ABSTRACTS

36th Belgian Week of Gastroenterology 2024

INDEX

for a given FODMAP, baseline individual intake was not significantly higher in patients where this FODMAP triggered symptom recurrences compared to patients where this did not trigger symptoms.
Conclusions: These findings confirm a reduced intake of macronutrients (carbohydrates and fats) during the LFD, compared to regular food intake in IBS patients. In addition, a significant reduction was found in intake of total and individual FODMAPs during the LFD. No correlation was found between the response rate and the difference in macronutrients and FODMAP intake during the LFD, compared to regular food intake. Volume of specific FODMAP intake at baseline did not determine their ability to trigger symptoms upon blinded reintroduction.

- N06 -

CHANGES IN EDN LEVELS AFTER FOLLOWING A DIET OR MEDICAL THERAPY. C. Reulens (1), J. Toth (1), K. Routhiaux (1), K. Van den Houte (1), F. Carbone (1), J. Tack (1) / [1] Translational Research Center for Gastrointestinal Disorders (TARGID), KULeuven, Leuven, Belgium, Chronic Diseases and Metabolism.

Introduction: Irritable bowel syndrome (IBS) affects about 10 to 15% of the global population. Based on the dominant stool form, it can be subdivided into diarrhea-predominant (IBS-D), constipation-predominant (IBS-C), mixed type IBS (IBS-M) or unclassified IBS (IBS-U). Patients report recurrent abdominal pain and other symptoms as bloating, abdominal distention and flatulence. In the DOMINO study, a FODMAP lowering diet application (DOMINO app) showed a higher responder rate compared to standard medication (otilonium bromide, OB) in 472 primary care IBS patients. The pathophysiology of IBS is multifactorial, but recent research is focusing on low-grade inflammation. An increased number of eosinophils has been reported in the mucosa of IBS patients compared to healthy controls. Moreover, faecal eosinophil-derived neurotoxin (EDN) levels are elevated in IBS compared to controls (Casado-Bedmar 2022).
Aim: We aimed to analyse the faecal EDN levels in stool samples of IBS-D primary care patients from the DOMINO cohort and their evolution after a FODMAP lowering diet or OB treatment.
Methods: IBS and its subtype were clinically diagnosed by primary care physicians at baseline. Patients collected a stool sample before and after an 8 week treatment period with either the DOMINO diet or OB. Patients filled out a Bristol stool scale form when collecting the stool sample. Faecal EDN levels are measured in stool samples of IBS-D patients before and after treatment by an ELISA assay (Diagnostics Development AB, Uppsala, Sweden). In addition, demographic data was collected and patients filled out questionnaires regarding their symptoms (IBS-SSS). EDN levels were compared at baseline and after treatment. Data was analysed by non-parametric t-tests and a p-value <0.05 was considered significant.
Results: Stool samples of 120 IBS-D patients (69,2 % female, mean age 37 ± 14) were analysed. BMI or the stool form according to the Bristol Stool Form Scale were not associated with EDN levels before or after treatment. EDN levels were not correlated with IBS-SSS scores. We found no significant difference in EDN levels before and after treatment with OB (n = 60, 69,6 ± 12,0 µg/g vs. 66,8 ± 9,7 µg/g , p = 0.92) or the FODMAP lowering diet (n = 60, 126,8 ± 28,5 µg/g vs. 77,9 ± 11,5 µg/g, p = 0.06). However, there was a significant difference in EDN levels in men (n = 37, 100,6 ± 22,6 µg/g vs. 48,5 ± 9,0 µg/g, p = 0.005) but not in women (n = 83, 96,8 ± 20,2 µg/g vs. 83,1 ± 9,9 µg/g, p = 0.59) after treatment. A numerical decrease in EDN levels in men was observed with both the DOMINO diet and with OB treatment but reached statistical significance only in the former (respectively n = 18, 114,5 ± 34,4 µg/g vs. 50,5 ± 12,6 µg/g, p = 0.03 and n = 19, 86,7 ± 29,9 µg/g vs. 46,3 ± 13,3 µg/g, p = 0.07).
Conclusions: In IBS-D patients as a group, EDN levels and their evolution were not correlated to symptom severity or symptom improvement after following an 8 week treatment with either diet or medication. In male patients, treatment response was associated with a decrease in EDN compared to females after the DOMINO diet. The role of eosinophils in treatment response in IBS subgroups deserves further in-depth studies.

- N07 -

THE EFFECTIVENESS OF PROTON PUMP INHIBITORS PRIMARILY IN THE TREATMENT OF PATIENTS WITH ACID-DEPENDENT GASTROESOPHAGEAL DISEASES DEPENDS ON THE BASAL SECRETION OF HYDROCHLORIC ACID. I. Paliy (1), S. Zaika (2), K. Ksenchyna (1) / [1] National Pirogov memorial medical university, Vinnytsya, Ukraine, Department of internal and family medicine, [2] National Pirogov memorial medical university, Vinnytsya, Ukraine, Department of internal and family medicine.

Introduction: The resistance of Helicobacter pylori (H.p.) to eradication therapy schemes is relevant for modern gastroenterology. One of the ways to overcome this problem is to achieve sufficient blocking of HCl secretion in the stomach. However, in not all patients with acid-dependent gastroesophageal diseases, we can achieve blockade of gastric HCl secretion using standard doses of proton pump inhibitors (PPIs). Thus, it becomes relevant to develop criteria for predicting the effectiveness of PPIs before the eradication of H.p.
Aim: Based on the data of daily gastro-pH monitoring, evaluate the effectiveness of PPI on the first day of treatment depending on the basal secretion of HCl.

Methods: We analyzed 83 results of daily gastro-pH monitoring on the first day of taking PPIs in patients with acid-dependent gastroesophageal diseases. The separation criterion was the indicators of express gastro-pH monitoring (X pH >2.48 units, Me pH >2.3 units and Mo pH >2.35 units), which we established in previous studies. Express gastro-pH monitoring was performed for all patients before daily gastro-pH monitoring. The patients were divided into two groups: 55 patients in whom the indicators of express gastro-pH monitoring were less than the suggested ones (group I) and 28 patients in whom the indicators of express gastro-pH monitoring corresponded to the proposed criteria (group II). Both groups were comparable in terms of age, sex, height, body weight, and prescribed PPI, which allowed a comparative assessment between groups. We studied indicators of intragastric pH (X pH, Me pH, and Mo pH) of daily gastro-pH monitoring for the following time periods: 1 Basal period - time from the start of daily gastro-pH monitoring to the reception of the first PPI dose (1 hour); 2. Time after taking the first PPI dose until the end of monitoring (23 h); 3. Night time period (22:00 - 07:00).
Results: Analyzing intragastric pH indicators during the basal period, it was found that in patients of the I group, the indicators of X pH, Me pH and Mo pH were significantly lower ($p<0.01$) than in patients of the II group and, accordingly, were (1.9±0.09 , 1.75±0.07, 1.68±0.07 vs. 2.2±0.09, 2.03±0.1, 1.96±0.1). 23 hours after taking the first dose of PPI in patients of group I, the indicators of intragastric pH were significantly lower ($p<0.01$) than in patients of group II and were, respectively, (4.2±0.2, 4.07±0.2 , 3.6±0.2 vs. 4.9±0.2, 4.9±0.3, 4.5±0.3). Similar results were obtained by us during the analysis of the night time period. It was established that in the I group, the indicators of intragastric pH during the night time period were significantly lower ($p<0.01$) than in the patients of the II group and, accordingly, were (4.3±0.2, 4.2±0.3, 3, 9±0.3 vs. 5.03±0.2, 5.02±0.3, 4.9±0.4).
Conclusions: 1. Basal gastric acidity affects the effectiveness of the acid-blocking action of PPIs on the first day of treatment both during the 23-hour period and during the night period. 2. The proposed criteria of express gastro-pH monitoring for prognostic assessment of the acid-blocking effect of PPIs before the start of treatment are sufficient.

- N08 -

CLINICAL AND PSYCHOSOCIAL CHARACTERISTICS OF ADULT PRIMARY CARE IBS PATIENTS IN BELGIUM: A CROSS-SECTIONAL POST HOC ANALYSIS OF THE DOMINO STUDY. R. Wils (1), B. Broeders (1), K. Van den Houte (1), F. Carbone (1), J. Tack (1) / [1] Translational Research Center for Gastrointestinal Disorders (TARGID), KULeuven, Leuven, Belgium, Gastroenterology.

Introduction: Irritable bowel syndrome (IBS) is a common functional gastro-intestinal disorder associated with a decreased quality of life, substantial socioeconomic consequences and a considerable psychological burden. The majority of IBS patients are diagnosed and managed in primary care, but this setting is underinvestigated to date.
Aim: The present study aimed to improve our understanding of IBS in primary care by evaluating the clinical and psychosocial characteristics of adult primary care patients with the disorder.
Methods: We performed a cross-sectional post hoc analysis of the DOMINO trial, which yielded a large Belgian cohort of 483 primary care patients, newly diagnosed with and treated for IBS by 69 general practitioners. We investigated baseline demographics and questionnaires assessing Rome IV IBS criteria and stool pattern subtype, symptom severity (IBS-SSS), quality of life (IBS-QoL), somatisation (PHQ-12), depression (PHQ-9) and anxiety (GAD-7). Differences according to IBS Rome IV subtype and IBS Rome IV positivity (Rome+ vs. Rome-) were studied by the Mann-Whitney, Kruskal-Wallis, Fisher's Exact and Chi-square test. Furthermore, statistically significant predictors of IBS-SSS and IBS-QoL were identified by multiple linear regressions and general linear models. Data are shown as mean±standard deviation.
Results: 70.4% of the primary care IBS patients (n=483, 41±14.8 years, 76% female) fulfilled the Rome IV criteria (Rome+, n=317). The stool pattern subtype distribution according to the Rome IV diagnostic questionnaire (n=450) was: 20.2% constipation (IBS-C), 33.3% diarrhea (IBS-D), 30.9% mixed (IBS-M) and 15.6% unclassified (IBS-U). Mean IBS-SSS (n=453) was 267.6±97.8 with 45.5% and 36.4% of the cases considered as moderate and severe respectively. Of the patients not fulfilling Rome IV (n=133), 43.6% did not meet the criteria based on frequency of abdominal pain. The Rome+ group was younger (38.5±13.8 vs. 46.8±14.8 years, $p<0.001$) and more likely to be female (79.8% vs. 65.4%, $p=0.002$) compared to Rome-. The prevalence of IBS-D and IBS-M was significantly lower (25.6% vs. 36.6% and 19.5% vs. 35.6% respectively, $p<0.05$) and IBS-U was higher (33.8% vs. 7.9%, $p<0.05$) in the Rome- group. Rome- patients had a lower IBS-SSS (201.5±99.8 vs. 295.4±82.9, $p<0.001$), a better quality of life (IBS-QoL 23.4±14.3 vs. 35.4±16.9, $p<0.001$) and a lower psychosocial comorbidity compared to Rome+ (PHQ-12 7.0±3.9 vs. 9.2±4.5, $p<0.001$; PHQ-9 5.8±4.6 vs. 7.4±5.1, $p=0.001$ and GAD-7 5.3±4.5 vs. 7.2±5.1, $p<0.001$). IBS-U patients were significantly older than IBS-M and IBS-D patients (47.3±13.6 vs. 37.3±13.4 and 39.9±14.6 years respectively, $p<0.001$) and IBS-C patients were significantly older than IBS-M participants (43.4±15.1 vs. 37.3±13.4 years, $p=0.002$). The male proportion was significantly higher in IBS-U than in IBS-C and IBS-M (42.9% vs. 16.5% and 15.8% respectively, $p<0.05$). IBS-U participants had a significantly lower IBS-SSS compared to IBS-M, IBS-D and IBS-C (203.3±104.2 vs. 294.8±92.3, 265.0±89.2 and 280.0±93.9, $p<0.001$, $p=0.001$ and $p<0.001$ respectively). IBS-M had a higher IBS-SSS compared to IBS-D (294.8±92.3 vs. 265.0±89.2, $p=0.03$). IBS-U patients reported a better quality of life compared to IBS-M, IBS-D and IBS-C (IBS-QoL 22.9±14.1 vs. 37.1±17.7, 31.6±16.0 and 31.1±17.0, $p<0.001$, $p=0.003$ and $p=0.02$ respectively).