

a stable trait in CD patients and also studied if this was influenced by a genetic predisposition. Materials and methods: From a cohort of 466 CD patients who underwent a bowel resection in the period between 1-1-1991 and 31-12-2007 we identified 88 patients with two or more bowel resections in that time period (55.7% male, median [interquartile range, IQR] age at diagnosis 20,92 [17,05-28,51] years, median [IQR] age at first surgery 32,81 [22,93-41,64] years, median [IQR] time between surgeries 5,76 [3,8-8,96] years. Revision of pathology slides (average of 10 slides per resection specimen) was performed to classify patients as granuloma positive or negative at each surgery. Epithelioid granuloma was defined as a well circumscribed collection of at least five epithelioid macrophages (activated histiocytes with a homogenous eosinophilic cytoplasm) with or without multinucleated giant cells. All patients were genotyped for 76 selected SNPs in human homologues of yeast autophagy (Atg) genes, using the Sequenom MassARRAY® platform. Results: In 71,6% of patients (n=63) no change in granuloma status was observed with subsequent surgeries. Among these patients, 58,7% were classified as granuloma positive and 41,3% as granuloma negative. We could not find significant differences in age at first surgery, disease duration to first surgery or time between surgeries between patients whose granuloma status did or did not change. Genotype and allele frequencies for the studied polymorphisms did not differ between patients whose granuloma status did or did not change. Conclusions: Granuloma formation appears to be a stable trait in the majority of CD patients. This raises the hypothesis that an underlying intrinsic defect may make a patient prone to develop granulomas. Genetic variants in autophagy genes do not seem to play a role in this respect.

S1206

Probiotics Improve the Efficacy of Biofeedback in Patients with Pelvic Floor Dyssynergia

Maria Pia Caldarella, Mariaelena Serio, Chrysanthi Balatsinou, Simone Vigneri, Angelo Milano, Francesco Laterza, Matteo Neri

Biofeedback (BF) is an effective treatment for pelvic floor dyssynergia (PFD), that has no adverse effects but the time necessary to achieve a sustained response in individual patients and the appropriate number of training sessions is unpredictable. Probiotics have been shown to improve altered bowel habits and bloating in IBS, but it is unknown whether they can be of any help in patients with obstructed defecation. Aim of this pilot study is to compare BF to a BF + probiotic in patients suffering from pelvic floor disorders Methods: 63 patients with chronic, severe PFD, diagnosed by anorectal manometry and defecography, were first treated with 20 g/day fiber plus enemas or suppositories up to twice weekly. Nonresponders were randomized to either 5 weekly biofeedback sessions (n = 24) or to biofeedback plus a mixture of 8 different bacterial strains (VSL#3) with a concentration of 10⁹ colony-forming units per day for five weeks (n= 16) Satisfaction with treatment, symptoms of constipation, and pelvic floor physiology were assessed during treatment at 6 and 12 months. At all visits constipation-related symptoms were measured by means of a diary evaluating number of evacuation, satisfactory defecation, obstruction of evacuation, digital evacuation, bloating. RESULTS: The rectoanal inhibitory reflex (RAIR) initially showing incomplete relaxation, became normal by the end of the rehabilitation period. All RAIR parameters significantly improved post-treatment in both groups in comparison to baseline (47%vs 76% in BF group and 39% vs 72% in BF+probiotics, P < 0.001), but no differences were observed between groups. Rectal sensation and compliance did not change after rehabilitation with or without probiotic. During treatment constipation -related symptoms significantly improved in both groups at the end of the 5-week treatment (BF 58% vs BF+probiotic 87%), although the treatment group BF plus probiotic achieved significant improvement for bloating, satisfactory defecation and number of evacuation at two weeks in comparison to the baseline period (p<0.05). Anorectal physiology features were unchanged at 6 and 12 months in both groups. Conclusion : Biofeedback is an effective treatment for PFD and its efficacy on symptoms can be heightened by the simultaneous addition of probiotics.

S1207

Oral Mucosa Patch Test: A New Tool to Identify and Study the Alimentary Intolerance to Nickel-Containing Foods

Antonio Picarelli, Anna Vallecocchia, Marco Di Tola, Mirella Magrelli, Daniela De Nitto, Valerio Libanori, Annarita Saponara, Francesca Paris, Elisabetta Scali, Marta Carlesimo, Alfredo Rossi

Background & aim: Nickel-exposure through the skin may cause an allergic contact dermatitis, for which the gold standard for diagnosis is the epicutaneous patch test. Similarly, nickel-exposure via intestinal mucosa can be able to induce symptoms as diarrhoea, abdominal pain and swelling. Our aim was to investigate the relationship between these symptoms and nickel-intake by an oral mucosa patch test, described for the first time in the present study. Methods: Sixty-seven patients with intestinal symptoms referable to the ingestion of nickel-containing foods were included in the study. Each patient underwent to epicutaneous and oral mucosa patch tests to nickel. All patients presenting a positive oral mucosa patch test were submitted to a nickel-poor diet and monitored over time. Results: At the epicutaneous patch test, local lesions were observed in 27/67 (40.3%) patients while, after oral mucosa patch test, local lesions (erythema, oedema and vesicles) and/or general reaction (itching and dermatographia) were observed in 40/67 (59.7%) patients evaluated. All patients presenting a positive oral mucosa patch test showed a relapse of symptoms with the same latency observable after nickel-containing foods ingestion. Inversely, 35/40 (87.5%) patients positive at the oral mucosa patch test showed an improvement in their symptoms after two months of nickel-poor diet. Conclusions: Our data show that the oral mucosa patch test could be used to identify and to study nickel-containing foods alimentary intolerance and, at the same time, it seems to be suitable to redefine this pathological condition as "allergic contact mucositis". Moreover, we can see that a nickel-poor diet may be useful to improve the clinical picture, as well as to obtain the restoration of well-being in the affected patients.

S1208

Altered Colonic Metabolite Fingerprint in Chronic Kidney Disease As Compared to Healthy State

Vicky De Preter, Björn Meijers, Bert R. Bammens, Paul J. Rutgeerts, Pieter Evenepoel, Kristin Verbeke

Introduction: Chronic kidney disease (CKD) is characterised by changes in biochemical and physiological functions. Although the exact pathogenic mechanisms for these changes are still largely unknown, it is accepted that there is a progressive retention of some compounds that are normally excreted by the kidney. An important subgroup of retention solutes originates from protein fermentation in the colon. Accumulation of fermentation metabolites in CKD is associated with further deterioration of renal function, increased overall mortality and increased incidence of cardiovascular disease. While colonic fermentation solutes clearly affect the progression and prognosis of CKD, it is unclear whether CKD itself interferes with colonic protein fermentation. The aim of this study was to compare the faecal volatile compounds (VOC) fingerprint between CKD patients and healthy subjects. Methods: Faecal samples were obtained from 55 healthy subjects and 12 CKD patients. A purge-and-trap sample preparation system, coupled on line to a GC-MS (time-of-flight) was applied to analyse the VOC. AMDIS software was applied to extract purified mass spectra from overlapping components. Cluster analysis was used to compare the metabolic profiles. Statistics were done using SPSS 15.0. Results: A total of 237 different VOC were identified in the faecal samples with an average of 62 ± 8 VOC per control and 51 ± 4 per CKD patient. Five VOC were found in all analyzed samples: acetone, benzaldehyde, 4-methyl phenol, 2-methyl propanal and toluene. VOC fingerprints clearly clustered in 2 groups, discriminating between CKD and controls. Subsequently, we identified twelve VOC, which significantly differed between healthy subjects and CKD patients. Conclusions: We report the first analysis of fermentation metabolites in a cohort of CKD patients versus healthy volunteers. These findings suggest that CKD interferes with bacterial colonic protein fermentation. In turn, retained protein fermentation metabolites adversely affect outcomes of CKD patients. Combined, these data suggest a complex colo-renal interplay which might provide new therapeutic targets for CKD.

Differences in % occurrence of VOC controls and CKD patients			
VOC	Healthy	CKD	p-value (X ²)
1-Pentanol	4%	58%	<0.001
2-Methyl-2-propen-1-ol acetate	0%	50%	<0.001
4-Carene	0%	42%	<0.001
Benzene, 1,2,3-trimethyl	96%	42%	<0.001
Benzeneacetaldehyde	64%	0%	0,015
Cyclohexane	11%	75%	<0.001
Cyclohexene, 1-methyl-4-(1-methylthylidene	67%	0%	0,005
Cyclopropanecarboxaldehyde	5%	40%	0,009
Furan, 2-methyl	15%	92%	<0.001
Hexane	69%	0%	0,008
Limonene	96%	50%	0,002
Oxepine, 2,7-dimethyl	68%	0%	<0.001

S1209

Duodenal Adenomas in Nonpolyposis Syndrome Patients Are Not Associated to Colorectal Neoplasia

Dilka I. Gonzalez-Ortiz, Doris H. Toro, Johanna Bigio, Marcia R. Cruz-Correa, Carol L. Torres-Cotto

Background: Duodenal adenomas are extremely common in patients with familial adenomatous polyposis. In the general population, sporadic duodenal adenomas are an uncommon finding. Among individuals with duodenal adenomas, the development of concurrent colonic adenomas has been proposed, suggesting a diffuse gastrointestinal mucosa proliferative process and thus surveillance with colonoscopy may be warrant. Methods: A total of 10,666 upper endoscopies were performed from January 1997 to July 2007. All patients with a histological diagnosis of duodenal adenomas were retrospectively reviewed and identified as cases. Those with history of familial adenomatous polyposis, hereditary non polyposis colorectal cancer syndrome or duodenal carcinoma were excluded. Four age-matched control subjects having both colonoscopy and endoscopy during the same period were randomly selected for each case. Association of duodenal polyposis and colonic adenomas was calculated with two sample proportions and chi square using SPSS. Results: In the 10-year period, we identified 21 patients with duodenal adenomas, meeting the inclusion criteria. All were males with a mean age of 67 years (range: 45-86 years). The most common indication for upper gastrointestinal endoscopy (EGD) among cases was abnormal imaging (47.6%), while for the 84 age-matched controls the most common indication was gastrointestinal bleeding (29.8%). Most adenomas were located in the second portion of the duodenum (63%), had a mean size of 5 mm (range 1-21 mm), and 4 of 21 (18%) of adenomas were classified as harboring high grade dysplasia. The prevalence of sporadic duodenal adenomas was 0.2%. Nine of 21 (42.8%) cases and 38 of 84 (45%) of the age-matched controls (p=0.21) were found with concurrent colonic adenomas. There was no significant statistical association between presence of duodenal polyposis and anemia, use of PPI, smoking, alcohol, BMI or medical history of diabetes mellitus. Conclusion: Prevalence of duodenal polyposis was low, although a high number of polyps exhibited high grade dysplasia. There was no statistically significant association between nonfamilial duodenal polyposis and colorectal adenomas. Our observations do not support early colonoscopy surveillance for patients with duodenal polyposis and suggest that the presence of duodenal adenomas is a sporadic finding and unrelated to colorectal neoplasia.

S1210

Gastrointestinal Complications in Patients Supported with Ventricular Assist Devices

Muhammad A. Siddiqui, Mark S. Slaughter, Rogelio G. Silva

Purpose: Left Ventricular Assist Devices (LVADs) have become the standard of care for end-stage heart failure as either Bridge to Transplantation (BTT) or Destination Therapy (DT). We reviewed GI complications and their treatment in patients supported with a LVAD. To our knowledge, this is the largest series presented to date. Methods: From 2003-2008, 86