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Case Report

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The Diagnosis of Gastric Bronchogenic Cyst with Endoscopic Ultrasound Fine-Needle Aspiration

Endoskopik Ultrason İnce İğne Aspirasyonu ile Gastrik Bronkojenik Kist Tanısı

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ABSTRACT

Endoscopy done on a 40-year-old female patient with dyspeptic complaints revealed a 25 mm subepithelial lesion on the posterior corpus wall. Subsequently, she was referred to our clinic for endoscopic ultrasound (EUS). In our EUS examination, a 24×17 mm subepithelial lesion originating from the muscularis propria and hypoechoic appearance was observed. EUS-fine-needle aspiration was performed; mucinous fluid was aspirated. Benign cystic growth lined with ciliated epithelium was interpreted as a bronchogenic cyst.

Keywords: Endosonography; EUS-FNA; gastric bronchogenic cyst; submucosal lesion.

ÖZET

Dispeptik şikayetleri olan 40 yaşındaki kadın hastaya yapılan endoskopide korpus arka duvarında 25 mm'lik subepitelyal lezyon saptandı. Daha sonra kliniğimize EUS için sevk edildi. EUS incelememizde muskularis propriadan kaynaklanan 24x17 mm boyutlarında subepitelyal lezyon ve hipoekoik görünüm izlendi. EUS-FNA yapıldı; müsinöz sıvı aspire edildi. Sitoloji sonucu siliyer epitel ile döşeli benign kistik büyüme, bronkojenik kist olarak yorumlandı.

Anahtar sözcükler: Endosonografi; EUS-FNA; gastrik bronkojenik kist; submukozal lezyon.

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A bronchogenic cyst is a rare congenital abnormality of the tracheobronchial tree. They are composed of pseudostratified columnar or cuboidal ciliated epithelium with the presence of smooth muscle fibers and focal mucous glands. They are more common in females than males.[1] They are often detected in early ages of life. They see mostly in mediastinum.[2] Extrathoracic cysts are rare. Gastric location is unusual, first described in 1959.[3] They become symptomatic after the third decade of life and epigastric pain is the most common symptom.[1] Thirty-nine cases have been reported in English literature until that time. The first gastric bronchogenic cyst case that endoscopic ultrasound (EUS) had been used for diagnosis was published in 2007. Three cases in the literature have been diagnosed by EUS.

Case Report

A 40-year-old female patient was admitted to the hospital with repetitive non-specific dyspeptic complaints such as dullness and early satiety. She had no alarm symptoms, dysphagia, nausea, or vomiting. Physical examination and laboratory findings were normal. Endoscopy done on the patient with dyspeptic complaints revealed a 25 mm subepithelial lesion on the posterior corpus wall. Subsequently, she was

referred to our clinic for EUS. After that, she had been directed to our clinic for EUS to reveal the nature of that lesion. In the result of EUS, 24×17 mm sized subepithelial lesion originate from muscularis propria, lobulated and well rounded, homogenous, and hypoechoic with no Doppler flow on (Fig. 1).

The latter finding raised concerns that the lesion might represent a cystic neoplasm rather than a simple cyst. Subsequently, EUS-fine-needle aspiration (FNA) was performed to establish a definitive diagnosis and to guide further management. Cytologic evaluation of aspirated material revealed the presence of benign-appearing ciliated columnar epithelial cells within a mucinous background. Based on imaging and EUS-FNA findings, a diagnosis of gastric bronchogenic cyst was made and surgical resection was avoided. Benign cystic growth lined with ciliated epithelium was interpreted as bronchogenic cyst (Fig. 2).

Furthermore, we planned computed tomography (CT). CT reported that "Submucosal lesion with density of soft tissue on the lower border of stomach which is the well-shaped and biggest border is 25 mm". The radiologist's pre-diagnose was gastrointestinal stromal tumor (GIST).

After that biopsy revealed that the lesion was a "bronchogenic cyst". Surgical excision made for the symptomatic lesion and the patient's complaints were disappeared.

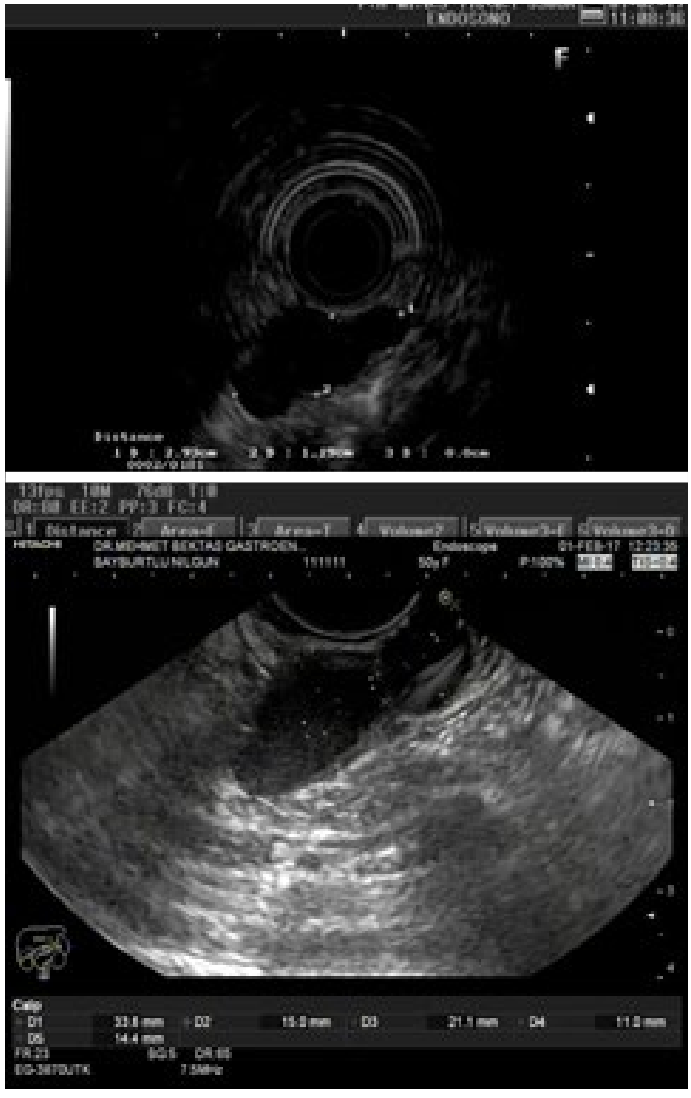

Figure 1. Endoscopic ultrasonography appearance of the submucosal lesion endosonographic image shows a 24×17 mm sized subepithelial lesion originate from muscularis propria, lobulated and well rounded, homogenous, and hypoechoic.

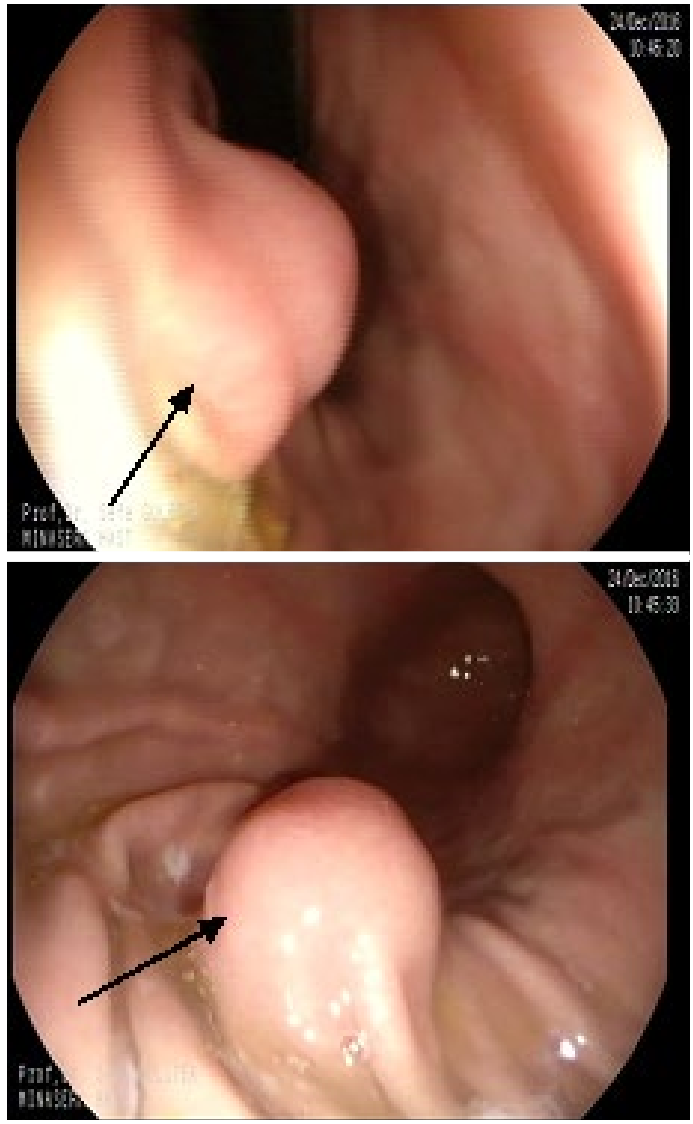

Figure 2. Endoscopic examination shows a subepithelial lesion (arrow) measuring approximately 25 mm on the posterior corpus wall.

Discussion

Gastric stromal lesions are seen usually by endoscopy. The bronchogenic cyst is one of the differential diagnoses of submucosal lesions in the stomach either it is seen rarely. It is a benign lesion and should be differentiated from malign lesions like GISTs.[4] Even though CT and MR imaging systems can mislead physicians, diagnosis can be truly made with a biopsy, and EUS also gives information about the origin layer, size, morphological features and, if the lesion is resectable or not.[5] EUS-FNA is important for diagnosing the lesion without surgical risks.[6]

Disclosures

Informed consent: Written informed consent was obtained from the patient for the publication of the case report and the accompanying images.

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Conflict of Interest: None declared.

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