Effectiveness of alimemazine in controlling retching after Nissen fundoplication

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Background.—Retching, an early component of the emetic reflex, is a common and distressing symptom in children after Nissen fundoplication. Alimemazine (trimeprazine, Vallergan; Castlemead, Herts, UK) is a phenothiazine derivative histamine(1) antagonist, which anecdotally relieves the retching symptoms.

Material and Methods.—A prospective, double-blind, randomized, crossover, placebo-controlled study of 15 neurologically impaired children with retching after Nissen fundoplication over a period of 1 year (December 2002–December 2003). Patients were randomly allocated to receive 1 week each of alimemazine and placebo with crossover. A diary was maintained of retching episodes 1 week before, during, and 1 week after the trial. Dosage of alimemazine used was 0.25 mg/kg 3 times a day (maximum, 2.5 mg per dose). Statistical analysis was done using a paired Student's *t* test, where *P* value of less than .05 was considered significant. Results are presented as mean ± SD.

Results.—Twelve parents completed the diaries (9 open, 3 laparoscopic Nissen fundoplication). Median age of the child was 36 months (8-180 months), median duration of retching was 4.5 months (1-52 months), and mean number of retching episodes per week was 60 ± 29.40. Mean number of retching episodes with alimemazine was 10.42 ± 9.48 vs 47.67 ± 27.79 with a placebo ($P < .0001$). No adverse effects were reported in those cases that completed the study.

Conclusion.—At low dose, alimemazine (Vallergan) is a safe and effective drug in the management of retching after Nissen fundoplication.

► Retching is a troubling and serious symptom after a fundoplication in children. Not only is the retching distressing to the patient and the parents, it tends to break down the fundoplication. Thus, patients with retching after fundoplication have a much higher incidence of recurrent gastroesophageal reflux often caused by the migration of the fundoplication into the mediastinum. For this reason, the ability to control retching is an important component of the postoperative management after fundoplication, particularly in neurologically impaired children. The problem of postoperative retching often discourages the referral of neurologically impaired patients with severe reflux for fundoplication.

Alimemazine is not available in the United States at the present time. It may be that other available phenothiazine derived histamine$_1$ (H_1) receptor antagonists will provide the same relief from retching. The results of this study deserve further evaluation with a larger set of patients. It is also important to determine the safety of alimemazine in this patient population. However, it seems to be a promising therapeutic agent and should improve the outcomes and recurrence rate after fundoplication. An interesting possibility is that using

such an agent in neurologically impaired patients who regurgitate may circumvent the need for fundoplication.

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Efficacy of Nissen Fundoplication Versus Medical Therapy in the Regression of Low-Grade Dysplasia in Patients With Barrett Esophagus: A Prospective Study

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Objective.—The aim of this study is to compare the effect of medical and surgical treatment on the history of patients with Barrett esophagus (BE) and histologic evidence of low-grade dysplasia (LGD).

Summary Background Data.—BE is a complication of severe gastroesophageal reflux. It is considered a major risk factor for esophageal adenocarcinoma, which may develop through stages from nondysplastic metaplasia to dysplasia (LGD and high-grade dysplasia). Presently, there are no recommended therapeutic guidelines for patients with LGD.

Methods.—Between 1998 through 2003, 6592 patients underwent upper endoscopy; 327 of 6592 (5%) patients had BE, and 35 of 327 (10.7%) had LGD. Nineteen patients with LGD were treated with high-dose proton pump inhibitors, and 16 patients underwent laparoscopic Nissen fundoplication. Endoscopic and histologic follow-up was available in all patients after 18 months. We used multiple logistic regression to examine the effect of the 2 treatments on regression of LGD.

Results.—LGD was predominant in men (male-to-female ratio: 1.7:1). Mean age was 58 ± 13.5 years. Sixty percent of patients had no endoscopic evidence of esophagitis. A regression from LGD to BE was observed in 12 of 19 (63.2%) patients in the medical group and in 15 of 16 (93.8%) patients in the surgical group (statistically significant difference). Differences between the 2 groups were statistically significant ($P = 0.03$).

Conclusion.—The results of our study suggest that surgical treatment may be more effective than medical therapy to modify the natural history of LGD in patients with BE, perhaps because it not only controls acid but also biliopancreatic reflux into the esophagus.

► The management of LGD in patients with BE is highly controversial and there is significant difference in opinions regarding the role of surgical treatment of LGD. This study provides evidence to suggest that both medical and surgical treatment result in a high rate of regression of LGD to BE. Patients who underwent surgical treatment were significantly more likely to have regression of their LGD compared with patients who did not undergo surgical therapy. Although this is a relatively small study and patients were not randomly assigned, it does present evidence that surgical therapy for gastro-