Table 2. Hierarchical regression of sociodemographic, clinical and psychosocial predictors of QoL.

| Predictor                | B (95% CI) | P-value | ΔR² |
|--------------------------|------------|---------|-----|
| Sociodemographic         |            |         |     |
| Education up to 10       | 1.28 (0.44, 2.12) | 0.01   | 0.42|
| Education up to 10       | 0.74 (0.41, 1.09) | 0.02   | 0.42|
| Employment status        | -0.87 (-2.15, 0.4) | 0.17   | 0.42|
| Employment sex           | -0.20 (-1.64, 0.24) | 0.90   | 0.42|
| Gender                   | -0.10 (-0.77, 0.56) | 0.69   | 0.42|
| Living alone             | 0.38 (0.27, 1.35) | 0.06   | 0.42|
| Living single person     | 0.07 (0.19, 0.31) | 0.50   | 0.42|
| Married/Divorced         | -0.10 (-1.17, 0.09) | 0.08   | 0.42|
| Clinical                 |            |         |     |
| Disease activity         | -3.36 (-3.36,-3.4) | <0.001 |     |
| Exercise - 30 minutes    | -0.07 (-0.85, 0.37) | 0.70   |     |
| Medication               | -0.99 (-1.67, 0.59) | 0.31   |     |
| Duration                 | -0.02 (-0.64, 0.61) | 0.91   |     |
| Smoking number           | 0.10 (0.54, 0.64) | 0.56   |     |
| Smoking vs.              | 0.14 (0.21, 0.34) | 0.39   |     |
| Steroids                 | -0.18 (-0.45, 0.12) | 0.33   |     |
| Thrombosis               | -0.04 (0.03, 0.05) | 0.54   |     |
| Emotional                |            |         |     |
| Anxious                  | -0.0 (0.0, 0.1) | 0.92   |     |
| Depressive               | 0.01 (0.01, 0.01) | 0.91   |     |
| Distress                 | 0.06 (0.00, -0.21) | 0.24   |     |
| Stress                   | -0.06 (-0.08, -0.05) | 0.13   |     |
| Cognitive                |            |         |     |
| Negative Fatigue         | 0.01 (-0.02, 0.01) | 0.91   |     |
| Overeating               | 0.05 (0.01, 0.08) | 0.50   |     |
| Depression               | 0.17 (0.37, 0.2) | 0.14   |     |
| Hypochondria             | 0.0 (0.0, 0.0) | 0.92   |     |
| Fear of illness           | -0.10 (-0.08, 0.02) | 0.49   |     |
| Symptom distress         | 0.02 (0.04, 0.00) | 0.54   |     |
| Behavioural              |            |         |     |
| All-or-nothing behaviours| -0.30 (-0.67, 0.06) | 0.11   |     |
| Avoidance behaviour      | -0.01 (-0.05, 0.03) | 0.85   |     |
| Daytime sleepness        | 0.07 (0.32, 0.49) | 0.74   |     |

Conclusions: Apart from disease activity, emotional and behavioural factors and patients’ negative fatigue perceptions may be key factors to be addressed. Further exploration of these factors in longitudinal and intervention studies may help to develop effective models of fatigue management.

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Elevated C-reactive protein level during clinical remission can predict poor outcomes in patients Crohn’s disease

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Background: Intestinal mucosal damage in Crohn’s disease (CD) is believed to progress even in patients showing clinical remission. We aimed to investigate the difference in the long-term prognosis of CD patients in clinical remission depending on serum C-reactive protein (CRP) levels during clinical remission.

Methods: A total of 339 CD patients in clinical remission (defined by Crohn’s disease activity index less than 150) for more than 6 months between January 2008 and December 2010 were enrolled in this study. Clinical outcomes represented by CD-related hospitalization, intestinal resection, perianal surgery, intestinal complications, and step-up of medical therapy were compared between normal CRP group and elevated CRP group during clinical remission.

Results: There were 150 patients with normal CRP through 6 months of clinical remission and 189 patients who showed elevated CRP at least once during 6 months of clinical remission. During follow-up (median, 7.9 years [interquartile range, 6.8–8.0]), the Kaplan-Meier analysis with the log-rank test showed the superiority of the normal CRP group compared with the elevated CRP group in terms of CD-related hospitalization-free survival (Figure 1A, p=0.007) and intestinal resection-free survival (Figure 1B, p=0.046).

Figure 1. Kaplan-Meier hospitalization-free survival curves (A) and intestinal resection-free survival curves (B).

In multivariate analysis, elevated CRP and Montreal penetrating behavior were associated with increased risk of CD-related hospitalization (adjusted hazard ratio [aHR] 1.787; 95% confidence interval [CI] 1.245–2.565, p=0.002, and aHR 2.175; 95% CI 1.489–3.177, p<0.001, respectively). In addition, elevated CRP, Montreal structuring behavior, and use of immunomodulators were associated with increased risk of intestinal resection (aHR 1.726; 95% CI 1.003–2.969, p=0.049, aHR 2.722; 95% CI 1.223–6.058, p=0.014, and aHR 4.149; 95% CI 2.117–7.907, p<0.001, and aHR 2.147; 95% CI 1.076–4.284, p=0.030, respectively).

Conclusions: Even if patients with CD are in clinical remission, elevated CRP showed a significant association with poor prognosis.
represented by a higher risk of subsequent CD-related hospitalization and intestinal resection. More vigilant monitoring and therapeutic strategy are required for CD patients in remission, but with high CRP to improve long-term prognosis.

P253
Effects of time on urinary metabolic signatures in inflammatory bowel disease

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Background: Metabolic profiling (metabonomics) has been proposed as a novel clinical tool in IBD to predict development of complex disease, or for longitudinal non-invasive monitoring of activity and/or response to drug treatment. Urinary metabonomics can distinguish IBD from healthy controls [1] but no studies to date have assessed the stability of these discriminatory profiles over time. Studies in healthy adults show metabolic signatures are largely unchanged over periods of up to 3 years [2], but signals are influenced by multiple external factors including medication and surgery, so how these change in IBD is unknown. The aim of this study was to compare baseline urinary metabolic profiles of IBD patients with a repeated sample several years later to assess similarity, and also to test if any clinical outcomes could be retrospectively predicted from the baseline sample.

Methods: Two urine samples from 39 IBD patients (22 Crohn’s disease (CD) and 17 ulcerative colitis (UC)) were collected - one at baseline and one several years later (range 7–9 yrs). These were analysed by 1H NMR spectroscopy. Disease progression was defined as initiation of immunosuppression or biologics, progression of disease location or phenotype, or surgery. Principal components analysis was used to visualise the variance between the two time-points within the cohort. Orthogonal partial least squares discriminant analysis (OPLS-DA) was used to establish if the metabolic signatures could be used to predict adverse clinical outcomes in the patients studied.

Results: There was a diverse clinical outcome across the groups; 57% of CD patients and 17% of UC patients had clinical progression at follow up sampling. PCA showed clustering of sample pairs from the baseline and several years later in most individuals, suggesting intra-individual similarity across time. OPLS-DA showed no statistical models could be built to predict combined poor outcome based on the initial urinary metabolic profile (p=0.26). However, the small subgroup who went on to require surgical intervention could be separated from the cohort in a model (Q2=0.015; p=0.03) constructed on their baseline profiles.

Conclusions: The metabolic profile of IBD in an individual appears relatively stable over a significant time period despite a variety of clinical outcomes and interventions. Variations in longitudinal measurements appear to be subtle, and therefore application of this technique for disease monitoring and risk stratification could prove difficult. These results may suggest that metabolic profiling could be exploited to predict a higher risk of requiring future surgery. Large prospective studies are required to further investigate this.

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P254
Relationship between severe endoscopic lesions and plasmatic and fecal infliximab levels in acute severe ulcerative colitis: a case control study

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Background: Recent data suggest that early fecal excretion of infliximab (IFX) in acute severe ulcerative colitis (ASUC) is associated with poor treatment response [1]. Severe endoscopic lesions (SEL), such as deep ulcerations eroding the muscle layer, deep ulcerations not eroding the muscle layer but involving more than one third of the mucosal area, and mucosal detachment on the edge of ulcerations, could favor infliximab fecal leakage.

The aim of this study was to search for an association between SEL and IFX levels in blood and stools in ASUC.

Methods: This was a case-control, observational (with collection of biological samples), prospective, two-center study that recruited between February 2015 and July 2016 consecutive patients admitted for an ASUC treated with IFX who had a flexible sigmoidoscopy before starting the drug. Patients who received any anti-TNF within the previous 8 weeks were excluded. Cases were patients with SEL and controls those without. IFX serum levels were measured at D0, D1, D2 and D98 and/or D2 in 2/6 (33%) of cases and 4/9 (44%) of controls (OR =0.6, 95% CI [0.03–7.9], p=1) and no difference was observed between the two groups regarding the plasma levels of IFX on D1 or D2. At D98, 3/6 (50%) cases and 1/9 (11%) controls had been colectomized.

Conclusions: In a group of patients admitted for an ASUC treated with IFX, SEL were not associated with more detection of the drug in the stools or less plasmatic levels. In this pilot study, primary IFX failure in ASUC does not seem related SEL and drug fecal leakage. The place of these early dosages remains to be studied in larger populations.

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