

## Clinical Image

# Radiofrequency Ablation (RFA) as an Effective Instrument in Therapy of Recurrent, Symptomatic Heterotopic Gastric Mucosa (HGM Type II) in the Cervical Esophagus

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## Clinical Image

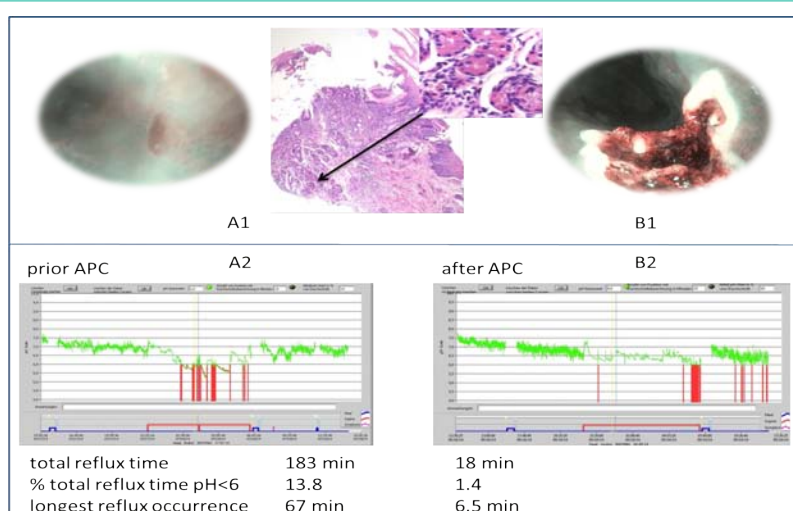
Heterotopic gastric mucosa in the cervical esophagus remains asymptomatic (HGM I) in most cases, and varies from microscopic to macroscopically visible lesions. Prevalence ranges from 1-13.8 % [1]. Laryngopharyngeal reflux symptoms like dysphagia or odynophagia (HGM II) or severe complications, like fistula, strictures or malignant transformation (HGM III,-V) seldom occur [2]. Available studies indicate argon plasma coagulation (APC) being an effective treatment [3].

In July 2014 a 30-year old man underwent esophagogastroduodenoscopy (EGD) due to odynophagia persisting despite taking proton pump inhibitors. Ear-nose-throat examination showed no pathologies. Impedanz (Impedanz, Tecnomatix, Germany), showed no gastroesophageal reflux whereas

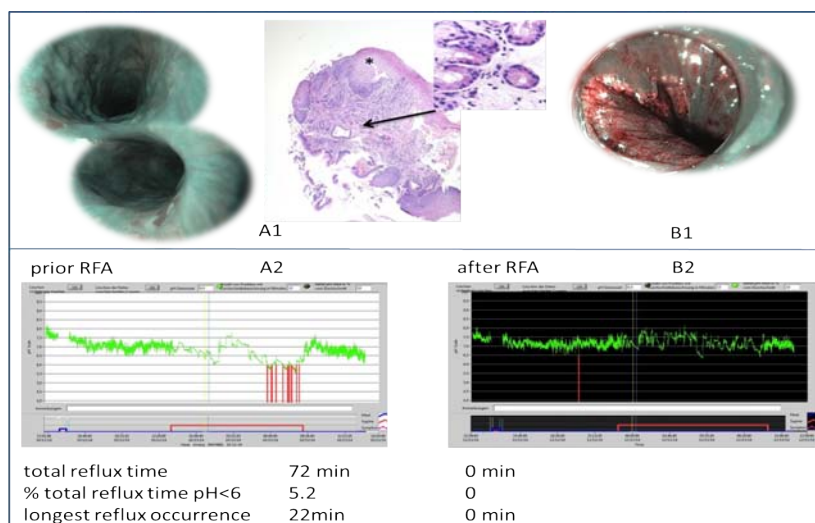
laryngopharyngeal reflux (LPR) was shown (Restech™, Promedics, Germany). At a threshold of pH <6,40 pharyngeal reflux events were seen in 24h. Additionally EGD with narrow-band imaging system (NBI) and histological examination revealed a 0.25 mm large HGM Type II of the oxyntic cell type (Figure 1, A1). Repeated APC-therapy achieved a significant improvement of symptoms and pharyngeal acid exposure (Figure 1, B1/2). However symptoms and measured pharyngeal acid reappeared. Successive exploration showed multiple micro-HGMs again, partially overlaid with squamous epithelium (Figure 2, A1). Hence, circular treatment with radiofrequency ablation (Barrx™ 90, Covidien, Germany) was performed (Figure 2, B1). Until now the patient is free from symptoms and LPR (Figure2, B2).

In conclusion HGM should be taken into account as a differential diagnosis of laryngopharyngeal reflux symptoms. As the lesions are often difficult to detect during EGD– NBI is recommended [4].

Recurrent or residual HGM after APC therapy poses a relevant problem [3]. Not knowing the origin, it is difficult to differentiate residual HGM in multifocal lesions from recurrent HGM evolving from erupted cysts in the esophagus [5]. Our EGD series supports the hypothesis of erupted cysts as the HGM showed a heterogeneous size and shape. RFA seems to be effective if APC Therapy remains unsuccessful or if, like in our case, subepithelial HGM parts could macroscopically not be evaluated. And therefore sub-epithelial HGM



**Figure 1:** A1- HGM Type II just below the upper esophagus sphincter, detected by narrow-band-imaging and HE 4x/60x with a parietal cell highlighted by arrow. Prior and after argon plasma coagulation (B1). A2/B2 Pharyngeal acid exposure prior and after therapy.



**Figure 2:** A1- Multiple lesions of recurrent HGM, 4 month after APC, partially overlaid with squamous epithelium (\*) and after treatment with circular Barxx™-RFA focal catheter (B1). A2/B2 Pharyngeal acid exposure prior and after therapy. The Rayan-score showed normal values in all measurements.

parts and / or immature precursors according to the theory of erupted cysts have to be assumed to be the course of the symptoms, and an extensive thermal ablation is indicated.

## References

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