(irrespective of the clinical arm), 126 (50%) patients fulfilled the criteria based on local-reading, and 111 (44%) and 102 (40.5%) patients based on 2-reader and majority central-reading, respectively.

Conclusion: Despite substantial overcall for positive MRI SIJ inflammation by local readers, the number of patients classified as having axSpA did not change substantially. This is due to the alternate mechanism for classification through the clinical arm.

References:

[1] Rudwaleit et al. Ann Rheum Dis 2009;68: 777-83

Impact of Central Vs. Local Reader SIJ MRI Inflammation Assessment on SpA Classification in cases with all clinical, radiographic, and central and local MRI inflammation data available (n=252)

MRI assessment used	SpA Classification = Yes N(%)	SpA Classification = No N(%)	Imaging Arm SpA Classification = Yes N(%)	Imaging Arm SpA Classification = No N(%)
Local Reader MRI positive	159 (63.1%)	93 (36.9%)	126 (50%)	126 (50%)
>2 Central Reader MRI positive	148 (58.7%)	104 (41.3%)	111 (44.0%)	141 (56.0%)
Majority Central Reader (≥4/7) MRI positive	143 (56.7%)	109 (43.2%)	102 (40.5%)	150 (59.5%)

Disclosure of Interests: Walter P. Maksymowich Grant/research support from: AbbVie, Novartis, Pfizer, and UCB, Consultant of: AbbVie, Boehringer Ingelheim, Celgene, Eli Lilly, Galapagos, Janssen, Novartis, Pfizer, and UCB, Employee of: Chief Medical Officer of CARE Arthritis Limited, Speakers bureau: AbbVie, Janssen, Novartis, Pfizer, and UCB, Susanne Juhl Pedersen Grant/research support from: Novartis, Ulrich Weber: None declared, Pedro M Machado Consultant of: PMM: Abbvie, Celgene, Janssen, Lilly, MSD, Novartis, Pfizer, Roche and UCB, Xenofon Baraliakos Grant/research support from: Grant/research support from: AbbVie, BMS, Celgene, Chugai, Merck, Novartis, Pfizer, UCB and Werfen, Consultant of: AbbVie, BMS, Celgene, Chugai, Merck, Novartis, Pfizer, UCB and Werfen, Speakers bureau: AbbVie, BMS, Celgene, Chugai, Merck, Novartis, Pfizer, UCB and Werfen, Joachim Sieper Consultant of: AbbVie, Boehringer Ingelheim, Eli Lilly and Company, Janssen, Merck, Novartis, Pfizer, Roche, and UCB Pharma, Speakers bureau: AbbVie, Boehringer Ingelheim, Eli Lilly and Company, Janssen, Merck, Novartis, Pfizer, Roche, and UCB Pharma, Stephanie Wichuk: None declared, Denis Poddubnyy Grant/research support from: AbbVie, MSD, Novartis, and Pfizer, Consultant of: AbbVie, Bristol-Myers Squibb, Eli Lilly, MSD, Novartis, Pfizer, Roche, UCB, Speakers bureau: AbbVie, Bristol-Myers Squibb, Eli Lilly, MSD, Novartis, Pfizer, Roche, UCB, Martin Rudwaleit Consultant of: AbbVie, BMS, Celgene, Janssen, Eli Lilly, MSD, Novartis, Pfizer, Roche, UCB Pharma, Désirée van der Heijde Consultant of: AbbVie, Amgen, Astellas, AstraZeneca, BMS, Boehringer Ingelheim, Celgene, Cyxone, Daiichi, Eisai, Eli-Lilly, Galapagos, Gilead Sciences, Inc., Glaxo-Smith-Kline, Janssen, Merck, Novartis, Pfizer, Regeneron, Roche, Sanofi, Takeda, UCB Pharma; Director of Imaging Rheumatology BV, Robert B.M. Landewé Consultant of: AbbVie; AstraZeneca; Bristol-Myers Squibb; Eli Lilly & Co.; Galapagos NV; Novartis; Pfizer; UCB Pharma, Joel Paschke: None declared, Mikkel Østergaard Grant/research support from: AbbVie, Bristol-Myers Squibb, Celgene, Merck, and Novartis, Consultant of: AbbVie, Bristol-Myers Squibb, Boehringer Ingelheim, Celgene, Eli Lilly, Hospira, Janssen, Merck, Novartis, Novo Nordisk, Orion, Pfizer, Regeneron, Roche, Sandoz, Sanofi, and UCB, Speakers bureau: AbbVie, Bristol-Myers Squibb, Boehringer Ingelheim, Celgene, Eli Lilly, Hospira, Janssen, Merck, Novartis, Novo Nordisk, Orion, Pfizer, Regeneron, Roche, Sandoz, Sanofi, and UCB, Robert G Lambert: None declared

DOI: 10.1136/annrheumdis-2020-eular.6350

FRI0303

PERIPHERAL SYMPTOMS ARE ASSOCIATED WITH LESS SPINAL RADIOGRAPHIC PROGRESSION IN PATIENTS WITH EARLY AXIAL SPONDYLOARTHRITIS: RESULTS FROM THE GERMAN SPONDYLOARTHRITIS INCEPTION COHORT

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Background: Peripheral symptoms (PS), such as arthritis, enthesitis, and dactylitis, are common in axial spondyloarthritis (axSpA); data showing the association of PS and spinal radiographic progression in axSpA are controversial.

Objectives: To analyze the association of PS and spinal radiographic progression in patients with axSpA.

Methods: A total of 210 patients with axSpA (115 with radiographic and 95 with non-radiographic axSpA) were selected for analysis. Spinal radiographs were scored by two readers in a random order according to the modified Stoke Ankylosing Spondylitis Spinal Score (mSASSS). Pelvic radiographs were scored according to the grading system of the modified New York criteria; a sacroiliitis sum score was calculated as a sum of the grades for both sacroiliac joints. Mann-Whitney and Fisher exact tests were performed for group comparisons. A multivariable regression analysis was performed to analyze the influence of PS on radiographic progression.

Results: Of the 101 (48.1%) patients with PS, 78 had peripheral arthritis, 48 - enthesitis, 12 - dactylitis. 32 patients had ≤1 PS. Patients with PS were older, less frequently HLA-B27 positive, compared with patients with no PS (73 (73.0%) vs. 93 (85.3%), p=0.028), had higher disease activity (time-averaged ASDAS over 2 years 2.6 ± 0.9 vs. 2.3 ± 0.9; p=0.032), worse physical function (BASFI 3.5 ± 2.3 vs. 2.3 ± 2.2, p<0.001), higher exposure to disease modifying anti-rheumatic drugs (39 (38.6%) vs. 22 (20.2%), p=0.003) and lower baseline radiographic sacroiliitis sum score (3.8 ± 1.9 vs. 4.4 ± 2.1, p=0.026); other baseline characteristics were similar. Patients with PS had lower absolute progression in mSASSS after 2 years of follow-up than those without (0.28 ± 1.39 vs. 1.15 ± 2.9, p=0.045); 7.9% of patients with PS had a progression of mSASSS by ≥2 points compared to 20.2% in patients without PS (p=0.011). Radiographic progression of sacroiliitis was similar in both groups. In a multivariable regression analysis, presence of PS was associated with a lower mSASSS progression and lower odds for the mSASSS progression by ≥2 points after 2 years of follow-up: β=-0.98 (95% -1.68 to -0.28) OR=0.33 (95% CI 0.12 to 0.91), respectively – Table 1.

Table 1. Association of peripheral symptoms with radiographic progression in axial spondyloarthritis after 2 years of follow-up.

Multivariable linear regression analysis	
Outcome	β (95 %CI)
mSASSS change score	-0.98 (-1.68 to -0.28)*
Change of the sacroiliitis sum score	-0.06 (-0.32 to 0.20)**
Multivariable logistic regression analysis	
Outcome	Odds ratio (95 %CI)
Progression of mSASSS by ≥2 points	0.33 (0.12 to 0.91)*
Progression of sacroiliitis by at least 1 grade in opinion of both readers	0.84 (0.33 to 2.09)**

mSASSS - modified Stoke Ankylosing Spondylitis Spine Score.

*Adjusted for the smoking status, HLA-B27 status, NSAIDs intake, baseline syndesmophytes, and time-averaged ASDAS.

**Adjusted for the smoking status, HLA-B27 status, NSAIDs intake, sacroiliitis sum score at baseline, and time-averaged ASDAS.

Conclusion: Presence of PS is associated with distinct characteristics of SpA including slower radiographic spinal progression which might be explained partly by the numerically lower mSASSS score at baseline.

Acknowledgments: GESPIC has been financially supported by the German Federal Ministry of Education and Research (BMBF). As funding by BMBF was reduced in 2005 and stopped in 2007, financial support has been obtained from Abbott / Abbvie, Amgen, Centocor, Schering-Plough, and Wyeth. Since 2010 GESPIC is supported by Abbvie.

Dr. Murat Torgutalp was supported by the Scientific and Technological Research Council of Turkey (TUBITAK).

Disclosure of Interests: Murat Torgutalp: None declared, Mikhail Protopopov Consultant of: Novartis, Fabian Proft Grant/research support from: Novartis Pharma GmbH, Consultant of: Consultancy / speaker fees from: Abbvie, BMS, Celgene, Lilly, MSD, Novartis, Pfizer, Roche, UCB, Speakers bureau: Consultancy / speaker fees from: Abbvie, BMS, Celgene, Lilly, MSD, Novartis, Pfizer, Roche, UCB, Joachim Sieper Consultant of: AbbVie, Boehringer Ingelheim, Eli Lilly and Company, Janssen, Merck, Novartis, Pfizer, Roche, and UCB Pharma, Speakers bureau: AbbVie, Boehringer Ingelheim, Eli Lilly and Company, Janssen, Merck, Novartis, Pfizer, Roche, and UCB Pharma, Valeria Rios Rodriguez Consultant of: Abbvie, Novartis, Hildrun Haibel Consultant of: Abbvie, Jansen, MSD, and Novartis, Speakers bureau: Abbvie, Jansen, MSD, and Novartis, Martin Rudwaleit Consultant of: AbbVie, BMS, Celgene, Janssen, Eli Lilly, MSD, Novartis, Pfizer, Roche, UCB Pharma, Denis Poddubnyy Grant/research support from: AbbVie, MSD, Novartis, and Pfizer, Consultant of: AbbVie, Bristol-Myers Squibb, Eli Lilly, MSD, Novartis, Pfizer, Roche, UCB, Speakers bureau: AbbVie, Bristol-Myers Squibb, Eli Lilly, MSD, Novartis, Pfizer, Roche, UCB

DOI: 10.1136/annrheumdis-2020-eular.3397