

## EUS-guided ethanol ablation therapy for gastric stromal tumors

Key words: Endoscopic ultrasound. Ablation therapy. Ethanol ablation. Gastrointestinal stromal tumor.

Dear Editor,

EUS-guided fine-needle ethanol injection (FNI) therapy of some types of cystic and solid tumors has been documented. However, reported cases to date of gastrointestinal-stromal tumors (GIST) treated with this technique are scarce. Ethanol ablation is an alternative treatment with a low rate of adverse events in selected cases (1-3).

### CASE REPORT

Two 82-year-old women with an associated cardiovascular co-morbidity and a history of upper gastrointestinal bleeding were referred for endoscopic therapy of subepithelial lesions. These were located in the gastric cavity, measuring 14 and 29-mm, and were suspected mesenchymal tumors. The EUS-guided fine needle (22G; Sharkcore, Covidien and Acquire, BostonSc) confirmed the diagnosis of GIST in both cases. Due to the age, comorbidity and clinical signs of digestive bleeding, EUS-FNI with an intratumoral 95% ethanol injection was performed. In the first case, 4 ml were

injected with a standard 22G-needle (Echotip 3-22-Cook), and 2 ml with an ECHO-20-CPN needle with a spray effect on the tip were used in the second case. The treatment was well tolerated in both patients and there were no technical incidents or immediate adverse events, except for a mild increase of transaminases in the first case, without any clinical repercussions. Endoscopic control was scheduled at 12 weeks. Follow-up was only performed in the second case and a 40% reduction in the size of the lesion was evident. The patient was asymptomatic.

The volume of ethanol used was determined according to the degree of diffusion within the lesion, with a change from a hypoechoic to a hyperechoic echo pattern. Due to the mild hepatitis experienced in the first case, the ethanol dose was decreased to 2 ml.

### DISCUSSION

There is no consensus with regard to the appropriate volume, type of needle and clinical efficacy. To date, few published cases have been reported (3-5). A literature review of GIST cases treated with EUS-guided ethanol-ablation was performed and a comparison with two reported cases is summarized in table 1.

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**Table 1.** Characteristics of GIST cases treated with EUS-guided ethanol ablation reported in the current literature

Author	Country	Cases (n)	Technical success	Mean size of tumor	Tumor location	Needle type (gauge)	Ethanol injected	Adverse events	Follow-up interval (weeks)	Findings at follow-up
Günter 2003	Germany	1	1/1 (100%)	4 cm	Gastric body	19 EchoTip	1.5 ml	Abdominal pain	7	No tumor image
Valdivielso-Cortázar 2015	Spain	1	1/1 (100%)	5 cm	Gastric body	20 (CPN)	1.5 ml	None	12	No tumor image
Our unit 2017	Spain	2	2/2 (100%)	1.5 cm 3 cm	Gastric body; fundus	22 EchoTip 20 (CPN)	4 ml 2 ml	Hepatitis mild None	NA* 12	- Reduction in size - 40%

\*Death before first control for reasons not related to the GIST or endoscopic therapy. CPN: Celiac plexus needle.

*intellectual content. Joan B. Gornals: study concept and design, acquisition of the data, analysis and interpretation of the data, critical review of the article for the important intellectual content.*

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