Results: 12 axSpA patients were recruited from the CASTRO cohort (42% female, age 46±11 years, disease duration 16±13 years, BMI 28±5). Results PRE and POST are shown in Table 1: mean values (sd), statistical significance (NS, not significant; *, p<0.05; **, p<0.01), and effect size. Activity indexes and CRP were lower. ASDAS and CRP shown significant differences and a large effect size. All MRI scores showed good responsiveness (ES medium-large, p<0.01), specially KITS4R. Agreement between all MRI scores were high (r>0.8; p<0.01). Between semiautomatic and automatic methods, this agreement was also excellent (r=0.92; p<0.001). Correlation in improvements (reductions in scores) were also significant between all MRI scores (r>0.7; p<0.05).

	PRE	POST	Sign	ES
BASDAI	6.12 (2.45)	4.96 (2.74)	N.S.	0.44-Small
ASDAS	3.61 (1.04)	2.58 (1.25)	*	0.89-Large
CRP	11.26 (8.93)	4.81 (4.08)	**	0.84-Large
BERLIN	2.58 (1.98)	1.17 (1.85)	**	0.74-Medium
SPARCC	3.92 (3.42)	1.58 (2.43)	**	0.69-Medium
SCAISS	295 (332)	95 (163)	**	0.68-Medium
KITS4R	1671 (1596)	258 (421)	**	1.04-Large

NS, not significant; *, p<0.05; **, p<0.01

Conclusion: All MRI scores have good level of agreement between them and good responsiveness. Berlin and SPARCC are observer dependent, and do not quantify the extension of the MBE area. s-SCAISS helps to this quantification. KITS4R is not observer dependent but clinimetric validation, analyzing agreement level with human expert, is necessary. New advanced tools are improving quantitative and objective measurement of BME which is important to analyze responsiveness.

REFERENCES:

- [1] Development and validation of SCAISS, a tool for semi-automated quantification of sacroiliitis by magnetic resonance in spondyloarthritis. *Rheumatol Int.* 2018 Oct;38(10):1919-1926.
- [2] The semi-automated algorithm for the detection of bone marrow oedema lesions in patients with axial spondyloarthritis. *Rheumatol Int.* 2020 Apr;40(4):625-633.

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POS0959

DIAGNOSTIC DELAY IN AXIAL SPONDYLOARTHRITIS: RESULTS FROM THE NATIONAL EARLY INFLAMMATORY ARTHRITIS AUDIT

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Background: Diagnostic delay is a significant problem in axial spondyloarthritis (axSpA), and there is a growing body of evidence showing that delayed axSpA diagnosis is associated with worse clinical, humanistic and economic outcomes.¹ International guidelines have been published to inform referral pathways and improve standards of care for patients with axSpA.^{2,3}

Objectives: To describe the sociodemographic and clinical characteristics of newly-referred patients with axSpA in England and Wales in the National Early Inflammatory Arthritis Audit (NEIAA), with rheumatoid arthritis (RA) and mechanical back pain (MBP) as comparators.

Methods: The NEIAA captures data on all new patients over the age of 16 referred with suspected inflammatory arthritis to rheumatology departments in England and Wales.⁴ We describe baseline sociodemographic and clinical characteristics of axSpA patients (n=784) recruited to the NEIAA between May 2018 and March 2020, compared with RA (n=9,270) and MBP (n=370) during the same period.

Results: Symptom duration prior to initial rheumatology assessment was significantly longer in axSpA than RA patients (p<0.001), and non-significantly longer in axSpA than MBP patients (p=0.062): 79.7% of axSpA patients had symptom durations of >6 months, compared to 33.7% of RA patients and 76.0% of MBP patients; 32.6% of axSpA patients had symptom durations of >5 years, compared to 3.5% of RA patients and 24.6% of MBP patients (Figure 1A). Following referral, median time to initial rheumatology assessment was longer for axSpA than RA patients (36 vs. 24 days; p<0.001), and similar to MBP patients (39 days; p=0.30). The proportion of axSpA patients assessed within 3 weeks of referral increased from 26.7% in May 2018 to 34.7% in March 2020; compared to an increase from 38.2% to 54.5% for RA patients (Figure 1B). A large majority of axSpA referrals originated from primary care (72.4%) or musculoskeletal triage services (14.1%), with relatively few referrals from gastroenterology (1.9%), ophthalmology (1.4%) or dermatology (0.4%).

Of the subset of patients with peripheral arthritis requiring EIA pathway follow-up, fewer axSpA than RA patients had disease education provided (77.5% vs. 97.8%; p<0.001), and RA patients reported a better understanding of their condition (p<0.001). HAQ-DI scores were lower at baseline in axSpA EIA patients than RA EIA patients (0.8 vs 1.1, respectively; p=0.004), whereas baseline Musculoskeletal Health Questionnaire (MSK-HQ) scores were similar (25 vs. 24, respectively; p=0.49). The burden of disease was substantial across the 14 domains comprising MSK-HQ in both axSpA and RA (Figure 1C).

Conclusion: We have shown that diagnostic delay remains a major challenge in axSpA, despite improved disease understanding and updated referral guidelines. Patient education is an unmet need in axSpA, highlighting the need for specialist clinics. MSK-HQ scores demonstrated that the functional impact of axSpA is no less than for RA, whereas HAQ-DI may underrepresent disability in axSpA.

REFERENCES:

- [1] Yi E, Ahuja A, Rajput T, George AT, Park Y. Clinical, economic, and humanistic burden associated with delayed diagnosis of axial spondyloarthritis: a systematic review. *Rheumatol Ther.* 2020;7:65-87.
- [2] NICE. Spondyloarthritis in over 16s: diagnosis and management. 2017.
- [3] van der Heijde D, Ramiro S, Landewe R, et al. 2016 update of the ASAS-EULAR management recommendations for axial spondyloarthritis. *Ann Rheum Dis.* 2017;76(6):978-91.
- [4] British Society for Rheumatology. National Early Inflammatory Arthritis Audit (NEIAA) Second Annual Report. 2021.

Figure 1. Characteristics of axSpA and RA patients in NEIAA
A: Symptom duration by the time of initial rheumatology assessment for axSpA and RA patients, separated by gender. B: Change over time in the proportion of axSpA and RA patients seen in a rheumatology clinic within 3 weeks of initial referral, assessed using a linear mixed model. C: Radar plot of disease burden across the individual domains of the Musculoskeletal Health Questionnaire (MSK-HQ) in EIA-eligible patients with axSpA vs. RA.

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POS0960

PRESENCE AND ASSOCIATED FACTORS OF FATIGUE IN PATIENTS WITH AXIAL SPONDYLOARTHRITIS. RESULTS FROM THE EUROPEAN MAP OF AXIAL SPONDYLOARTHRITIS (EMAS)

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Background: Fatigue/tiredness is an essential aspect of disease for patients with axial spondyloarthritis (axSpA). However, little is known about its prevalence and associated factors.