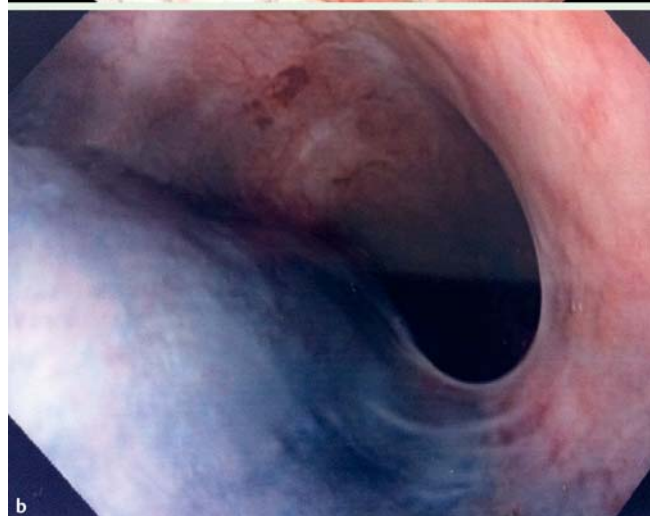


## Successful treatment of diffuse esophageal papillomatosis with balloon-assisted radiofrequency ablation in a patient with Goltz syndrome



**Fig. 1** **a** EGD showing a 10-cm circumferential area with 4–5 mm finger-like projections in the mid and distal esophagus. **b** Follow-up endoscopy at 9 months showing complete ablation of the papillomatous tissue within the esophagus.



Goltz syndrome is a rare congenital multi-system connective tissue disease frequently associated with esophageal papillomatosis [1]. Esophageal papillomas are asymptomatic benign epithelial lesions. Their endoscopic incidence has ranged in studies from 0.01% to 0.45% [2–4], while their prevalence, based on autopsy series, has ranged from 0.006% to 0.04%, with a male:female ratio of 3:1 [5,6]. The etiology and pathogenesis of esophageal papillomas is uncertain, but two theories have been proposed: mechanical or mucosal chemical irritation, in addition to the presence of human papillomavirus (HPV). The majority of papillomas are solitary and asymptomatic, although patients with over 10 lesions have been described and large lesions can cause dysphagia [7]. On endoscopy, they appear as small, whitish-pink, wart-like exophytic projections that must be differentiated from

other similar-appearing lesions, such as verrucous squamous cell carcinoma, granulation tissue, and papillary leukoplakia. The management of esophageal papillomatosis has not been clearly defined in the literature. Small isolated lesions have been successfully treated with endoscopic mucosal resection (EMR). The management of multiple and extensive lesions can be more challenging because compli-

### Video 1

While performing esophagogastroduodenoscopy (EGD), we identified a 10-cm, circumferential area with 4–5-mm finger-like projections in the mid and distal esophagus. We tattooed the proximal border of the papillomatous tissue and treated the lesions with radiofrequency ablation (RFA). Complete ablation of the papillomatosis tissue was obtained with the second and third treatments.

cations of long circumferential EMR have been reported in 2%–88% of cases [8].

A 33-year-old woman with Goltz syndrome was referred to our unit with dysphagia and symptoms of chronic reflux disease. An esophagogastroduodenoscopy (EGD) showed a 10-cm, circumferential area with 4–5-mm finger-like projections in the mid and distal esophagus. Histology was consistent with papillomatosis. We decided to tattoo the proximal border of the papillomatous tissue and to treat the lesions with radiofrequency ablation (Barrx Covidien; GI Solutions, Sunnyvale, California, USA), as has been developed for the treatment of Barrett's esophagus [9,10].

With the first procedure, performed using the 360° catheter, an almost complete ablation of finger-like projections was achieved. The patient underwent a second and third treatment with the Barrx Channel catheter at 12J/cm<sup>2</sup> and complete ablation of the papillomatosis tissue was obtained (► Fig. 1; ► Video 1).

Endoscopy\_UCTN\_Code\_TTT\_1AO\_2AF

**Competing interests:** None

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**DOI** <http://dx.doi.org/10.1055/s-0034-1377389>  
Endoscopy 2014; 46: E404–E405  
© Georg Thieme Verlag KG  
Stuttgart · New York  
ISSN 0013-726X

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