across multiple clinical trials (1.3/100 PY [95% CI, 0.2–4.8]).[1] In pts at risk for IBD requiring biologic therapy, ADA is a reasonable therapeutic option based on the observed low IBD event rates in ADA clinical trials and its demonstrated efficacy in treating UC and CD pts.

**References:**
[1] Braun, J. et al., Arthritis & Rheum, 2007; 57:639–47.

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## FRI0445 FAECAL CALPROTECTIN, BUT NOT ANTI-SACCHAROMYCES CEREVISIAE ANTIBODIES, IS LINKED TO WORSE DISEASE STATUS IN AXIAL SPONDYLOARTHRITIS PATIENTS WITHOUT INFLAMMATORY BOWEL DISEASE: RESULTS FROM THE SPARTAKUS COHORT

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**Background:** Inflammatory bowel disease (IBD) is a common comorbidity in axial spondyloarthritis.
**Objectives:** To study faecal calprotectin (F-calprotectin) levels and anti-*Saccharomyces cerevisiae* antibodies (ASCA) and their associations with disease status and gastrointestinal (GI) symptoms in axial spondyloarthritis.
**Methods:** Consecutive patients with a clinical axial spondyloarthritis diagnosis were examined and classified as non-radiographic axial spondyloarthritis (nr-axSpA; Assessment of SpondyloArthritis international Society [ASAS] criteria; n=26) or ankylosing spondylitis (AS; modified New York criteria; n=45). Only patients without known IBD were included. F-calprotectin and ASCA IgA and IgG antibodies in serum were measured by commercially available enzyme-linked immunosorbent assay kits (Calpro AS; ORGENTEC Diagnostika).
**Results:** Elevated levels of F-calprotectin (≥50 mg/kg) were observed in 15% of nr-axSpA and 40% of AS patients (non-significant difference, with reservation for small groups). Overall, worse mean disease activity/disability scores were observed among patients with elevated versus normal F-calprotectin levels (Table), whereas no association was seen between F-calprotectin and GI symptoms. Similar results remained after exclusion of patients with monoclonal antibody type anti-TNF therapy. Elevated levels of ASCA IgA were observed in 8%/2% of nr-axSpA/AS patients, and IgG in 28%/26%. Only 2 subjects were ASCA double positive. Neither disease activity/disability measures nor GI symptoms were associated with ASCA status.

| | Nr-axSpA (n=26) | AS (n=45) | F-Calprotectin <50 mg/kg (n=38) | F-Calprotectin ≥50 mg/kg (n=18) | p-value* |
|---|---|---|---|---|---|
| Male sex | 10 (39%) | 26 (59%) | 16 (42%) | 10 (56%) | 0.346 |
| Age, years | 45 (10) | 58 (13) | 54 (13) | 55 (14) | 0.847 |
| Disease duration, years | 18 (10) | 32 (14) | 26 (14) | 31 (15) | 0.339 |
| HLA-B27 positive, y/n | 24 (92%) | 38 (86%) | 32 (84%) | 17 (100%) | 0.083 |
| ASAS 3m NSAID score | 25 (37) | 31 (36) | 21 (33) | 37 (40) | 0.221 |
| Antibody anti-TNF, y/n | 10 (39%) | 12 (27%) | 14 (36%) | 4 (22%) | 0.274 |
| VAS global | 41 (21) | 35 (25) | 32 (25) | 45 (16) | 0.023 |
| VAS pain | 40 (23) | 37 (28) | 34 (26) | 42 (23) | 0.142 |
| VAS fatigue | 41 (28) | 39 (27) | 34 (28) | 46 (21) | 0.056 |
| BASDAI | 3.5 (1.7) | 3.5 (2.6) | 3.1 (2.3) | 4.2 (2.3) | 0.076 |
| BASFI | 1.9 (1.4) | 3.0 (2.9) | 2.2 (2.2) | 3.9 (3.1) | 0.029 |
| ASDAS-CRP | 2.0 (0.8) | 2.2 (1.1) | 1.8 (0.9) | 2.6 (0.9) | 0.034 |
| CRP, mg/L | 3.1 (3.0) | 4.7 (4.6) | 3.0 (2.7) | 5.7 (5.5) | 0.157 |
| F-calprotectin, mg/kg | 45 (64) | 84 (117) | 21 (13) | 172 (129) | NA |
| ASCA IgA, E/ml | 3.7 (7.3) | 2.1 (1.9) | 2.9 (5.8) | 3.0 (3.8) | 0.175 |
| ASCA IgG, E/ml | 10 (20) | 6.5 (6.3) | 6.9 (6.8) | 11 (24) | 0.854 |
| Often stomach pain, y/n | 17 (65%) | 25 (56%) | 23 (61%) | 11 (61%) | 0.967 |
| Frequent defecation, y/n | 7 (27%) | 9 (20%) | 9 (24%) | 5 (28%) | 0.741 |
| Frequent diarrhoea, y/n | 12 (46%) | 12 (27%) | 12 (32%) | 8 (44%) | 0.348 |

N (%) or mean (SD). *Chi$^2$/Mann-Whitney U-test for comparison of categorical/continuous variables between the F-calprotectin groups. Missing data: ASCA IgA/IgG 4%, F-calprotectin 21%. y/n, yes/no; 3m, 3 months; NA, not applicable.

**Conclusions:** Elevated levels of F-calprotectin and ASCA IgG antibodies are both common in axial spondyloarthritis patients without IBD, and elevated F-calprotectin may be a marker of more severe spondyloarthritis. Neither F-calprotectin nor ASCA levels were associated with self-reported GI symptoms.

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## FRI0446 PREVALENCE AND CHARACTERISTICS OF SPONDYLOARTHRITIS ACCORDING TO ASAS CRITERIA IN PATIENTS WITH INFLAMMATORY BOWEL DISEASE – RESULTS FROM THE SPICE COHORT

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**Background:** Musculoskeletal symptoms are considered as one of the most frequent extra-intestinal manifestation in Inflammatory Bowel Disease (IBD) patients with a prevalence of up to 40% involving axial and/or peripheral joints. Data on the prevalence of musculoskeletal disease, in particular of SpA are limited and vary considerably due to different criteria the studies have used to define musculoskeletal disease in IBD patients.
**Objectives:** To define the prevalence of axial and peripheral spondyloarthritis (SpA) according to Assessment of Spondyloarthritis International Society (ASAS) in patients with Crohn's disease (CD) and ulcerative colitis (UC).
**Methods:** The SPICE cohort (Spondyloarthritis in Inflammatory Bowel Disease Cohort Erlangen) comprises prospectively recruited colonoscopy- proven Crohn's Disease (CD) or Ulcerative Colitis (UC) patients, who received a pre-defined and standardized musculoskeletal assessment by the rheumatologist. Duration and activity of gastrointestinal and rheumatic disease (axial and peripheral) was documented and fulfillment of ASAS classification criteria for axial and peripheral SpA was tested.
**Results:** 102 IBD patients (62 with CD and 40 with UC) with a median (IQR) disease of 11.0 (18.0) years were assessed. 38.2% fulfilled ASAS criteria for SpA with no difference between CD and UC. ASAS axial SpA criteria were fulfilled by 12%, ASAS peripheral SpA criteria by 31.4% of the IBD patients. Inflammatory back pain was present in 24.5% with MRI signs of sacroiliitis in 48% of IBD patients with inflammatory back pain. Disease activity according to ASDAS-CRP was moderate to high in 91% of the patients with axial SpA. Peripheral arthralgia was present in 71.6%, while arthritis was found in 18.6% of the IBD patients.
**Conclusions:** Both major forms of IBD show a similar burden of musculoskeletal disease. More than one third of inflammatory bowel disease patients show axial or peripheral SpA according to ASAS criteria. Peripheral SpA is more commonly found than axial SpA.

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## FRI0447 SEVERITY OF SACROILIITIS AND ERYTHROCYTE SEDIMENTATION RATE ARE ASSOCIATED WITH A LOW TRABECULAR BONE SCORE IN YOUNG MALE PATIENTS WITH ANKYLOSING SPONDYLITIS

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**Background:** The trabecular bone score (TBS) is a novel method used to evaluate bone microarchitecture. To date, the risk factors associated with a low TBS in AS are unknown and no study has examined the association between TBS and vertebral fracture in ankylosing spondylitis (AS) patients.
**Objectives:** To examine factors related to a low trabecular bone score (TBS) and the association between TBS and vertebral fracture in patients with (AS).
**Methods:** One hundred patients (all male, aged <50 years) who fulfilled the modified New York criteria for the classification of AS were enrolled. The TBS and bone mineral density (BMD) were assessed using dual-energy X-ray absorptiometry (DXA). Clinical variables, inflammatory markers, and the presence of vertebral fracture were also assessed. Spinal radiographic progression was measured using the Stokes AS spine score (SASSS). Multivariate linear regression analysis was performed to identify factors associated with TBS.