

Case History 8

Device for Treatment of Gastro-Esophageal Reflux Disease (GERD)



Market

Upper GI Endo-Surgery

Client Type

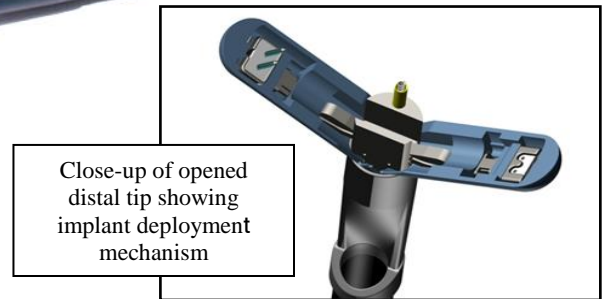
VC-funded startup ([NDO Surgical](#))

Unmet Need

Minimally-invasive treatment for reflux disease that is less traumatic than current surgical practice (Nissen fundoplication) and more effective than drugs, including proton pump inhibitors like Prilosec

Approach

Develop a trans-esophageal instrument capable of forming a full-thickness plication (fold) in the stomach wall just below the gastro-esophageal junction (GEJ). The instrument deploys a soft implant to maintain the plication. This plication tightens the GEJ and prevents reflux of stomach acids into the esophagus.



Product Features

50fr shaft conducts gastroscope into stomach. Controls on ergonomic handle provide control of distal articulation, jaw opening/closing, extension/retraction of tissue screw, and deployment of implant. Implant comprised of two soft pledgets (pads) connected by sutures. Procedure done under topical anesthesia in a doctor's office in as little as 10 minutes. FDA approved and on the market.

Services Provided by OTI

- Mechanical engineering, including design of unique articulating vertebrae, transmission mechanism, control cabling, molded silicon part design, injection molded part design & vendor sourcing
- Development of assembly methods, including bonding, overmolding and fastening
- FDA-compliant drawings
- Prototyping
- Verification & validation testing
- Transfer to manufacturing

Client Comment

"The team at OTI exceeded my expectations for finding creative solutions to difficult challenges. They succeeded where other firms had failed, and their solutions were workable in the real world. I'll use them again".

-- Jeff Cerier, Vice President of Product Development

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