With MII, 56 (88%) had a consistent diagnosis for both positions: 44 complete bolus transit, and 12 incomplete. Of the 8 (12%) with different MII diagnosis, 6 changed from complete to incomplete bolus transit with the upright test. In 6 of these patients, if the diagnosis was based on the 20 swallows, they would have considered to have a complete transit.

Comparing the swallow diagnosis between the supine and upright positions for each patient, we found that there was a highly significant correlation (p<0.0001) for the number of effective peristaltic (Pearson r=0.87), ineffective (r=0.86) and simultaneous (r=0.91) contractions, distal esophageal amplitude (DEA; r=0.89), complete and incomplete bolus transit (r=0.75), and the total bolus transit time (BTT; r=0.83). In fact, there was no significant difference (Wilcoxon signed rank test) in DEA (p=0.13) or BTT (p=0.15) between both positions.

Conclusions: These results suggest that MII-EM using a viscous solution, performed in the more physiological sitting position, is accurate.

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CONTROL OF ESOPHAGEAL ACID EXPOSURE IN BARRETT’S — MANY WAYS TO SKIN A CAT!
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Purpose: Current opinion suggests that continued abnormal esophageal acid exposure in Barrett’s may play a role in progression to dysplasia and cancer. Normalization of esophageal acid has been shown to reduce the expression of proliferating cell nuclear antigen, suggesting that normalization of esophageal acid exposure may be a desirable goal in Barrett’s patients. Our goal was to investigate which antisecretory therapy achieves optimal esophageal acid suppression in Barrett’s esophagus patients.

Methods: Database was retrospectively reviewed to assess the degree of distal esophageal acid exposure in Barrett’s who underwent 24 hr esophageal pH monitoring on therapy. pH Tracings were analyzed based on established normal standards of % time pH <4 of <6.3 upright, <-1.2 recumbent, <-4.2 total and <-1.6 for normal esophageal acid exposure on PPI. Patients were on: PPI qd (n=10 studies), standard dose PPI bid (n=32), PPI > standard dose bid (n=14), PPI bid + Histamine Receptor Antagonist (H2RA) at bedtime (n=14), and PPI any frequency + Cisapride (n=8). Chi square analysis used to assess for differences among these regimens.

Results: 44 Barbie’s patients (mean age 60 years, 36 men, all Caucasians) with 78 separate 24 hour ambulatory pH recordings on various antisecretory regimens were identified. Of the five regimens, only PPI qd was less effective than others (p<0.02) regardless of which pH endpoint was used. No statistical difference was observed among the remainder regimens.

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THE LENGTH OF NEWLY DIAGNOSED BARRETT’S ESOPHAGUS AND PRIOR USE OF ACID SUPPRESSIVE THERAPY
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Purpose: The length of Barrett’s esophagus (BE) seems to correlated well with indicators of severe gastroesophageal reflux disorder (GERD). However, it remains unknown whether prior acid suppressive therapy affects the length of newly diagnosed BE among patients with GERD.

Methods: A retrospective analysis of prospectively collected information on a well characterized large cohort of patients with BE that was diagnosed between 1981 and 2000 at the Southern Arizona VA Healthcare System. We compared the length of BE between patients who received acid suppressive therapy prior to their diagnosis to those who did not receive such therapy. We further examined the association between prior use (and its duration) of acid suppressive therapy and the length of BE in correlation analyses, as well as multivariate linear regression analyses while adjusting for differences in time of diagnosis, age, gender, ethnicity, and the presence of intestinal metaplasia of the gastric cardia.

Results: There were 340 patients with BE first diagnosed between 1981 and 2000. All cases were defined by the presence of areas of salmon-colored mucosa in the lower end of the tubular esophagus, and EM in biopsies taken from these areas on at least two endoscopic examinations. The average length of BE at the time of first diagnosis was 4.5 cm (range: 0.5 to 16). There was a trend towards an inverse correlation between the length of BE at the time of the diagnosis and the duration of use of either PPI or H2RA prior to BE diagnosis (Pearson correlation coefficient r=−0.17, p=0.06). In the multivariate linear regression model, the prior use of PPI or H2RA was an independent predictor of shorter length of BE (p=0.0396).

Conclusions: The use of acid suppressive therapy among patients may reduce the eventual length of newly diagnosed BE with GERD. This finding is independent of the year of diagnosis or demographic features of patients. Further studies are required to confirm this finding.

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A PROSPECTIVE COMPARISON OF COMPUTERIZED TOMOGRAPHY(CT), 18 FLUORO-DEOXYGLUCOSE POSITRON EMISSION TOMOGRAPHY(FDG-PET) AND ENDOSCOPIC ULTRASONOGRAPHY(EUS) IN THE PREOPERATIVE EVALUATION OF POTENTIALLY OPERABLE ESOPHAGEAL CANCER PATIENTS
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Purpose: Accurate preoperative staging in patients with esophageal cancer (ECA) improves patients selection for preoperative neoadjuvant therapy.