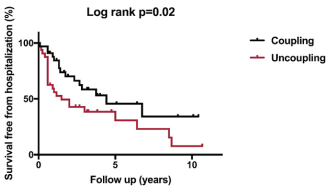
Results: Among the 75 patients 42 (59.2%) had a diffuse cutaneous form of SSc (dSSc) and 64 (85.3%) were female; in SSc patients the mean age was 53±12.1 yrs and the mean disease duration 10.1± 2.3 yrs. 36 (52.2%) patients had positive Scl70, 31 (44.9%) ACA, and 2 (2.9%) anti-RNA pol III. Compared to controls, SSc patients had higher Ea (2.28 vs 0.95 mmHg/ml, p=0.003) and Ees (3.95 vs 2.98 mmHg/ml, p=0.05), and increased diastolic stiffness (Eed) (0.210 vs 0.146 mmHg/ml, p=0.01). VAC was consequently comparable to controls. SSc patients affected with dcSSc had a lower Ees (2.90 vs 4.367, p<0.001) and Eed (0.24 vs 0.17, p=0.032) and a higher VAC (0.52 vs 0.70, p=0.01) compared to lSSc. No differences were found between patients with anti-Scl70 and ACA. At 10 years, 23% of patients was hospitalized for at least one cardiovascular event. The analysis of survival free hospitalization or death in all SSc patients demonstrated a worse outcome and poor prognosis in patients with an altered VAC (31, 47.7%) compared to those with a normal VAC (34, 52.3%) (Figure 1).



Abstract THU0357 – Figure 1

Conclusion: Our study suggests that both ventricular and arterial stifness may be increased in SSc patients without signs and symptoms of heart disease. Since VAC seems to have a prognostic role in the prediction of cardiovascular events in SSc, it could be helpful to define an early therapeutic strategy to prevent or delay cardiac manifestations in these patients.

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20. Spondyloarthritis – clinical aspects (other than treatment)

THU0358 DEVELOPMENT OF A SET OF ASAS QUALITY STANDARDS FOR ADULTS WITH AXIAL SPONDYLOARTHRITIS

Uta Kiltz[1,2], Robert B.M. Landewé[3], Désirée van der Heijde[4], Martin Rudwaleit[5], Maxime Dougados[6], Nurullah Akkoc[7], Annelies Boonen[8], Jan Brandt-Juergens[9], Philippe Caroon[10], Laure Gossec[11], Merryn Jongkees[12], Pedro Machado[13], Helena Marzo-Ortega[14], Anna Moltó[6], Victoria Navarro-Compán[15], Karin Niedermann Schneider[16], Percival D. Sampaio-Barros[17], Gleb Slobodin[18], Filip van den Bosch[19], Astrid van Tubergen[8], Salima van Weely[20], Michael Weisman[21], Dieter Wiek[22], Juergen Braun[1,2]. *[1]Rheumazentrum Ruhrgebiet, Herne, Germany*; *[2]Ruhr-University, Bochum, Germany*; *[3]ARC, Amsterdam, Netherlands*; *[4]Leiden University Medical Center, Leiden, Netherlands*; *[5]Klinikum Bielefeld, Bielefeld, Germany*; *[6]Hôpital Cochin, Paris, France*; *[7]Rheumatology, Izmir, Turkey*; *[8]Maastricht University Medical Center, Maastricht, Netherlands*; *[9]Rheumapraxis, Berlin, Germany*; *[10]Ghent University, Gent, Belgium*; *[11]Sorbonne Universite, Hopital Pitie-Salpetriere, Paris, France*; *[12]Seayn Medical, The Hauge, Netherlands*; *[13]University College London, London, United Kingdom*; *[14]Leeds General Infirmary, Leeds, United Kingdom*; *[15]University Hospital La Paz, IdiPaz, Madrid, Spain*; *[16]ZHAW Zurich University, Zurich, Switzerland*; *[17]University Sao Paulo, Sao Paulo, Brazil*; *[18]Bnai-Zion Medical Center, Haifa, Israel*; *[19]Ghent University Hospital, Gent, Belgium*; *[20]Leiden University Medical Centre, Leiden, Netherlands*; *[21]Cedars-Sinai Medical Center, Los Angeles, United States of America*; *[22]Rheuma-Liga, Cologne, Germany*

Background: There is wide variation in the management of patients with axial spondyloarthritis (axSpA) worldwide with significant unmet needs such as delayed diagnosis. A major goal of the international organization Assessment of SpondyloArthritis international Society (ASAS) is to improve quality of care and health outcomes in axSpA. One way to achieve this is to define quality standards (QS) in order to identify resources and processes which may need to be optimized. Such standards must be specific, measurable, aspirational and achievable in daily care.

Objectives: To develop ASAS QS to ultimately improve the quality of care for adults with axSpA.

Methods: The ASAS QS group, established in 2015, developed a stepwise approach starting with (I) an overview and open discussions resulting in a proposal for possible key areas for quality improvement. Thereafter, (II) ASAS members and invited patients discussed and commented on a provisional list via a web-based survey with the possibility to propose additional key areas for quality improvement. (III) The complete list was then evaluated by ASAS members and invited patients. (IV) Then, the ASAS QS group prioritized key areas for which quality statements and measures are to be developed, and (V) phrased QS for the most important key areas. Finally (VI), a draft version was commented on, discussed and finally agreed by the ASAS members at the Annual ASAS Meeting 2019.

Results: The ASAS QS group, consisting of 20 rheumatologists, 2 physiotherapists and 2 patients, provided 34 potentially key areas for quality improvement which were commented by 140 participants (86 physicians, 42 patients). Within that process 3 new key areas were proposed and all 37 key areas for improvement were again evaluated by 120 participants (86 physicians, 29 patients). Five key areas were identified to be most important to phrase QS: referral, rheumatologic assessment, treatment, education/self-management and comorbidities. Altogether, 9 QS, each accompanied by a rationale and a measure (figure), were endorsed by ASAS.

Conclusion: ASAS successfully developed the first QS set for improvement of health care provided for adults with axSpA. All QS are achievable in daily care in an optimized situation and intend to minimize variation in quality of care. It is emphasized that ASAS is well aware that all QS are ideal visions of an optimal care which may currently not be realistic in many countries.

No	Domain	Quality statement
1	Referral	People with suspicion of axial SpA are referred to a rheumatologist for diagnostic assessment within 3 working days.
2	Time to specialist	People with suspicion of axial SpA are assessed by a rheumatologist within 3 weeks after referral.
3	Assessment	People with suspected axial SpA have their diagnostic work-up completed within 2 months.
4	Monitoring	Disease activity of people with axial SpA is monitored under the supervision of a rheumatologist with validated composite scores at least twice a year.
5	Disease control	In people with axial SpA and active disease despite conventional therapy, treatment escalation with biologics is discussed.
6	Non-pharmacological treatment	People with axial SpA are informed about the benefits of regular exercise.
7	Education and self-management	People with axial SpA are offered education on the disease including self-management within two months of diagnosis.
8	Rapid access	Patients with axial SpA and disease flare or possibly drug-related side effects receive advice within 2 working days of contacting the rheumatologist.
9	Annual review	People with axial SpA have a comprehensive annual review by the rheumatologist.

Abstract THU0358 – Figure 1. ASAS quality standards for patients with axial spondyloarthritis

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Speakers bureau: AbbVie, Celgene, Janssen, Eli-Lilly, Novartis and UCB, Anna Moltó: None declared, Victoria Navarro-Compán: None declared, Karin Niedermann Schneider: None declared, Percival D. Sampaio-Barros: None declared, Gleb Slobodin: None declared, Filip van den Bosch Consultant for: AbbVie, BMS, Galapagos, Janssen, Lilly, Merck, Novartis, Pfizer and UCB, Speakers bureau: AbbVie, BMS, Janssen, Lilly, Merck, Novartis, Pfizer and UCB., Astrid van Tubergen: None declared, Salima van Weely: None declared, Michael Weisman: None declared, Dieter Wiek: 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 (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
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THU0359

WHAT IS THE LEVEL OF AGREEMENT BETWEEN LOCAL AND CENTRAL READERS IN THE DETECTION OF ACTIVE AND STRUCTURAL LESIONS ON MRI TYPICAL OF AXIAL SPONDYLOARTHRITIS? DATA FROM THE ASAS CLASSIFICATION COHORT STUDY

Walter P Maksymowych[1 2], Xenofon Baraliakos[3], Robert G Lambert, [1]Ulrich Weber[4], Joachim Sieper[5], Stephanie Wichuk[1], Denis Poddubnyy[5], Mikkel Østergaard[6], Joel Paschke[2], Susanne Juhl Pedersen[1], Pedro Machado[7]. *[1]University of Alberta, Edmonton, Canada*; *[1]CaRE ARTHRITIS, Edmonton, Canada*; *[1]Rheumazentrum Ruhrgebiet, Herne, Germany*; *[1]University of South Denmark, Odense, Denmark*; *[1]Charité Universitätsmedizin, Berlin, Germany*; *[1]Copenhagen Center for Arthritis Research, Copenhagen, Denmark*; *[1]University College London, London, United Kingdom*

Background: There has been no central reader evaluation of MRI scans from the ASAS Classification Cohort (ASAS-CC)[1] to compare detection of lesions in the sacroiliac joints (SIJ) between central and ASAS-CC local site readers. Active MRI lesions typical of axSpA were reported in 61.6% and 2.2% of patients from this cohort diagnosed with axSpA and non-axSpA back pain, respectively[1]. Structural lesions were recorded but not reported in the literature.

Objectives: We aimed to compare detection of active and structural lesions on MRI images of the SIJ from the ASAS-CC between ASAS-CC local site readers and central readers from the ASAS-MRI group.

Methods: MRI images were available from 258 of the 495 cases who had MRI performed in the ASAS-CC and also had a local rheumatologist diagnosis. Seven central readers recorded MRI lesions in an eCRF that included wording of lesions defining active and structural lesions typical of axSpA that was exactly the same as in the original ASAS-CC eCRF permitting comparisons between central and local site readers. In addition, lesions that met the criteria for an ASAS positive MRI were recorded by central readers. Active and structural lesion frequencies were assessed descriptively according to majority agreement (≥4/7) of central reader data and also any 2 central readers. Reliability of detection of MRI lesions was compared between central and local readers using the kappa coefficient.

Results: Significant differences in lesion frequencies were observed according to diagnostic category (Table 1). The frequency of active lesions reported by local readers (61%)was greater than for central readers that agreed on the presence of an active lesion (49.7%). Structural lesions were reported less frequently by local readers (44.0%) compared to central readers that agreed on the presence of a structural lesion (54.9%). Reliability of local readers for detection of active lesions was good but only fair for structural lesions (Table 2).

Reader	MRI Lesion Type	Local Rheumatologist Diagnosis		P value
		AxSpA (n=187)	Not AxSpA (n=71)	
Local	Active	114 (61.0%)	3 (4.2%)	<0.0001
Central (≥4 in agreement)	Active	83 (44.4%)	3 (4.2%)	<0.0001
Central (≥4 in agreement)	ASAS positive	76 (40.6%)	2 (2.8%)	<0.0001
Central (≥2 in agreement)	Active	93 (49.7%)	6 (8.5%)	<0.0001
Central (≥2 in agreement)	ASAS positive	89 (47.6%)	5 (7.0%)	<0.0001
Local	Structural	72 (44.0%)[#]	3 (5.2%)[#]	<0.0001
Central (≥4 in agreement)	Structural	51 (31.5%)[#]	6 (10.3%)[#]	<0.0001
Central (≥2 in agreement)	Structural	89 (54.9%)[#]	10 (17.2%)[#]	<0.0001

Local Readers		Central Readers			
		Active lesion (2 reader agreement)		Active Lesion (≥4 reader agreement)	
		Yes	No	Yes	No
Active lesion	**Yes**	85	32	78	39
	No	14	127	8	133
Kappa (95% CI)		**0.64 (0.54-0.73)**		**0.62 (0.53-0.72)**	
		Structural lesion (2 reader agreement)		**Structural Lesion (≥4 reader agreement)**	
Structural lesion	**Yes**	58	17	43	32
	No	41	104	27	118
Kappa (95% CI)		**0.46 (0.34 to 0.57)**		**0.39 (0.27 to 0.52)**	

Conclusion: Local readers may have overestimated the presence of active lesions and underestimated the presence of structural lesions in the ASAS-CC. Their reliability for detection of structural lesions was limited which could reflect lack of awareness of structural lesions related to axSpA.

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