and repaired. Afterwards, we proceed with the complete removal of the cyst. Part of the longitudinal and circular muscular of the esophagus had to be removed along with the cyst. The test with blue metilen, through the Fouchet catheter, previously inserted in the esophagus, did not showed any leaks. Confectioned anterior fundoplicature of Dor, covering the exposed mucosal region. The cyst material was sent to histopathologic analysis with the suspicion of esophageal duplication cyst.

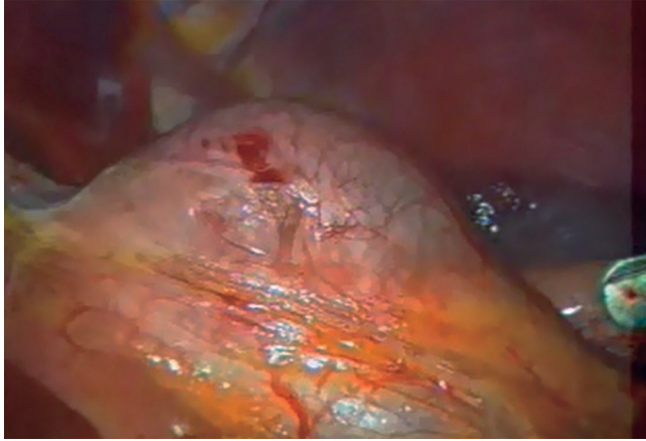


FIGURE 2 - Cystic lesion adherent to the inferior third of the esophagus, with smooth and round superficie, with the posterior region with intimal contact with the esophagus

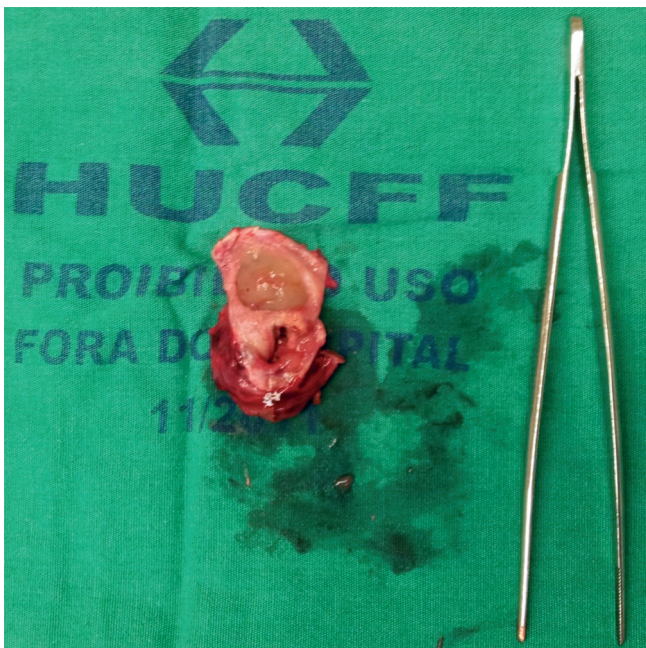


FIGURE 3 - Interior of the cyst with its mucus content

The post-operative recuperation was satisfactory, with total disappearance of the symptoms and discharge in the fifth day after the operation. The result of the histopathology gave diagnose of a bronchogenic cyst.

DISCUSSION

Bronchogenic cysts grow between the third and fourth week of embryogenesis. During the division of the anterior bowel, the dorsal division will form the esophagus, and the ventral division will form the respiratory tract. Bronchogenic cysts occur when abnormal buds of the ventral division are clinched and migrated erroneously together with other structures.

During the embryogenic process, the esophagus stretches and tracheo-esophagel groove develops and divide itself, difculting a possible migration of those clinched buds to the abdomen. However, when the clinch occurs early, those cysts can develop completely independent of the tracheobronchial tree, migrating through the dorsal segment of the anterior bowel, with the possibility of localize itself in the esophageal-gastric junction, but, maintaining its histological conformation with a respiratory pseudostratified columnar ciliar epithelium¹. Literature shows less than 40 cases of infradiaphragmatic bronchogenic cysts, with a prevalence around 1/70,000 – 1/40,000¹⁵. It is the first case in 36 years in the Clementino Fraga Filho University Hospital.

The majority of bronchogenic cysts are small and do not produce any symptoms, with the diagnose occurring after the realization of any imaging exam, characterizing a diagnostical finding. Symptoms, when occur, can be due the localization of the cyst and no it is size. In the big majority of the cases, they are filled with a sterile mucous content.

Manage to find an exact diagnose prior to surgery is a challenge, due the great possibilities and differential diagnoses that exist, such as esophageal duplications cysts, hepatic cysts, pancreatic cysts, GISTs, mucinous carcinomas, ganglioneuromas, and others^{7,8,15}. Normally, the exams realized to diagnose are ultrasound, computadorized tomography, magnetic resonance and endoscopic ultrasound. CT scans usually shows a solitary cyst, round, with homogeneous substance in its interior, that can be compressing adjacent structures. The MRI can confirm those findings, demonstrating a high intensity sign in T1 and an intense bright in T2, suggesting a mucinous or protein content inside the cyst. The endoscopic ultrasound can define the anatomical relations between the cyst and the esophagus and allows the puncture of the content, permitting a cytological analysis of the material, with a sensibility of 93-95%, and a rate of complications between 1-3% in centers specialized in this procedure⁷.

Although the great majority of the cysts are benign, there is indication of surgical removal due the chance of infection or malignization⁵. Half of the cysts, throughout its development and growth, can become infected, creating surgical scenarios with distorted anatomy, enhancing the difficulty and morbidity of the procedure. The surgical technic must objective the remove of the cyst *en bloc*. The laparoscopic way presents as a secure alternative, with a good exposition of the anatomy, allowing the resection^{11,13}. Care must be taken during the act to not break the content of the cyst, permitting the spill of it in to the cavity. The per operatorly puncture of the cyst can be done to facilitate the removal.

CONCLUSIONS

In our case, initially based in the topography, radiological aspect and symptoms, the diagnostical hypothesis was of an esophageal duplication cyst. However, the histopathology analysis confirmed the finding of a bronchogenic cyst. The distinction between esophageal cyst and bronchogenic cyst is hard to do and both cysts present the same embryological origin, that is the primitive anterior bowel. Some authors classify those cysts as enterogenic cysts and the treatment of both pathologies are the surgical removal, even in the asymptomatic patients. The laparoscopic technic validates as an adequate and secure strategy, avoiding a laparotomy or thoracotomy.

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