

**BIRMINGHAM GASTROENTEROLOGY ASSOC., P.C.
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New Technology May Eliminate Deadly Esophageal Cancer**

**New Technology May Eliminate Deadly Esophageal Cancer
By Ann B. DeBellis**

A new non-surgical procedure is helping to thwart one of the most deadly cancers in the United States by safely removing abnormal cells before they progress to a life-threatening esophageal cancer.

People who suffer from gastroesophageal reflux (GERD) are at increased risk of developing the deadly cancer, which has a five-year survival rate of just 17 percent. Chronic sufferers can develop a condition known as Barrett's Esophagus, a metaplastic condition in which there is replacement of normal squamous mucosa of the esophagus with precancerous columnar intestinal-like mucosa.

"Ten percent of patients with chronic reflux symptoms develop Barrett's Esophagus," says Mark Janich, M.D., a gastroenterologist affiliated with Trinity and Brookwood medical centers in Birmingham. "On the low end, an estimated 3.3 million Americans have the condition. However, a substantial number of patients with minimal symptoms go undetected. The real issue – the numbers are big."

Until recently, treatment for Barrett's involved significant risk of stricture and buried glands. Now, a new technology – HALO radiofrequency ablation – can safely and effectively remove the abnormal Barrett's cells before they become cancer, says Janich, the first doctor in Birmingham to use the technology.

During the procedure, a gastroenterologist inserts either a balloon-based electrode, or a smaller platform-based electrode on the tip of the endoscope, down the esophagus of the sedated patient. While viewing the Barrett's segment directly with the endoscope, short automated pulses of energy are delivered to destroy the Barrett's tissue that lines the inner surface of the esophagus.

The two bipolar radiofrequency catheters used in this revolutionary treatment have proven to complement each other nicely. The HALO 360 catheter is a 3cm long flexible electrode affixed to a balloon, which allows for circumferential ablation of large Barrett's segments. The HALO 90 is mounted on the endoscope for treatment of more focal segments of disease. Both devices maintain the precise ablation depth that is critical for the success of this non-surgical procedure.

"This procedure has few complications. The key to this new technology is the fact that the Barrett's epithelium is approximately 1/2 millimeter thick, and the HALO system can deliver bipolar energy that consistently ablates to a depth of greater than 1/2 millimeter, but less than 1 millimeter. With prior treatment, if you went below that millimeter, there was increased risk of stricture or perforation. If you went too shallow, you could have subsequent buried glands," Janich says. "We're typically not seeing these problems with the HALO technology. HALO ablation removes the Barrett's cells, but limits damage to the surrounding healthy tissue. The superficial ablation results in a low complication rate. After this 30-minute procedure, the patient goes home the same day."

Since an estimated one in 10 individuals with chronic GERD will develop Barrett's Esophagus, it is important that these patients undergo a screening endoscopy to detect this precancerous condition. Barrett's patients are 30 to 125 times more likely to develop deadly esophageal cancer and thus undergo regular surveillance endoscopies, though the effectiveness and cost of surveillance have been called into question. Janich points out that Barrett's has genetic biomarkers that are eliminated after HALO treatment. "We hope that in five to 10 years we will be able to assess Barrett's tissue for oncogenetic markers that will tell us which patients will actually progress towards cancer. We can then selectively use ablation treatment on those patients."

By early October, Janich had treated 30 patients with the HALO technology at Trinity, with 20,000 procedures having been done worldwide. A recently published study showed 98 percent of patients treated with HALO ablation were completely free of disease two and a half years after treatment, says Janich. "We now have a safe, well-tolerated outpatient endoscopic procedure that should allow us to eliminate Barrett's tissue in almost every case and prevent this often fatal cancer," he adds.

The deadly cancer associated with Barrett's Esophagus has risen in incidence 500 percent over the past three decades. "We believe that the HALO procedure will halt the rise in esophageal cancers, just as colonoscopies and polyp removal have reduced the number of new colon cancers we are seeing," says Janich. "By proactively eliminating the precursor to this cancer, we believe that the esophageal cancer that Barrett's patients live in fear of should become a thing of the past."

For additional information on the HALO technology, visit www.bgapc.com.

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