

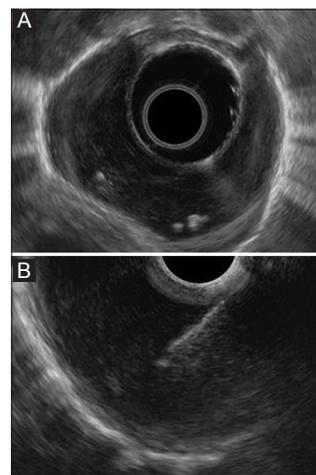
## Circumferential esophageal leiomyoma

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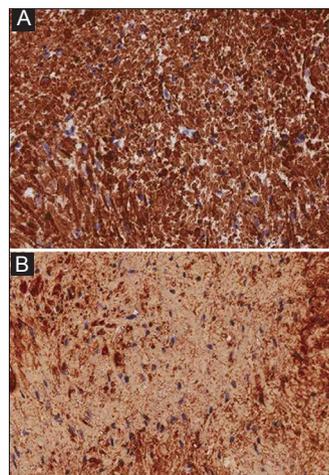
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A 65-year-old man underwent computed tomography scan for surveillance of colon cancer and discovered an incidental 2 cm × 2.3 cm × 2.2 cm esophageal mass. The patient was completely asymptomatic, without dysphagia or weight loss. An upper gastrointestinal endoscopy was unremarkable while an endoscopic ultrasound (EUS) revealed an homogenous hypoechoic well-circumscribed subepithelial mass with some calcifications inside, originating from the muscle layer and that completely encircled the upper third of the esophagus (Fig. 1A). EUS-guided fine-needle aspiration (EUS-FNA) (Fig. 1B) showed groups of spindle-shaped cells. The immunohistochemistry was positive for desmin (Fig. 2A) and smooth muscle actin (Fig. 2B) while negative for CD34 and CD117 expression. A diagnosis of circumferential esophageal leiomyoma was made. After explanation of the condition and its long-term implications, the patient refused surgical treatment and is currently asymptomatic, with no change in size of the lesion over the last 2 years.

Although true leiomyoma is the most common benign lesion of the esophagus, circumferential shape and calcifications are rare findings, especially in the upper esophagus [1,2]. It has become important to distinguish leiomyoma from other subepithelial masses, which have different prognoses and treatment options. EUS-FNA has proven to be a safe and effective technique to diagnose these lesions, especially when immunohistochemical analysis is performed. Asymptomatic leiomyomas may be followed up periodically as they have a slow growth rate, and negligible risk of malignant transformation. Surgical excision is the mainstay of treatment and is recommended for symptomatic leiomyomas and those greater than 5 cm [1].



**Figure 1** Endoscopic ultrasound findings. (A) A homogenous hypoechoic well-circumscribed tumor with some calcifications inside, originating from muscle layer and that completely encircles the upper third of the esophagus. (B) Endoscopic ultrasound-guided fine-needle aspiration of the tumor



**Figure 2** Histologic examinations showed groups of spindle-shaped cells with relatively low cellularity. The immunohistochemistry was positive for (A) desmin and (B) smooth muscle actin (40x total magnification)

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Conflict of Interest: None

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### References

1. Mutrie CJ, Donahue DM, Wain JC, et al. Esophageal leiomyoma: a 40-year experience. *Ann Thorac Surg* 2005;**79**:1122-1125.
2. Walters DM, Vaughn NH, Isbell JM, et al. Leiomyoma presenting as a massive calcified circumferential esophageal mass. *Ann Thorac Surg* 2013;**96**:1851-1854.