


Supplementary table 1 Median and mean values of the total erosion score in MCP- and MTP-joints

	RA	Symptom-free control	Other arthritides
Median (IQR)	1.0 (0.4-2.5)	0.5 (0-1.5)	1.0 (0-2.0)
<40 years	0.5 (0-1.3)	0 (0-0.5)	0 (0-0.9)
40-59 years	0.5 (0-1.4)	0.5 (0-1.0)	1 (0-2.0)
≥60 years	2.0 (1.0-3.5)	1.5 (0.5-2.5)	1.5 (0.5-3.0)
Mean (SD)	1.8 (2.4)	0.9 (1.2)	1.3 (1.5)
<40 years	1.0 (1.2)	0.3 (0.5)	0.4 (0.6)
40-59 years	1.2 (1.8)	0.8 (1.0)	1.2 (1.3)
≥60 years	2.5 (2.9)	1.7 (1.5)	1.9 (1.8)

Presented are the median and mean total erosion scores in MCP- en MTP-joints for RA-patients, symptom-free controls and patients with other arthritides, within different age groups. RA, rheumatoid arthritis; IQR, interquartile range; SD, standard deviation.

Supplementary table 2 Frequencies of erosions with score ≥ 2 in the MCP- and MTP-joints of RA-patients and symptom free controls, depicted per age category (18-39, 40-59, ≥ 60 years)

Erosions		<40 years		40-59 years		≥ 60 years		Percentage
		RA	Control	RA	Control	RA	Control	
		n=33	n=51	n=96	n=90	n=109	n=52	
MCP 2	proximal	0	0	0	0	3	0	
	distal	0	0	0	0	0	0	
MCP 3	proximal	3	0	2	1	3	2	
	distal	0	0	0	0	0	0	
MCP 4	proximal	0	0	0	0	0	0	
	distal	0	0	0	0	0	0	
MCP 5	proximal	0	0	0	0	0	0	
	distal	0	0	0	0	0	0	
MTP 1	proximal	0	0	0	0	3	0	
	distal	0	0	0	0	1	0	
MTP 2	proximal	0	0	1	0	0	0	
	distal	0	0	0	0	1	0	
MTP 3	proximal	0	0	2	0	1	0	
	distal	0	0	0	0	0	0	
MTP 4	proximal	0	0	0	0	0	0	
	distal	0	0	0	0	0	0	
MTP 5	proximal	6	0	1	0	3	0	
	distal	0	0	1	0	1	0	

Values are the percentages of persons with an erosion score of at least 2 of all persons in that age category. RA, rheumatoid arthritis; MCP, metacarpophalangeal joint; MTP, metatarsophalangeal joint.

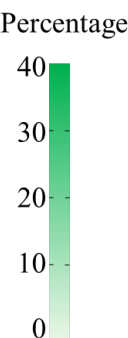
Supplementary table 3 Frequencies of RA-patients and patients with other arthritides with grade ≥ 2 erosions and with erosions with the simultaneous presence of local inflammation in an MCP and/or MTP-joint; analyses on person level

		Nr. of persons with erosions	Grade ≥ 2 erosions		Erosions with inflammation	
			No grade ≥ 2 erosions	Grade ≥ 2 erosions	Erosion+ inflammation-	Erosion+ inflammation+
RA	<40 years (n=33)	14	11 (79%)	3 (21%)	3 (21%)	11 (79%)
	40-59 years (n=96)	39	34 (87%)	5 (13%)	16 (41%)	23 (59%)
	≥ 60 years (n=109)	79	68 (86%)	11 (14%)	18 (23%)	61 (56%)
		238				
other arthritides	<40 years (n=68)	17	17 (100%)	0 (0%)	7 (41%)	10 (59%)
	40-59 years (n=146)	74	68 (92%)	6 (8%)	29 (39%)	45 (61%)
	≥ 60 years (n=137)	99	93 (94%)	6 (6%)	29 (29%)	70 (71%)
	351					

The presence of grade ≥ 2 erosions and erosions with inflammation (BME and/or synovitis) was evaluated per MCP- and MTP-bone according to the Rheumatoid Arthritis Magnetic Resonance Imaging Scoring system. Grade ≥ 2 indicate that $>10\%$ of the bone is eroded. The presence of BME and/or synovitis was defined as a score of ≥ 1 . BME, bone marrow edema; RA, rheumatoid arthritis; MCP, metacarpophalangeal joint; MTP, metatarsophalangeal joint.

Supplementary table 4 Location of erosions in bones of the MCP- and MTP-joints of RA-patients and patients with other arthritides, depicted per age category (18-39, 40-59, ≥60 years)

Erosions		<40 years		40-59 years		≥60 years	
		RA	other arthritides	RA	other arthritides	RA	other arthritides
		n=38	n=63	n=112	n=130	n=134	n=112
MCP 2	proximal	5	2	10	6	22	26
	distal	0	0	4	2	9	8
MCP 3	proximal	8	8	16	22	31	26
	distal	0	2	0	0	4	5
MCP 4	proximal	5	0	3	4	8	6
	distal	3	0	0	0	0	4
MCP 5	proximal	0	2	5	5	18	14
	distal	0	2	1	0	2	1
MTP 1	proximal	16	8	21	22	36	34
	distal	0	6	2	2	10	9
MTP 2	proximal	0	2	2	2	3	3
	distal	3	0	0	1	4	1
MTP 3	proximal	0	0	2	1	4	1
	distal	0	0	0	2	1	1
MTP 4	proximal	3	0	3	2	1	0
	distal	0	0	0	0	0	1
MTP 5	proximal	21	0	11	10	15	10
	distal	0	0	2	0	1	0



Values are the percentages of patients with an erosion of all patients in that age category. The presence of an erosion is defined as an erosion score of at least 1 in that bone. RA, rheumatoid arthritis; MCP, metacarpophalangeal joint; MTP, metatarsophalangeal joint.