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Refractory benign esophageal strictures – To cut or to dilate?

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Short Title: Refractory benign esophageal strictures – To cut or to dilate?

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Dear editor,

A 67-year-old male patient with long term gastroesophageal reflux disease (GERD) on double dose proton pump inhibitors, presented with dysphagia for soft foods. He underwent upper gastrointestinal (UGI) endoscopy which revealed a severe regular stricture at the level of the

esophagogastric junction with a residual luminal orifice measuring 2 mm (shown in Fig. 1A). Biopsies at the site of the stricture ruled out malignancy and were suggestive of peptic etiology. The patient underwent twelve endoscopic dilatation sessions, 11 of them with Savary-Guillard bougies and 1 with TTS balloon, up to a maximal diameter of 18 mm, with only partial relief of dysphagia symptoms. Due to the persistence of the stricture and dysphagia symptoms, incisional therapy was performed in two endoscopic sessions at the site of the stricture was performed with a Mori´s knife parallel to the longitudinal axis of the esophagus in a radial manner in all of the quadrants (shown in Fig. 1B). There were no adverse events (shown in Fig. 1C&D). On follow-up, 2 months later after the last session, the patient had a significant improvement and did not have any dysphagia symptoms. UGI endoscopy revealed minimal residual narrowing at the site of the previous stricture in the distal esophagus (shown in Fig. 1E). He remains asymptomatic after 6 months follow-up.

A variety of endoscopic therapies are available to treat esophageal strictures, although there are relatively few prospective and/or randomized studies available to compare different techniques and clinical outcomes, and most of the available literature is based on retrospective data(1). Refractory benign strictures are challenging to manage. In the presence of a firm fibrotic stricture, incisional therapy can be a safe alternative treatment modality in patients who are refractory to endoscopic dilatation with Savary-Guillard bougies or TTS balloons(2). It has been shown to be a feasible, safe and effective treatment modality for benign short refractory esophageal strictures, and it has good immediate symptom improvement with acceptable long-term patency(3). It was reported that the success rate is 80.6%(4), and the rate of recurrence of short esophageal stricture (<1 cm) is 4.8%(5). This case illustrates the simplicity, safety and efficacy of incisional therapy in the endoscopic management of dysphagia due to benign refractory peptic esophageal stricture.

Statement of Ethics

The study is in accordance with the instructions for the authors and with the ethical and legal principles (according to the Declaration of Helsinki by the World Medical Association). The patient has given his written informed consent to publish his case**.** All identifying information has been removed from this case report to protect patient privacy. This case was presented as an E-poster at the Portuguese National Digestive Diseases meeting. (Semana Digestiva Portuguesa 22 – 25 June 2022).

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Conflict of Interest Statement

The authors have no conflicts of interest to declare.

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Author Contributions

M. Ismail wrote the manuscript and reviewed the literature. C. Noronha Ferreira revised the manuscript for intellectual content and is the article guarantor. M. Moura, L. Carrilho Ribeiro, and R. Tato Marinho approved the final version.

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Figure Legends

A– Severe stricture in the distal esophagus

B – Incisional therapy with Mori´s knife

C– Endoscopic view after incisional therapy

D– Retroflexed view of the cardia after incisional therapy

E– Follow-up endoscopy (3 months with minimal stricture in the distal esophagus).

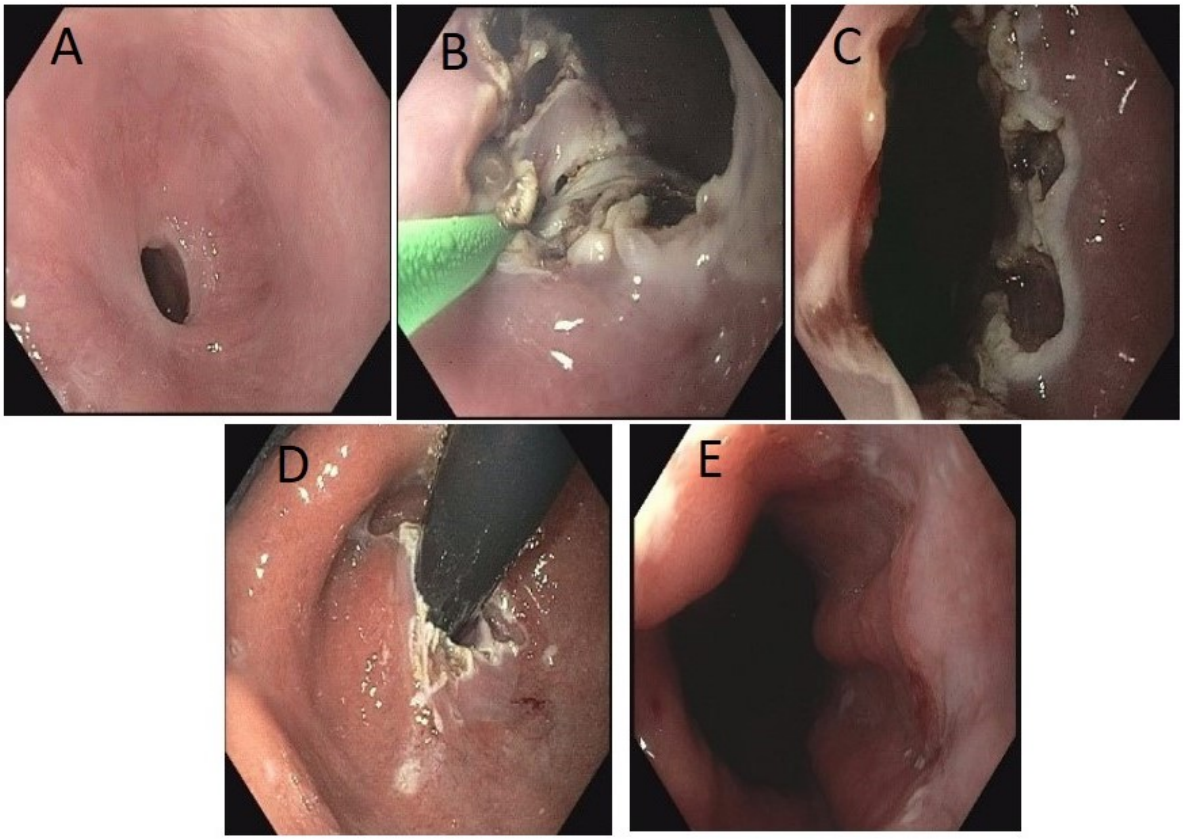

Figure 1. A– Severe stricture in the distal esophagus; B – Incisional therapy with Mori´s knife; C– Endoscopic view after incisional therapy; D– Retroflexed view of the cardia after incisional therapy; E– Follow-up endoscopy (3 months with minimal stricture in the distal esophagus).