Microforceps-assisted diagnosis of a cystic GI stromal tumor lesion

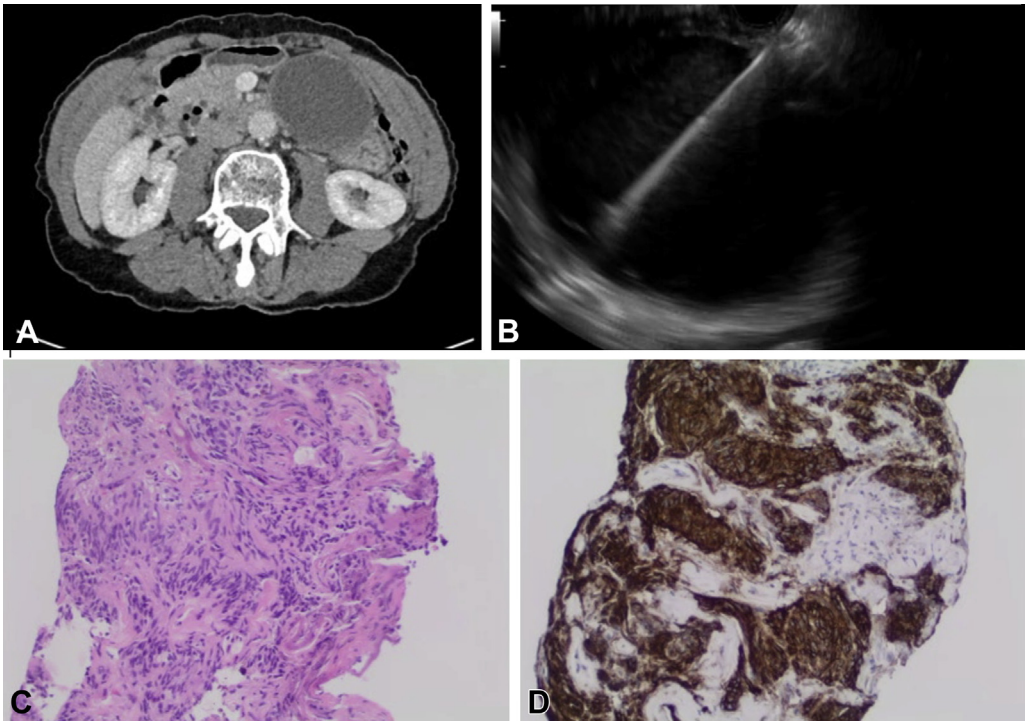

Figure 1. A, CT image showing cystic lesion. **B,** EUS view showing FNA of the cystic lesion. **C,** Pathologic view (H&E, orig. mag. ×2). **D,** Pathologic view showing positivity for DOG 1 (immunohistochemistry, orig. mag. ×2).

A 67-year-old woman was found to have an incidental 7-cm cystic lesion in close proximity to the tail of the pancreas (Fig. 1A). The cyst was discovered when a CT scan was ordered to identify spinal pathologic changes. The initial EUS with FNA drained 400 mL of fluid (Fig. 1B). The fluid amylase was 51 U/L, and the carcinoembryonic antigen was 3.5 ng/mL. Cytologic analysis did not demonstrate any neoplasia.

The cystic lesion had reaccumulated 6 weeks later as shown by follow-up US. Repeated EUS was subsequently performed, and adjunctive biopsy samples were taken of the cyst wall using Moray microforceps (US Endoscopy, Mentor, Ohio).

A linear EUS identified the previously drained cyst. A standard 19-gauge needle was used to puncture the cystic lesion. The microforceps were inserted through the 19-gauge needle. Biopsies of the cyst wall were then performed (Fig. 1C; Video 1, available online at www.VideoGIE.org). Immunohistochemistry analysis of the lesion gave positive results for ckit and DOG 1 (Fig. 1D) but negative results for s100 and desmin. The results for *GNAS* and K-*ras* were both negative. Given these markers, this lesion was confirmed as a cystic GI stromal tumor (GIST), not a mucinous cystadenoma.

The patient underwent a laparoscopic wedge resection of the lesion when it increased in size and developed mass effect. The final pathologic examination confirmed an exophytic GIST. The lesion had low mitotic activity (1/50 high-power-field) and had arisen from the outer muscularis propria of the stomach.

In conclusion, cystic GIST lesions are uncommon and can elude diagnosis. The diagnosis can be facilitated by biopsies of the cyst wall to allow for analysis with histology and immunohistochemistry. Biopsies performed with microforceps are useful in cases in which imaging, cyst fluid analysis, and cytology are insufficient to achieve a diagnosis.

Written transcript of the video audio is available online at www.VideoGIE.org.

DISCLOSURE

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