females and Hb <130 g/L in males. Non-parametric analysis of variables was performed using Spearman's rank correlation with significance defined at a p-value <0.05.

Results: 63 patients were included in the analysis (63.5% (40) male, mean time to diagnosis 11.46 (± 9.04) years, 79.4% (50) HLA-B27 positive, 46% (29) current or ex-smokers). Blood parameters showed mean Hb of 139.6 (± 16.03) g/L, mean RDW of 13.55 (± 1.46) %, mean CRP of 5.23 (± 10.82) mg/L. Mean BASDAI score of cohort was 3.69 (± 2.02) and FACIT score 34.18 (± 11.30). Mean absolute interval time difference between a PROMs set and bloods of interest was 16.14 (± 41.11) days.

Univariate analysis showed a statistically significant, negative correlation between fatigue (FACIT) and disease activity (BASDAI), ($p < 0.001$; $r = -0.63$), but failed to demonstrate an association between fatigue and Hb, RDW, or CRP. Sub-group analysis of 51 patients, following exclusion of patients with anaemia (12), engendered a significant and moderately negative correlation between fatigue and RDW ($p = 0.02$, $r = -0.32$) (Figure 1), maintained a significant correlation between fatigue and BASDAI ($p < 0.0001$, $r = -0.56$) and showed a non-significant association between RDW and BASDAI ($p = 0.07$, $r = 0.25$).

Figure 1. Negative correlation between FACIT score and RDW

Conclusion: These findings suggest that RDW may potentially represent a surrogate marker of disease activity in patients with axSpA. RDW may also be implicated in the multi-faceted aetiology of fatigue in axSpA patients, and may reflect functional iron deficiency. A recent cohort study of axSpA patients found anti-TNF therapy ineffective at alleviating fatigue in nearly 80% of patients¹. Management of potential functional iron deficiency as reflected by RDW may offer an alternative treatment target for fatigue in these patients.

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AB0676

THE ROLE OF ACPA AND ANA IN SPONDYLOARTHRITIS: HOW THE AUTOIMMUNE DYSREGULATION CAN AFFECT THE COURSE OF DISEASE AND THERAPEUTIC SUCCESS OF MONOTHERAPY DMARDs AND bDMARDs

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Background: Occasional findings of anti-citrullinated-protein-antibodies (ACPA) and anti-nuclear-antibodies (ANA) were rarely described in literature on Psoriatic Arthritis (PsA) and on Spondyloarthritis (SpA) in general. How these autoimmune dysregulations can affect the course of them is not yet understood.

Objectives: The aim of our study is to evaluate if the presence of ACPA and ANA can determine different disease subsets and influence the DMARDs monotherapy (methotrexate) drug survival (DSM) and b-DMARDs multi-failure patients (MF).

Methods: We conducted a retrospective study on patients with Psoriatic Arthritis (PsA) and Spondyloarthritis that fulfilled the ASAS and CASPAR criteria. Patients with diagnosis of connective tissue disease and rheumatoid arthritis and patients ≤ 18 years old were excluded from the study. For each patient, the following variables were considered: age, ACPA, ANA, time between arthritis onset and start of DMARDs (start-time), DSM, switch to b-DMARDs (sw-bDMARDs), arthritis subset (oligoarticular (OA), polyarticular (PA), enthesitis (EA), axial involvement (AI)), number of comorbidities (NC), Charlson Comorbidity Index (CCI).

Results: 150 patients (55% with PsA and 45% with another SpA) were included in the study. No differences were found in age, ANA rate, ACPA rate, start-time, OA, PA, EA, AI, NC and CCI between the PsA and SpA groups.

In the whole group of patients, the ACPA+ subjects (11%) had a significant increase of NC (2.47 ± 1.5 vs 1.6 ± 1.4 , $p = 0.035$), a trend to higher CCI, to switch to b-DMARDs, and to be MF compared to those without ACPA. In the same group, the ANA+ patients (12%) showed shorter DSM (233.5 wk ± 45.9 vs 548.0 wk ± 56.8 , $p = 0.362$) with similar trend in each subgroup (PsA and SpA).

In SpA group, the ACPA+ patients (6.3%) had a trend to shorter DSM (269.0 weeks ± 125 vs 603.96 wk ± 92.8 , $p = 0.492$), to higher sw-bDMARDs, and to be MF, higher NC and CCI compared to those without ACPA. No differences in clinical subset (OA, PA, EA, AI) were observed. In the same group the ANA+ patients had significant higher rate of PA (100% vs 65%, $p = 0.026$) rather than OA (0% vs 35%, $p = 0.025$). No significant differences were found in NC, CCI, MF.

In the PsA group, ACPA+ patients showed a trend to develop PA and EA subsets, shorter DSM (187.5 wk ± 48.7 vs 299.6 wk ± 31.4 , $p = 0.415$), higher rate to sw-bDMARDs and to be MF. The ANA+ PsA patients had higher trend to develop PA and AI subsets rather than OA and EA. All ANA+ patients were MF (100% vs 42%, $p = 0.046$).

Conclusion: The ACPA and ANA positivity in PsA and SpA patients could be suggestive of more severe clinical disease manifestation, higher frequency of comorbidities and lower predicted 10-year survival (CCI). Moreover, this autoimmune dysregulation could be associated with worse drug survival in monotherapy with methotrexate and higher chance to be MF. Therefore, they can be taken into account for clinical management of these patients.

Disclosure of Interests: None declared

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AB0677

REVISING THE DEFINITION OF REACTIVE ARTHRITIS AND DIFFERENTIATION FROM UNDIFFERENTIATED SPONDYLOARTHRITIS

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Background: Reactive arthritis (ReA) is defined by 1999 ACR criteria as arthritis preceding a bacterial genitourinary (GUS) or gastrointestinal (GIS) infection in 3 days-6 weeks and evidence of triggering infection. Recently, ReA is classified as SpA and patients who do not fulfill SpA criteria are classified as undifferentiated spondyloarthritis (USpA) according to ASAS/EULAR SpA classification criteria.

Objectives: In several case reports which are associated with other infective agents are reported and the definition is extended for some clinicians so that SpA which is occurred after any infection is called as ReA. On the other hand, some researchers still accept the classical definition of ReA. The problem with the heterogeneity of opinions and unstandardized definition of ReA hinders studies about pathogenesis and standardization of treatments. In this study, we aimed to determine the spectrum of the use of the definition of reactive arthritis in publications in PubMed between 2009-2019.

Methods: The ReA keyword is searched in PubMed for the years between 2009-2019. 248 different publications have been identified and included in this research. 89 articles, 47 reviews, 108 case reports, 2 guidelines, and 2 editorials reviewed for the definition of ReA.

Results: Only 42.7% (106 patients) of these publications meet the classical definition which suggests ReA after only GIS and GUS infections. In 4 (1.6%) of the publications ReA was defined after GIS, GUS and oropharyngeal infections; in 3 (1.2%) of the publications after any bacterial infection; in 9 (3.6%) of the publications after any infection. In 8 (3.2%) of the publications, ReA and USpA was used correspondingly. In 39 (15.7%) of the publications the term agent related, ReA was used without making a general definition for ReA. 79 publications (31.9%) have not defined ReA.

According to causative agent and ReA relationship, in 64 (24.6%) general infective agents, in 75 (30.2%) classical agents, in 22 (8.9%) other bacterial agents, in 23 (9.3%) streptococcus, in 10 (4%) intravesical BCG, in 6 (2.4%) HIV, in 6 (2.4%) tuberculosis, in 12 (4.8%) clostridium difficile, in 2 (0.8%) parasites were