1130-0108/2015/107/12/759-760
Revista Española de Enfermedades Digestivas

Rev Esp Enferm Dig (Madrid)
Vol. 107, N.º 12, pp. 759-760, 2015

PICTURES IN DIGESTIVE PATHOLOGY

Duodenal gastrointestinal stromal tumor and endoscopic ultrasound

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CASE REPORTS

Case report 1. 73-year-old patient performed an upper endoscopy (UE) (Fig. 1), revealing a subepithelial lesion (20 mm) in the second part of the duodenum. Endoscopic ultrasound (EUS) showed a homogeneous lesion, 25x13.3 mm, hypoechoic, regular margins, originated in muscularis propria, two centimeters distal to papilla of Vater (PV) (Fig. 2). We suspected of a gastrointestinal stromal tumor (GIST). Surgery was advised. Laparoscopic excision confirmed the diagnosis.

Case report 2. 51-year-old patient underwent UE, revealing a bulge in the second part of the duodenum. EUS showed a heterogeneous lesion, 27.5x18.5 mm, hypoechoic, irregular margins, originated in muscularis propria, three centimeters distal to PV (Fig. 3). Diagnostic hypothesis was GIST, surgery being advised. The patient demanded clinical test with *higher diagnostic accuracy*. EUS guided fine-needle-aspiration (FNA) was performed (Fig. 4). Cytology (Fig. 5) showed spindle cells aggregates; malignant signs were not seen. This pattern suggested a mesenchymal tumor without malignancy. Low risk GIST was probable, although leiomyoma could be considered. For final diagnosis, an immunocytochemical study for CD117 and CD34 was done in a cell-block specimen that showed positivity in some cells for both. The final diagnosis was low risk GIST. Surgery was performed. Histology confirmed the diagnosis.

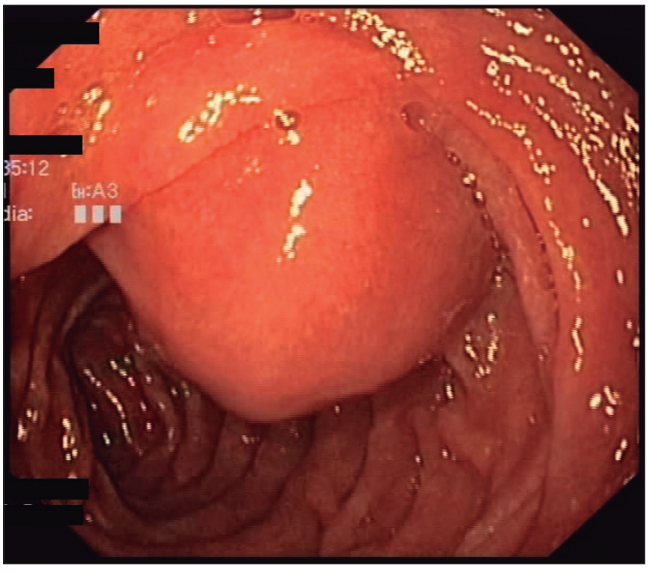

Fig. 1. Subepithelial lesion in the second part of the duodenum.

DISCUSSION

GISTs in the duodenum are very rare (1). The treatment of choice is surgical resection of the tumor (2,3). Optimal surgical procedure has not yet been established (1,3,4). Surgery implies morbidity, so a definitive pre-operative diagnosis, when there is doubt in resection, is essential (4,5).

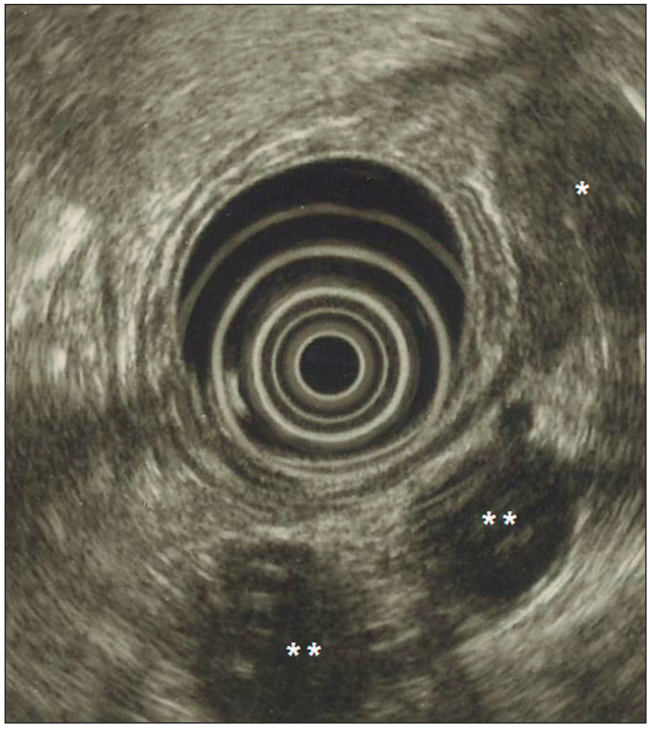

Fig. 2. Homogenous lesion, hypoechoic, regular margins, originated in muscularis propria; (*) lesion, (**) great vessels.

Fig. 3. Heterogeneous lesion, mainly hypoechoic, with irregular margins, originated in muscularis propria.

Fig. 4. Fine needle aspiration guided by endoscopic ultrasound.

The proximity to PV seems to be an important factor affecting surgical approach (3). The precise location is imperative. We used EUS to characterize the lesions and their anatomical relations to PV, allowing a more guided surgery. In one of the cases, there was the need to perform FNA supporting the diagnostic hypothesis.

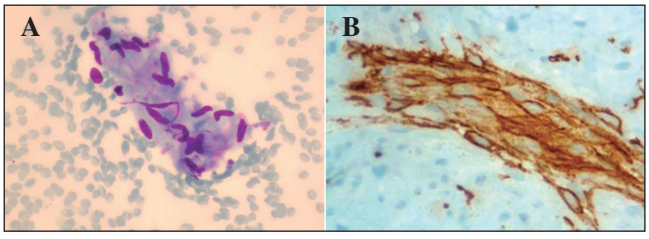

Fig. 5. Cytology. A. Spindle cells with abundant cytoplasm. No atypia neither malignancy signs are present (DiffQuick staining, x400). B. CD117 staining in cell-block material.

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