

Laparoscopic Treatment of Gastroesophageal Reflux Disease. Outcomes and Quality of Life. A Long Term Follow-Up Study.

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Abstract

Background: This study evaluates the feasibility, efficacy, the complications rate, and the long-term results of laparoscopic treatment of gastroesophageal reflux disease (GERD) at a dedicated center.

Materials and Methods: From 01/11/1993 to 01/12/2019, we performed 620 fundoplication surgeries by laparoscopic approach according to Rossetti technique and 160 according to Toupet technique, totally 780 procedures for gastroesophageal reflux disease. The average duration of surgery was 40 minutes (range 19 - 160) for Rossetti fundoplication, 50 (range 30 - 180), and for Toupet 60 (range 45 - 190). All patients were investigated by upper digestive tract radiography, esophagogastrosopy, 24h computerized pH-metry, manometry and scintigraphy to assess esophageal clearance and gastric emptying times. In the 180 (23 %) patients with associated hiatal hernia, direct hiatoplasty was performed in 108 cases, and hiatoalloplasty in the remaining 72.

Results: There were no cases of perioperative mortality; the morbidity rate was 6.28 %. We had 16.7 % long-term failures, requiring reintervention in 46 cases (6.5 %). Thirty patients (3.84 %) had to resume occasional 40 mg PPI therapy and 48 patients (6.15 %) had to resume 40 mg PPI therapy continuously. Manometry in these patients revealed lower esophageal sphincter tone between 10- and 16-mm hg with complete and coordinated relaxations. Of the 44 patients who underwent redo surgery 26 were reoperated to repackage a tighter plastic. Six patients required reoperation for dysphagia. Twelve paraesophageal hernias were recorded in the group of patients in whom only hiatoplasty without prosthesis was performed. In all cases, a hiatoplasty with prosthesis was repackaged laparoscopically.

Conclusions: We emphasize the importance of accurate morphologic and functional evaluation of the esophagus preoperatively for selection of the most appropriate intervention and post-operatively for evaluation of the causes of failures. In the presence of hiatal hernia, it is always advisable to perform hiatoplasty with the placement of a prosthesis.

Key words: GERD, laparoscopy, fundoplication, follow-up