A 61-year-old man was referred for an iron-deficiency anemia diagnostic process. Upper gastrointestinal endoscopy was performed and fortuitously revealed a small gastric subepithelial lesion. Endoscopic ultrasound (EUS) characterization revealed a solid lesion, with fusiform morphology, well-defined by smooth edges and an hypoechoic homogeneous internal pattern, measuring 12.3 × 5.8 mm, and originating in the muscularis propria layer, which confirmed a subepithelial tumor (Fig. 1). With the aim of avoiding EUS surveillance of the subepithelial tumor, a minimally invasive removal technique was planned [1 – 3].

Endoscopic band ligation of the subepithelial tumor was done using a Captiva-gastroscope device (Boston Scientific, Quincy, Massachusetts, USA) combined with a single-incision needle knife (SINK) biopsy (XL Triple-lumen needle knife; Boston Scientific; and pure-cut 90-W, Beamer CE600; ConMed, Utica, New York, USA). A standard videogastroscope was used, and four biopsy samples were obtained (Radial Jaw large capacity biopsy forceps; Boston Scientific) (Fig. 2). The patient remained in hospital for 24 hours and was called at 48 hours and 7 days after the procedure, with no incidents or adverse events being reported (Video 1).

Pathological and immunohistochemistry examination revealed a fascicular proliferation of fusiform eosinophilic cells, negative for CD117 (c-kit) and DOG1, and positive for desmin and caldesmon, corresponding to the diagnosis of a leiomyoma (Fig. 3).

The first EUS control, at 5 weeks after the procedure, revealed a complete disappearance of the subepithelial tumor features, showing a discreet eschar (simple biopsy with 4 samples, showing normal gastric mucosa). Long-term EUS control at 1 year showed that the subepithelial tumor had vanished, confirming the successful result and allowing discontinuation of endoscopic surveillance (Fig. 4).
Endoscopic band ligation combined with SINK biopsy seems to be an effective minimally invasive technique that is safer than endoscopic resection for treating a gastric subepithelial tumor originating in the muscularis propria [4, 5].

Competing interests

None

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