Weill Cornell Medicine

Endoscopically Deployable Temporary Anti-Reflux Device

Lead Inventors:

Rasa Zarnegar, M.D.
Professor of Surgery, Weill Cornell Medical College

Carl V. Crawford, M.D.
Assistant Professor of Clinical Medicine,
Weill Cornell Medical College

Business Development Contact:
Louise Sarup
Interim Technology Licensing Officer

(646) 962-3523
lss248@cornell.edu

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Background & Unmet Need

- Gastroesophageal reflux disease (GERD), a condition in which stomach acid enters the esophagus, affects over 40 M Americans annually
- Significant discomfort and/or damage can be caused, as cells on the lining of the esophagus are not resistant to stomach acid
- Some patients do not respond to medications or become refractory and require surgical intervention
- However, current diagnostic tests to assess reflux are inadequate, as many patients do not present with classical symptoms
- It is therefore difficult to predict which patients while experience symptom resolution after surgical intervention
- **Unmet Need:** Improved methods of diagnosing GERD to identify patients who may benefit from surgical intervention

Technology Overview

- **The Technology:** A temporary, endoscopically-placed device that mimics surgery by artificially recreating a normal lower esophageal sphincter
- The device spans the gastroesophageal junction, and includes an inset two-way valve that allows food to pass but prevents reflux of stomach contents
- After placement of the device, patients may be monitored for up to 30 days to assess impact on symptoms
- Successful symptom resolution increases confidence in a GERD diagnosis and indicates that a patient is likely to respond to therapeutic or surgical intervention

Inventors:
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Carl V. Crawford

Patents:
US Application Filed
EP Patent EP3346957B1

Publications:
N/A

Biz Dev Contact:
Louise Sarup
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Technology Applications

- Temporary device for definitive diagnosis of GERD
- Identification of patients who may benefit from additional therapeutic or surgical interventions
- Semi-permanent stents for long-term management of GERD symptoms

Technology Advantages

- Temporary device that may be placed with an endoscope
- Provides a physical barrier to evaluate the need for surgical
- Pressure required to open the valve in the retrograde is sufficient to prevent reflux but still allows for belching and vomiting

Supporting Data / Figures

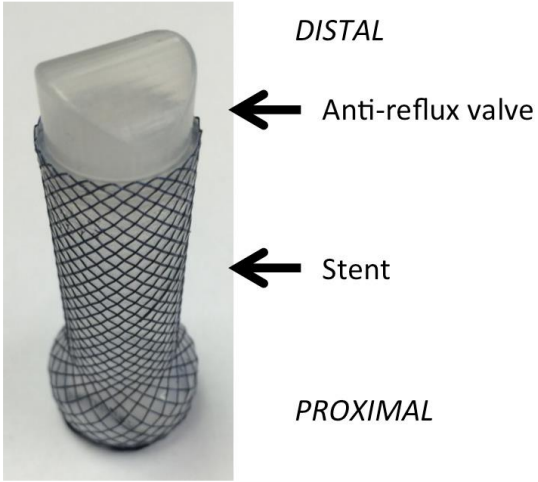

Figure 1: Prototype of the disclosed temporary anti-reflux device for the diagnosis of GERD.

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