The Effects of Laparoscopic Nissen Fundoplication on Barrett’s Esophagus: Long-Term Results

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Background: The aim of our study was a retrospective investigation of the efficacy of laparoscopic Nissen fundoplication in patients with Barrett’s esophagus.

Method: A total of 78 patients with Barrett’s esophagus underwent surgery. Patients were divided into three groups on the basis of the preoperative endoscopic biopsies: a non-intestinal group (n=63) with fundic or cardiac metaplasia, an intestinal group (n=18) with intestinal metaplasia, and a dysplastic group (n=7) with low-grade dysplasia. Clinical follow-up was available in the case of 64 patients at a mean of 42 ±16.9 months after surgery.

Results: Check-up examination revealed total regression of Barrett’s metaplasia in 10 patients. Partial regression was seen in 9 cases, no further progression in 34 patients, and progression into cardiac or intestinal metaplasia in 11 patients. No cases of dysplastic or malignant transformation were registered. Where we observed the regression of BE, among the postoperative functional examinations results of manometry (pressure of lower esophageal sphincter) and pH-metry were significantly better compared with those groups where no changes occurred in BE, or progression of BE was found.

Discussion: Our results highlight the importance of the cases of fundic and cardiac metaplasia, which can also transform into intestinal metaplasia.

Conclusions: Antireflux surgery can appropriately control the reflux disease in a majority of the patients who had unsuccessful medical treatment, and it may inhibit the progression and induce the regression of Barrett’s metaplasia in a significant proportion of these patients.