

**Material and methods:** Seventy-four non erosive reflux disease (NERD) patients were treated for 8 weeks with PPIs. The positive therapeutic outcome was recorded through a validated questionnaire before stopping such medication. All patients underwent esophageal manometry and MII-pH after a 14-days wash-out from PPI. The patients were grouped on the basis of MII-pH results as follows: True-NERD (increased acid exposure time, AET, or reflux number); Hypersensitive Esophagus (normal AET and reflux number, positive symptom association probability index, SAP); Functional Heartburn (normal AET and reflux number negative SAP). The results were evaluated with Fisher exact test ( $p < 0.05$ ).

**Results:** The male:female ratio was 1.05; mean age ( $\pm$ sd) was 50.6 ( $\pm$ 13.4) years; mean BMI was 25.1 ( $\pm$ 3.5). Presenting symptoms were: heartburn 50/74; regurgitation 18/74; belch 4/74; chest pain 2/74. MII-pH analysis results: number of True-NERD 52/74 (70.3%) with mean AET 6.4 $\pm$ 4; Hypersensitive esophagus 15/74 (20.3%) with mean AET 1.3 $\pm$ 1.1 and 100% positive SAP; Functional Heartburn 7/74 (9.4%) with mean AET 1.1 $\pm$ 0.8 and 100% negative SAP.

**Conclusions:** Our findings show that GERD diagnosis, by means of MII-pH, is not confirmed in over than 9% of PPI responder patients with reflux-like symptoms. The mechanisms through which PPI are able to control symptoms in FH patients need future investigations.

#### P.10.13

##### RELATIONSHIP BETWEEN HELICOBACTER PYLORI INFECTION AND GERD SYMPTOMS

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**Background and aim:** Gastroesophageal Reflux Disease (GERD) is clinically characterized either by typical or atypical manifestations but it is still unclear why some patients experience the former or the latter class of symptoms. The coexistence of GERD and *H.pylori* (Hp) infection is not rare but conflicting data are reported about the relationship between these two conditions since some authors even suggested a potentially protective action of the bacterium against the occurrence of GERD. Aim of our study was therefore to analyze the symptom pattern in a group of patients with esophageal 24-hour pH-monitoring positive for GERD to determine whether the presence of Hp infection could affect the quality of symptoms.

**Material and methods:** We retrospectively evaluated 120 consecutive patients referred to our Unit for suspected GERD. The analysis was then performed on patients resulted positive for GERD at the esophageal pH-metric recording. These patients underwent a C13 Urea Breath Test (C13 UBT) to test the *H.pylori* status. In case of negative C13 UBT data on previous positivity and eradication therapy were obtained. GERD patients were then stratified according to the quality of their symptoms and classified as typical (heartburn, regurgitation) and atypical (chest pain, respiratory and ENT features). X2 test was performed combining the clinical aspects and the Hp status.

**Results:** 76 patients out the 120 considered were eligible for the analysis; 18 of them were Hp-positive, 42 Hp-negative, 16 had been eradicated. The distribution of symptoms in the two groups was as follows: Hp +ve (18): 7 typical (39%), 11 atypical (61%); Hp -ve (42): 32 typical (76%), 10 atypical (24%) ( $p=0.005$  vs Hp +ve). Eradicated patients (16) showed an equal distribution of symptoms, 8 typical (50%) and 8 atypical (50%).

**Conclusions:** Atypical symptoms of GERD result more frequent in patients *Helicobacter pylori* positive as compared to *H.pylori* negative and, to a lesser extent, eradicated patients. These data seem to suggest that Hp infection can modulate the sensitivity of upper GI tract and the clinical appearance of gastroesophageal reflux more than protect from the disease. The exact role of these findings in the pathogenesis and natural history of GERD needs to be elucidated.

#### P.10.14

##### ASSOCIATION OF IRRITABLE BOWEL SYNDROME WITH NON-EROSIVE REFLUX DISEASE

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**Background and aim:** Irritable Bowel Syndrome (IBS) and Gastroesophageal Reflux Disease (GERD) are very common disorders in the general population. Symptoms of IBS are commonly encountered in GERD patients, and symptoms of GERD are not uncommon in IBS pts.

In our study we evaluated the prevalence of Erosive Reflux Disease (ERD) and Non-erosive Reflux Disease (NERD) in IBS pts and their relationship with IBS subtype.

**Material and methods:** From November 2010 to October 2011 we examined 542 consecutive pts (28.3% M and 71.7% F; mean age: 47.0 yrs; range 15-84 yrs) referring to our ambulatory of gastrointestinal disease.

Three hundred and eleven pts (311/542) had GERD and/or IBS symptoms (according to Rome III criteria). We divided these pts in three groups: IBS-only (n=126), GERD-only (n=66) and IBS plus GERD (n=119). IBS pts, with or without GERD were subdivided in other three groups: IBS with constipation (IBS-C, n=80), IBS with diarrhea (IBS-D, n=80) and IBS with alternating C/D (IBS-CD, n=85).

GERD pts with or without IBS, were diagnosed with ERD (n=61) or NERD (n=124) by endoscopic examination. Statistical analysis was performed with Chi-square test.

**Results:** The comparative analysis between GERD-only pts (37 NERD, 29 ERD) and IBS-GERD pts (87 NERD, 32 ERD) evidenced a positive correlation among these disease (Odds Ratio = 3,30, 95% CI: 2,28–4,79;  $P < 0.05$ ). We didn't find any positive relationship between presence of GERD and bowel habit analysing the subgroups division of IBS-only pts (IBS-C= 37, IBS-D = 45, IBS-CD = 44) and IBS-GERD pts (IBS-C = 43, IBS-D = 35, IBS-CD = 41). In particular, ERD and NERD had a negative relationship with IBS onset (ERD: OR=1,05, 95% CI: 0,63–1,75,  $P=ns$ ; NERD: OR=5,08, 95% CI: 3,19–8,09,  $P=ns$ ). Furthermore, from our data we observed a closed association between NERD and IBS-CD (OR=1,92, 95% CI: 1,15–3,21).

**Conclusions:** These results show an overlap of GERD in a 48.6% of IBS pts. This association could be explained admitting the existence of a common functional starting problem or, as confirmed by studies, an improvement of IBS-like symptoms in patients with reflux disease receiving anti-reflux treatment. Furthermore, the relationship between NERD and IBS-CD, suggests a common functional disorder of smooth muscles or sensory afferents.

#### P.10.15

##### 24H AMBULATORY IMPEDANCE, ESOPHAGEAL MANOMETRY, RADIOLOGICAL STUDY AND CLINICAL EVALUATION BEFORE AND AFTER SLEEVE GASTRECTOMY IN OBESE PATIENTS

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**Background and aim:** In several studies GERD is significantly more frequent after sleeve gastrectomy (S.G.) in obese patients than after other surgical procedures. Aim of this study is to know esophageal manometric patterns, presence of pathological acid and weak acidic reflux and related symptoms before and after SG in obese patients (BMI > 35).

**Material and methods:** The authors studied 30 obese patients operated with sleeve gastrectomy. 24h ambulatory impedance, esophageal manometry, radiological study, clinical evaluations were obtained before and after six months the surgical procedure. Impedimentometric parameters were reflux analysis, bolus clearance time, acid exposure time, S.I., SAP. Manometric parameters were: LES pressure, body motility.

Radiological patterns were: tubular pouch, superior pouch and inferior pouch. **Results:** Heartburn improved after SG in 83% of patients, but regurgitation significantly increased in 92% of patients and the most deterioration is noted in the patients with tubular and superior pouch. In all patients LES pressure is reduced. 12 patients were asymptomatic before and after S.G.