

SUPPLEMENTARY DATA**Supplementary Table 1:** Anatomic structures scanned

Anatomic structure	Synovitis	Peritenonitis	Tenosynovitis	Enthesis	Erosions	New bone formation
MCP 1-5	Dorsal & palmar joint recess	Extensor tendon finger 1-5	Flexor tendon finger 1-5		x	x
PIP 1-5	Dorsal & palmar joint recess	Extensor tendon finger 1-5	Flexor tendon finger 1-5		x	x
DIP 2-5	Dorsal & palmar joint recess	Extensor tendon finger 1-5	Flexor tendon finger 1-5		x	x
Wrist	Radiocarpal and midcarpal joint recess		2nd, 4th and 6th extensor tendon compartment		x	
Shoulder				Supraspinatus		
Elbow	Posterior joint recess			Triceps tendon Common extensor tendon		
Knee	Suprapatellar and medial joint recesses			Quadriceps Proximal and distal patellar tendon insertions		
Ankle	Tibio-talar joint recess		Tibialis posterior tendon	Achilles tendon Plantar fascia		
MTP 1-5	Dorsal joint recess	Extensor tendon toe 1-5			x	x
PIP 1-5	Dorsal joint recess	Extensor tendon toe 1-5			IP1	IP1
DIP 2-5	Dorsal joint recess	Extensor tendon toe 2-5				

Supplementary Table 2: Scoring system

		B-mode score		Power Doppler	
Synovitis [1]		0	Normal	0	Normal
		1	Mild	1	Mild
		2	Moderate	2	Moderate
		3	Severe	3	Severe
Peritenonitis [2]		0	None	0	Normal
		1	Present	1	Mild
				2	Moderate
Tenosynovitis [3]		0	Normal	0	Normal
		1	Mild	1	Mild
		2	Moderate	2	Moderate
		3	Severe	3	Severe
Enthesitis inflammatory [4-5]	Hypoechoogenicity	0	Absent	0	Normal
		1	Present	1	Mild
	Thickening	0	Absent	2	Moderate
		1	Present	3	Severe
Enthesitis structural [4-5]	Erosion	0	Absent		
		1	Present		
	Enthesophyte	0	Normal		
		1	Small		
		2	Moderate		
	3	Large			

Supplementary Table 3: Summary of ultrasound scores at baseline (N=135)

Score	Mean (SD)
Total synovitis score	35.2 (23)
Total peritenonitis score	7.4 (8)
Total erosion score	2.4 (4.2)
Total new bone formation score	10.7 (10.4)
Total tenosynovitis score	4.5 (6.9)
Total inflammatory enthesitis score	13.6 (10.5)
Total structural enthesitis score	14.6 (10.1)

Supplementary Table 4: The association between baseline ultrasound scores and DAPSA low disease activity at 3-6 months. GEE linear multivariable regression model* (N=87, events 47)

Variable	Odds Ratio (95% CI)	P value
Total synovitis score	0.72 (0.45, 1.13)	0.15
Total peritenonitis score	0.87 (0.57, 1.32)	0.51
Total erosion score	1.07 (0.79, 1.46)	0.64
Total NBF score	0.72 (0.43, 1.22)	0.22
Total tenosynovitis	1.00 (0.65, 1.53)	0.99
Total inflammatory enthesitis	0.69 (0.42, 1.14)	0.15
Total structural enthesitis	0.94 (0.59, 1.48)	0.78

*each model is adjusted for medication class and prior exposure to biologics