

ONLINE SUPPLEMENTARY DATA

Supplementary File 1. Additional MRI sequence information HOSTAS.

MRIs from the HOSTAS study included T1-weighted (T1w) fast spin echo (FSE) images in coronal and axial planes (TR/TE 575/11.2, slice thickness 2.0 and 3.0 mm, slice gap 0.2 and 0.3 mm), and T2w FSE images with frequency-selective fat-saturation in coronal and axial planes (TR/TE 3000/61.8, slice thickness 2.0 and 3.0 mm, slice gap 0.2 and 0.3 mm).

Supplementary Table 1. Demographic and clinical characteristics of HOSTAS patients included in the reliability exercise (n=15).

	Patients in exercise (n=15)*
Women , n (%)	12 (80%)
Age , mean (SD) years	65.3 (9.0)
Body mass index , mean (SD) kg/m ²	29.6 (5.4)
Kellgren-Lawrence grade CMC-1†[#] , n (%)	
Grade 1	5 (36%)
Grade 2	5 (36%)
Grade 3	3 (21%)
Grade 4	1 (7%)
Grip strength† , mean (SD) kg	23.4 (8.3)
AUSCAN pain , mean (SD) [0-20]	8.9 (3.2)
AUSCAN function , mean (SD) [0-36]	14.3 (5.5)
VAS pain† , mean (SD) [0-100]	36.4 (20.6)
Self-reported joint pain thumb† , n(%)	11 (73%)
Self-reported joint stiffness thumb† , n(%)	7 (47%)
Bony swelling CMC-1 joint† , n (%)	5 (33%)
Tenderness on palpation CMC-1 joint† , n(%)	7 (47%)
Limited range of motion CMC-1† , n(%)	4 (27%)

*Information only available for patients from the HOSTAS cohort. †Only data of the imaged hand are displayed. [#]Data from n=14 patients. AUSCAN, Australian/Canadian hand osteoarthritis index. CMC-1, first carpometacarpal. kg, kilogram. n, number. SD, standard deviation.

Supplementary Table 2. Intra-reader reliability of MRI features for the CMC-1 and STT joint (2 readers).

	CMC-1 joint			STT joint		
	SmICC	PEA (%)	PCA (%)	SmICC	PEA (%)	PCA (%)
Synovitis	0.53-0.83	65	90-95	0.72-0.89	65-90	100
Subchondral bone defects	0.89-0.89	95	100	0.62-0.70	90-95	100
Osteophytes	0.71-0.73	60-70	100	0.44-0.71	90-100	100
Cartilage assessment	0.61-0.86	75	95-100	0.71-0.84	65-70	100
Subluxation	0.53-0.91	80-95				
Bone marrow lesions	0.98-0.96	100	100	0.87-0.92	95	100

Values of both readers shown separately (lowest-highest), unless values were not different. Separate scores for the distal and proximal part of the joint were combined into a single sum score per joint to calculate ICCs. CI, confidence interval. CMC-1, first carpometacarpal. IQR, interquartile range. MRI, magnetic resonance imaging. N, number. PCA, percent close agreement. PEA, percent exact agreement. SmICC, single measure intra-class correlation coefficient. STT, scaphotrapeziotrapezoid.