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Letter to the Editor

Measurement of Esophagogastric Junction Distensibility May Assist in Selecting Patients for Endoluminal Gastroesophageal Reflux Disease Surgery

TO THE EDITOR: I read with interest the study by Smeets et al,[1] who evaluated the association between pre-operative distensibility measurements and objective and clinical outcomes after transoral incisionless fundoplication (TIF) surgery. The study concluded that distensibility measurements have no added value in the pre-operative diagnostic work-up or in the post-procedure evaluation of endoluminal anti-reflux therapy.

This study adds to a growing body of literature,[2-9] which in general suggests that there is little benefit in the use of any of the standard gastrodiagnostic methods to predict post-surgical outcomes in gastroesophageal reflux disease (GERD) surgery. The outcomes of such functional surgery are operator and technique dependent, producing highly variable gastroesophageal junction (GEJ) constructs.[10] It is therefore questionable whether the geometry of the GEJ pre-surgery alone could be reasonably expected to predict how the GEJ will perform post-surgically.

However the authors, in my view, have made an important contribution in addressing a question of significant clinical importance, namely as to whether a pre-operative measurement can help stratify patients who might reasonably benefit from a lower risk transoral GERD procedure versus, for example, a laparoscopic fundoplication. Using criteria of a distensibility cut-off value of 2.3 mm^2/mmHg (measured at 30 mL distension volume) combined with acid exposure time < 11%, they noted that 94% of the patients meeting these combined pre-operative criteria had normalized acid exposure time at 6 months after TIF surgery.

On a technical note, I would question whether distensibility is a measurement best suited for the evaluation of TIF procedure itself. Distensibility is calculated by dividing the minimum cross sectional area of the GEJ by balloon distending pressure. Observational experience of the TIF procedure would suggest that the mode of action of the EsophyX device serves to lengthen the high pressure zone as distinct from tightening it. This mode of action is somewhat different from the clear barrier to distension of the GEJ created during cruroplasty, or with an external wrap. I would alternatively hypothesize that the immediate post-operative tightening presented in Table 4 may be due to intra-procedural edema which has resolved by the time the 6-month measurement was taken.

In conclusion, I would disagree that distensibility measurements have no added value in the pre-operative diagnostic work-up, but believe that they may offer an important adjunctive measurement to assist a surgeon decide whether a more minimally invasive approach to GERD surgery should be offered to a patient.

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Conflicts of interest: John ODea is CEO and stockholder in Crospon Ltd, the manufacturer of the EndoFLIP system.