

Surprising stomach cysts

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A 78-year-old male was referred to our hospital with loss of appetite and bloating. Esophago-gastro-duodenoscopy showed aspecific inflammation of the cardiac mucosa with “snake-skin” aspect, with a normal pit pattern [Figure 1a and b]. Histopathologic investigation revealed reactive changes and slight chronic inflammation without dysplasia. Staining for *Helicobacter pylori* was negative. Six months later, the patient presented with unintended weight loss and fatigue. Thoraco-abdominal computed tomography showed a submucosal lobulated mass surrounding the cardia and gastric fundus extending toward the spleen [Figure 1c] without evidence of lymph node involvement. Subsequent fluorodeoxyglucose positron emission tomography (FDG) demonstrated significant FDG uptake neither in the cardiac mass nor in the surrounding lymph nodes. Final evaluation with EUS showed a large circular multicystic mass around the cardia of a nonwell-defined origin, being either the muscular layer or the serosa [Figure 1d]. Fine-needle aspiration (FNA) with a 19G needle (EZShot Olympus®, 19G EZ Shot 3 Plus Single-Use Aspiration Needle, Olympus Corporation, Shinjuku-ku, Tokyo, Japan) was performed during EUS. Cytopathological analysis showed medium-sized atypical cells with signet ring cells staining positive for CK7, CK20, CKPAN, Ki67, and p53 [Figure 2a-d], fitting with the diagnosis of “non-small-cell carcinoma.” Additionally,

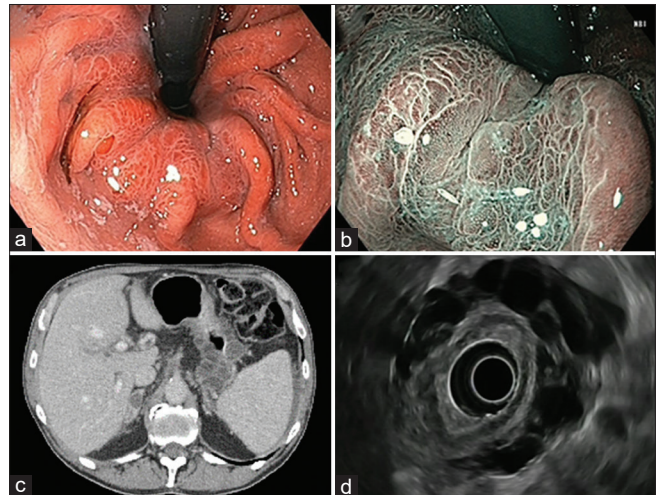


Figure 1. (a) Endoscopic image of the gastric cardia, showing focal inflamed mucosa and a ‘snake-skin’ aspect. (b) Narrow-band imaging (NBI) of the gastric cardia. (c) Computed Tomography (CT) image, transversal plane, showing a multilobular mass located between the stomach and spleen. (d) Endoscopic ultrasound showing a multi-lobular cystic neoplasm around the gastric cardia.

a carcinoembryonic antigen (CEA) concentration of 65,000 µg/L was measured in the cystic fluid. Serum values for CA-19.9 and CEA were 160 kU/L and 2.6 µg/L, respectively. Altogether, the diagnosis of “diffuse cystic malformation (DCM) in the stomach with T4 locally advanced diffuse-type gastric carcinoma”

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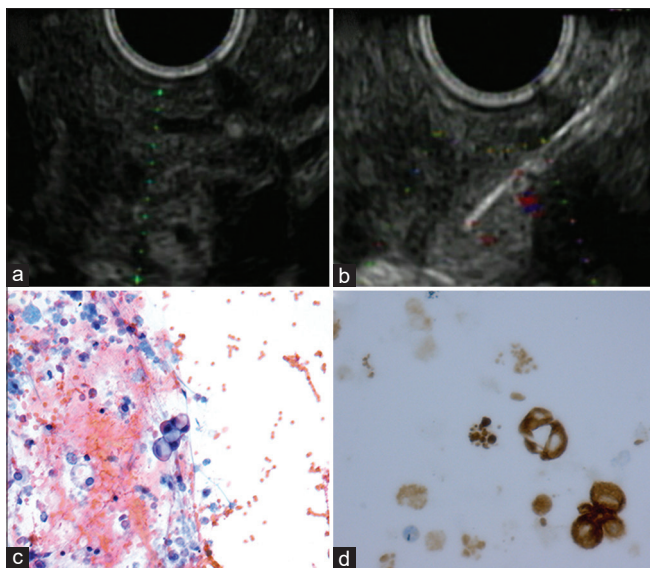


Figure 2. (a) EUS showing a heterogenous mass located around the gastric cardia. (b) EUS-FNA. Cytopathological analysis showed medium-sized atypical cells with signet ring cells (c) staining positive for CK20 (d).

was made. The patient was treated with palliative chemotherapy as the tumor was considered unresectable.

DCM is defined as a gastric abnormality characterized by diffusely distributing, nonneoplastic glandular cysts in the submucosal layer.^[1] While diagnosing DCM using conventional endoscopy is often troublesome because of its variety of appearances, EUS-FNA is a very reliable, sensitive method for diagnosing DCM. The incidence of DCM is very low, so it is difficult

to unravel an exact histopathological mechanism. As a consequence, it is yet unknown whether DCM precedes a cancerous lesion or occurs in malignancies as a result of the tumor itself.^[2] We strongly suggest to aim for evaluation with EUS-FNA, as a tissue diagnosis to prove or rule out a gastric malignancy in patients with DCM is very important.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient has given his consent for his images and other clinical information to be reported in the journal. The patient understands that his name and initials will not be published and due efforts will be made to conceal his identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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