

in two arms: 1. taking a dosage of 1 mg/day for other 4 weeks; 2. taking a dosage of 2 mg 3 times a week for 4 weeks. In 9 pts, who experienced a lack of action of Procalupride (possible receptional phenomenon), we decided to make a wash out of the drug for 2 weeks (6 pts) or to double the dosage at 4 mg/day (3 pts), and than to follow up them for a further 4 weeks period.

Results: 4 pts out of 28 experienced significant side effects (mainly headache or abdominal pain) and dropped out, as well as 2 for personal reasons. Overall, 22 pts were evaluable for the results: the improvement in SCBMs was reached over the 4 weeks of treatment in 16 pts with an improvement in both symptom relief and quality of life. In group 1 of retreatment (14 pts), 10 followed experienced after 4 weeks of 1 mg/day administration the same results compared with 4 out of 8 in group 2. In the group of 9 pts with lack of action 5 out of 6 restored the benefit after the wash out of the drug, compared with the 3 patients taking 4 mg daily.

Conclusions: Procalupride confirmed its efficacy in the daily life experience, with a reasonable percentage of side effects, leading to significant improvement in both symptoms relief and quality of life of patients. Further studies are necessary to identify the best approach to maintain clinical benefits.

P.06.14

CHRONIC CONSTIPATION IS A RISK FACTOR FOR METABOLIC SYNDROME

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Background and aim: A recent epidemiologic survey in the U.S. provides indirect evidence that constipation is a risk factor for cardiovascular disease in postmenopausal females. To characterize the related factors involved in and to further analyse if this assumption also applies to an Italian population, we studied the impact of chronic constipation on ischemic cardiopathy and predisposing risk factors in a large population of female patients in a primary care setting.

Material and methods: We retrospectively evaluated 754 female patients (mean age 46 ± 20 years) on data file of a primary care setting. All subjects requiring medical referral for constipation were screened and presence of chronic constipation was confirmed by standardized questionnaires. The presence of clinical and/or instrumental diagnosis of ischemic cardiopathy, metabolic syndrome, diabetes and blood hypertension was scored in patients with and without chronic constipation. In all patients the consumption of drugs potentially delaying colonic transit (calcium channel blockers and beta blockers) was recorded. Patients on opioid or analgesic treatment were excluded.

Results: The overall prevalence of chronic constipation was 9.4% (71/754) with the age being similar in patients with and without constipation (46 ± 19 vs. 51 ± 22 , $p = \text{NS}$). The prevalence of metabolic syndrome was significantly higher in subjects with chronic constipation (5/66 vs 16/667, OR=3.1, 95% CI 1.1–8.9, $p = 0.03$). Conversely, prevalence of diabetes, blood hypertension, ischemic cardiopathy was similar in patients with and without constipation (59/624 vs 10/61; 204/478 vs 28/43; 46/637 vs 6/65, respectively $p = \text{all NS}$). No significant difference was also observed as far as calcium channel blockers (64/619 vs 9/62) and beta blockers (81/602 vs 9/62) consumption in patients with or without constipation respectively.

Conclusions: We showed that chronic constipation is a risk factor for metabolic syndrome in female patients. Although we did not find any significant association between chronic constipation and ischemic cardiopathy, our findings support the hypothesis that constipation may act as cardiovascular risk factor. Whether this association is dependent on dietary or hormonal factors deserves further investigation.

P.06.15

CORRELATES TO ABDOMINAL PAIN IN CONSTIPATION PREVALENT IBS PATIENTS

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Background and aim: Symptoms of irritable bowel syndrome (IBS) have been associated to altered motility and sensation. In constipated prevalent-IBS patients, a clear association between bowel habit and abdominal pain remains to be established, and it is not known whether factors related to patients daily life may play a role in symptoms generation.

Our aim was to evaluate the association between abdominal pain, bowel habit, demographic factors, alimentary/voluntary habits and colonic transit in constipated-IBS patients.

Material and methods: 68 patients complaining of chronic constipation were selected on the basis of the Rome 3 criteria for IBS. Colonic transit time (CTT) was studied and alimentary attitudes and smoking habit were recorded. Presence of mild or severe abdominal pain was scored, as well as the prevalent pain characteristics, defined as diffuse or localized, chronic or acute, with cramps or gradually distending. Data were analysed by univariate and stepwise multiple logistic regression analysis was also used to verify the risk association between pain and all other variables.

Results: 40 patients were classified as constipated and 28 had alternating evacuation. Constipated patients had a lower scholar degree, consumed more laxatives, had a longer transit time in the right colon and scored more chronic pain than alternating ones, but it was not confirmed by multivariate analysis. When severity of abdominal pain was used as discriminating factor, a significant number of subjects reporting severe pain were males (16/30 vs 4/38, $p < 0.01$) and smokers (20/30 vs 4/38, $p < 0.001$). Multivariate analysis confirmed that only smoking was an independent factor associated with severe abdominal pain (OR 14.3, CI 2–99, $p = 0.007$).

Conclusions: Abdominal pain is similarly reported by constipated or alternating IBS patients and it is not associated with colonic transit time or demographics. Smoking is the only factor constantly and independently associated to severe abdominal pain. As smoking does not seem likely to affect colonic transit time we suggest that smoking may act on the visceral perception in IBS-constipated patients.

P.06.16

EFFICACY OF AMYTRIPTILINE IN IMPROVING INTESTINAL PERMEABILITY AND QUALITY OF LIFE IN PATIENTS WITH IBS

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Background and aim: Irritable bowel syndrome (IBS) is a functional gastrointestinal disorder (GFD). In the pathogenesis are implicated alterations of GUT microbiota, motility, intestinal immunity and inflammation, and recently was given a major role to changes in intestinal permeability. Patient with IBS has poor quality of life. For treatment of IBS we use probiotics, antibiotics and recent studies including meta-analysis have demonstrated the efficacy of tricyclic antidepressant (TCA) in particular amitriptyline.

The aim of our study was to evaluate the efficacy of amitriptyline not only to improve the quality of life of patients but also in improving intestinal permeability.

Material and methods: We enrolled 20 pts (10F, 10M; mean age 38 ± 4 yrs) with IBS according to Roma III criteria. All patients underwent to intestinal permeability with chromium EDTA test. Quality of life was analyzed by SF36 test. Then, we administered amitriptyline 10 mg po twice daily for 30 days. At the end of treatment we repeated intestinal permeability with chromium EDTA test and SF36 test.

Results: All items analyzed by SF36 were lower compared to the normal values for the general Italian population. Mean Mental Health Index (MHI) and Physical Health Index (PHI), the two main scores of SF 36, were both