

Image of the Month

Endoscopic ultrasound-guided single-incision with needle knife and deep tissue biopsy for the diagnosis of gastric subepithelial tumor



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A 80-year-old man, known to have a bleeding gastric subepithelial tumor (SET) previously treated with endoscopic hemostatic clips (Fig. 1A), was referred for further characterization. An endoscopic ultrasound (EUS) revealed a 25 mm homogenous hypoechoic well-circumscribed tumor, originating from muscular layer. An EUS-fine needle biopsy of the lesion resulted inconclusive (Fig. 1B). Therefore a EUS-guided single-incision with needle knife (EUS-SINK) biopsy was performed using a linear echoendoscope guiding a 10-mm linear incision over the lesion (Fig. 1C) through a

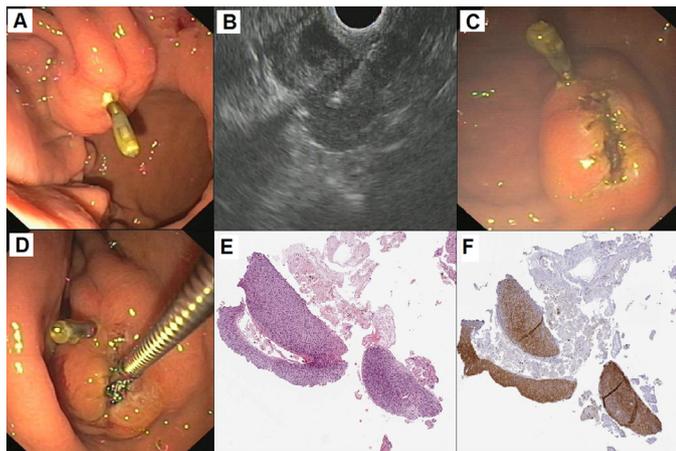


Fig. 1.

needle-knife sphincterotome connected to an electro-surgical unit. Then a conventional biopsy forceps were introduced to obtain deep tissue samples (Fig. 1D). Subsequently, the incision was closed with an endoclip. Procedure was uneventful. Histology showed a group of spindle-shaped cells (Fig. 1E) resulted positive for CD117 and DOG-1 (Fig. 1F) while negative for desmin, smooth muscle actin and S-100 expression on immunohistochemistry, in keeping with a gastrointestinal stromal tumor. The patient underwent surgical resection.

Gastrointestinal SETs includes a variety of neoplastic and non-neoplastic lesions that can be difficult to diagnose. EUS is currently recommended as a first choice for examining SETs, even if its diagnostic yield seems to be suboptimal. Therefore, several other techniques for sampling SETs have been utilized.

In this article we report on a more accurate diagnostic possibility offered by EUS-SINK with deep tissue biopsy [1] for pathologic diagnosis of a gastric SET.

Conflict of interest

None declared.

Reference

- [1] de la Serna-Higuera C, Pérez-Miranda M, Díez-Redondo P, et al. EUS-guided single-incision needle-knife biopsy: description and results of a new method for tissue sampling of subepithelial GI tumors (with video). *Gastrointest Endosc* 2011;74:672–6.

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