

## Literature review

Synopsis of clinical publications involving the Endoflip™ impedance planimetry system



### Study objective/ patient selection

- Known or suspected achalasia (32.9%)
- Dysphagia with connective tissue disease (13.7%)
- Eosinophilic esophagitis (12.3%)
- Dysphagia with prior fundoplication (9.6%)
- Other (31.5%)

Ahuja NK, et al. Esophageal distensibility measurement: impact on clinical management and procedure length. *Dis Esophagus*. 2017 Aug 1;30(8):1-8. doi: 10.1093/dote/dox038

### Motility assessment on patients presenting with dysphagia

Carlson DA, et al. Evaluation of esophageal motility utilizing the functional lumen imaging probe. *Am J Gastroenterol*. 2016 Dec; 111(12):1726-1735. doi: 10.1038/ajg.2016.454. Epub 2016 Oct 11.

### Esophageal contractility evaluation in patients with achalasia

Hirano I, et al. Functional lumen imaging probe for the management of esophageal disorders: expert review from the clinical practice updates committee of the AGA institute. *Clin Gastroenterol Hepatol*. 2017 Mar;15(3):325-334. doi: 10.1016/j.cgh.2016.10.022

### How Endoflip™ impedance planimetry system was used in study

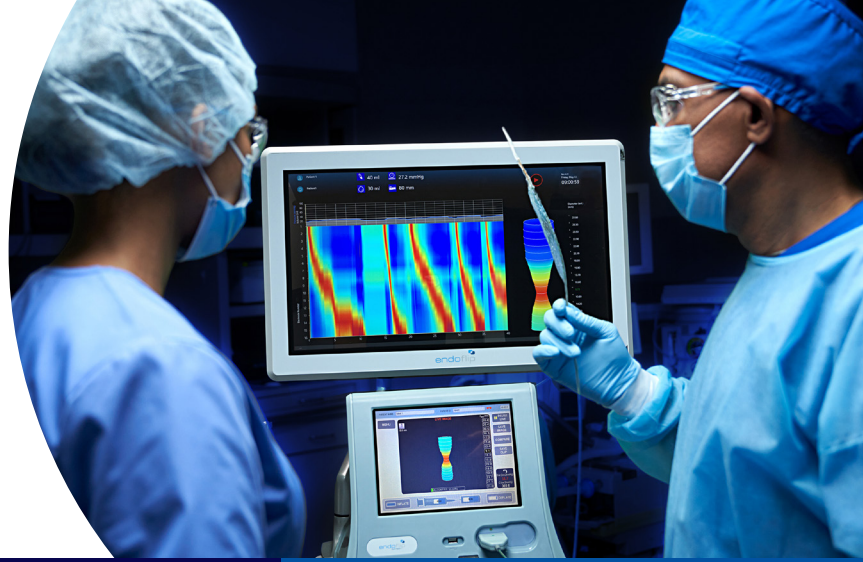
<6 min added procedural time with Endoflip™ impedance planimetry system

Endoflip™ 2.0 impedance planimetry system procedure with Flip™ topography

Endoflip™ 2.0 impedance planimetry system procedure with Flip™ topography

### Clinical impact

- Test results independently led to a change in management in 39.7% of cases, and supported a change in management in an additional 20.5% of cases
- Most common change in management was a new or amended therapeutic procedure (79.5%)
- 95% correlation between Flip™ topography and high resolution manometry findings for major motility disorders
- Flip™ topography provides a well-tolerated method for esophageal motility assessment during upper endoscopy
- Flip™ topography provides an alternative and complementary method to HRM for evaluation of non-obstructive dysphagia
- Flip™ topography provides a visual representation of esophageal motor activity and identifies three distinct subtype patterns in achalasia patients



## Literature review

Synopsis of clinical publications involving the Endoflip™ impedance planimetry system

### Study objective/ patient selection

Assessment of the severity of symptoms of patients with eosinophilic esophagitis (EoE), calculating the distensibility plateau based on the narrowest diameter measurement

*Hirano I, et al. Functional lumen imaging probe for the management of esophageal disorders: expert review from the clinical practice updates committee of the AGA institute. Clin Gastroenterol Hepatol. 2017 Mar;15(3):325-334. doi: 10.1016/j.cgh.2016.10.022*

Esophagogastric junction (EGJ) distensibility measurements during pneumatic dilatation for idiopathic achalasia

*Wu PJ, et al. Novel intra-procedural distensibility measurement accurately predicts immediate outcome of pneumatic dilatation for idiopathic achalasia. Am J Gastroenterol. 2018 Feb;113(2):205-212. doi: 10.1038/ajg.2017.411 Epub 2017 Dec 5.*

EGJ distensibility assessment in patients undergoing Heller myotomy and anti-reflux surgery

*Perretta S, Dallemagne B, McMahon B, et al. Video. Improving functional esophageal surgery with a "smart" bougie: Endoflip. Surg Endosc 2011;25:3109.*

### How Endoflip™ impedance planimetry system was used in study

Esophageal distensibility measurements with Endoflip™ impedance planimetry system

EGJ distensibility measurements with Endoflip™ impedance planimetry system

EGJ distensibility measurements with Endoflip™ impedance planimetry system

### Clinical impact

- Endoflip™ provides an objective and accurate measurement of esophageal narrowing, and mechanical properties of the esophageal body in patients with EoE
- Endoflip™ appears to be uniquely suited to assess the mechanical properties of the esophageal wall in EoE
- Change in EGJ distensibility index measured with the Endoflip™ impedance planimetry system, accurately predicts immediate clinical response to pneumatic dilatation in achalasia
- This technique may help defining dilator size during endoscopy
- The Endoflip™ impedance planimetry system provides a system in which physiology and anatomy are represented dynamically realtime in the same image.
- "This smart bougie could be integrated into the surgical routine to improve outcomes of esophageal functional surgery"