

erbe
power your performance.



**Ablation of
Barrett's esophagus**
with HybridAPC

HybridAPC

cost-efficient, protective
and effective Barrett's
therapy

Argon Plasma Coagulation (APC) has been used for ablation of Barrett's esophagus for years.¹⁻⁴

THE NEW FORM OF APC IN THE HYBRID TECHNIQUE

In HybridAPC, APC is now combined with a waterjet function. The combined instrument allows cost-efficient, protective and effective Barrett's ablation. The technique can be applied for all indications for which thermal ablation is used. Besides the primary therapy of Low-Grade Dysplasias (LGD), HybridAPC can also be used to supplement ESD and EMR for complete ablation of conspicuous epithelium with High-Grade Dysplasias (HGD).

ELEVATION AND ABLATION WITH HYBRIDAPC

Prior to ablation, the mucosa is raised with the aid of the high-pressure water jet.⁵⁻⁸ The water cushion thus produced enables Barrett's esophagus to be ablated to a sufficient depth with high energy input by means of APC. Damage to the muscle is largely avoided, as is the risk of strictures.^{9,10}

APC is applied along the Barrett's structure as a non-contact method; the neighboring healthy squamous epithelium is preserved. This distinguishes dynamic APC therapy from other, static ablation techniques. Other "Benefits at a glance" are summarized on the right.

For the patient, HybridAPC ablation is similar to other ablation techniques. A treatment session lasts around 15 minutes. As in other thermal techniques, several sessions may be necessary.



An ablation zone forms after the APC application



After therapy the mucosa is completely restored

01

Mucosa elevation with waterjet

The Barrett's mucosa is raised with the high-pressure waterjet. Elevation takes place successively and alternately with ablation. Fluid accumulates in the submucosa that serves as a protective layer for the muscle.

02

Ablation with APC

The elevated Barrett's structure is ablated using HybridAPC by inputting higher energy than with conventional APC without a water protection layer. The plasma jet is passed in a line over the raised tissue. This generates an ablation zone. The Barrett's epithelium is destroyed; the underlying layers are preserved.

APC is recommended both for large area Barrett's residues (dynamically), but also for small Barrett's islands.

The benefits of the technique

- ✔ The protective cushion increases the distance to the muscle and protects it thermally
- ✔ The APC penetration depth is limited, therefore the risk of stricture is minimal
- ✔ The technique is effective and cost-efficient (compared with alternative techniques)
- ✔ APC, as a dynamic technique, is applied over a large area or at a point (small Barrett's islands, cardia)
- ✔ Neighboring healthy epithelium is preserved
- ✔ APC can be applied exactly on target and also around corners, e.g. at the gastroesophageal junction

Benefits of the HybridAPC probe

- ✔ Cost-efficient disposable instrument
- ✔ Multifunctional instrument with proven APC and waterjet functions
- ✔ One instrument for all Barrett's localizations and esophagus lumina
- ✔ No instrument change required between elevation and ablation
- ✔ Simple, familiar handling
- ✔ Filter-integrated probe provides maximum protection against contamination



HybridAPC, the combined instrument for Barrett's elevation and ablation

The equipment

FOR BARRETT'S THERAPY AND MANY OTHER THERAPIES IN THE GIT

Barrett's ablation is just one of the applications that can benefit from the Gastroenterology Workstation with waterjet surgery, electrosurgery and APC technology.

HybridKnife[®], for example, is a combined instrument to resect early carcinomas in the esophagus, stomach and intestines. In the ESD (Endoscopic Submucosal Dissection) technique, HybridKnife can be used for en bloc resection. Find further applications on our website at www.erbe-med.com

Gastroenterology workstation

VIO[®] 200 D (electrosurgery)

APC[®] 2 (argon plasma coagulation)

ERBEJET[®] 2 (waterjet surgery)

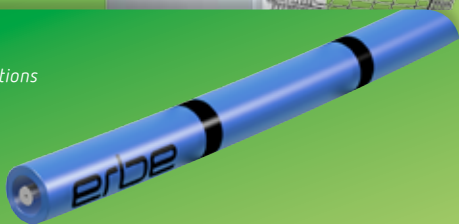
EIP 2 (endoscopic irrigation pump)



HybridAPC probe

with the waterjet and APC functions

No. 20150-015



Settings

Mucosa elevation

ERBEJET® 2, Effect 40–50

Mucosa ablation

PULSED APC®, Effect 2, 60 Watt

Post-ablation

PULSED APC®, Effect 2, 40–50 Watt

References

- 1 Williamson JML, Almond LM, Shepherd NA, Barr H, Current management of Barrett's oesophagus. *Br J Hosp Med (Lond)* 2012;73:271–77.
- 2 Manner H, Argon Plasma Coagulation in Barrett's Esophagus. *Video Journal and Encyclopedia of GI Endoscopy* 2013;1:4–6.
- 3 Bate JP, Schoeman MN, Argon plasma coagulation for Barrett's esophagus. *Tech Gastrointest Endosc* 2010;12:40–43.
- 4 Gad YZ, Zeid AA, The role of argon plasma coagulation in the management of Barrett's esophagus: a single-center experience. *Gastrointestinal Cancer: Targets and Therapy* 2011; 1: 21–26.
- 5 Norton ID, Wang L, Levine SA, Burgart LJ, Hofmeister EK, Rumalla A, Gostout CJ, Petersen BT, Efficacy of colonic submucosal saline solution injection for the reduction of iatrogenic thermal injury. *Gastrointest Endosc* 2002; 56: 95–9.
- 6 Sold MG, Grobholz R, Post S, Enderle MD, Kaehler GF, Submucosal cushioning with water jet before endoscopic mucosal resection : Which fluids are effective? *Surg Endosc* (2008);22: 443–7.
- 7 Kähler GF, Sold MS, Post S, Fischer K, Enderle MD, Selective Tissue Elevation by Pressure Injection (STEP) Facilitates Endoscopic Mucosal Resection (EMR), *Surg Technol Int* (2007);16: 107–12.
- 8 Kähler GF, Sold MG, Fischer K, Post S, Enderle M, Selective fluid cushion in the submucosal layer by water jet: advantage for endoscopic mucosal resection, *Eur Surg Res* (2007);39:93–7.
- 9 Manner H, Kouti I, May A, Behrens A, Vieth M, Ell C, Die neue Technik der Unterspritzungs-APC (i-APC) zur Ablation des Barrettösophagus: Zwischenergebnisse der Pilotserie. *Z Gastroenterol* 2013; 51: K239.
- 10 Manner H, May A, Kouti I, Pech O, Vieth M, Ell C, Efficacy and safety of Hybrid-APC for the ablation of Barrett's esophagus. *Surg Endosc.* 2016 Apr;30(4):1364–70.



Scan here to go directly
to the application video

Erbe Elektromedizin GmbH
Waldhoernlestrasse 17
72072 Tuebingen
Germany

Phone +49 7071 755-0
Fax +49 7071 755-179
info@erbe-med.com
erbe-med.com