Conclusions: Predictors for subsequent 5-year disabling course are an age below 40 years, the initial requirement for corticosteroids, and jejunal involvement in Korean patients with CD. Further prospective validation of these parameters is warranted.

P127
Clinical outcomes of ileocaecal Crohn's disease: Surgery versus pharmacotherapy

Y. Park*, S.P. Hong, S.J. Park, T.I. Kim, W.H. Kim, J.H. Cheon
Yonsei University College of Medicine, Department of Internal Medicine and Institute of Gastroenterology, Seoul, South Korea

Background: Ileocaecal Crohn's disease (CD) with disease activity confined to the terminal ileum, with or without caecal involvement, can be treated either surgically or medically. However, little is known about the timing of surgery or benefits of surgery compared to medical treatment. The aims of this study were to assess outcomes after medical versus surgical management of ileocaecal CD in the current era.

Methods: Of 885 patients with CD diagnosed and prospectively enrolled in our hospital between 1980 and 2013, 93 (10.5%) ileocaecal CD patients were identified. Those who had a follow-up shorter than 6 months were excluded (n = 5). Patients were assigned to either medical or surgical remission group by initial management strategy that had leaded to remission. Relapse, hospitalization, and surgery rates after medically or surgically induced remission were compared using Kaplan-Meier curve with log-rank test.

Results: Patients assigned to surgical and medical remission groups were 15 (17.0%) and 73 (83.0%), respectively. Median follow up duration was 6.6 years (interquartile range, 3.1 - 9.9 years). In total, relapse occurred in 48 (54.5%) patients, and the median time to relapse was 3.9 years (95% confidence interval, 3.1 - 4.7 years). Surgical remission group showed a lower relapse rate with prolonged maintenance of remission (10.7 vs. 3.7 years; P = 0.017). Hospitalization after first remission tended to be lower in surgical remission group (P = 0.054), and there was no case with repeated intestinal resection after initial surgical remission strategy, whereas 23% and 39% of surgery rates were reported at 5 and 10 years after initial medical treatment (P = 0.037). At multivariate analysis, initial medical management strategy (Hazard ratio [HR] = 3.23, P = 0.039) were strongly associated with relapse in ileocaecal CD, along with a younger age at diagnosis (HR = 1.06, P = 0.003) and a longer time to achieve first remission (HR = 1.04, P = 0.013).

Conclusions: Overall outcomes of ileocaecal CD are excellent with 44.5% of patients remaining symptom-free at 5 years after first remission. In selected cases of localised ileocaecal CD, ileocolic resection might be a good alternative to the long-term medical treatment, with a lower relapse rate and prolonged maintenance of remission.

P128
A new chemiluminescent immunoassay for measurement of Calprotectin in stool

A. Mandic Havelka*, M. Hörnfeldt, C. Palm Rosén
Karolinska University Hospital, Clinical Chemistry, Stockholm, Sweden

Background: The interest in calprotectin is constantly increasing due to its potential as a non-invasive, cheap and sensitive marker for intestinal inflammation. Currently, calprotectin is measured with commercially available ELISA and EliA assays. At present, these Methods are time-consuming and used only in clinical laboratories. Determination of calprotectin in stool requires often manual and long pre-analytical processing of the fecal samples, which may lead to long turn-a-round time for the calprotectin Results. We have validated a new chemiluminescent immunoassay for determination of calprotectin in combination with fully automatic system for pre-analytical processing of fecal samples in order to improve efficiency and generate shorter turn-a-round time for the calprotectin Results.

Methods: A new chemiluminescent immunoassay assay (DiaSorin S.p.a.) for determination of calprotectin was validated on LIAISON XL Analyzer (DiaSorin S.p.a.). Pre-analytical processing of fecal samples was performed with a fully automated robotic system (SoniC, S2G Scandinavia), which perform weighing, homogenization and centrifugation of stool samples.

Results: Assay linearity was proven throughout the measuring range from 5 to 800 mg/kg. Samples with higher levels of calprotectin are automatically diluted and reanalyzed. Within-run CVs ranged from 3,8-4,7 %, for concentrations of 40- and 160 mg/kg and total CV was calculated to 5 %.

The LIAISON Calprotectin assay shows good precision between duplicates. 90 samples with the concentrations between 5 mg/kg and 5000 mg/kg were analyzed and CV was calculated to 2%. The assay was compared to the ELISA assay that is currently used in the laboratory (BÜHLMANN Laboratories AG). Results obtained with the chemiluminescent immunoassay showed lower values then Results obtained with ELISA (slope=1,8, R2 = 0,79, n=85 (conc. range 5-5000 mg/kg), slope = 2,8, R2 = 0,81, n=66 (conc. range 5-300 mg/kg)).

Our laboratory yearly analyze 15 000 calprotectin samples. The turn-around-time for calprotectin Results could be significantly decreased, from 2-3 weeks to 2-3 days when using automatic system for processing of stool samples and new LIAISON Calprotectin assay for measurement of calprotectin in stool.

Conclusions: The chemiluminescent immunoassay for measurement of Calprotectin in stool was shown to be precise with proven linearity over the measuring range. The automation of both pre-analytical processing of stool samples and measurement of calprotectin concentration resulted in improved efficiency and significantly shorter turn-around-time for calprotectin Results.

P129
Systematic evaluation of clinical predictors of aggressive ulcerative colitis

S. Vavricka[1], F. Reinisch[2], N. Fournier[3,4], V. Pittet[3], E. Safroneeva[5], M. Scharl[2], P. Michetti[6], G. Rogler[1], A. Schoepfer*[7]
[1]*University of Zurich, Gastroenterology and Hepatology, Zurich, Switzerland,* [2]*University Hospital Zurich, Gastroenterology, Zurich, Switzerland,* [3]*Institute of Social and Preventive Medicine, Healthcare Evaluation Unit, Lausanne, Switzerland,* [4]*University of Lausanne, IUMSP, Lausanne, Switzerland,* [5]*University of Bern, Institute of Social and Preventive Medicine, Bern, Switzerland,* [6]*Crohn and Colitis Center Clinique La Source , Gastroenterology, Lausanne, Switzerland,* [7]*Centre Hospitalier Universitaire Vaudois, Gastroenterology and Hepatology, Lausanne, Switzerland*

Background: Studies evaluating risk factors associated with an "aggressive" disease course in ulcerative colitis (UC) are scarce. A recent definition of "aggressive" UC incorporated the following characteristics: 1) high relapse rate, 2) need for surgery, 3) development of colorectal cancer, and 4) presence of extraintestinal manifestations (EIM). The following factors for an aggressive / disabling disease course in UC have been identified so far: age < 40 years at

UC diagnosis, pancolitis, concomitant primary sclerosing cholangitis, and deep ulcerations of the colonic mucosa. We aimed to evaluate risk factors for an "aggressive" disease course in UC patients.

Methods: Data from the Swiss IBD cohort study were analyzed. Patients were recruited from university centers (80%), regional hospitals (19%), and private practices (1%). We applied the following definition for "aggressive" UC: 1) patients ever treated with TNF-antagonists or calcineurin inhibitors (tacrolimus / cyclosporine), and 2) need for (procto)-colectomy. Non-normal data are presented as median and interquartile range [IQR].

Results: A total of 1,130 adult UC patients were included. Of these, 422 (37.3%) had an aggressive disease course. UC patients with aggressive disease course were characterized by the following features when compared to UC patients with non-aggressive disease course: more frequently males (59.2% vs. 50.6%, p = 0.005), younger at UC diagnosis (median 28 years vs. 33 years, p < 0.001), more frequently < 40 years at diagnosis (79.8% vs. 72.1%, p = 0.004), more frequently pancolitis at diagnosis (51% vs. 37.1%, p <0.001), younger age at latest follow-up (median 41 years vs. 46 years, p < 0.001), and had more frequently extraintestinal manifestations (52.6% vs. 36.3%, p < 0.001). No difference was found between the two groups when analyzing the length of diagnostic delay, body mass index, NSAID intake at symptom onset, disease duration (both median of 10 years), geographical provenience (urban vs. rural), and education level. UC patients with aggressive disease course were more frequently treated with antibiotics (40.3% vs. 18.6%, p < 0.001), with steroids (92.4% vs. 72.2%, p < 0.001), and immunomodulators (80.6% vs. 47.5%, p <0.001).

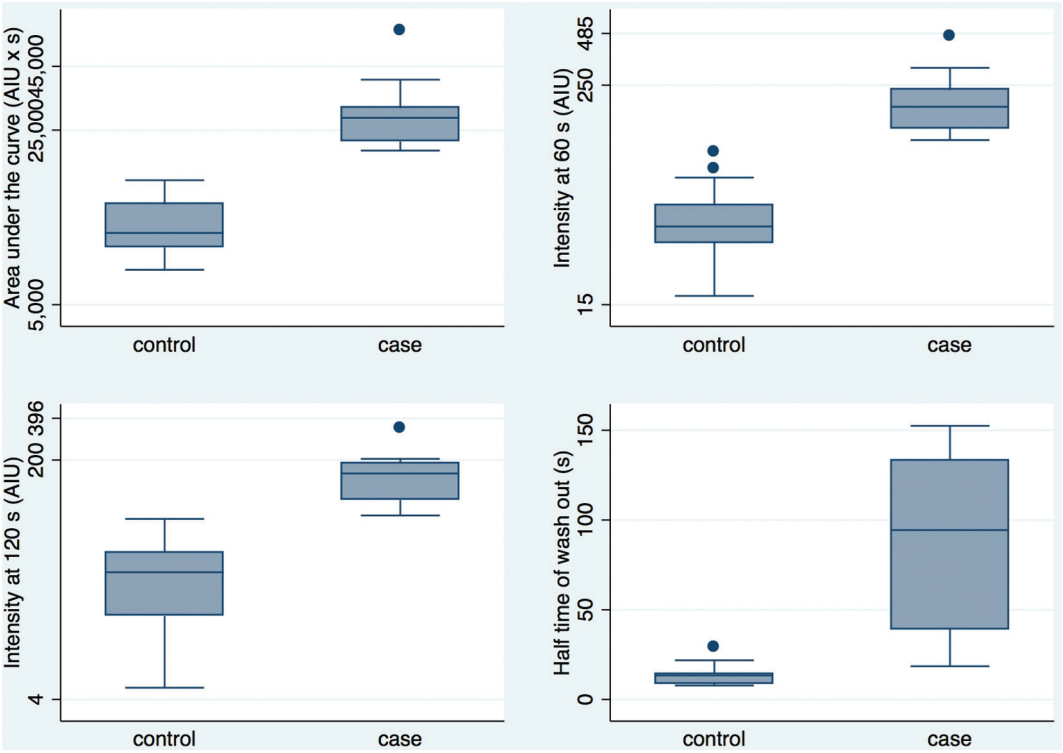
Conclusions: Our large cohort study confirmed the following risk factors for "aggressive" disease course: young age at diagnosis, extensive colitis / pancolitis at diagnosis, and presence of extraintestinal manifestations. In addition, our study identified male gender to be a risk factor for "aggressive" disease course. Further studies will have to show if early stepup therapy is beneficial in UC patients fulfilling criteria for "aggressive" disease course.

P130
Persistent Enhancement in Contrast Ultrasound Studies of Severe Crohn's Disease: Stuck Bubbles?

R. Wilkens*[1, 2, 3, 4], A. Wilson[1], P.N. Burns[5], S. Ghosh[2], S.R. Wilson[1, 2]
[1]University of Calgary, Department of Radiology, Calgary, Canada, [2]University of Calgary, Department of Medicine, Division of Gastroenterology, Calgary, Canada, [3]Regional Hospital Silkeborg, University Research Clinic for Innovative Patient Pathways, Diagnostic Center, Division of Gastroenterology, Silkeborg, Denmark, [4]Aarhus University Hospital, Department of Hepatology and Gastroenterology, Aarhus, Denmark, [5]University of Toronto, Department of Biophysics and Imaging Research, Toronto, Canada

Background: Our aim is to describe a unique observation on contrast-enhanced ultrasound (CEUS), seen in a small population of patients with severe Crohn Disease (CD) in whom contrast enhancement does not show typical decline over time. Clinical significance is assessed. We hypothesize the non-targeted microbubbles adhere to the site of inflammation, [1] as previously shown in animal models with induced inflammation. [2] [3]

Methods: From an existing CD study cohort examined with CEUS for determination of disease extent and activity, 17 patients show high peak enhancement (PE), over 23 dB, consistent with severe active disease, but with minimal decline over a 3 minute interval. From the same cohort, a matching control group of 19 patients with the same PE but typical washout were selected. Original cineloop



"Box plot differences in time intensity curve details between study patients (cases) and control patients."