BÂRRX MEDICAL

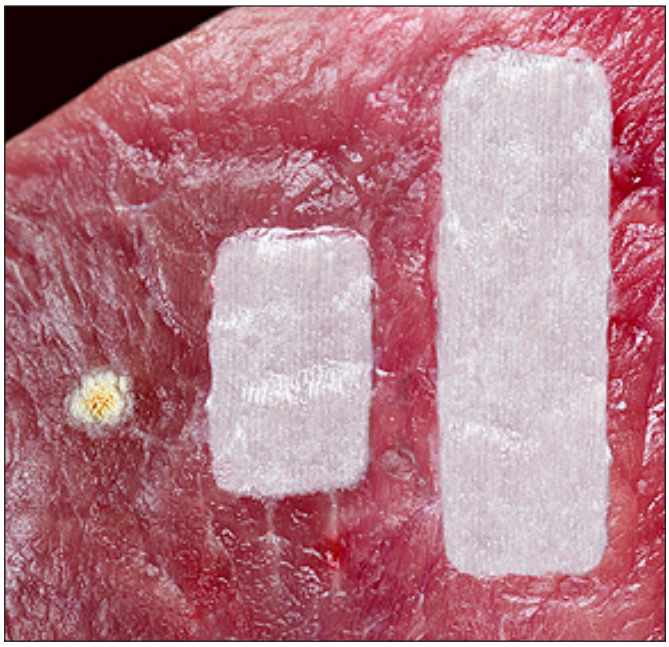
HALO^{90} ULTRA ABLATION CATHETER

Faster focal ablation treatment for Barrett's esophagus[1]

Now you can shorten Barrett's esophagus focal ablation treatment times and reduce room turnaround time with the newest member of the HALO Ablation Catheter family.[1] The HALO^{90} ULTRA catheter treats twice as much area per energy application as our HALO^{90} catheter, enabling treatment of intermediate lengths of Barrett's islands, tongues and the gastroesophageal junction (GEJ).

AREA TREATED IN A SINGLE ENERGY APPLICATION

HALO^{90} ULTRA	520 mm^2
HALO^{90}	260 mm^2
APC	12 mm^2



Comparison of tissue ablation areas using APC, HALO^{90} and HALO^{90} ULTRA.

"Based on my experience, the HALO^{90} ULTRA likely shaves several minutes off a focal RFA case with larger segments of Barrett's esophagus."

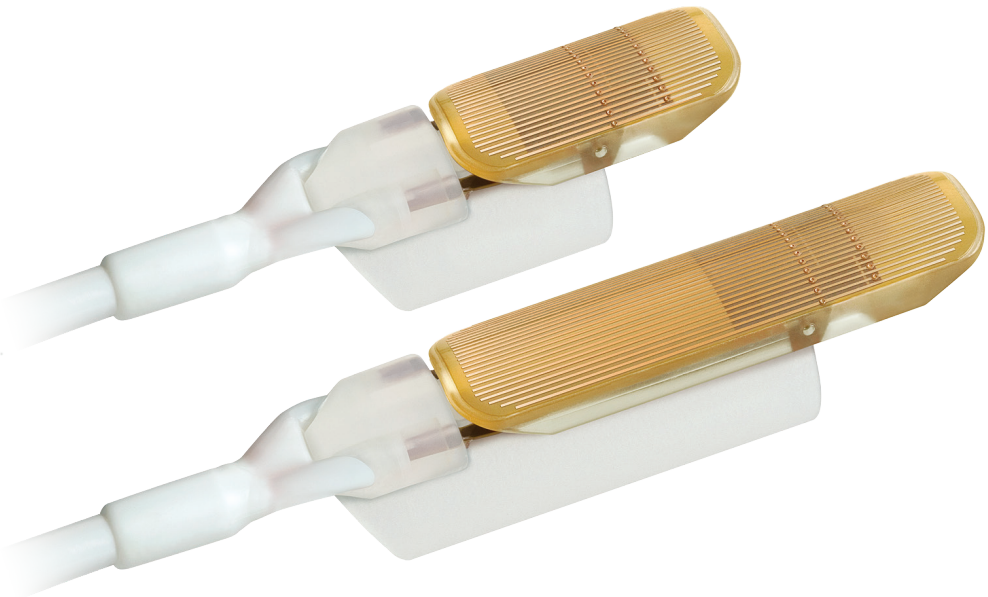
Julian Abrams, M.D., MS
Assistant Professor of Clinical Medicine
Division of Digestive & Liver Diseases
Columbia University Medical Center

ABLATION CATHETER	ENERGY DENSITY SETTING	TECHNIQUE
HALO^{90}	12 J/cm^2	Each targeted area of disease is treated two times (2x) in succession, followed by cleaning of the coagulum from all treatment areas, followed by treatment again of each targeted area of disease two times (2x). This is consistent with published clinical trial methodology for treatment of focal disease.
HALO^{90} ULTRA	12 J/cm^2	Each targeted area of disease is treated one time (1x), followed by cleaning of the coagulum from all treatment areas, followed by treatment again of each targeted area of disease one time (1x). This is consistent with published clinical trial methodology for treatment of circumferential disease.
HALO^{360+}	10 or 12 J/cm^2, depending on histological grade of Barrett's esophagus (see IFU)	Each targeted area of disease is treated one time (1x) in succession, followed by cleaning of the coagulum from all treatment areas, followed by treatment again of each targeted area of disease one time (1x). This is consistent with published clinical trial methodology for treatment of circumferential disease.

CHOOSE YOUR APPROACH

The HALO^{90} ULTRA ablation catheter gives you the best of both worlds: an endoscope-mounted system that does not require a sizing step, but – with its larger electrode surface area – enables treatment of larger areas of Barrett's esophagus. You can directly observe the electrode placement before delivering energy.

With the addition of the HALO^{90} ULTRA to the HALO Ablation Catheter family, you now have access to a broad line of ablation catheters suitable for treating various presentations of Barrett's esophagus – with high efficiency and to suit your clinical preferences. The catheter is designed exclusively for use with the HALO^{FLEX} Energy Generator and uses the same method of delivering radiofrequency energy to a controlled depth as the HALO^{90} catheter.



The HALO^{90} (top) and HALO^{90} ULTRA (bottom) provide added flexibility in your focal treatment of Barrett's esophagus patients.

DESIGNED WITH PHYSICIAN INPUT

We listened to you – the physician – who asked for a focal ablation device like the HALO^{90} that would be easy to introduce, yet cover a larger surface area per treatment application. You said this might be of utility for the patient with 1-3 cm of non-circumferential Barrett's esophagus in lieu of a HALO^{360+} treatment. We listened.

CONSIDER THESE BENEFITS:

FEATURE	BENEFIT
Twice the ablative surface area than HALO^{90}	• Due to a larger (2x) surface area compared to the HALO^{90}, the HALO^{90} ULTRA treats comparable non-circumferential areas of Barrett's esophagus in less time than the HALO^{90}
Streamlined profile	• Comparable intubation "ease of use" as HALO^{90} • Same width as HALO^{90}, allowing similar intubation and movement within the esophagus
Endoscope mounted	• Allows direct electrode visualization during procedures • Uses standard endoscopic techniques
Exclusive to the HALO^{FLEX} generator	• HALO^{90} and HALO^{90} ULTRA have a shorter delay between bursts of energy on the HALO^{FLEX} generator, compared to the HALO^{90} generator (~2 seconds vs. ~5 seconds)
Articulated electrode platform	• Moves in 3 axes (lateral, vertical, longitudinal) to assure tissue contact • Articulation enables flat contact of electrode with targeted tissue

HALO^{90} ULTRA SPECIFICATIONS

- Single patient use ablation catheter fits on the distal end of a flexible upper endoscope.
- **Recommended endoscope sizes:** 8.6 mm to 9.8 mm
- **Electrode dimensions:** 40 mm length x 13 mm width
- **Catheter shaft working length:** 160 cm
- **Catheter shaft diameter:** 4 mm

"In my practice, I am often faced with Barrett's patients who have an intermediate length of disease that is too long for a HALO^{90} (as it would take too long) and perhaps too short for a HALO^{360+}. I have found that the HALO^{90} ULTRA bridges the gap between these two devices and affords utility for these intermediate length patients."

Kenneth J. Chang, M.D.[2]
Professor and Chief, Division of Gastroenterology
University of California-Irvine
Irvine, CA

1 Faster focal ablation treatment, shortened Barrett's esophagus treatment times, and reduced room turnover time statements are based on the use of HALO^{90} ULTRA vs. HALO^{90} devices in comparable patients with comparable burden of disease. Based on the larger electrode surface area (200%) of HALO^{90} ULTRA vs. HALO^{90}, more tissue may be treated with each delivery of energy, resulting in reduced time required to treat equivalent lesions.

2 Disclosure: Dr. Chang is a stockholder of BÂRRX Medical, Inc.

TO FIND OUT MORE ABOUT THE HALO PRODUCTS OR TO PLACE AN ORDER, CONTACT BÂRRX MEDICAL TOLL FREE 1-888-66-BARRX (1-888-662-2779).

Consult the Instructions for Use document for complete instructions, full contraindications, warnings, and precautions for the HALO^{90} ULTRA Ablation Catheter.

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