Objectives: To determine the factors responsible for work instability in patients with Axial spondyloarthritis (axSpA).

Methods: Patients attending the Spondyloarthritis clinic at a UK centre from 2013 to 2017, were included, if in employment, and diagnosed with axSpA according to ASAS criteria. Number of patients having low (WIS ≤ 10) and moderate to high (WIS 11–20) and corresponding parameters were noted. Numerical values were analysed using Spearman rank test and categorical values using Pearson's test. Multiple regression analysis was done. P value ≤ 0.05 was considered significant.

Results: Of total 255 patients, 139 were in employment (54.5%). 97 were male and 42 were female. Mean age was 43.5 years (20–78 years). 59 patients in manual and 80 patients in non-manual job type, 52 had non-radiographic axSpA (nrSpA) and 87 had radiographic axSpA (rSpA). Mean diagnostic delay was 8 years (0–37 years). Mean ASWIS score was 10.43 (0–20). 75 patients (53.9%) were in Low WIS category and 64 (46%) in moderate to high WIS category. BASDAI and BASFI are found to be significantly correlating with WIS for the whole cohort.

Parameter	Spearman Rank Coefficient	p value
BASDAI	0.7633	0.00011*
BASFI	0.4250	0.00092*

Diagnostic delay, job type, comorbidities, extra articular features, HLAB27, CRP, Pain visual analogue scale (VAS), BASMI, smoking, alcohol and use of biologics were not found to be significant for the whole cohort.

In separate analysis for rSpA and nrSpA groups, the BASDAI and BASFI were of equal significance, but the Pain VAS strongly correlated with WIS in the nrSpA group only ($r=0.62$) and the CRP correlated in the rSpA group only ($r=0.64$).

Conclusions: Work instability is prevalent in axSpA, in all job types. Main factors contributing to work instability are disease activity (BASDAI) and function (BASFI). Drivers for work instability may be different in radiographic and non-radiographic patients. A prospective study will evaluate the impact of use of biologic on work instability.

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FRI0186

CONCOMITANT CSDMARDS INFLUENCE CLINICAL RESPONSE TO TNF INHIBITORS ONLY IN OVERWEIGHT PATIENTS WITH AXIAL SPONDYLOARTHRITIS

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Background: In patients with axial spondyloarthritis (axSpA), the use of conventional synthetic disease-modifying anti-rheumatic drugs (csDMARDs), such as methotrexate (MTX) and sulfasalazine (SSZ), as well as the body mass index (BMI) have been associated with circulating TNFi levels. Recently, BMI has also been associated with TNFi clinical response but csDMARDs have not shown any significant clinical improvement for axial manifestations¹. However, no study has assessed in the same population the influence of both factors -csDMARDs and BMI- on drug serum levels and clinical response

Objectives: To investigate the influence of csDMARD and BMI on circulating drug levels and clinical response to TNFi therapy in axSpA patients

Methods: A 1 year follow-up prospective observational study with two cohorts (Madrid and Amsterdam) including 180 axSpA patients treated with standard doses of infliximab (41%) or adalimumab (59%). Laboratory and clinical parameters were collected every 6 months. Patients were stratified by BMI: normal-weight (18.5–24.9 kg/m²) and overweight-obesity (>25.0 kg/m²). TNFi trough levels were measured by capture ELISA². Clinical response to TNFi was defined as Δ BASDAI ≥ 2 . The association between concomitant csDMARDs and BMI with drug levels and clinical response to TNFi at 1 year was analysed through multivariate log-regression models (odds ratio and 95% CI). The presence of significant interactions between covariates was tested and all models were adjusted for

age, gender, HLA-B27, disease duration, TNFi-type (for drug levels) and baseline BASDAI and CRP (for clinical response)

Results: Seventy-nine out of 180 patients (44%) received concomitant csDMARDs (MTX 14%, SSZ 20% and MTX +SSZ 10%), 78 (43%) patients were normal-weight and 102 (57%) overweight-obese. Mean (SD) age and disease duration was 47(13) and 11(9) years respectively, 59% were males, 73% HLA-B27 + and 78% had r-axSpA. Concomitant csDMARDs (OR: 3.82; IC 95%: 1.06–13.84) and being overweight-obese (OR: 18.38; IC 95%: 2.24–150.63) were independently associated with serum TNFi drug presence. Furthermore, a significant interaction between csDMARDs and BMI with clinical response was found. While the use of concomitant csDMARD contributed positively to achieve clinical response in overweight-obese patients (OR: 7.86; IC 95%: 2.39–25.78), no association was found for normal-weight patients (OR: 1.10; 0.33–3.58). Additionally, sensitivity analysis using remission status and ASDAS were performed and showed results along the same line

Conclusions: In patients with axSpA, TNFi drug persistence is positively influenced by the use of concomitant csDMARDs and especially by being normal-weight. However, TNFi clinical response is associated with the use of concomitant csDMARDs only in overweight-obese, but not in normal-weight patients. Based on this, the use of concomitant csDMARDs in patients with axSpA could be beneficial in overweight patients

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FRI0187

LIPOPROTEIN (A) AND POSSIBLE RELATED FACTORS IN PATIENTS WITH SPONDYLOARTHRITIS. RESULTS OF THE CARMA STUDY

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Background: Cardiovascular disease (CVD) is the main cause of mortality and morbidity in patients with spondyloarthritis (SpA), partially explained by traditional CV risk factors (CVRF). Other non-conventional CVRF, probably related to chronic systemic inflammation, may be involved. In this sense, lipoprotein (a) [Lp (a)], an non-conventional risk factor with proatherogenic and thrombogenic properties, could be involved, since it seems to act as an acute-phase reactant, there are few data on this aspect in these patients.

Objectives: To evaluate the prevalence of hyperlipoproteinemia (a) in patients with SpA and analyse the possible related factors.

Methods: Analysis of the baseline visit of patients with ankylosing spondylitis (AS) and psoriatic arthritis (PsA) of the CARMA project (CARDiovascular in Rheumatology), a prospective cohort study of 10 years of follow-up, to evaluate the cardiovascular risk in chronic rheumatic inflammatory diseases, including rheumatoid arthritis, AS and PsA, followed in 67 Spanish rheumatology centres. A multivariate logistic regression model was performed, in which the dependent variable was hyperlipoproteinemia (a), defined as the plasma concentration of lipoprotein (a) [Lp (a)] ≥ 50 mg/dl. Sociodemographic factors and those related to the disease itself have been included as independent variables.

Results: 1459 patients were analysed, 738 with AS and 721 with PsA. Plasma concentrations of Lp(a) were available in 57.7% of the patients with AS and in 57.1% of the patients with PsA. A 19.2% (95% CI: 16.80–22.05) of the patients with SpA, 20.7% (95% CI: 16.91–24.82) of AS and 17.7% (95% CI: 14.15–21.75) of PsA, respectively, had hyperlipoproteinemia (a), without statistically significant differences with respect to the control group: 16.7% (95% CI: 13.23–20.86; $p=0.326$). After adjusted for age and sex, only patients with AS were more likely to have hyperlipoproteinemia (a) than the control group (OR: 1.806, 95% CI: 1.177–2.771, $p=0.007$). In the model adjusted for possible confounding factors, high values of apolipoprotein B in all patients, non-steroidal anti-inflammatories in AS, and sex (men) and kidney disease as comorbidity in PsA, were associated with a higher probability of presenting hyperlipoproteinemia (a).

Conclusions: Patients with AS have a higher percentage of hyperlipoproteinemia (a) compared to the control group. No specific factors of the disease have

been identified that are associated with hyperlipoproteinemia (a) in each of the analysed groups.

Disclosure of Interest: None declared

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FRI0188

FACTORS ASSOCIATED WITH PATIENT-PHYSICIAN DISCORDANCE IN GLOBAL ASSESSMENT IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS: AN ASIAN PERSPECTIVE

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Background: Shared decision making between patients and physicians is important in the management of patients with axial spondyloarthritis. However patient's perspective on disease activity is not always similar to physician's perspective.¹ There are limited studies on patient-physician discordance, none of which is based on Asian population.

Objectives: To identify the factors associated with patient-physician discordance in patients with axial spondyloarthritis (axSpA) in an Asian population.

Methods: A cross-sectional study was conducted in 2 tertiary referral centres in Singapore. Patients who fulfilled ASAS 2009 criteria for axial spondyloarthritis (axSpA) were recruited. Sociodemographic, clinical, laboratory and patient reported outcomes (PROs) data were collected during study visits from 2014 to 2015. We performed univariate and multivariate logistics regression analysis to evaluate the factors associated with patient-physician discordance, which we defined as the absolute difference ≥ 20 mm between Patient Global Assessment (PGA) and Physician Global Assessment (PhGA).

Abstract FRI0188 – Table 1. Multivariate logistic regression analysis of patient-physician (PGA-PhGA) discordance with different variables.

Characteristics	PGA-PhGA	
	OR (95% CI)	p value
Current age	1.00 (0.98–1.02)	0.69
Education ^a	0.35 (0.12–0.98)	0.04
If post-secondary (6 years)		
Pain score	1.03 (1.01–1.05)	<0.01
BASFI	1.08 (0.94–1.25)	0.23
ASDAS CRP	0.82 (0.59–1.13)	0.23
Current Biologics use	2.63 (1.34–5.17)	<0.01

Abbreviations: ASDAS CRP: Ankylosing Spondylitis Disease Activity Score C-reactive protein; BASFI: Bath Ankylosing Spondylitis Functional Index

Results: 298 axSpA patients were included: 82% male, 81% Chinese, median age of 40 (range:20–78) years, median disease duration of 9 (range:0.1–48) years. 80% were on non-steroidal anti-inflammatory drugs and 23% were on biologics. In univariate logistic regression analysis, current age (OR:1.01, $p=0.09$), post-secondary education level (OR:0.34, $p=0.02$), pain score (OR:1.03, $p<0.01$), Bath Ankylosing Spondylitis Functional Index (BASFI) (OR:1.26, $p<0.01$), Ankylosing Spondylitis Disease Activity Score C-reactive protein (ASDAS-CRP) (OR:1.39, $p<0.01$) and current use of biologics (OR:1.80, $p=0.05$) were associated with patient-physician discordance. In multivariate logistic regression analysis, pain score (OR:1.03, $p<0.01$), post-secondary education level (OR:0.35, $p=0.04$) and current biologics use (OR:2.63, $p<0.01$) were associated with patient-physician discordance.

REFERENCE:

a with reference to pre-secondary

Conclusions: Higher pain score, lower education level and current biologics use were associated with greater patient-physician discordance. These factors should be taken into account during shared decision making.

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FRI0189

PERIPHERAL MANIFESTATIONS IN SPONDYLOARTHRITIS: IMPACT ON PATIENT-REPORTED OUTCOMES (PROS) AND TREATMENT. DATA FROM ASAS-COMOSPA

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Background: Peripheral manifestations (arthritis, enthesitis and dactylitis) are frequent in patients with Spondyloarthritis (SpA)¹. However, little is known regarding the impact of these manifestations on patients' disease perception and treatments.

Objectives: To evaluate the impact of the presence of peripheral manifestations on patient-reported outcomes (PROs) and treatment.

Methods: Data from the ASAS-COMOSPA study were analysed. Patients who reported peripheral arthritis were divided into three groups: current, past history and no history. The impact of the presence of peripheral arthritis on VAS-G (Global Visual Analogue Scale), BASDAI (Bath Ankylosing Spondylitis Activity Index), BASFI (Bath Ankylosing Spondylitis Functional Index), work and activity impairment was evaluated through the use of the ANOVA one factor test. Finally, NSAIDs, corticosteroids and DMARDs intake were compared among patients with and without peripheral articular involvement.

A similar statistical analysis was performed for enthesitis and dactylitis.

Results: Among the 3984 patients included in the ASAS-COMOSPA study, 1333 (33.5%), 718 (18%) and 1933 (48.5%) patients had current, past history and no history of peripheral arthritis, respectively. Patients with current peripheral arthritis showed higher levels in VAS-G, BASDAI, BASFI, as well as in work and activity impairment, in comparison to the other two groups, being these differences statistically significant ($p<0.01$). Patients with peripheral articular involvement at the time of the visit showed higher mean scores in all questions of the BASDAI questionnaire, in contrast to those with past history and/or no history ($p<0.001$). Impact on treatment is shown in table 1.

Regarding enthesitis, 642 (16.1%), 864 (21.7%) and 2478 (62.2%) patients had current, past history and no history of enthesitis, respectively. Patients with current enthesitis showed significant higher levels in all PROs against the other two groups of patients ($p<0.05$), as well as higher scores in all the BASDAI questions ($p<0.001$). Finally, 171 (4.3%), 447 (11.2%) and 3366 (84.5%) patients had current, past history and no history of dactylitis, respectively. The same results as the other two peripheral manifestations were obtained regarding impact on PROs and BASDAI questions.

Conclusions: The presence of any of the three peripheral manifestations at the time of the visit was associated to higher scores in all PROs. Patients with peripheral involvement showed greater use of NSAIDs, corticosteroids and DMARDs than those without peripheral manifestations.

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Abstract FRI0189 – Table 1

Patients using:	Current or past history of arthritis			Current or past history of enthesitis			Current or past history of dactylitis		
	Yes=2051 n (%)	No=328 n (%)	p-value	Yes=1506 n (%)	No=2478 n (%)	p-value	Yes=618 n (%)	No=3366 n (%)	p-value
NSAIDs	1858 (90.6)	1690 (87.4)	0.001	1402 (93.1)	2146 (86.6)	<0.001	568 (91.9)	2980 (88.5)	0.013
csDMARDs	1581 (77.1)	790 (40.9)	<0.001	1062 (70.5)	1309 (52.8)	<0.001	492 (79.6)	1879 (55.8)	<0.001
bDMARDs	987 (48.1)	755 (39.1)	<0.001	750 (49.8)	992 (40.0)	<0.001	330 (53.4)	1412 (41.9)	<0.001
Corticosteroids	1048 (51.1)	475 (24.6)	<0.001	738 (49.0)	785 (31.7)	<0.001	330 (53.4)	1193 (35.4)	<0.001