chronic inflammation in healed mucosa, and to relate these findings to clinical data, including therapy.

**Methods:** From UC patients attending an outpatient IBD clinic we selected a series of 30 consecutive UC patients with no pain, no rectal bleeding and no more than two bowel movements/day in the preceding 6 months. Patients using topical therapy were not included. Patients were excluded if endoscopic evaluation showed blood, ulcers, erosions, friability, or focal erythema in >25% of the mucosa. Rectal biopsies were evaluated by two independent pathologists and inflammatory changes were scored according to chronicity (distortion, atrophy, Paneth cell metaplasia, chronic inflammation, eosinophils) or activity (superficial erosions, mucus depletion, acute inflammation). Biopsies of normal mucosa from patients without colonic disease were used as controls. Histological findings were correlated with clinical data (duration of the disease, colonic extension, anaemia) and with the type of treatment; statistical analysis tests: Mann-Whitney, chi-square and Spearman for non-parametric data.

**Results:** Thirty patients, 29 treated with 5-ASA, 8 with immunosuppressants, 4 with infliximab and 12 with present or past corticosteroid use. Histological profile confirmed clear histological difference between patients and controls (p < 0.0001). Patients: Two groups, according to chronicity and activity scores. Group 1: 4 patients with no difference from controls (score ≤2); Group 2: 26 patients different from normal with scores >2. No correlation was found between duration of the disease, colonic extension and presence of anaemia, with the histological score. No significant correlation was found between score and therapy.

**Conclusions:** Healed mucosa in quiescent colitis may show important signs of persistent activity and chronic inflammation, but these are not correlated with extension and duration of disease, and neither with past or present anaemia. Therapy did not influence histological score.

**P125 A prospective study of the ileal gut hormone fibroblast growth factor 19 (FGF19) in ileal Crohn’s disease**

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**Background:** FGF19 is a polypeptide hormone produced in the ileum which inhibits hepatic synthesis of bile acid and is thought to have roles in regulation of bile acid pool size and in clinical conditions of diarrhoea. Fasting serum levels of FGF19 are reduced in patients with Crohn’s disease (CD). In vivo, the ileum and also in patients with CD and ileal resections (IR). Aims: To investigate the relationship between serum FGF19 and disease activity in CD and length of ileal resection.

**Methods:** Blood samples were taken prospectively from patients after an overnight fast in 41 patients with Crohn’s disease (24 non resected and 16 with previous IR), 8 patients with ulcerative colitis (UC), 19 healthy controls and 75 disease controls with SeHCAT negative chronic idiopathic diarrhoea. In 9 IR patients clinical records were available to establish the precise length of ileum resected. Disease activity was assessed by Harvey–Bradshaw Index (HBI). Diarrhoea was defined as stool frequency ≥3, Bristol stool chart ≥6. Serum FGF19 was measured by ELISA and data are expressed as medians and ranges. Nonparametric statistical tests (Mann Whitney and Spearman rank correlations) were used.

**Results:** Median levels of FGF19 were significantly lower in patients with non-resected CD (114 pg/ml, 3–339) and UC (105 pg/ml, 63–289) compared to healthy controls (231 pg/ml, 74–655, P = 0.002 and 0.005 respectively). Patients with previous IR (71 pg/ml, 17–152) had significantly lower levels than non-resected CD (P = 0.02). 8 active patients (HBI >4) of 15 non resected CD with ileal involvement had further assessment of the ileum. 4 with ileal stricturing and obstructive symptoms had significantly higher FGF19 levels (328 pg/ml, 178–339) compared to the inactive patients (118 pg/ml, 40–256, P = 0.04). Conversely, 4 with non-obstructive ileal inflammation had significantly lower FGF19 levels (33 pg/ml, 3–59) than inactive patients (P = 0.01). 6 non resected CD with diarrhoea had significantly lower levels of FGF19 (86 pg/ml, 30–169) compared to the diarrhoea controls (246 pg/ml, 72–1000, P = 0.0001). In 9 IR patients an inverse correlation between FGF19 levels and resection length was observed (r = −0.87, P = 0.005).

**Conclusions:** Fasting serum levels of FGF19 are significantly reduced by IR or non obstructive ileal inflammation. Symptoms of diarrhoea in CD are associated with low levels of FGF19 and an inverse correlation is found between FGF19 and the length of previous ileal resections.

**P126 Development of a numerical index quantitating small bowel damage as detected by ultrasonography in Crohn’s disease**

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**Background:** Small intestine contrast ultrasonography (SICUS) has emerged as a valuable tool in the detection of intestinal damage in Crohn’s disease (CD). Our aim was to develop a numerical index quantitating small bowel damage as detected by SICUS in patients with an established diagnosis of CD.

**Methods:** One hundred and ten patients with ileal or ileocolonic CD were enrolled and followed up for one year. Disease activity was assessed by CDAI and CRP levels. Study variables included bowel wall thickness, lumen diameter, lesion length and number of lesion site. Fistula, mesenteric adipose tissue alteration, abscess and lymphnodes were also considered. Bowel segments were considered as a hollow cylinder. Small intestine contrast ultrasonography in CD from a descriptive qualitative assessment to a quantitative numerical index suitable for comparison studies.

**Results:** Standardized variations of variables were combined into a statistical and mathematical model to create an algorithm scoring an index value ranging from 0 to 200. Index was subdivided into a severity scale with 5 classes from the lower (A) to the higher score (E). Median lesion index value was significantly higher (p < 0.005) in patients with a CDAI >150 and in patients with CRP >5 mg/l (P = 0.003). Patients classified in class E and D at SICUS underwent surgery within one year follow up more frequently than those in class C, B and A (p < 0.0001).

**Conclusions:** We propose a new index for assessment of small bowel lesions in CD (SLIC: sonographic lesion index for CD) developed by using SICUS. This index may turn ultrasonography in CD from a descriptive qualitative assessment to a quantitative numerical index suitable for comparison studies.