Incidence of Barrett’s Esophagus in Dyspeptic Women Compared to Gastroesophageal Reflux Disease

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Purpose: Barrett’s esophagus is a precancerous condition frequently associated with chronic GERD patients. Dyspepsia is a discrete group of symptoms definition of which as per ROME III criteria demarcates it from GERD. Here is, however, significant overlap of symptoms in these groups. Incidence of Barrett’s esophagus in dyspeptic women has never been studied. Here in we present a small study looking a dyspeptic women and incidence of Barrett’s metaplasia in them.

Methods: 2 consecutive year’s patient data of women who underwent initial endoscopy for chronic GERD/dyspeptic symptoms was studied retrospectively. Women undergoing repeat endoscopies were excluded. Statistical analysis was done using t test and fisher’s exact test where needed.

Results: In Table. Limitations: Small sample size and lack of diversity in study sample.

Conclusion: There was more esophagitis in GERD group which was statistically significant as expected. Dyspeptic women were the only ones in this study to have Barrett’s metaplasia, however, no statistical significance could be attributed to this. However, it calls for a larger study to examine the real association of dyspepsia with Barrett’s metaplasia.

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Loss of P16 (9p21) and its Influence in the Outcomes of Patients with High Grade Dysplasia
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Purpose: Fluorescence in situ hybridization (FISH) is an evolving test for the detection of genetic abnormalities in Barrett’s esophagus (BE). Loss of P16 (9p21) is among the most common alterations as it controls the cell cycle checkpoint genes and is considered an essential early event in the development of dysplasia in BE. There have not been prior studies investigating the effect of isolated P16 loss in high grade dysplasia (HGD)/intramucosal cancer (IMCA). Our aim is to compare the outcomes of HGD/IMCA patients with and without loss of P16.

Methods: We retrospectively reviewed patients with biopsy-proven HGD or IMCA from our tertiary referral center. We included patients with baseline FISH data, obtained by brush cytology and evaluated using a four probe set for 8q24 (MYC), 9p21 (CDKN2A), 17q12 (ERBB2) and 20q13.2 (ZNF217). We identified patients with any isolated P16 loss (both hemizygous and homozygous loss). We collected patient demographics, endoscopic findings, histology, and treatment course with either endoscopic mucosal resection (EMR) and/or radiofrequency ablation (RFA). Complete remission of intestinal metaplasia (CRIM) was defined as absence of IM on 2 consecutive endoscopies with biopsies. Demographic and endoscopic factors associated with CRIM or progression were assessed by univariate and multivariate Cox proportional hazards regression (CRIM) was defined as absence of IM on 2 consecutive endoscopies with biopsies. Demographic and endoscopic factors associated with CRIM or progression were assessed by univariate and multivariate Cox proportional hazards analysis. Kaplan-Meier estimation was used to assess the effect of isolated P16 loss to the time to achieve CRIM.

Results: There were 30 patients with isolated P16 loss and a corresponding 30 patients with diploid FISH that met inclusion criteria. Baseline characteristics are presented in Table. All patients underwent endoscopic treatment per standard clinical practice. Follow-up time was 34.7 ± 30.6 months after their baseline FISH analysis. Age, body mass index (BMI), hiatal hernia size, number of RFA sessions, treatment with EMR and photodynamic therapy (PDT) were not associated with CRIM or univariate analyses. In a multivariable model adjusted for age, BE length and RFA sessions; P16 loss was not associated with time to CRIM or progression to EAC. Kaplan Meier estimation showed no difference between those with isolated P16 loss and those with normal FISH profile in terms of time to achieve CRIM (p=0.09).

Conclusion: In our cohort, HGD/IMCA patients with either isolated loss of P16 or normal FISH profile had similar outcomes after standard endoscopic treatment for HGD/IMCA. This suggests that loss of cell regulatory function does not seem to affect overall outcomes of endoscopic management.

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A Study of Interobserver Agreement with High Resolution Esophageal Pressure Topography and Impedance Manometry

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Purpose: High Resolution Esophageal Pressure Topography (HREPT) has been heralded as a advance in the study of esophageal motility. Recently, high-resolution impedance and manometry (HRIM) has become available. The interobserver agreement of HRIM using waveform versus topographic impedance or the additive benefit of their combined utility is not clearly known. This study compares interobserver agreement of HRIM analysis and bolus transit assessment by conventional impedance versus analogous plots.

Methods: 108 swallows were randomly selected from 18 subjects (M:F= 6:12; median age=43 years) who underwent esophageal HRIM testing using a catheter equipped with 36 pressure and 18 impedance channels (Given Imaging, Yoqneam, Israel). Swallows were independently analyzed by two investigators. Distal esophageal analysis for each swallow included the following HREPT parameters: distal contractile integrals (DCI), contractile frontal velocity (CFV), integral residual pressure (IRP), and intrabolus pressure (IBP). Complete or incomplete bolus transit was assessed using waveform tracings. Contraction pattern identification via Chicago Classification and assessment of complete/incomplete bolus transit were analyzed using HRIM topographic plots. All measurements were performed separately by observers. Linear correlation of DCI, IRP, IBP, and CFV measurements were assessed using linear regression. Interobserver agreement (Kappa) was assessed for impedance via waveform and HRIM methods, as well as HRIM contraction patterns.

Results: Correlation of DCI and IRP measures between observers were strong (r=0.99, r=0.95) while IBP and CFV measures revealed good correlation. Interobserver agreement (Kappa) was assessed for impedance via waveform and HRIM methods, as well as HRIM contraction patterns.