

**Supplementary Table S10** Univariate and multivariable linear regression analyses using data without imputations

	$\Delta$ Baseline – 1 year follow-up				$\Delta$ Baseline – 5 years' follow-up			
	Univariate		Multivariable		Univariate		Multivariable	
	$\beta$ (95% CI)	p	$\beta$ (95% CI)	p	$\beta$ (95% CI)	p	$\beta$ (95% CI)	p
<b>HAQ</b>								
$\Delta$ MRI synovitis	0.06 (0.02;0.10)	<b>0.01</b>			0.08 (0.03;0.14)	<b>0.005</b>	0.06 (0.01;0.12)	<b>0.04</b>
$\Delta$ MRI tenosynovitis	0.04 (0.02;0.07)	<b>0.001</b>			0.04 (0.00;0.07)	<b>0.04</b>		
$\Delta$ MRI osteitis	0.02 (0.00;0.03)	<b>0.05</b>			0.02 (0.00;0.05)	0.10		
$\Delta$ MRI erosion	0.01 (-0.07;0.08)	0.85			-0.03 (-0.06;0.01)	0.11		
$\Delta$ JSN	-0.01 (-0.13;0.11)	0.84			-0.05 (-0.11;0.02)	0.16		
$\Delta$ SJC	0.03 (0.02;0.05)	<b>&lt;0.00001</b>	0.02 (0.01;0.04)	<b>0.01</b>	0.04 (0.02;0.06)	<b>0.001</b>		
$\Delta$ CRP	0.01 (0.01;0.01)	<b>0.00002</b>	0.01 (0.01;0.01)	<b>&lt;0.00001</b>	0.01 (0.00;0.01)	<b>0.001</b>	0.01 (0.00;0.01)	<b>0.02</b>
$\Delta$ MRI combined inflammation*	0.01 (0.00;0.02)	<b>0.01</b>			0.02 (0.01;0.04)	<b>0.01</b>	0.02 (0.00;0.04)	<b>0.02</b>
$\Delta$ MRI combined damage*	0.00 (-0.05;0.06)	0.93			-0.02 (-0.04;0.00)	0.11		
<b>VAS-PtGlobal</b>								
$\Delta$ MRI synovitis	3.11 (1.23;5.00)	<b>0.001</b>	2.59 (0.72;4.45)	<b>0.01</b>	4.38 (2.17;6.58)	<b>0.0002</b>	3.15 (0.76;5.54)	<b>0.01</b>
$\Delta$ MRI tenosynovitis	1.11 (0.02;2.21)	<b>0.05</b>			1.33 (0.01;2.65)	<b>0.05</b>		
$\Delta$ MRI osteitis	0.70 (0.02;1.39)	<b>0.05</b>			1.33 (0.43;2.23)	<b>0.004</b>		
$\Delta$ MRI erosion	-1.22 (-4.63;2.20)	0.50			-0.84 (-2.07;0.40)	0.18		
$\Delta$ MRI JSN	0.40 (-5.01;5.81)	0.89			-1.82 (-4.26;0.62)	0.14		
$\Delta$ SJC	0.83 (0.13;1.53)	<b>0.02</b>			1.94 (1.16;2.72)	<b>&lt;0.00001</b>	1.32 (0.33;2.30)	<b>0.01</b>
$\Delta$ CRP	0.28 (0.15;0.38)	<b>0.00002</b>	0.22 (0.10;0.35)	<b>0.001</b>	0.22 (0.06;0.38)	<b>0.01</b>		
$\Delta$ MRI combined inflammation*	0.50 (0.04;0.96)	<b>0.03</b>			1.11 (0.54;1.67)	<b>0.0002</b>	0.78 (0.14;1.42)	<b>0.02</b>
$\Delta$ MRI combined damage*	-0.58 (-3.15;2.00)	0.66			-0.62 (-1.46;0.23)	0.15		
<b>VAS-pain</b>								
$\Delta$ MRI synovitis	3.60 (1.89;5.31)	<b>0.00005</b>	2.96 (1.28;4.65)	<b>0.001</b>	5.41 (3.39;7.43)	<b>&lt;0.00001</b>	2.42 (0.16;4.68)	<b>0.04</b>
$\Delta$ MRI tenosynovitis	1.18 (0.18;2.18)	<b>0.02</b>			1.83 (0.58;3.09)	<b>0.01</b>		
$\Delta$ MRI osteitis	0.60 (-0.03;1.23)	0.06			1.49 (0.63;2.35)	<b>0.001</b>		
$\Delta$ MRI erosion	-1.94 (-5.03;1.15)	0.22			-1.12 (-2.31;0.07)	0.07		
$\Delta$ MRI JSN	1.92 (-3.32;7.17)	0.47			-1.51 (-3.89;0.87)	0.21		
$\Delta$ SJC	1.01 (0.38;1.63)	<b>0.001</b>			2.20 (1.52;2.89)	<b>&lt;0.00001</b>	0.86 (-0.02;1.74)	<b>0.05</b>
$\Delta$ CRP	0.27 (0.16;0.37)	<b>&lt;0.00001</b>	0.22 (0.10;0.33)	<b>0.0002</b>	0.40 (0.26;0.53)	<b>&lt;0.00001</b>	0.26 (0.11;0.41)	<b>0.001</b>

<b>ΔMRI combined inflammation*</b>	0.52 (0.10;0.94)	<b>0.02</b>			1.33 (0.80;1.85)	<b>&lt;0.00001</b>	0.96 (0.37;1.56)	<b>0.00</b>
<b>ΔMRI combined dmage*</b>	-0.71 (-3.06;1.65)	0.55			-0.71 (-1.53;0.10)	0.09		

Analyses for associations between the change of magnetic resonance imaging features and change in patient-reported outcomes. All multivariable analyses were adjusted for sex and age. Statistically significant or borderline significant p-values ( $p \leq 0.05$ ) are written in bold. \*If combined inflammation or damage scores in univariate regression analyses had a p-value  $\leq 0.10$ , this was included in a separate multivariable regression model with CRP and SJC. Abbreviations: Δ: Change, HAQ: Health assessment questionnaire, JSN: Joint space narrowing, SJC: Swollen joint count, CRP: C-reactive protein, PtGlobal: Patient global, VAS: Visual analogue scale.