CASE REPORT – OPEN ACCESS

International Journal of Surgery Case Reports 34 (2017) 126–129

Contents lists available at ScienceDirect

International Journal of Surgery Case Reports

journal homepage: www.casereports.com

Large bronchogenic cyst of stomach: A case report

Amine Chhaidar[a,*], Houssem Ammar[b], Nihed Abdessayed[c,d], Mohamed Azzaza[a], Rahul Gupta[e], Nefis Abdennaceur[a], Ahlem Bdioui[c,d], Moncef Mokni[c,d], Ali Ben Ali[a]

[a] Department of Surgery, Sahloul Hospital, Sousse, Tunisia
[b] Department of Surgery, Monastir University Hospital, Monastir, Tunisia
[c] Department of Pathology, Farhat Hached University Hospital, Sousse, Tunisia
[d] Research Lab: Transfer in Technology in Anatomic Pathology (LR12SP08), Tunisia
[e] Department of HPB Surgery and Liver Transplantation, CARE Hospital, Hyderabad, India

ARTICLE INFO

Article history:
Received 9 January 2017
Received in revised form 15 March 2017
Accepted 16 March 2017
Available online 23 March 2017

Keywords:
Gastric bronchogenic cyst
Foregut cystic developmental malformation
Subdiaphragmatic cyst
Pseudostratified columnar ciliated epithelium
Case report

ABSTRACT

INTRODUCTION: Bronchogenic cysts are congenital cysts arising as an abnormal budding from primitive tracheobronchial tree. They are lined by pseudostratified columnar or cuboidal ciliated epithelium and contain smooth muscle fibers, submucosal bronchial glands and/or cartilage. They are most frequently located in the mediastinum or the lung parenchyma. Intramural occurrence of bronchogenic cyst in the gastric wall is very rare.
PRESENTATION OF CASE: We present a case of 65-year-old lady with a 7 × 8 cm lesion in the gastric cardia suspicious of gastrointestinal stromal tumor. Because of the large size, total gastrectomy with Roux-en-Y esophagojejunal anastomosis was performed. The postoperative course was uneventful. Histopathological examination revealed a sub-mucosal cyst lined by PCCE with presence of smooth muscle fibers and focal mucous glands. Final diagnosis of bronchogenic cyst was made. On the last follow up at one year, she was symptom free.
DISCUSSION: On extensive Medline/Pubmed search, only 38 cases of gastric bronchogenic cysts were found to be reported till date. They are typically located in the posterior gastric wall close to the gastric cardia. On radiological imaging, they appear as well defined intramural cystic lesion without any characteristic features. Surgical resection is considered in symptomatic cases or in case of diagnostic dilemma.
CONCLUSION: Gastric bronchogenic cysts often mimic gastrointestinal stromal tumor on preoperative imaging. They should be included in the differential diagnosis while dealing with an intramural gastric lesion close to the cardia or gastroesophageal junction.

1. Introduction

Bronchogenic cysts are congenital cysts occurring due to a developmental malformation in the foregut during embryogenesis [1]. Most of them are asymptomatic at birth and early childhood. Symptoms develop later in life due to cyst enlargement leading to compression of adjacent organs, secondary infection or perforation [2]. They are lined by pseudostratified columnar or cuboidal ciliated (respiratory) epithelium (PCCE) [1]. In most of the cases, the cyst wall also contains elastic fibers, smooth muscle fibers, submucosal bronchial glands and/or cartilage which help to differentiate them from other developmental cysts like foregut cyst, duplication cyst [1]. As they arise due to abnormal budding from primitive tracheobronchial tree, they are most frequently located in the mediastinum or the lung parenchyma [3]. However, in some cases they can get detached and migrate in to the abdomen. Depending upon the extent of migration, they can be found anywhere within the abdominal cavity including ileal mesentery [4] and hepatogastric ligament [5]. Occurrence of bronchogenic cyst in the gastric wall is extremely rare. We report a case of large gastric bronchogenic cyst in an adult treated successfully by total gastrectomy. This case has been reported in line with the SCARE criteria [6].

2. Case description

A 65-year-old lady presented with history of epigastric pain for 2 months. There was no history of associated vomiting, hematemesis or weight loss. She had previous history of total thyroidectomy

* Corresponding author at: Department of Surgery, Sahloul Hospital, Route Ceinture, Cité Sahloul, 4054 Sousse, Tunisia.
E-mail addresses: aminechhaidar@rns.tn (A. Chhaidar), Hosshoss24@hotmail.fr (H. Ammar), nihedabdessayed@gmail.com (N. Abdessayed), mohamedazzaza@gmail.com (M. Azzaza), rahul.g.85@gmail.com (R. Gupta), nafisabdnaceur@hotmail.com (N. Abdennaceur), ahlembdioui@hotmail.com (A. Bdioui), moncefmokni@gmail.com (M. Mokni), alibenali@hotmail.com (A.B. Ali).

http://dx.doi.org/10.1016/j.ijscr.2017.03.021

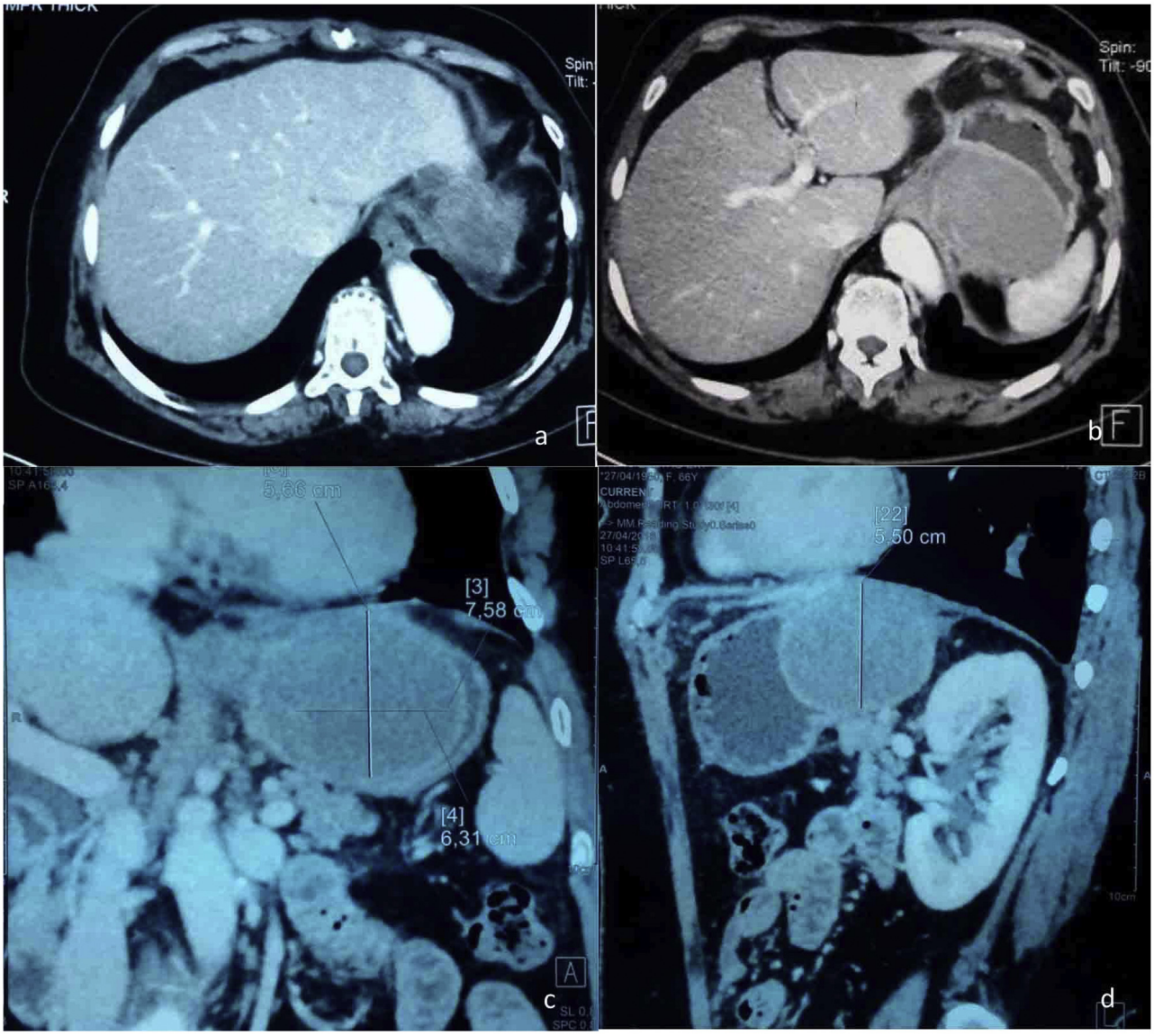

Fig. 1. Contrast enhanced computed tomography of abdomen showing a large gastric mass with heterogenous content and enhancing wall arising from the posterior wall of the gastric cardia and its relation with the esophagus, diaphragm and splenic hilum in the axial (a, b), coronal (b) and sagittal view (d).

for thyroid nodule and laparoscopic cholecystectomy for gallstones. On examination, there was no anemia, icterus or palpable abdominal lump. Routine blood investigations and tumor markers were within normal range. Abdominal ultrasound revealed a heterogenous lesion in the subdiaphragmmatic location close to the medial surface of spleen measuring 6 × 7 cm with echogenic center. Computed tomography (CT) showed a large mass of 7 × 8 cm in relation to the gastric cardia with regular outlines and heterogeneous enhancement (Fig. 1). Upper gastrointestinal endoscopy found large ulcerated fundic folds with a bulge in to the lumen suggestive of extrinsic compression. There was presence of congestive gastropathy. Esophagus was normal. Biopsy from fundic mucosa showed moderately active chronic gastritis with absence of intestinal metaplasia or *H. pylori* infection or malignancy in the samples examined. Based on the above findings, gastrointestinal stromal tumor was suspected and she was planned for tumor excision. On abdominal exploration, an exophytic mass measuring 8 × 7 cm was found arising from the gastric cardia adherent to the adjoining diaphragm and encroaching upon the splenic hilum (Fig. 2). After dissection, the mass could be separated from the diaphragm

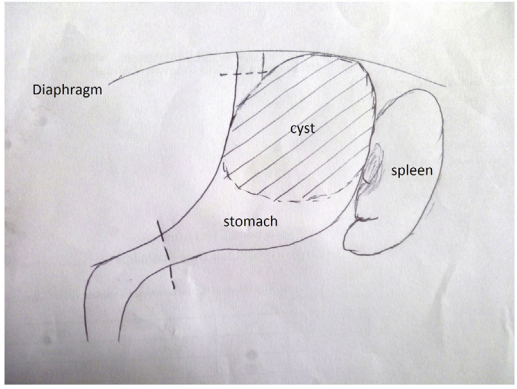

Fig. 2. Schematic diagram showing the location of the bronchogenic cyst and its relation with the surrounding structures. The dotted lines represent the extent of surgical resection.