

SRS Endoscopic stapling maybe an alternative to Nissen fundoplication

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**Objectives:** Assessment of the safety and effectiveness of the SRS Endoscopic Stapling System.

**Methods:** IRB approved, open ended, prospective study of per oral endoscopic 120-180 degree anterior fundoplication, approximately 3 cm from the GE junction using an SRS endoscope. All procedures were performed under general anesthesia and patients were kept overnight for observation. Three staple quintuplets were placed. A chest x-ray and a hematocrit level were checked post operatively.

Symptoms were assessed by off PPI for 7 days GERD-HRQL scores; a 50% or greater improvement was the primary success criterion. The procedure was successful in 12/13 subjects. One procedure failed because tissues were too thin and outside the operating range of the device.

Follow up was at 1, 2, 4, 12 and 24 weeks. Patient satisfaction, use of any antireflux medication and Velanovich gastroesophageal health related quality of life (GERD HRQL) scores were obtained.

**Results:** Over an 8-month period, 13 patients were selected. Average age was 43.61 years (29-74). Male to female ratio was 1.2:1. Average BMI was 22.25(19-33). Average duration of symptoms was 4.2 years (2-10), which coincided with number of years on different proton pump inhibitors. Average operating time was 173 minutes. Pre procedure Hills classification for the gastroesophageal flap valve was grade 3 for 11 patients and grade 4 for 2 patients. No major complication was encountered in any patient; one patient each had jaw pain, minor mucosal laceration, and chest pain with blood stained single vomit in the post operative period. Return to work was less than 7 days. Bloating in 9/12 patients was the chief postoperative symptom. No patient had dysphagia

11/12 (91%) patients experienced significant improvement of symptoms at 3 months post operatively (> 6 on a scale of 1-10, 1 being unsatisfied and 10 being fully satisfied), whereas one patient had partial improvement (scale 6). At 6 months post op, 10/12 (83%) patients continued to have significant relief of symptoms, were satisfied by the procedure and would do the procedure all over again. Three patients (2 less satisfied) continued to take antireflux medications, albeit in a much smaller dose than pre procedure. Mean GERD HRQL scores dropped from 26.6 to 8.3 at 6 months, and 9/12 dropped by > 50.

**Conclusion:** SRS endoscopic fundoplication is a safe and effective anti reflux procedure.