Conclusions: IBD patients who are in clinical and biochemical remission with supra-therapeutic IFX TL's have an impaired quality of life by IBDQ. Future trials should determine whether dose de-escalation would abolish these side effects.

P471 Hematopoietic stem cell transplantation in refractory Crohn’s disease: feasibility and toxicity
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Background: Autologous hematopoietic stem cell transplantation (HSCT) is a second line treatment for severe refractory Crohn’s disease (CD) patients. We evaluated feasibility and toxicity of autologous HSCT for refractory CD.

Methods: In this prospective study, refractory CD patients with an aggressive course despite medical treatment, impaired quality of life and no surgical options were included. Hematopoietic stem cells were mobilized (cyclophosphamide and granulocyte colony-stimulating factor) and collected by leukapheresis from peripheral blood. In a second step, a non-myeloablative conditioning regimen with cyclophosphamide and rabbit antithymocite globulin (rATG) was used and previously collected stem cells were infused. Toxicity and complications during mobilization and conditioning phases and first-year follow up were evaluated.

Results: Twenty-six patients were included. Infectious complications during mobilization included 16 febrile neutropenias, 1 bacteriemia, and 2 bacteremias associated with septic shock (2 of 3 isolated microorganisms were multi-drug resistant bacteria). Neutropenia median time was 5 days and hospitalization median time was 18 days. Five patients did not continue to the second phase of the study: leukapheresis was not successful in 2 patients, 1 patient withdrew the study after mobilization, another one required surgery and the fifth one reached clinical remission after mobilization, so 21 patients entered into the conditioning phase. Hospitalization median time was 26 days, hematopoiesis recovery median time for neutrophils (>1x10³/L) was 12 days and for platelets (>60x10⁹/L) was 4 days. Red cell transfusion was required in all patients. For infectious complications, 95% of patients presented febrile neutropenia, 8 Gram-positive cocci were isolated, 2 Gram-negative bacilli were identified after neutrophil recovery and 3 patients presented worsening of perianal CD activity. Among non-infectious complications, 6 patients suffered rATG reaction, 12 mucositis and 2 hemorrhagic complications. Infectious complications during the study prompted us to revise and intensify supportive measures as well as to introduce new empirical antibiotic schedules. During the first 12-month follow up, viral infections were the most common and in one patient, cytomegalovirus led to multiorgan failure and death.

Conclusions: Autologous HSCT for refractory CD patients is feasible if extraordinary supportive measures are applied. We consider that this procedure should only be developed in high-experienced centers applying the same security measures than those used for allogeneic transplantation.
from non responders to IFX maintenance therapy within one year.

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**Histological inflammation in ulcerative colitis in deep remission under treatment with infliximab**


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**Background:** Mucosal healing, based on histological analysis, is an endpoint of maintenance therapy for patients with ulcerative colitis (UC). There are few data on how histological signs of inflammation develop under treatment with Infliximab (IFX). We investigated the patterns of histological features of inflammation in patients with UC in sustained clinical and endoscopic remission under IFX.

**Methods:** We performed a retrospective study on 47 patients with UC in clinical and endoscopic remission and undergoing surveillance colonoscopy with biopsies while receiving maintenance therapy with IFX. Each colonic segment was evaluated based on the Mayo endoscopic subscore and the Geboes histology score (range, 0 to 5.4).

**Results:** Globally, 6110 biopsy specimens were collected from 235 colonoscopies. At the beginning of the follow-up, histological features of inflammation were found in 48.9% of patients receiving maintenance IFX therapy; 25.9% of them had at least moderate inflammation based on histology scores. At the end of the follow-up, when patients were still under endoscopic and clinical remission, 40.4% of patients had at least one biopsy specimen with evidence of any histological inflammation during the follow-up, and 19.1% had biopsy specimens that met the Geboes criteria for abnormal histological inflammation (Figure 1). In none of the different disease locations (pancolitis, left-sided colitis, distal colitis) histological inflammation improved significantly during the follow-up.

**Conclusions:** Patients in clinical and endoscopic remission from UC under IFX still frequently have histological features of inflammation.

**Figure 1.** Bar graph showing the histological inflammation subdivided according to Geboes score ≥0.1 and Geboes score ≥3.1 at the beginning and at the end of follow-up (p = n.s., Fisher’s exact test).

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**Gut microbiota in patients with inflammatory bowel disease and irritable bowel syndrome before and after 6 weeks of low FODMAP diet**

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**Background:** Patients with Inflammatory Bowel Disease and Irritable Bowel Syndrome (IBD–IBS) might have altered microbiota. Approximately 60–80% of IBD patients suffer from IBS. Diet low in Fermentable Oligo-Di and Mono-saccharides and Polyols (LFD) was found to be effective in IBS patients. The aim of this study was to investigate the impact of LFD on faecal microbiota.

**Methods:** Fecal samples were collected from IBD–IBS patients in remission having irritable bowel symptoms (ROME III criteria) and randomized (not blinded) to a LFD or a normal (Western/Danish) diet (ND) during 6 weeks. IBS severity score (IBS-SSS) was scored by patients at week 0 and week 6 on an eHealth web-application, www.ibs.constant-care.dk. Bacterial DNA analysis was performed with the GA-map IBS Dysbiosis semi-quantitative Test (Genetic Analysis AS, Oslo, Norway). This 16S rRNA based test utilizes DNA probes designed to facilitate separation between patient groups and normal subjects based on their bacterial gut composition, the most common gut bacteria are represented. A numeric representation of the deviation, a "Dysbiosis Index" (DI), is calculated and change in DI between a baseline and a follow-up sample is also investigated in this work.

**Results:** A total of 50 IBD–IBS patients (median 41 years, range 20–69), 39 (78%) females: 15 (30%) CD and 35 (70%) UC were included in the study. 24 (48%) were in LFD and 26 (52%) in ND. At baseline, 35 (70%) had dysbiosis, 10 (20%) had normal biosis and 5 (10%) had inconclusive result. At week 6, 25 (50%) had dysbiosis, 10 (20%) had normal biosis and 10 (20%) uncertain. 5 (10%) patients had missing dysbiosis data.

Overall there was no significant difference in dysbiosis index (DI) changes at baseline versus week 6 (median 8.5, range 2.5–104) vs. (median 6.0, range 1.9–121), p = 0.18. In LFD/normal diet group, 18 (75%)/17 (75%) had dysbiosis, 4 (17%)/3 (12%) had normal biosis and 2 (8%)/6 (23%) had inconclusive result at baseline. There was no significant difference in DI changes at baseline comparing to week 6 in both LFD/ND group (n median (range)] [12.6 (3.1–97.2)/7.4 (2.5–105)] vs. 7.3 (1.9–121)/4.6 (2.2–105), p = 0.68/0.07. Furthermore, no significant difference in DI in the LFD group compared to the ND group (p = 0.17) after 6 weeks treatment was observed. A significant improvement in IBS-SSS total score in all patients was observed (mean 210, range 60–454) at week 0, compared to (mean 117, range 0–368) week 6, p < 0.01.

**Conclusions:** High proportions (70%) of the IBD–IBS patients were dysbiotic at baseline and 50% at week 6. There was not found significant changes in the microbiota in IBD–IBS patients after 6 weeks in LFD group compared to ND.