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

References:

[1] Coates LC, et al., Ann Rheum Dis, 2016; 75:334.
[2] Mease PJ, et al., Arthritis Rheumatol, 2015; 67(4): p.914–23.

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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)