SDCs and ICCs are presented in Table 1. ICCs for mean status scores are good to excellent, with the lowest ICCs occurring in the cervical segment. ICCs for change scores vary greatly, the lowest ICCs being in the lumbar segment, the highest in the cervical segment. The proportion of patients with change larger than 0, larger than the positive SDC and larger than the negative SDC are given in Table 2 per reader and for consensus between readers. The largest percentages of change are seen in the thoracic segment.

Conclusion: Reliability of facet joint ankylosis progression was good in the whole spine but poor in the lumbar segment where little progression was seen. Over two years, a fair number of patients had progression of facet joint ankylosis with most progression occurring in the thoracic spine. These results show that using whole spine lDCT, progression of facet joint ankylosis can be studied in r-axSpA patients.

Disclosure of Interests: Rosalinde Stal: None declared, Floris A. van Gaalen: None declared, Alexandre Sepiano: None declared, Juergen Braun Shareholder of: AbbVie, BMS, Celgene, Chugai, Merck, Novartis, Pfizer, UCB, Grant/research support from: AbbVie, BMS, Celgene, Chugai, Merck, Novartis, Pfizer, UCB, Grant/research support from: Abbott, Bristol Myers Squibb, Celgene, Celltrion, Chugai, Johnson & Johnson, MSD, Novartis, Pfizer, Roche, UCB Pharma, Grant/research support from: AbbVie, BMS, Celgene, Chugai, Merck, Novartis, Pfizer, UCB, Grant/research support from: AbbVie (Abbott), Amgen, Baxter, Biogen, BMS, Boehringer, Celgene, Celltrion, Centocor, Chugai, Hexal, Janssen, Lilly, Medac, MSD

Table 1: Facet joint ankylosis prevalence, interreader reliability and progression in patients with r-axSpA with at least one syndesmophyte

	Reader 1 mean (SD) range	Reader 2 mean (SD) range	ICC (95% CI)	SDC
Whole spine excluding C5-T2 max score 38				
Baseline	6.9 (9.5) 0 - 34	9.2 (10.3) 0 - 32	0.93 (0.87-0.96)	
Follow-up	7.8 (9.7) 0 - 34	10.3 (10.9) 0 - 34	0.91 (0.82-0.95)	
Change score	0.8 (2.4) -8.4 - 6	0.9 (2.1) -4.2 - 6.3	0.75 (0.53-0.87)	2
Cervical excluding C5-T1 max score 6				
Baseline	0.8 (1.7) 0 - 6	1.1 (1.9) 0 - 6	0.84 (0.73-0.90)	
Follow-up	0.7 (1.6) 0 - 6	1.2 (1.9) 0 - 6	0.72 (0.52-0.84)	
Change score	0.0 (0.4) -2 - 1	0.0 (0.4) -2 - 1.2	0.91 (0.83-0.95)	0.2
Thoracic excluding T1-T2 max score 22				
Baseline	5.1 (7.1) 0 - 22	6.4 (7.4) 0 - 22	0.91 (0.85-0.95)	
Follow-up	6.0 (7.2) 0 - 22	7.3 (7.9) 0 - 22	0.90 (0.82-0.94)	
Change score	0.9 (2.5) -8.8 - 7	0.9 (2.3) -4.4 - 11	0.56 (0.21-0.75)	2.7
Lumbar max score 10				
Baseline	1.0 (2.4) 0 - 10	1.6 (2.9) 0 - 10	0.81 (0.67-0.89)	
Follow-up	1.1 (2.5) 0 - 10	1.8 (3) 0 - 10	0.85 (0.73-0.92)	
Change score	0.0 (0.8) -2 - 3	0.2 (0.9) -2 - 5	0.10 (-0.58-0.48)	1.1

Baseline and follow-up: N=52 (reader 1), N=53 (reader 2); whole spine change score: N=42 (reader 1), N=44 (reader 2), N=38 (ICC); cervical segment change score: N=44 (reader 1), N=45 (reader 2), N=40 (ICC); thoracic segment change score: N=50 (reader 1), N=52 (reader 2), N=50 (ICC); lumbar segment change score: N=51 (reader 1), N=52 (reader 2), N=51 (ICC)

Table 2: Number of radiographic axSpA patients with progression of facet joint ankylosis during 2-year follow

	SDC	Reader 1 N(%)	Reader 2 N(%)	Consensus N(%)
Whole spine	2			
Change >SDC positive		12 (28.6%)	11 (25%)	6 (15.8%)
Change >SDC negative		1 (2.4%)	3 (6.8%)	1 (2.6%)
Change >0		13 (30.1%)	15 (34.1%)	6 (15.8%)
Cervical segment	0.2			
Change >SDC positive		2 (4.5%)	3 (6.6%)	1 (2.5%)
Change >SDC negative		1 (2.3%)	1 (2.2%)	1 (2.5%)
Change >0		2 (4.5%)	3 (6.6%)	1 (2.5%)
Thoracic segment	2.7			
Change >SDC positive		9 (18%)	8 (15.4%)	3 (6%)
Change >SDC negative		1 (2%)	2 (3.8%)	1 (2%)
Change >0		15 (30%)	15 (28.8%)	5 (10%)
Lumbar segment	1.1			
Change >SDC positive		3 (5.9%)	4 (7.7%)	2 (3.9%)
Change >SDC negative		3 (5.9%)	1 (1.9%)	1 (2%)
Change >0		3 (5.9%)	6 (11.5%)	2 (3.9%)

Whole spine: N=42 (reader1), N=44 (reader 2), N=38 (consensus); cervical segment: N=44 (reader 1), N=45 (reader 2), N=40 (consensus); thoracic segment: N=50 (reader 1), N=52 (reader 2), N=50 (consensus); lumbar segment: N=51 (reader 1), N=52 (reader 2), N=51 (consensus)

(Schering-Plough), Mylan, Mundipharma, Novartis, Pfizer (Wyeth, Hospira), Roche, Sanofi-Aventis and UCB, Consultant for: AbbVie (Abbott), Amgen, Baxter, Biogen, BMS, Boehringer, Celgene, Celltrion, Centocor, Chugai, Hexal, Janssen, Lilly, Medac, MSD (Schering-Plough), Mylan, Mundipharma, Novartis, Pfizer (Wyeth, Hospira), Roche, Sanofi-Aventis and UCB, Consultant for: AbbVie, BMS, Celgene, Chugai, Merck, Novartis, Pfizer, UCB, Consultant for: Abbott, Bristol Myers Squibb, Celgene, Celltrion, Chugai, Johnson & Johnson, MSD, Novartis, Pfizer, Roche, UCB Pharma, Speakers bureau: AbbVie, BMS, Celgene, Chugai, Merck, Novartis, Pfizer, UCB, Speakers bureau: AbbVie (Abbott), Amgen, Baxter, Biogen, BMS, Boehringer, Celgene, Celltrion, Centocor, Chugai, Hexal, Janssen, Lilly, Medac, MSD (Schering-Plough), Mylan, Mundipharma, Novartis, Pfizer (Wyeth, Hospira), Roche, Sanofi-Aventis and UCB, Speakers bureau: AbbVie, BMS, Celgene, Chugai, Merck, Novartis, Pfizer, UCB, Grant/research support from: Funding from the Dutch Arthritis Foundation.

The funding source had no role in the design and conduct of the study., Désirée van der Heijde Consultant for: AbbVie, Amgen, Astellas, AstraZeneca, Bristol-Myers Squibb, Boehringer Ingelheim, Celgene, Daiichi, Eli Lilly, Galapagos, Gilead, GlaxoSmithKline, Janssen, Merck, Novartis, Pfizer, Regeneron, Roche, Sanofi, Takeda, Union Chimique Belge, Xenofon Baraliakos Grant/research support from: AbbVie, Boehringer Ingelheim, Bristol-Myers Squibb, Celgene, Centocor, Chugai, Janssen, MSD, Novartis, Pfizer Inc, Roche and UCB, Grant/research support from: AbbVie, Pfizer, Merck Sharp & Dohme, UCB Pharma, Novartis, Consultant for: AbbVie, Bristol-Myers Squibb, Boehringer Ingelheim, Celgene, Chugai, Janssen Biologics, Novartis, Pfizer, UCB Pharma, Galapagos, Speakers bureau: AbbVie, Chugai, Janssen, Novartis, Pfizer, UCB Pharma

DOI: 10.1136/annrheumdis-2019-eular.4713

SAT0530 SPSAMRIS: A TIME AND RESOURCE SAVING ALTERNATIVE FOR DETECTION AND MONITORING OF DISEASE-RELATED JOINT CHANGES?

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Background: Standardized imaging scores in MRI are barely used in daily clinical practice whereby the high expenditure (in terms of time and staff) is often given as a reason.

Objectives: To develop and evaluate a simplified version of the OMER-ACT Psoriatic Arthritis Magnetic Resonance Imaging Score (sPsAMRIS).

Methods: 19 patients with PsA according to CASPAR classification criteria with inadequate methotrexate response received anti-TNF treatment and were assessed by 3T MRI of the clinically dominant hand at baseline and after 6 months. Scoring was according to PsAMRIS. Items were reduced based on standard response mean (SRM) resulting in sPsAMRIS, which was compared to PsAMRIS by calculation of the total SRM and relative efficiency (RE) after bootstrapping.

Results: PsAMRIS subscore of MCP3, 4, and PIP4 resulted in the highest SRM (-0.07 each) and were therefore included in sPsAMRIS. sPsAMRIS had higher SRM compared to PsAMRIS (-0.13 vs. -0.02) and a higher RE (29.46). PsAMRIS and sPsAMRIS highly correlated at baseline ($r = 0.75$; $p < 0.01$) and follow-up ($r = 0.64$; $p = 0.01$). Evaluation time was reduced from 471 to 142 seconds at baseline and from 478 to 133 seconds at follow-up ($p < 0.001$).

Conclusion: The abbreviated MRI scoring system for PsA-related changes in hands, sPsAMRIS, showed a strong correlation with the well-evaluated PsAMRIS. Hence, sPsAMRIS can be considered as a time and resource saving alternative for semi-quantitative evaluation and monitoring of PsA related joint-pathology.

Acknowledgement: The project was funded by a grant from the German "Bundesministerium für Bildung und Forschung" (BMBF), ArthroMark (01EC1009).

Disclosure of Interests: Philipp Sewerin: None declared, Daniel Abrar: None declared, Ralph Brinks: None declared, Stefan Vordenbäumen: None declared, Alexander Lautwein: None declared, Matthias Schneider Grant/research support from: GlaxoSmithKline and UCB Pharma for performing the LuLa-study., Speakers bureau: Chugai, Benedikt Ostendorf: None declared, Christoph Schleich: None declared

DOI: 10.1136/annrheumdis-2019-eular.4841