Conclusions: This study demonstrates an increasing incidence of new cases of BE on EGD and confirmed by histology over the last decade at a single academic medical center. Furthermore, the endoscopic impression of BE is about four times greater than the confirmed diagnosis of BE (intestinal metaplasia) on histology, and about two times greater than the diagnosis of columnar mucosa (intestinal or gastric) on histology.

LAPAROSCOPIC NISSEN FUNDOPLICATION IN A COMMUNITY HOSPITAL: PATIENT SATISFACTION SURVEY

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Purpose: Evaluate Clinical Effectiveness of Laparoscopic Nissen Fundoplication at a Community Hospital.

Methods: A questionnaire was mailed to the first 157 patients undergoing Laparoscopic Nissen Fundoplication from Feb 1995 to April 2001. Mailings were done on September 2001 and September 2002. Patients were questioned as to persistent reflux related symptoms, such as persistent heartburn, sour regurgitation, need to take antacids, H-2 blockers and Proton Pump Inhibitors. Patients were asked regarding difficulty with dysphagia, bloating and belching. Patient satisfaction with surgery was assessed.

Results: A completed questionnaire was received from 114 patients (73%). Twenty two patients could not be reached due to improper address, and no reply was received from 18 patients. Hospital and office charts were reviewed in patients with no response and no adverse events were noted. Two patients died of unrelated cause during follow up. Mean follow up was 49 months, range 17 months to 104 months. Ninety patients no longer had heartburn (79%). Seven patients (6.1%) still had daily heartburn. Ninety nine patients (86.8%) had no sour regurgitation. Four patients had daily sour regurgitation. Seventy two patients (63.1%) had no post operative dysphagia. Forty two patients had some dysphagia (36.8%). Sixteen percent of patients stated that dysphagia was worse after surgery. Seventy-four percent of patients stated that they swallowed better after surgery and ten percent perceived no difference. Only seven patients (6.1%) experienced significant dysphagia, four stated that dysphagia interfered with quality of life. Antacids, H-2 Blockers, and Proton Pump Inhibitors were still being used by 11.4%, 13.2% and 21.9% of patients. Twenty six patients (22.8%) stated that bloating and belching were worse, whereas forty two patients (36.8%) stated that these symptoms were better after surgery. Overall, 72.8% of patients were completely satisfied with surgery, and 21.9% were satisfied. Six patients (5.3%) were unsatisfied with surgery. One hundred patients (87.7%) would recommend the surgery to others.

Conclusions: We conclude that Laparoscopic Nissen Fundoplication can be done effectively in a community hospital setting.

LAPAROSCOPIC NISSEN FUNDOPLICATION IN A COMMUNITY HOSPITAL

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Purpose: Evaluate Results of Laparoscopic Nissen Fundoplication done in a Community Hospital setting.

Methods: Two hundred and two consecutive Laparoscopic Nissen Fundoplications done from November 1995 to April 2003 were analyzed.

Results: There were 103 males, 99 females, mean age of 48 years (range 17 to 90 years). One hundred and three patients (90.6%) had surgery for typical reflux symptoms, the rest for atypical symptoms, such as Cameron erosions, chest pain, and asthma. All patients had been on chronic Proton Pump Inhibitor therapy. Hiatal Hernias were present in 84.6%. Ninety three patients had had prior erosive esophagitis, and 31.6% had had prior dilations for stricture. Complications occurred in 38 patients (18.8%), with major complications in 12 patients (5.9%). Major complications included bleeding in six patients, right epi gastric artery 1, port site 2, splenic artery laceration 1, Mallory Weiss tear 1 and unknown site 2. Other major complications included Slipped Nissen (3), Pneumothorax (2), and Esophageal Leak (2). All complications were managed medically. Eleven patients developed post operative dysphagia which responded to dilation therapy within 3 months. There was no mortality.

Conclusions: Laparoscopic Nissen Fundoplication can be done safely in a community hospital setting.

ALBUTEROL ALTERS LOWER ESOPHAGEAL SPHINCTER PRESSURE IN ASTHMATIC PATIENTS

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Purpose: There is increasing clinical evidence that gastroesophageal reflux is a precipitating factor in the development of asthma, and that it can worsen an ongoing asthma flare as well. Reduced lower esophageal sphincter (LES) pressure, greater esophageal acid exposure time, more frequent reflux episodes, and longer esophageal clearance times have all been reported in asthmatics. We have previously shown that repeated administration of nebulized albuterol dose-dependently inhibited LES pressure in healthy volunteers. The aim of the present study was to evaluate the effects of multiple doses of albuterol in asthmatic patients on esophageal motility and LES pressure.

Methods: Only patients (m, f) previously diagnosed with asthma were allowed to participate. Patients first underwent a pulmonary function test with methacholine challenge to document their condition. Esophageal motility was monitored with a combined Dent sleeve/side hole assembly. Single doses (2.5 mg, 3 ml) of albuterol or saline were administered in a nebulizer every 20 min for 80 min up to a maximum of 10 mg cumulative dose. Patients were asked to stop taking their acid reflux medication, including over the counter medicine (OTC), for at least 1 week prior to the study.

Results: All of the patients recruited had complaints of burning chest pain at least once a month for at least a year prior to the study. The intensity of the pain ranged from mild to moderate. Half of the study patients had taken OTC medicine to relieve their symptoms and 1 patient consulted a doctor. About half the patients studied complained of cough occurring at a frequency of 6 times/week, and all patients had occasional to chronic wheezing episodes. Albuterol induced a dose dependent drop in LES basal pressure with a threshold dose as low as 2.5 mg. Characteristics of the relaxation of the LES during swallows were unchanged. Albuterol did not affect the amplitude of the esophageal body contractions, nor their duration. Velocity of esophageal contractions remained similar during albuterol or saline.

Conclusions: Albuterol induced a dose dependent reduction in LES basal pressure at doses even lower than already determined in healthy volunteers in the same conditions. The effect of albuterol raise the likelihood that acid reflux might be increased after bronchodilation therapy. This could be especially detrimental in patients who require multiple doses of albuterol as a vicious cycle of asthma, bronchodilator therapy, and reflux might easily be established.
healing rates in response to esomeprazole or lansoprazole in patients with EE and hiatus hernia.

**Methods:** 5240 patients with EE participated in a randomized, double-blind, multicenter US trial that compared esomeprazole 40 mg (n = 2624) with lansoprazole 30 mg (n = 2616) once daily for healing of EE after 4 or 8 weeks of treatment. The severity of EE (LA classification) and the presence or absence of hiatus hernia was documented during baseline EGD. The risk of hiatus hernia among patients with severe EE (LA grade C or D) was determined using odds ratios (OR) with 95% CI. Healing was confirmed by EGD at the final post-baseline visit, and life-table estimates with 95% CI were used to assess healing rates in each treatment group in this retrospective analysis.

**Results:** 3350 (63.9%) of 5240 patients had hiatus hernia. At baseline, patients with hiatus hernia were twice as likely to have severe disease (OR 2.00, 95% CI = 1.73–2.30). Esomeprazole demonstrated significantly higher healing rates (92.9%; 95% CI = 91.6–94.1%) than lansoprazole (87.8%; 95% CI = 86.2–89.4%) in patients with hiatus hernia. Healing rates among patients treated with esomeprazole did not differ between patients with or without hiatus hernia (92.9% vs 92.1%, respectively).

**Conclusions:** Hiatus hernia is a risk factor for severe disease in patients with EE. Esomeprazole 40 mg is more effective than lansoprazole 30 mg for healing EE in patients with hiatus hernia. With esomeprazole, EE healing rates remain high regardless of the presence or absence of hiatus hernia.

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### LONG-TERM FOLLOW-UP OF REVERSAL OF BARRETT’S ESOPHAGUS COMBINING ENDOSCOPIC ABLATIVE THERAPY WITH ACID SUPPRESSION

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**Purpose:** Safe and effective reversal of nondysplastic Barrett’s esophagus (BE) using endoscopic ablative therapy has been described. Only limited long-term results have been reported. A prospective endoscopic and histologic long-term follow-up study of patients with documented reversal of BE was performed to assess the recurrent/residual intestinal metaplasia (IM).

**Methods:** Patients with BE who previously underwent endoscopic ablation with either multipolar electrocoagulation or argon plasma coagulation combined with high dose PPI therapy were maintained on acid suppression to control reflux symptoms. These patients were followed with regular interval endoscopy. Four quadrant large-capacity biopsies were taken every 2 cm of the former Barrett’s and of apparent columnar lined esophagus (CLE) to assess for remaining IM.

**Results:** Forty-eight patients were followed up for at least 2 years with surveillance endoscopy after ablative therapy. The mean duration of follow up was 36 months (range 27–7 years). 42 of the patients were male; the mean age was 56 years. 46 patients received multipolar electrocoagulation. The mean initial length of BE was 2.6 cm (range 0.8–9 cm). Only 1 patient had IM one month post-ablation. At last endoscopy only 5 patients had measurable CLE. Nine additional patients had focal CLE (<5mm). Of the 12 patients with CLE only 2 had IM. 75% of patients had no visible CLE. 65% had both endoscopic and histologic reversal. Seven patients had histologic IM, none with dysplasia. 85% of patients had no IM.

**Conclusions:** The majority of patients treated with combination therapy continue to remain free of endoscopic and histological BE on surveillance endoscopy. 85% lack IM, the premalignant epithelium. The long-term durability of new squamous epithelium is established, however, the risk for progression to neoplasia remains unknown. Surveillance endoscopy with biopsy should still be performed even after reversal treatment.

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### ESOMEPRAZOLE COMPARED WITH LANSOPRAZOLE FOR MAINTAINING HEALED EROSIVE ESOPHAGITIS IN PATIENTS WITH HIATUS HERNIA

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**Purpose:** Hiatus hernia is a risk factor for gastroesophageal reflux disease. Patients with erosive esophagitis and hiatus hernia are more likely to present with more severe disease (Scand J Gastroenterol 2002;37:899).

**Results:** Overall, hiatus hernia was present in 625 patients (51%). Esomeprazole maintained healing in a significantly higher percentage of patients with hiatus hernia following the 6-month course of treatment compared with lansoprazole (table, P <0.005). In patients with hiatus hernia, resolution of heartburn, acid regurgitation and epigastic pain was observed in 71.2% of patients treated with esomeprazole versus 64.9% treated with lansoprazole.

**Conclusions:** Six months of treatment with esomeprazole 20 mg is more effective than lansoprazole 15 mg for maintenance of healing of erosive esophagitis in patients with hiatus hernia.

**MONTH MULTI-CENTER STUDY RESULTS**

**ENDOSCOPIC FULL-THICKNESS PLICATION FOR GERD: 12-MONTH MULTI-CENTER STUDY RESULTS**

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**Purpose:** ESD has been reported as a safe and effective endoscopic procedure for the management of hiatal hernias by various investigators. To further assess the safety and efficacy of ESD for hiatal hernia repair, a prospective, multicenter, international, single-arm, open-label, 12-month clinical trial was conducted in multiple centers in the United States.