Conclusions: Our results suggest that appropriate dose adjustments by reducing the intervals of IFX dosing may overcome low ADA titers with the aim to maintain or restore clinical response. In addition, proactive evaluation of ADA status may allow earlier identification of patients prone to a loss of response. The implementation of Bayesian dashboards may assist in the prediction of SIs <3 μg and determining adequate dosing modifications.

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Interstitial and granulomatous lung disease in inflammatory bowel disease patients

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Background: Granulomatous (GL) and interstitial lung disease (ILD) are rare respiratory disorders that have been associated with inflammatory bowel disease (IBD). Clinical presentation is polymorphic and aetiology is unclear.

Methods: This was European Crohn’s and colitis organisation (ECCO) retrospective observational study performed as part of CONFER project. A call to all ECCO members was made to report concomitant granulomatous or ILD and IBD cases. Clinical data were recorded in a standardised case report form.

Results: Twenty-two granulomatous lung disease patients were identified from 18 university hospitals, 17 males and 5 females with a mean age of 46 years (18–86); 17 patients with Crohn’s disease (CD) and five with ulcerative colitis (UC). In 19 patients IBD diagnosis preceded lung disease in a median time of 10.6 years (0–27). In three patients lung disease were diagnosed in a median time of 14 months (8–24) before IBD. Only four patients had active disease. Seven patients had drug-related granulomatous disease (sarcoidosis n = 4) and 14 had non-drug-related GL (primary sarcoidosis n = 7, fungal infection n = 2 and unspecified n = 5). Ten patients (45%) required hospitalisation but none required invasive ventilation. Fifteen of 22 patients received systemic steroids and causative drug was stopped in all patients. At further follow-up, 15 of 22 patients had no respiratory symptoms. Thirty-one patients with ILD were identified from 14 medical centres, 12 females and 19 males with mean age of 47 years (17–84); eight patients had CD, 22 had UC and one had indeterminate colitis. All patients had IBD diagnosis prior to ILD with a median time of 10.27 years (0.3–51). Eight patients had active disease. Eleven patients had non-drug-related ILD and 20 had drug-related ILD (mesalazine n = 9, methotrexate n = 1, golimumab n = 1, vedolizumab n = 1 and infliximab n = 8). ILD cases were classified as: Cryptogenic organising pneumonia n = 11, Eosinophilic pneumonia n = 2, bronchiolitis n = 2, acute interstitial pneumonia n = 8, interstitial lung disease due to connective tissue n = 1, idiopathic fibrosis n = 6 and unclassified n = 1. Twenty-five patients (80.6%) required hospitalisation and one required non-invasive ventilation. Twenty-seven patients (87%) received systemic steroids and causative drug was stopped in all patients. At further follow-up, 14 of 31 patients had no respiratory symptoms, 7 of 31 had some improvement, and 4 of 31 had ongoing symptoms. There was one patient referred for consideration of lung transplant due to progressive fibrosis and one death due to mesalazine.

Conclusions: GL and ILD are rare, but require hospitalisation and systemic steroids. In our case series half of cases were drug-related but there was no signal of relationship between IBD therapy and the onset of ILD. More studies are needed to investigate the pathogenesis and causative association.

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Treatment naïve newly diagnosed patients with Crohn’s disease have microbial dysbiosis correlated with disease activity and faecal calprotectin — results from a prospective inception cohort
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Background: Microbial dysbiosis is believed to play a role in Crohn’s disease (CD). Most data are derived from CD patients under medications, an exposure that might impact microbial composition. Our aim was to assess microbial dysbiosis in patients with newly diagnosed CD and correlate it with disease activity.

Methods: Newly diagnosed CD patients were prospectively recruited and followed longitudinally. Clinical data, disease activity (physician global assessment [PGA] ranging from 0 to 3), and serum and faecal inflammatory biomarkers, were collected. Faecal samples were assessed for microbial composition using 16S rRNA sequencing. The microbial dysbiosis index (MDI) was used to quantify the degree of dysbiosis per sample.
Results: Overall 23 treatment naive newly diagnosed CD patients had a complete set of data. Distinct separation in microbial composition between patients with low and high PGA was observed by the analysis of similarities test \((p = 0.016, R = 17\%)\). Patients with low PGA had higher microbial diversity as well as lower MDI and faecal calprotectin levels compared with those with high PGA (median Shannon: 3.1 vs. 2.7, \(p = 0.04\); median calprotectin: 293 vs. 595 micrograms/ml, \(p = 0.04\); median MDE: −1.6 vs. −0.5; \(p = 0.006\)). Samples from patients with high PGA were richer in Enterobacteriaceae, Ruminococcaceae, and Lachnospiraceae. Abundance of Bacteroidales order negatively correlated with calprotectin (FDR-adjusted \(p: 0.04, R = −0.5\)).

Conclusions: Microbial dysbiosis in treatment naive newly diagnosed CD patients was associated with disease activity as reflected by PGA and faecal calprotectin. Longitudinal assessment may reveal specific early dysbiosis patterns as predictive biomarkers for disease flares.

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Development of anti-drug antibodies among those treated with adalimumab and ABP 501 and its impact on serum drug concentration in randomised controlled studies


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Background: Sustained clinical response to biologic therapies is predicated on adequate drug exposure, which can be impacted by development of anti-drug antibodies (ADAs). The objective was to compare the serum trough concentrations of ABP 501 (AMGEVITA®; adalimumab) with adalimumab (Humira®) reference product (RP), and correlate these with incidence of developing anti-drug antibodies (ADAs).

Methods: We descriptively analysed serum drug trough concentration data and binding ADAs from baseline to primary analysis time point in two randomised controlled trials of ABP 501 compared with adalimumab—a 52-week study among patients with psoriasis (PsO) and 26-week study among patients with moderate-to-severe rheumatoid arthritis (RA) on background therapy with methotrexate.

Results: The proportion of subjects with binding ADA positive results increased from 18.1% to 33.5% from Week 4 to Week 26 in the RA study and 29.0–57.0% from Week 4 to Week 16 in the PsO study. Mean serum trough concentrations of ABP 501 and adalimumab RP was lower among those who tested positive for binding ADA time in both studies due to binding ADAs. However, trough concentration over the duration of the study remained similar between ABP 501 and adalimumab RP treatment arm in binding ADA-negative and binding ADA-positive subgroups.

Conclusions: The formation of binding ADAs in both RA and PsO studies impacts the exposure of both ABP 501 and adalimumab RP similarly over time. Furthermore, this reflects on the importance of using sensitive assays for understanding the immunogenicity of these products.

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5-ASA prescription trends over time in inflammatory bowel disease 1996 to 2015–A UK population-based study

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Background: 5-Aminosalicylates (5-ASA) are commonly prescribed for inflammatory bowel disease (IBD). Whilst they are effective in mild–moderate ulcerative colitis (UC), evidence for their benefit in Crohn’s disease (CD) is controversial. Few data are available on the evolution of 5-ASA prescriptions over time, from a population level.

Methods: 5-ASA prescription trends in prevalent IBD patients in The Health Improvement Network (THIN) UK primary care database were evaluated retrospectively across five 4-year periods (era 1–5) between 1996 and 2015. The proportion of patients prescribed 5-ASA at any time of their disease, and within 1 year of IBD diagnosis was stratified by IBD type, 5-ASA type and age group (0–18, ≥18–<65, ≥65, years). Prolonged use was defined as continuous use for ≥2 year months. Chi-squared test for trend was used to evaluate differences in prescription trends. Trends were qualitatively assessed relative to the publication of new evidence and guidelines.

Results: Prevalence of 5-ASA prescriptions over time and total number of patients by each era are shown in Figure 1.

Demographic characteristics were similar over time: 48–51% of UC and 56–58% CD patients were female; the range of mean age of UC patients was 30–56 years and 46–50 years in CD. Current smoking status declined in UC (12–8%) and CD (32–20%) from era 1 to 5. For UC, 5-ASA prescriptions declined from 83% in era 1 to 71% in era 5 \((p < 0.001)\). The use of mesalazine remained stable from era 1 to 5 (63–65%, \(p = 0.151\)). In UC patients aged 12–18 5-ASA use remained