

# TESTONI Review - Transoral Incisionless Fundoplication (TIF®) with EsophyX for GERD: Clinical Efficacy Maintained up to 10 years



## BACKGROUND

Transoral incisionless fundoplication (TIF) with EsophyX is reported to be effective in patients with gastroesophageal reflux disease in short-medium term follow-up. This study analyzed a meta-analysis with an additional series; the goal being to examine clinical outcomes up to 10 years (to provide longest-term follow up data.)

## METHODS

In total, 51 procedures were performed in 50 patients. All entered a yearly clinical follow-up schedule including gastroesophageal reflux disease health-related quality-of-life questionnaires, heartburn and regurgitation scores, and daily proton pump inhibitor consumption.

## RESULTS

The TIF procedure was successfully performed in 49/50 patients. who were re-evaluated at 2 and 3 years; 41 after 5 years, 30 after 7 years, and 14 after 10 years. 8 patients were lost to follow-up between 3 and 5 years. 7 patients were unresponsive to endoscopic fundoplication underwent surgical fundoplication. The mean scores at 2 years were significantly lower than before the procedure and did not change substantially during the follow-up. The rates of patients who had stopped or halved antisecretive therapy 2, 3, 5, 7, and 10 years after the procedure were 86.7%, 84.4%, 73.5%, 83.3%, and 91.7%, respectively.

## CONCLUSION

Transoral incisionless fundoplication (TIF) with EsophyX is an effective therapeutic option for symptomatic gastroesophageal reflux disease patients, with Hill grades I – II or a hiatal hernia < 2 cm, who refuse life-long medical therapy or surgery.

## KEY POINTS

1. Long-term post TIF results are similar to those with surgical fundoplication, without any of the surgery-related persistent side effects such as dysphagia and gas-bloat.
2. Over 10-year follow-up, GERD-HRQL scores when off PPI therapy, and heartburn and regurgitation scores remained significantly lower than the pre-TIF scores.
3. At 2, 3, 5, 7, and 10 years after TIF, results from the GERD-HRLQ remained stable, similar to that at 2 years with improvement tendency at 7-10 years.
4. At 3-year follow-up, TIF provides sustained symptomatic relief, prolonged healing of esophagitis (86%) and improvement in all esophageal pH parameters.
5. 2 meta-analyses concluding TIF is an effective alternative to surgery to control GERD.
6. TIF with EsophyX has the most robust dataset of any endoluminal therapies and the only data showing outcomes 10 years after intervention.
7. 10 years after laparoscopic fundoplication, 35.8% reported heartburn, 29.1% regurgitation, with an 18.2% rate of acid-suppressive medication.

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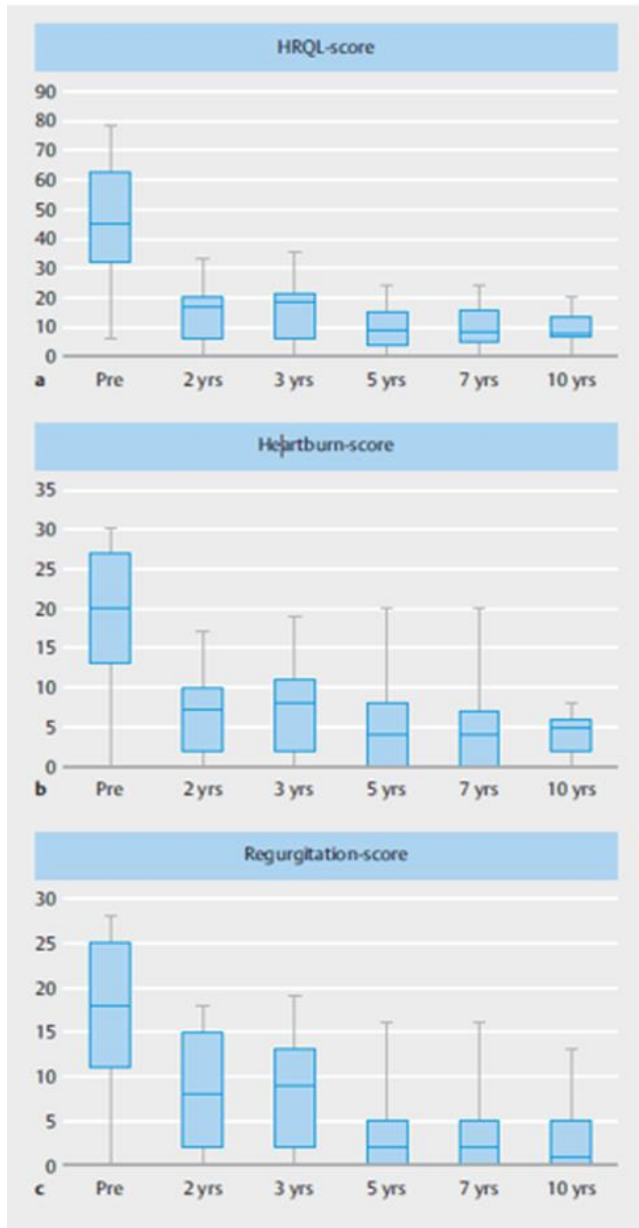
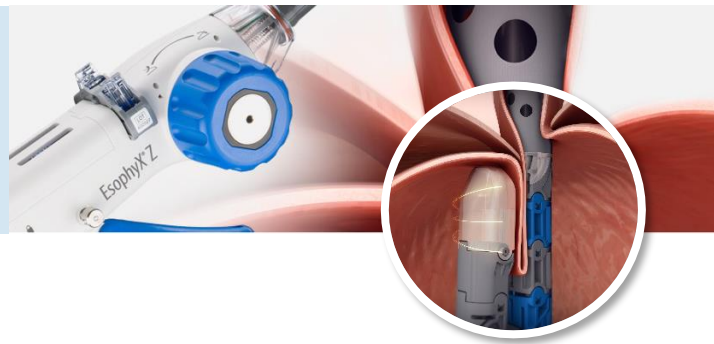
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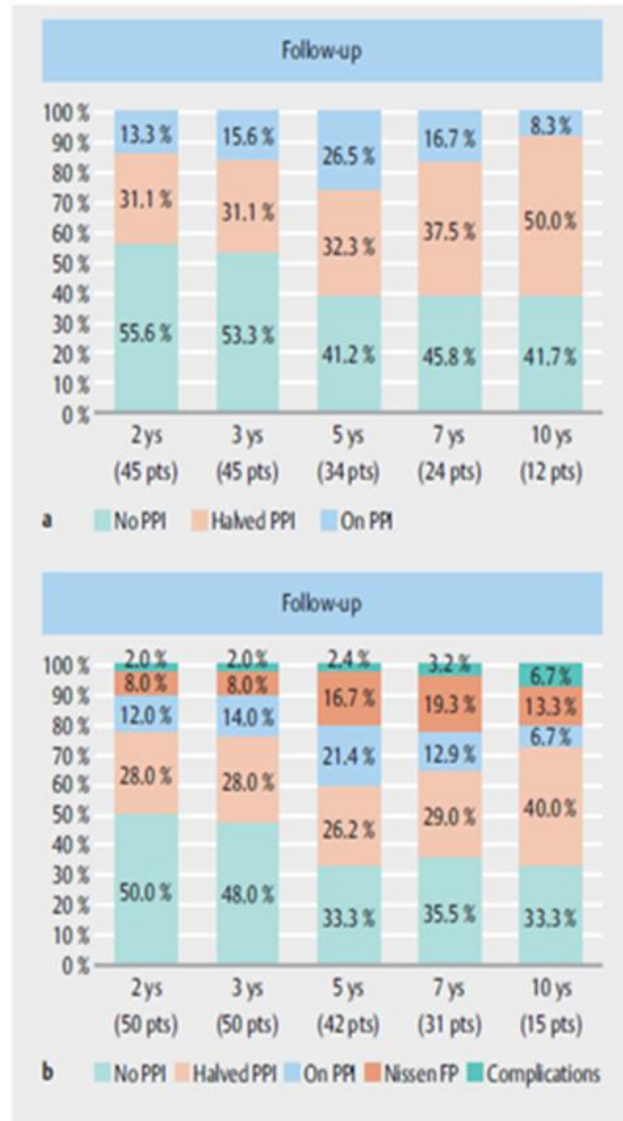
Learn more about the TIF® Procedure for Reflux



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► **Fig. 1** a Gastroesophageal reflux disease-Health-Related Quality-of-Life, b heartburn and c regurgitation scores when off proton pump inhibitor (PPI) therapy from baseline (T0) to 10-year follow-up. Data are reported as median and IQ range. HRQL, Health-Related Quality-of-Life.



► **Fig. 2** Symptomatic responses and proton pump inhibitor (PPI) use from 2- to 10-year follow-up according to a per-protocol analysis and b intention-to-treat analysis. Data are reported as proportions on the y axis.  $P > 0.05$ , 3 years vs 2 years;  $P > 0.05$ , 5 years vs 3 years;  $P > 0.05$ , 7 years vs 5 years;  $P > 0.05$ , 10 years vs 7 years. Pts, patients; Ys, years; PPI, proton pump inhibitors; FP, fundoplication.