SUSTAINED REMISSION ON OPEN-LABEL SPONDYLOARTHRITIS (NR-AXSPA) WHO ACHIEVED SUSTAINED REMISSION ON OPEN-LABEL (ADA) TREATMENT

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Background: Sustained remission is an important treatment goal in patients (pts) with non-radiographic axial SpA (nr-axSpA). Factors predicting successful remission maintenance are unknown.

Objectives: We sought to identify predictors of remission maintenance in nr-axSpA pts who achieved remission after open-label (OL) adalimumab (ADA) treatment in the ABILITY-3 trial (NCT01808118) and were subsequently randomized to continuation or withdrawal of ADA therapy.

Methods: ABILITY-3 enrolled adult pts with nr-axSpA with objective evidence of disease [ID] score <1.3 at wks 16, 20, 24, and 28, were randomized to double-blind withdrawal (placebo; PBO) or continued ADA for 40 wks during period 2 (study wk 68). Stepwise logistic regression was used to identify predictors of sustained remission maintenance in period 2 was assessed with the following: ASAS partial remission (PR; score 0.5 to 1.9) at wk 28 or ADAS ID for ≥5 of 10 visits at pts who continued or withdrew ADA.

Results: In nr-axSpA pts who achieved remission after 28-wk OL ADA therapy, lower wk 28 ASAS PR and ASAS ID at every visit, and ASAS ID for ≥5 of 10 visits in pts who continued or withdrew ADA.

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SAT0264

DOES BIOLOGICAL DISEASE-MODIFYING ANTI-RHEUMATIC DRUG NAÏVE VERSUS NON-NAÏVE PATIENTS WITH INFLAMMATORY JOINT DISEASES HAVE SIMILAR GOLIMUMAB DRUG SURVIVAL AND EFFICACY? DATA FROM THE PROSPECTIVE OBSERVATIONAL NOR-DMARD STUDY

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Background: Knowledge is limited regarding the impact of previously used biological disease modifying anti-rheumatic drugs (bDMARD) on golimumab drug survival and efficacy in inflammatory joint diseases (IJD).

Objectives: To explore golimumab drug survival and efficacy in bDMARD naïve vs. non-naïve IJD patients, as well as predictors of golimumab discontinuation.

Methods: From the observational prospective multicenter Norwegian-DMARD (NOR-DMARD) study rheumatoid arthritis (RA), psoriatic arthritis (PsA) and axial spondyloarthrit (axSpA) patients starting golimumab were included. Drug survival was explored by Kaplan-Meier analyses with comparison of bDMARD naïve vs. non-naïve patients with log rank test, stratified by diagnosis. 3 month responses were compared with independent t-test, and with ANCOVA adjusted for age, gender, disease duration and baseline values of the respective composite scores. Univariable and multivariable Cox regression analyses including age, gender, disease duration, smoking, comorbid synthetic DMARDs (sDMARDs) and previous bDMARD use were performed to identify predictors of golimumab discontinuation.

Results: Mean (SD) age of the 163 RA, 267 PsA and 382 axSpA patients was 57.3 (12.7), 47.9 (12.4) and 53.8 (11.7), respectively. sDMARDs used were 44% RA, 54% PsA and 64% axSpA. Mean (SD) treatment duration was 30.6 (23.0) months. At 3 months, 53% RA, 60% PsA and 45% axSpA had an ACR20 response. Mean CDAI score reduction from baseline to 3 months was -3.1 (-12.3, -2.1) in RA patients, -3.8 (-8.0, -0.8) in PsA patients and -3.2 (-5.6, -0.7) in axSpA patients. In univariable analyses, gender and baseline mean CDAI score were significantly associated with drug survival in RA and PsA, whereas gender, smoking and baseline mean CDAI score were associated with drug survival in axSpA. In multivariable Cox regression analyses, previous sDMARD use was an independent predictor of drug survival in RA and PsA. No independent predictors were found in axSpA. In survival analyses, patients with previous sDMARD use were more likely to discontinue golimumab at 3 months compared to naïve patients. At 6 months, 60% RA patients, 70% PsA patients and 75% axSpA patients were still taking golimumab. No independent predictors for drug discontinuation were found. The most common reasons for discontinuation were loss to follow-up, adverse drug reactions and death.
survival for bDMARD naïve vs. non-naïve patients was similar for all diagnoses (RA, p=0.15; PsA, p=0.23; ax-SPA p=0.71), with trend towards better drug survival in bDMARD naïve RA and PsA patients (figure), 4 year drug survival in bDMARD naïve/non-naïve patients were: RA, 54/48%; PsA, 47/43%; ax-SPA, 48/46%, respectively. Subgroup analyses of patients with and without concomitant sDMARDs showed similar findings. A trend was seen towards better 3 month responses in bDMARD naïve vs. non-naïve patients, with statistically significant better responses for DAS28 in PsA and BASDAI and ASDAS in ax-SPA (table 1).

**Conclusions:** Golimumab drug survival was similar in bDMARD naïve vs. non-naïve RA, PsA and ax-SPA patients. A trend was seen towards better responses for bDMARD naïve patients. Identified predictors for golimumab drug discontinuation was female gender and no concomitant sDMARDs in PsA and female gender in ax-SPA.

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**SAT0266 USE OF CONVENTIONAL SYNTHETIC DMARDS AND BIOLOGICAL DMARDS IN PATIENTS WITH ENTEROPATHIC SPONDYLOARTHRITIS: A COMBINED GASTRO-RHEUMATOLOGICAL APPROACH**

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**Background:** Enteropathic spondyloarthropathy (eSpA) is a chronic autoimmune disease associated with inflammatory bowel disease (IBD) that is poorly diagnosed and managed.

**Objectives:** To assess the diagnostic and therapeutic effect of a combined gastro-rheumatological approach in eSpA patients.

**Methods:** IBD-patients with joint pain referred to a dedicated rheumatologist by gastroenterologist were enrolled. Clinical and biochemical variables, SpA and intestinal disease activity measures, and treatment (biologic: bDMARDs and conventional synthetic: csDMARDs) were recorded at baseline, 3, 6, 12 and 24 months. The association between treatment on demographic and clinical characteristics was evaluated by logistic regression.

**Results:** From a total of 229 IBD patients, 147 (64.2%) were diagnosed with eSpA, 96 (65.3%) showing peripheral involvement and 51 (34.7%) with axial involvement. The majority (67.3%) of eSpA patients were female (n=99), median age and disease duration of 46 and 14.6 years. bDMARD treatment increased more over the follow-up period (baseline-24 months: 32.6%>60%; AOR:3.45, 95% CI: 1.93–6.2, p<0.001), however, their use was less frequent in elderly patients (AOR: 0.73, 95% CI: 0.56–0.96, p=0.023), in ulcerative colitis patients (AOR:0.43, 95% CI:0.2–0.94, p=0.004) and in patients with peripheral involvement (AOR:0.53, 95% CI:0.3–1.04, p=0.067). csDMARD use was increased in patients with peripheral involvement (AOR: 4.65, 95% CI:12.09–10.33, p<0.001) and in patient with ulcerative colitis (AOR:2.30, 95% CI:1.13–4.67, p=0.021) (figure 1).

**Disclosure of Interest:** None declared


**SAT0265 THE RESPONSE TO TNF-BLOCKERS TREATMENT OF SPA PATIENTS IS INFLUENCED BY THE INTERPLAY BETWEEN HLA-B27 AND GUT MICROBIOTA COMPOSITION AT BASELINE**

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**Background:** The response to TNF-blockers in axial spondyloarthritis (AxSpA) is at least partially influenced by HLA-B27 through a still poorly understood mechanism.

**Objectives:** Given that HLA-B27 regulates the gut microbiota composition in rats [1], we seek to evaluate the predictive value of the gut microbiota composition in AxSpA patients on their responsiveness to TNF-blockers.

**Methods:** A total of 58 patients was monocentrically recruited between October 2014 and May 2015. At baseline, these patients had an active disease despite NSAIDs intake and were eligible for treatment with a TNF-blocker, while having no history of inflammatory bowel disease (IBD). The mean BASDAI (±SD) was 45.6 ±21.4; ASDAS 2.8±0.9 and CRP 9.7±11.4 mg/L. Among these patients, 56 fulfilled the ASAS classification criteria ( imaging arm) with sacro-ilitis on X-rays (n=37) or objective signs of inflammation on MRI (n=48). Two patients fulfilled the clinical arm. These patients were not subjected to antibiotics within 3 months before stool sample collection. Bacterial 16S rRNA gene sequencing of the V3-V4 region was performed on stools samples before and 3 months after TNF-blocker treatment. Beta diversity metrics were calculated on the abundance of operational taxonomic units (OTU) after their taxonomic assignment on quality-filtered sequences.

**Results:** Principal component analysis (PCA) ordination of Bray-Curtis similarity matrix revealed that current smoking (compared with never or ever smokers) and HLA-B27 genotype were significantly associated with the overall composition of the microbiota at baseline. Meanwhile, the abundance of eleven bacterial OTUs was significantly associated to the general composition of the gut microbiota after the 3 month treatment. In line with a previous report [2], the abundance of Ruminococcus gravis was not associated with disease activity in the absence of IBD. Interestingly, the abundance of 5 and 7 bacterial OTUs at baseline was associated with the response to TNF-blockers assessed by BASDAI and ASDAS, respectively. Among these candidates, the abundance of one bacterial OTUs belonging to the Clostridioides order was associated with a better response to the treatment and with the HLA-B27 genotype.

**Conclusions:** Anti-TNF treatment was found to modulate the HLA-B27-induced variations of the intestinal microbiota of AxSpA patients. Moreover, the abundance of a subset of OTUs at baseline was found to predict the responsiveness to TNF-blockers. Further functional studies will be conducted to assess how these taxa can be used as predictors of the treatment outcome.

**REFERENCES:**

