Purpose: Obese and gastroesophageal reflux disease (GERD) are important health epidemics. Previous studies have demonstrated that increasing body mass index (BMI) is associated with GERD symptoms, however, little is known about its relationship with objectively proven GERD. The aim of this study is to investigate the relationship between BMI and 24-hour esophageal pH.

Methods: A cross-sectional analysis of 1798 patients (49% male, mean age 51.3+-14) referred for assessment of GERD symptoms between 1998 and 2006. Patients with previous foregut surgery and abnormal gastric pH were excluded. Esophageal manometry was performed to assess the lower esophageal sphincter (LES). Nasoesophageal 24-hour pH testing was done 5 cm above the upper border of the LES off medication. Patients were categorized by BMI [weight in kg/height in m2] according to World Health Organization classification (underweight < 18.5, normal 18.5–24.9, overweight 25–29.9, obese ≥ 30) for comparison of degree of acid exposure. A subgroup of patients with a competent LES (total length ≥ 2.7 cm, abnormally length ≥ 1.4 cm and resting pressure ≥ 5.1 mmHg) were also analyzed to eliminate the confounding effect of a defective valve. Kruskal-Wallis, Mann-Whitney, Chi-square and Spearman tests were used to assess statistical significance.

Results: The mean BMI was 27.8 (SD = 5.5). Compared to patients with a normal BMI, overweight patients have significantly more acid exposure (Figure) and a higher prevalence of a defective LES (P < 0.0001), with a further increase among obese patients. Increasing BMI correlated with increasing composite score (r = 0.3). To eliminate the confounding factor of a defective valve, the same analysis was performed limited to the group of patients with a competent LES. Similar associations between increasing BMI and acid exposure and prevalence of defective LES were seen.

Conclusion: Increasing body mass index is associated with more severe objective indicators of GERD. This effect is independent of the presence of a defective valve.

Methods: Data from previous studies showing a high correlation of symptom frequency and intensity with resultant distress was used to devise an abbreviated questionnaire, RiPTM. Visual analogue scales were used to assess 5 symptom dimensions plus the patients’ general well-being. Acid complaints, upper abdominal/stomach complaints, lower abdominal/digestive complaints, and nausea form the subscale RiPTM-GI; general well-being and sleep disturbance form the subscale RiPTM-WS.

120 patients with GERD were studied to determine the construct validity, internal consistency and the intra-class correlation coefficient (ICC) of RiPTM. Half the patients completed RiPTM followed by ReQuestTM. The other half completed the same questionnaires in reverse order to avoid a sequence bias. Before and after endoscopy all patients completed the health-related quality of life questionnaire GERDyzerTM. A high Spearman correlation coefficient (SCC) of >0.75 of ReQuestTM and RiPTM would establish the applicability of all validation parameters of the former (Cronbach's alpha: 0.9; ICC: 0.86; test-retest reliability: 0.85; responsiveness index: 165.3) to the latter. Consequently, construct validity was assessed by correlating RiPTM with ReQuestTM and with GERDyzerTM. In addition, Cronbach's alpha and ICC were calculated directly for RiPTM and its subscales.

Results: The SCC of ReQuest in PracticeTM and ReQuestTM was 0.9, indicating that the two are parallel forms. Internal consistency was high (Cronbach’s alpha: 0.9) establishing the suitability of RiPTM to assess and monitor individual patients. Psychometric evaluation revealed an ICC of 0.99. The RiPTM-WS subscale correlated well with the different dimensions of GERDyzerTM (SCC: 0.65) and with the GERDyzerTM total score (SCC: 0.80).

Conclusion: ReQuest in PracticeTM is a valid and reliable instrument for symptom assessment in GERD. It may be used by individual patients in day-to-day clinical practice and thus can potentially assist the physician in monitoring response to treatment.

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Effect of Obesity on Symptom Resolution in Patients with Gastroesophageal Reflux Disease (GERD)

Prateek Sharma, MD, FACP, Nimish Vakil, MD, FACP, John T. Monyak, PhD, Debra G. Silberg, MD, FACP*. University of Kansas Medical Center, Kansas City, MO; University of Wisconsin Medical Center, Milwaukee, WI and AstraZeneca LP, Wilmington, DE.

Purpose: To determine if body mass index (BMI) affects heartburn (HB) resolution in GERD patients, as obesity is reported to be associated with higher esophageal acid exposure and may impact treatment outcomes in GERD patients.

Methods: Data from 2 randomized, double-blind studies of similar design comparing esomeprazole 20 or 40 mg once daily with placebo (SH-QBE-0053 and -54) were pooled and analyzed. Patients were aged 18 to 75 y, had a history of HB for ≥6 months with symptoms on ≥4 of the last 7 d before study entry, and were negative for erosive esophagitis confirmed by endoscopy within 10 d of study entry. Patients returned daily HB diary cards at weeks 2 and 4. HB resolution was defined as recordings of none for HB symptoms for each of the last 7 d of the study on a scale of none, mild, moderate, severe. A Mantel-Haenszel χ2 test (MHT) was conducted to test for an association of BMI category with baseline HB severity. Logistic regression models (LRMs) were fit with HB resolution as the dependent variable and BMI as a continuous independent variable. The LRMs adjusted for treatment, study, baseline HB severity, age, sex, race, H pylori result, and presence of hiatal hernia.

Results: In total, 704 patients with nonerosive reflux disease (NERD) were analyzed. There was no apparent relationship between baseline HB severity and BMI (MHT P = .2755) (Table). The LRMs showed no significant effect of BMI on HB resolution (P = .9853). The odds ratio estimate was 1.00 (95% CI, 0.972–1.030). No significant interactions with BMI and other variables were found.

Conclusion: In NERD patients, obesity had no apparent effect on baseline HB severity or on resolution of HB symptoms with PPI therapy. This

Derivation and Validation of a Short Reflux Symptom Questionnaire (ReQuest in PracticeTM) in Patients with GERD

Greg Rubin, MD, Peter Uebel, MD, Amelia Brimo-Hayeck, MD, Karl-Heinz Hey, MD, Hubert Doerfer, MD, Robert C. Heading, MD*. Primary Care, University of Sunderland, United Kingdom; Private Practice, Ludwigshafen, Germany; Private Practice, Dortmund, Germany; Private Practice, Paderborn, Germany; Gastroenterology, ALTANA Pharma, Konstanz, Germany and Gastroenterology, Royal Infirmary, Glasgow, United Kingdom.

Purpose: ReQuest in PracticeTM (RiPTM), a shortened form of the fully validated ReQuestTM questionnaire, was designed to allow patients’ self-assessment of GERD symptoms in day-to-day clinical practice.