characteristics. The 5/6 versions of mMDA could be an appropriate treatment target in pSpA pts.

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FRI0480 SCORING SYNDESMOPHYTES ON CT SPINE IMAGES OF PATIENTS WITH RADIOGRAPHIC AXIAL SPONDYLOARTHRITIS FROM THE SENSITIVE IMAGING OF AXIAL SPONDYLOARTHRITIS (SIAS) COHORT

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Background: Low dose Computed Tomography (CT) could potentially be more sensitive than radiographs in the follow up of patients with axial spondyloarthritis (axSpA).
Objectives: Our first goal was to develop a scoring method for the spine and test its interreader variability and frequency of progression in the various parts of the spine.
Methods: Patients (pts) of the Sensitive Imaging of Axial Spondyloarthritis (SIAS) cohort fulfilled the modified New York (mNY) criteria, had ≥1 syndesmophyte in cervical or lumbar spine on radiographs and ≥1 inflammatory lesion on MRI-spine. Baseline and 2 years follow up low-dose CT scans (approximately 2–3 mSV) were performed. Syndesmophytes were scored in the coronal and sagittal planes for all “corners” per view, thus scoring 8 ‘quadrants’ per vertebral unit (VU). Syndesmophytes were scored as absent (score 0), <50% of the intervertebral disc height (IVDH) (score 1), ≥50% of the IVDH but no bridging (score 2) or as “bridging the IVDH” (score 3). Score range 0–552. Two readers, blinded for clinical information and time order, scored the CT scans paired by patient. Scores of the 2 readers were compared using heatmaps. Interreader variability was assessed by (two-way average) ICC and smallest detectable change (SDC) for the whole spine and per segment.
Results: In total, 56 pts (84% male, mean age 48.6) were included. The heatmap (fig 1) presents the similarity in baseline and change scores per reader per VU (VU on the y-axis). Ankylosis (score 3) is most prevalent in the thoracic spine, and syndesmophytes in general are least prevalent in the cervical spine. Both readers use almost the entire possible range, pick up a similar magnitude of change and have high ICCs. Most change is present in the thoracic spine. A change ≥SDC is seen in 33.9% of the patients.
Conclusions: A fine-grained scoring system for CT spine was developed. Scoring syndesmophytes with good accuracy on CT images was feasible, picking up

Figure 1
changes over a 2-year period in a high percentage of patients, especially in the thoracic spine, which is insufficiently visible on radiographs.
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FRI0481 INTERPLAY BETWEEN PATIENT GLOBAL ASSESSMENT, PAIN AND FATIGUE AND INFLUENCE OF OTHER CLINICAL DISEASE ACTIVITY MEASURES IN PATIENTS WITH ACTIVE SPONDYLOARTHRITIS

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Background: The Assessment of SpondyloArthritis international Society (ASAS) has selected core sets of variables to include as standardised end points in clinical trials and clinical practice. These core sets include fatigue, pain and patient global assessment (PaGI) as key patient-reported outcome measures (ref.). However, although associations between fatigue, pain and PaGI have been examined to some extent on the group level, studies focusing on the agreement between these patient-reported measures in individual patients are missing. A better understanding of how tight the measures are bounded in individuals may improve our ability to deal with them in the daily clinic.
Objectives: To examine associations on the group level and agreements on the individual patient level between fatigue, pain and PaGI as scored on visual analogue scales (VAS) in the daily clinic by patients with active spondyloarthropathy (SpA).
Methods: Data on 118 SpA patients with active disease planned to initiate treatment with a biological agent were extracted from the Danish registry for biological treatment in rheumatology (DANBIO). Data included fatigue, pain and PaGI, BASDAI and BASFI assessed on VAS-scales (0–100) and age, CRP and physician global assessment. Associations between variables were examined using simple and multiple regression analysis (all mentioned variables including sex was incorporated as independent variables). Agreements between PaGI, pain and fatigue on the individual patient level was examined by Bland-Altman analyses yielding 95% lower and upper limits of agreement (LLoA and ULoA) between intra-individual assessments. The difference between the scores on the group level was expressed as the bias.
Results: Mean age was 42.9±12.6 years, mean BASDAI 56.0±19.0, mean CRP mg/dL 2.9 and mean PaGI 65.7±22.6. No significant differences in BASDAI, fatigue, pain, PaGI were demonstrated between men (n=76) and women. Fatigue, pain and PaGI were significantly but only moderately inter-correlated with high standard errors of estimation (SEE): Fatigue vs. PaGI (r = 0.57, p<0.0001, SEE =21.4), fatigue vs.pain (r =0.55, p<0.0001, SEE =21.6), and pain vs. PaGI (r =0.81, p<0.0001, SEE =15.1). In multiple regression analyses, pain was independently predicted by PaGI (beta =0.52, p<0.0001) and BASDAI (beta =0.36, p<0.0001) [R =0.82, SEE =14.1, p<0.0001], PaGI by pain (beta =0.54, p<0.0001) and BASDAI (beta =0.33) [R =0.81, SEE =12.7, p<0.0001], and fatigue by BASDAI (beta =0.44, p<0.0001) and PaGI (beta =0.23, p<0.05) [R =0.63, SEE =20.2, p<0.0001]. Biases between the patient-reported VAS-scores were small but intra-individual differences were substantial: LLoA and ULoA [bias] for fatigue vs. PaGI were -45.5 and 43.5 [-0.97], for fatigue vs. pain -42.3 and 52.9 [5.3], and for

Abstract FRI0480 – Table 1. SDC and interreader variability between readers on timepoint 1, timepoint 2 and for the difference between the timepoints (syndesmophyte growth)

Segment (max score)	Time point	Median and range reader 1	Median and range reader 2	SDC (inter-reader)	No. of patients with growth ≥SDC (%) (n=58)	ICC
Whole spine (552)	Time 1	144 (16–428)	135 (6–447)	12.4	19 (32.8)	0.99 (0.94–1.00)
	Time 2	157 (18–428)	146 (8–461)			0.98 (0.92–0.99)
	Change	9 (-11–96)	8 (-6–93)			0.75 (0.49–0.88)
Cervical (144)	Time 1	8 (0–140)	8 (0–128)	5.41	9 (15.6)	0.96 (0.92–0.98)
	Time 2	8 (0–140)	8 (0–128)			0.98 (0.95–0.99)
	Change	0 (-12–38)	0 (-9–38)			0.85 (0.75–0.91)
Thoracic (264)	Time 1	84 (2–250)	72 (0–264)	12.4	15 (25.9)	0.97 (0.92–0.99)
	Time 2	93 (2–256)	81 (0–264)			0.97 (0.85–0.99)
	Change	6 (-6–94)	6 (-12–93)			0.85 (0.75–0.92)
Lumbar (144)	Time 1	32 (0–140)	36 (0–140)	4.51	14 (24.1)	0.91 (0.79–0.96)
	Time 2	34 (0–144)	39 (0–144)			0.99 (0.98–1.00)
	Change	2 (-10–14)	1 (-4–12)			0.56 (0.26–0.73)

pain vs. PaGI -35.7 and 23.3 [-6.3]. LLoA and ULoA remained constant over the whole range of the VAS-scales.

Conclusions: In patients with SpA, fatigue, pain and PaGI scores were poorly associated and only poorly explained by other potential explanatory variables. On the individual level, disagreements between the scores were substantial. The findings emphasize the complexity of understanding patient-reported outcome measures and their diverging interplay across individuals.

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Psoriatic arthritis

FRI0482 INSULIN RESISTANCE IN PATIENTS WITH PSORIATIC ARTHRITIS

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Background: inflammation and, levels of inflammatory markers, CRP and other cytokines are important for enhancing insulin resistance in PsA patients.

Inflammation and, levels of inflammatory markers, CRP and other inflammatory cytokines are important players for enhancement and development of insulin resistance in psoriatic arthritis patients.

Objectives: To investigate the relation between insulin resistance and psoriatic arthritis presence and disease activity.

To investigate the relation between insulin resistance and disease activity in patients with psoriatic arthritis.

Methods: *Patients Inclusion criteria:* all patients in this study had psoriatic arthritis with disease duration 5 years or more. All under conventional DMARDs treatment in the form of methotrexate 12.5 mg/wk, hydroxychloroquine 400mg/day. With no treatment with glucocorticoids, 3 months prior to enrollment in the study and no previous treatment with biologics. All patients were Postmenopausal females with 3 or more years since menopause.

Exclusion Criteria: DM, ischemic heart disease, hypertension, or any other chronic diseases, Smoking, on medications Medications that affect blood lipids, or body composition and metabolic functions. Postmenopausal females who were on hormonal replacement therapy.

Grouping: G I: Included 50 postmenopausal females with psoriatic arthritis. G II: Included 25 normal postmenopausal females, as a control group.

Methods: 1. Full medical history and Complete clinical examination 2. Anthropometric measurements: Body mass index (BMI), Waist-hip ratio (WHR). 3. The following laboratory investigations were done: C-reactive protein (CRP), Fibrinogen, Fasting insulin. 4. Measures of insulin resistance: Homeostasis model assessment of insulin resistance (HOMA-IR): (a) HOMA 1-IR: It is calculated according to the following equation: Fasting insulin (μ U/ml) x FBS (mg/dL)/405. (2). Insulin resistance was defined as HOMA-IR >3. 8. (3), (4). (b) HOMA 2-IR: it is the updated (or computer) model with nonlinear solutions, which also uses paired fasting glucose and insulin values, were calculated using the computer model (HOMA calculator version 2.2).

Results: Comparing means of age, BMI, and WHR of both groups' shows no significant difference, which indicates that both groups was matched and valid for comparison. G I have significantly higher values than the control group in the laboratory parameters Insulin, CRP and Fibrinogen as $p > 0.05$, and the insulin resistance parameters (HOMA1, HOMA2). G I was significantly higher than the control group as $p > 0.05$. Significant positive correlation also found between *Index for Psoriatic Arthritis (DAPSA)* and insulin, HOMA1, and HOMA2.

Conclusions: Psoriatic arthritis is associated with increased risk of insulin resistance. PsA activity is strongly associated with developing insulin resistance in psoriatic arthritis patients.

Disclosure of Interest: None declared

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FRI0483 WORK CAPACITY AND QUALITY OF LIFE IN A COHORT OF PATIENTS WITH EARLY PSORIATIC ARTHRITIS IN ARGENTINA

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Objectives: To evaluate work capacity and quality of life in patients with early Psoriatic Arthritis (PsA).

Methods: Multi-center study in which patients with recent onset of PsA (disease duration <3 years) who met the CASPAR criteria established by the Early Spondyloarthritis Committee (CONEART) were enrolled. Work loss and lost workdays within six months prior to the baseline visit attributable to their baseline condition were evaluated, as well as quality of life, measured by PsAQoL. Statistical analysis: descriptive statistics, Spearman's correlation, multiple linear regression model.

Results: 108 patients with a PsA diagnosis were enrolled. 53% (57/108) were male, of a mean age of 48.4 (SD 12.5). The mean PsA disease duration was 17.6 (SD 9.8) months. 4/60 patients (6.6%) were positive for HLA-B27. BASDAI 4.81±2.66; BASFI 3.75±2.70; PsAQoL 7.24±6.44; HAQ-A 0.72±0.61, physician global activity assessment (by Visual Numeric Scale, VNS) 3.76±2.33, and pain assessment (VNS) 5.22±2.98. The average days lost due to the condition within the past 6 months was 8.6 (SD 32.1), it was significantly associated with the presence of enthesitis, number of swollen joints, worse BASDAI, BASFI, lower level of education, and higher pain and physician global activity assessment ($p < 0.0001$). Five patients lost their job due to PsA. 12% of the patients had a disability certificate and the possession of one, according to the logistic regression model, was associated with a longer PsA disease duration (OR 1.09, $p = 0.02$). A poorer quality of life was significantly correlated to the physician assessment of disease activity ($p < 0.001$) and pain ($p < 0.01$) using a linear regression model.

Conclusions: In this cohort of patients with early PsA, the deterioration of work capacity expressed in lost workdays was associated with disease activity parameters and functional disability. The physician global activity assessment and pain were the main factors associated with the impact on patient's quality of life. Having a disability certificate was associated with longer disease duration. Although this is an early cohort of PsA patients, a worsening in quality of life and work disability was observed.

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FRI0484 IMPACT OF PSORIATIC ARTHRITIS ON PATIENT-REPORTED OUTCOMES IN 5 EUROPEAN UNION COUNTRIES

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Objectives: This non-interventional, cross-sectional, descriptive, exploratory analysis aimed to characterise patients (pts) with psoriatic arthritis (PsA) in the 2016 National Health and Wellness Survey (NHWS) and determine the impact of treatment, or no treatment, on pt-reported outcomes.

Methods: The NHWS was a self-administered, web-based, voluntary, confidential questionnaire. Stratified randomised sampling provided a representative sample of EU adults in France, Germany, Italy, Spain and UK. Respondents completing the arthritis module and reporting PsA diagnosis were stratified by: advanced therapies (tumour necrosis factor inhibitors, interleukin antagonists, phosphodiesterase-4 inhibitors) ± other drugs; other therapies (eg conventional synthetic disease-modifying antirheumatic drugs, glucocorticoids, topical medications); or no current treatment. Short Form-36 health survey (SF-36), Work Productivity and Activity Impairment questionnaire and Patient Health Questionnaire-9 (PHQ-9) responses were summarised descriptively.

Results: NHWS was completed by 80,600 adults; 947 completed the arthritis module and self-reported PsA diagnosis. Of these, 65 (7%) reported receiving advanced therapies, 274 (29%) other therapies and 608 (64%) no current treatment. Age and gender were generally balanced between the groups (mean 51–56 years; 51–64% female). More patients on advanced therapies had a body mass index ≥ 30 (41%) vs other therapies (34%) and no current treatment (26%). Pts on advanced therapies reported more comorbidities (mean 2.2) vs pts on other therapies (mean 1.8) and pts with no current treatment (mean 1.7). More pts on advanced therapies were current smokers (49%) vs pts on other therapies (30%) and pts with no current treatment (32%). Prior to treatment with advanced or other therapies, 94% and 82% self-reported moderate or severe PsA, falling to 58% and 59%, respectively, after treatment, compared with 36% of pts with no current treatment. SF-36 scores and PHQ-9 scores did not widely vary across groups (Table 1). Regardless of treatment groups, pts reported >20% work loss, >45% overall work impairment and >45% activity impairment (Table 1).

Conclusions: More than 60% of pts reporting PsA diagnosis reported no current