



Is tailored-fundoplication for gastroesophageal reflux disease (GERD) surgical treatment back?

Fernando A. M. Herbella

Department of Surgery, Escola Paulista de Medicina, Federal University of São Paulo, São Paulo, Brazil

Correspondence to: Dr. Fernando A. M. Herbella, MD. Rua Diogo de Faria 1087, cj 301, São Paulo, SP 04037-003, Brazil. Email: herbella.dcir@epm.br.

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Gastroesophageal reflux disease (GERD) has a multifactorial pathophysiology (1). Esophageal peristalsis is the main determinant of esophageal clearance of the refluxate after an episode of reflux and thus an important part of GERD control (2). Defective peristalsis is undoubtedly associated with more severe GERD (3).

A significant proportion of candidates for surgical treatment for GERD have esophageal dysmotility (4) with a 10% rate of severe abnormalities (5). Even though these figures are not surprising since dysmotility is part of GERD pathophysiology as we mentioned, several authors questioned if surgical therapy would be appropriate in patients with severe alterations in peristalsis or an alternative to the standard Nissen fundoplication should be pursued in view of the chance of increasing the incidence of postoperative dysphagia. These ideas culminated in the tailored approach to GERD very popular at the end of the last century and beginning of the current millennium. The tailored approach advocated that a partial fundoplication should be used in patients with esophageal wave amplitude lower than 30 mmHg and a Nissen fundoplication otherwise, in case of “normal” motility. The tailored approach did not live long as the authors reviewed their results to notice that partial fundoplication had worse results and those few patients that underwent a total fundoplication even with abnormal peristalsis had better outcomes (4,6). Medical knowledge seems to be cyclical with concepts being rejected and accepted recurrently. Now, a prominent young fellow, Dr. Armijo, presents the outcomes of a respected institution for partial fundoplication in patients with severe esophageal dysmotility. Is the tailored approach back? What

this experienced group captained by Dr. Oleynikov can teach us?

In their report, Armijo *et al.* (5) showed the results for 52 patients with severe dysmotility that underwent a Toupet fundoplication at a mean 25 months follow-up. Outcomes were measured mainly by symptoms with 27% of patients reporting dysphagia with 6% in need of dilatation. Complications were neglectable. These figures are not different from total fundoplication series.

What is new and what is different in this report? The authors did not change the surgical technique for the fundoplication from previous publications (7). The definition for dysmotility; however, is different. The authors used the Chicago classification that is the standard classification for esophageal motility disorders based on high resolution manometry (8). The authors defined severe dysmotility as *amotility* or *ineffective esophageal motility disorder*. In regards to the first group of patients: amotility or absent contractility, this altered dysmotility was not contemplated by the tailored approach, but considered as a different situation. Wave amplitude tailored the fundoplication type while defects of peristalsis always demanded a partial fundoplication (9). The second group of patients with ineffective esophageal motility disorders encompasses a ampler group of patients since the parameter that define this condition [Distal Contractile Integral (DCI)] is complex and includes the mean amplitude of contraction in the distal esophagus, the duration of contraction and the length of the distal esophageal segment (10). Thus, this new definition certainly included patients that would not be previously included in the old classification and vice-versa

as the authors discussed in the article.

What are the limitations of this study? The authors themselves appointed some limitations of this retrospective series: mainly, the small number of patients and the lack of esophageal function tests in the postoperative period, since GERD control—that may improve peristalsis—was not objectively assessed. Mostly; however, this cohort of patients underwent only partial fundoplication, a total fundoplication was never offered and whether similar outcomes would be obtained by a Nissen valve is elusive.

What are the conclusions of this study? The authors claim that a partial fundoplication provides effective symptom control in patients with severe dysmotility. Their data unquestionably support this conclusion. Does it mean that tailored approach is revived? This report adds light to the topic; however, there are limitations and new definitions in the series. Tailored approach should not be the new practice yet until more robust data is presented.

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References

1. Menezes MA, Herbella FAM. Pathophysiology of Gastroesophageal Reflux Disease. *World J Surg* 2017;41:1666-71.
2. Herbella FA, Patti MG. Gastroesophageal reflux disease: From pathophysiology to treatment. *World J Gastroenterol* 2010;16:3745-9.
3. Ribolsi M, Balestrieri P, Emerenziani S, et al. Weak peristalsis with large breaks is associated with higher acid exposure and delayed reflux clearance in the supine position in GERD patients. *Am J Gastroenterol* 2014;109:46-51.
4. Herbella FA, Tedesco P, Nipomnick I, et al. Effect of partial and total laparoscopic fundoplication on esophageal body motility. *Surg Endosc* 2007;21:285-8.
5. Armijo PR, Hennings D, Leon M, et al. Surgical Management of Gastroesophageal Reflux Disease in Patients with Severe Esophageal Dysmotility. *J Gastrointest Surg* 2019;23:36-42.
6. Oleynikov D, Eubanks TR, Oelschlager BK, et al. Total fundoplication is the operation of choice for patients with gastroesophageal reflux and defective peristalsis. *Surg Endosc* 2002;16:909-13.
7. Lee YK, James E, Bochkarev V, et al. Long-term outcome of cruroplasty reinforcement with human acellular dermal matrix in large paraesophageal hiatal hernia. *J Gastrointest Surg* 2008;12:811-5.
8. Schlottmann F, Herbella FA, Patti MG. Understanding the Chicago Classification: From Tracings to Patients. *J Neurogastroenterol Motil* 2017;23:487-94.
9. Limpert PA, Naunheim KS. Partial versus complete fundoplication: is there a correct answer? *Surg Clin North Am* 2005;85:399-410.
10. Lafraia FM, Herbella FAM, Kalluf JR, et al. A pictorial presentation of esophageal high resolution manometry current parameters. *Arq Bras Cir Dig* 2017;30:69-71.

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