

Supplementary table S1. The ultrasound assessment of joints (A) and entheses (B). The source data collected on imaging is shown in the tables below:

Table A: Ultrasound imaging data collection for synovitis:

Right				Left			
	GS (0-3)	PD (0-3)	Erosion (0-3)		GS (0-3)	PD (0-3)	Erosion (0-3)
Wrist				Wrist			
MCP1				MCP1			
MCP2				MCP2			
MCP3				MCP3			
MCP4				MCP4			
MCP5				MCP5			
PIP1				PIP1			
PIP2				PIP2			
PIP3				PIP3			
PIP4				PIP4			
PIP5				PIP5			
DIP2				DIP2			
DIP3				DIP3			
DIP4				DIP4			
DIP5				DIP5			
Elbow				Elbow			
Knee				Knee			
Ankle				Ankle			
TNJ				TNJ			
STJ				STJ			
MTP1				MTP1			
MTP 2				MTP 2			
MTP 3				MTP 3			
MTP 4				MTP 4			
MTP 5				MTP 5			

GS: grey scale; PD: power Doppler; DIP: distal interphalangeal joint; PIP: proximal interphalangeal joint; MCP: metacarpophalangeal joint; MTP: metatarsophalangeal joint; TNJ: talonavicular joint; STJ: subtalar joint. Semiquantitative scores (0-3) were recorded for the grading of GS, PD, erosion.

Table B: Ultrasound imaging data collection for enthesitis

	AT	PF	DPT	PPT	QT
Right					
Enthesis thickness (mm)					
Thickening (0-1)					
Hypoechogenicity (0-1)					
PD (0-1)					
Calcifications (0-1)					
Enthesophytes (0-1)					
Erosions (0-1)					
Bursitis (0-1)					
Left					
Enthesis thickness (mm)					
Thickening (0-1)					
Hypoechogenicity (0-1)					
PD (0-1)					
Calcifications (0-1)					
Enthesophytes (0-1)					
Erosions (0-1)					
Bursitis (0-1)					

AT: Achilles tendon enthesitis; PF: plantar fascia; DPT: distal patellar tendon insertion; PPT: proximal patellar tendon insertion, QT: quadriceps tendon insertion. Reference values for enthesitis thickening: AT \leq 5.29, PF: \leq 4.4 mm; DPT: \leq 4 mm; PPT: \leq 4 mm; QT: \leq 6.1 mm. Binary grading (0=absent; 1=present) was recorded for thickening, hypoechogenicity, power Doppler (PD), calcifications, enthesophytes, erosions, bursitis.

Supplementary tables S2 a) Oligoarticular, b) Polyarticular:

Subgroup analyses stratified by phenotype (polyarticular defined by SJC \geq 5) for clinical characteristics (A), ultrasound synovitis and erosion outcomes with dactylitis digits included and excluded (B and C respectively) for dactylitic *versus* non-dactylitic PsA.

S2 a) Oligoarticular subset

A. Characteristics and outcomes	Oligoarticular PsA without dactylitis [83/111 (74.8%)]	Oligoarticular PsA with dactylitis [28/111(25.2%)]	Difference/ p value
Clinical			
Age, mean (SD), years	43.7 (12.5)	42.9 (10.8)	0.8 (-4.5 to 6.0)
Male	32 (39%)	12 (43%)	p=0.69
Symptom duration, median (IQR), months	18.0 (8.0, 36.0)	14.5 (7.5, 24.0)	-1.0 (-10.4 to 8.4)
Duration from diagnosis, median (IQR), months	1.0 (0.0, 2.6)	1.1 (0.0, 3.2)	0.16 (-1.1 to 1.4)
Early morning stiffness median (IQR), minutes	30.0 (10.0, 60.0)	60.0 (10.0, 120.0)	30 (-2.9 to 62.9)
TJC (78), median (IQR)	4.0 (1.0, 9.0)	3.5 (2.0, 9.0)	0.0 (-2.7 to 2.7)
SJC (76), median (IQR)	1.0 (0.0, 2.0)	2.0 (1.0, 3.0)	1.0 (0.2 to 1.8)*
TJC (78) median (IQR) (excluding dactylitis)	4.0 (1.0, 9.0)	2.0 (1.0-6.0)	-2.0 (-4.7 to 0.7)
SJC (76) median (IQR) (excluding dactylitis)	1.0 (0.0, 2.0)	0.5 (0.0-1.0)	0.0 (-0.9 to 0.9)
Current Psoriasis	83 (100%)	25 (89.3%)	p=0.003*
Family history of Psoriasis	42 (52%)	18 (69%)	p=0.12
PASI, median (IQR)	3.0 (0.7, 4.9)	1.0 (0.0, 3.0)	-1.8 (-4.4 to -0.24)*
Psoriatic Nail dystrophy	46 (55%)	13 (46%)	p=0.41
mNAPSI, median (IQR)	2.0 (0.0, 9.0)	0.0 (0.0, 4.0)	-2.0 (-4.5 to 0.54)
Clinical Enthesitis	33 (40%)	15 (54%)	p=0.20
MASES, median (IQR)	0.0 (0.0, 2.0)	1.0 (0.0, 2.0)	1.0 (-0.07 to 2.07)
BMI, median (IQR)	28.0 (24.0, 33.1)	27.1 (22.6, 28.8)	-0.9 (-4.2 to 2.4)
Smoking (current)	17 (20%)	5 (18%)	p=0.59
Disease phenotype			
Predominant DIP joint disease	5/80 (6.3%)	3/28(10.7%)	p=0.44

A. Characteristics and outcomes	Oligoarticular PsA without dactylitis [83/111 (74.8%)]	Oligoarticular PsA with dactylitis [28/111(25.2%)]	Difference/ p value
Axial disease	16/81 (19.8%)	2/28 (7.1%)	p=0.12
Arthritis Mutilans	0	0	0
Laboratory markers			
CRP (mg/L), median (IQR)	5.0 (5.0, 8.8)	5.0 (5.0, 10.8)	0 (-1 to 1)
Elevated (>10)	19 (22.9%)	8 (28.6 %)	p=0.54
ESR, median (IQR)	13.0 (6.0, 30.0)	13.0 (5.0, 25.0)	0 (-9.2 to 9.2)
Patient Reported Outcomes (PROs)			
PsAQoL, median (IQR)	6.0 (0.0, 14.0)	3.0 (1.0, 7.0)	-3.0 (-8.2 to 2.2)
DLQI, median (IQR)	3.0 (1.0, 9.0)	2.0 (1.0, 6.0)	-1.0 (-4.3 to 2.3)
HAQ, median (IQR)	0.6 (0.1, 1.5)	0.4 (0.0, 1.0)	-0.3 (-0.7 to 0.2)
B. Ultrasound Synovitis/ Erosions	Oligoarticular PsA without dactylitis [75/99 (75.8%)]	Oligoarticular PsA with dactylitis [24/99 (24.2%)]	Difference/ p value
Total GS≥2	464/2934 (15.8%)	130/824 (15.8%)	p=0.98
Total PD≥1	81/2934 (2.8%)	22/824 (2.7%)	p=0.61
Total GS≥2+PD>1	67/2934 (2.3%)	19/824 (2.3%)	p=0.86
Total US erosions	13/2748 (0.5%)	3/771 (0.4%)	p=0.76
Total erosion score (patient level)	Mean 0.29 (SD 0.91) Median 0 (0,0)	Mean 0.20 (SD 0.40) Median 0 (0,0)	p=0.67
Total patients US erosive	9/75 (12.0%)	3/24(12.5%)	p=0.59
C. Ultrasound Synovitis/ Erosions	Oligoarticular PsA without dactylitis[75/99 (75.8%)] (<u>same as above (B)</u>)	Oligoarticular PsA with dactylitis [24/99 (24.2%)] (<u>dactylitis excluded</u>)	Difference/ p value
Total GS≥2	464/2934 (15.8%)	117/784 (14.9%)	p=0.54
Total PD≥1	81/2934 (2.8%)	17/784 (2.2%)	p=0.36
Total GS≥2+PD>1	67/2934 (2.3%)	14/784 (1.8%)	p=0.66
Total US erosions	13/2748 (0.5%)	2/735 (0.3%)	p=0.46
Total erosion score (patient level)	Mean 0.29 (SD 0.91) Median 0 (0,0)	Mean 0.13 (SD 0.45), Median 0 (0,0)	p=0.387
Total patients US erosive	9/75 (12.0%)	2/24 (8.33%)	p=0.472
*p<0.05, **p<0.01, ***p<0.001.			

BMI: Body mass index; DLQI: Dermatology quality of life index; HAQ: Health assessment questionnaire disability index; MASES: Maastricht ankylosing spondylitis enthesitis scores; mNAPSI: Modified nail psoriasis severity index; PASI: Psoriasis area severity index; PsAQoL: PsA quality of life.

S2 b) Polyarticular subset

A. Characteristics and outcomes	Polyarticular PsA without dactylitis [13/66 (19.7%)]	Polyarticular PsA with dactylitis [53/66 (80.3%)]	Difference/ p value
Clinical			
Age, mean (SD), years	48.8 (14.4)	44.2 (14.5)	4.6 (-4.3 to 13.5)
Male	6 (46%)	30 (57%)	p=0.5
Symptom duration, median (IQR), months	18.0 (12.0, 36.0)	12.0 (6.0, 24.0)	-6.0 (-18.3 to 6.3)
Duration from diagnosis, median (IQR), months	2.3 (0.0, 2.8)	1.3 (0.5, 5.2)	-1.1 (-3.4 to 1.8)
Early morning stiffness median (IQR), minutes	120.0 (60.0, 180.0)	90.0 (40.0, 240.0)	-30 (-148.5 to 88.5)
TJC (78), median (IQR)	10.0 (7.0, 16.0)	12.0 (7.0, 21.0)	2.0 (-6.4 to 10.4)
SJC (76), median (IQR)	7.0 (5.0, 10.0)	10.0 (7.0, 14.0)	3.0 (-1.2 to 7.2)
TJC (78) median (IQR) (excluding dactylitis)	10.0 (7.0-16.0)	6.0 (4.0-13.0)	-4.0 (-9.8 to 1.8)
SJC (76) median (IQR) (excluding dactylitis)	7.0 (5.0-10.0)	5.0 (3.0-8.0)	-2.0 (-5.2 to 1.2)
Current Psoriasis	13/13 (100.0%)	49/53 (92.5%)	p=0.307
Family history of Psoriasis	10 (77%)	31 (60%)	p=0.25
PASI, median (IQR)	2.8 (1.4, 5.2)	2.8 (0.4, 4.2)	0 (-2.4 to 2.4)
Psoriatic Nail dystrophy	6 (46%)	27 (51%)	p=0.76
mNAPSI, median (IQR)	0.0 (0.0, 3.0)	1.0 (0.0, 10.0)	1 (-4.5 to 6.5)
Clinical Enthesitis	3 (23%)	27 (51%)	p=0.071
MASES, median (IQR)	0.0 (0.0, 0.0)	1.0 (0.0, 2.0)	1.0 (-0.03 to 2.1)
BMI, median (IQR)	28.6 (24.6, 31.4)	29.4 (26.2, 31.7)	0.3 (-1.7 to 2.4)
Smoking (current)	2 (15%)	4 (8%)	p=0.39
Disease phenotype			
Predominant DIP joint disease	2 (15%)	10 (20%)	p=0.68
Axial disease	1 (8%)	7 (14%)	p=0.54
Arthritis Mutilans	0	0	0
Laboratory markers			
CRP (mg/L), median (IQR)	5.0 (5.0, 16.5)	12.5 (5.0, 23.0)	7.5 (-3.3 to 18.3)
Elevated (>10)	5 (38%)	28 (53%)	p=0.35
ESR, median (IQR)	12.0 (6.0, 27.0)	24.0 (10.0, 36.0)	12 (-4.1 to 28.1)

A. Characteristics and outcomes	Polyarticular PsA without dactylitis [13/66 (19.7%)]	Polyarticular PsA with dactylitis [53/66 (80.3%)]	Difference/ p value
Patient Reported Outcomes (PROs)			
PsAQoL, median (IQR)	7.0 (1.0, 12.0)	8.0 (3.5, 13.5)	1.0 (-6.3 to 8.3)
DLQI, median (IQR)	4.0 (1.0, 17.0)	2.0 (1.0, 6.0)	-2.0 (-6.8 to 2.8)
HAQ, median (IQR)	0.9 (0.2, 1.2)	0.9 (0.5, 1.4)	0.125 (-0.5 to 0.8)
B. Ultrasound Synovitis/ Erosions	Polyarticular PsA without dactylitis [11/56 (19.6%)]	Polyarticular PsA with dactylitis [45/56 (80.4%)]	Difference/ p value
Total GS \geq 2	87/488 (17.8%)	512/1897 (27.0%)	p<0.001**
Total PD \geq 1	33/488 (6.8%)	176/1897 (9.3%)	p<0.001**
Total GS \geq 2+PD>1	22/488 (4.51%)	152/1897 (8.0%)	p<0.001**
Total US erosions	2/458 (0.44%)	30/1786 (1.7%)	p=0.04*
Total erosion score (patient level)	Mean 0.18 (SD 0.40) Median 0 (0,0)	Mean 1 (SD 1.93), Median 0 (0,1)	p=0.17
Total patients US erosive	2/11 (18.2%)	17/45 (37.7%)	p=0.19
C. Ultrasound Synovitis/ Erosions	Polyarticular PsA without dactylitis [11/56 (19.6%)] (<u>same as above (B)</u>)	Polyarticular PsA with dactylitis [45/56 (80.4%)] (<u>dactylitis excluded</u>)	Difference/ p value
Total GS \geq 2	87/488 (17.8%)	390/1682 (23.2%)	p=0.01*
Total PD \geq 1	33/488 (6.8%)	109/1682 (6.5%)	p=0.825
Total GS \geq 2+PD>1	22/488 (4.5%)	87/1682 (5.2%)	p=0.036*
Total US erosions	2/458 (0.44%)	23/1580 (1.46%)	p=0.08
Total erosion score (patient level)	Mean 0.18 (SD 0.40) Median 0 (0,0)	Mean 0.76 (SD 1.79) Median 0 (0,1)	p=0.3
Total patients US erosive	2/11 (18.2%)	15/45 (33.3%)	p=0.277
*p<0.05, **p<0.01, ***p<0.001.			

BMI: Body mass index; DLQI: Dermatology quality of life index; HAQ: Health assessment questionnaire disability index; MASES: Maastricht ankylosing spondylitis enthesitis scores; mNAPSI: Modified nail psoriasis severity index; PASI: Psoriasis area severity index; PsAQoL: PsA quality of life.

Supplementary tables S3 a) Oligoarticular, b) Polyarticular: Subgroup analyses stratified by phenotype (polyarticular defined as tender and/or swollen joints ≥ 5) for clinical characteristics (A), ultrasound synovitis and erosion outcomes with dactylitis digits included and excluded (B and C respectively) for dactylitic *versus* non-dactylitic PsA.

S3 a) Oligoarticular subset

A. Characteristics and outcomes	Oligoarticular PsA without dactylitis [48/77 (62.3%)]	Oligoarticular PsA with dactylitis [29/77(37.7%)]	Difference/ p value
Clinical			
Age, mean (SD), years	43.6 (12.5)	41.0 (11.8)	2.7 (-3.1 to 8.4)
Male	16 (33%)	12 (41%)	p=0.48
Symptom duration, median (IQR), months	15.5 (9.5, 30.0)	12.0 (6.0, 24.0)	-6 (-14.9 to 2.9)
Duration from diagnosis, median (IQR), months	1.5 (0.0, 2.8)	1.2 (0.0, 4.6)	-0.3 (-1.9 to 1.3)
Early morning stiffness median (IQR), minutes	30.0 (6.5, 60.0)	60.0 (10.0, 120.0)	30 (-7.2 to 67.2)
TJC (78), median (IQR)	3.0 (1.0, 5.5)	6.0 (3.0, 9.0)	3.0 (0.6 to 5.4)*
SJC (76), median (IQR)	1.0 (0.0, 2.0)	4.0 (2.0, 6.0)	3.0 (1.6 to 4.4)***
TJC (78) median (IQR) (excluding dactylitis)	3.0 (1.0, 5.5)	3.0 (1.0, 6.0)	0.0 (-2.7 to 2.7)
SJC (76) median (IQR) (excluding dactylitis)	1.0 (0.0, 2.0)	1.0 (0.0, 2.0)	0.0 (-1.0 to 1.0)
Current Psoriasis	48 (100%)	29 (100%)	-
Family history of Psoriasis	25 (54%)	18 (64%)	p=0.40
PASI, median (IQR)	2.5 (0.6, 4.8)	1.8 (0.4, 4.0)	-0.9 (-2.8 to 1.0)
Psoriatic Nail dystrophy	27 (56%)	11 (38%)	p=0.12
mNAPSI, median (IQR)	2.0 (0.0, 5.0)	0.0 (0.0, 4.0)	-2.0 (-4.4 to 0.4)
Clinical Enthesitis	17 (35%)	13 (45%)	p=0.41
MASES, median (IQR)	0.0 (0.0, 2.5)	0.0 (0.0, 2.0)	0 (-0.7 to 0.7)
BMI, median (IQR)	26.8 (23.5, 30.8)	27.7 (23.8, 31.6)	0.9 (-2.0 to 3.8)
Smoking (current)	9 (19%)	5 (17%)	p=0.63
Disease phenotype			
Predominant DIP joint disease	3 (7%)	2 (7%)	p=0.90

A. Characteristics and outcomes	Oligoarticular PsA without dactylitis [48/77 (62.3%)]	Oligoarticular PsA with dactylitis [29/77(37.7%)]	Difference/ p value
Axial disease	1 (2%)	3 (11%)	p=0.12
Arthritis Mutilans	0	0	0
Laboratory markers			
CRP (mg/L), median (IQR)	5.0 (5.0, 8.2)	5.0 (5.0, 14.9)	0 (-2.5 to 2.5)
Elevated (>10)	9 (19%)	11 (38%)	p=0.063
ESR, median (IQR)	10.5 (5.0, 23.0)	21.0 (5.0, 27.0)	10.0 (0.3 to 19.7)*
Patient Reported Outcomes (PROs)			
PsAQoL, median (IQR)	4.0 (0.0, 12.0)	3.5 (1.0, 10.0)	0 (-5.7 to 5.7)
DLQI, median (IQR)	3.0 (1.0, 6.0)	3.5 (1.0, 7.0)	1.0 (-1.8 to 3.8)
HAQ, median (IQR)	0.3 (0.0, 1.4)	0.4 (0.0, 1.0)	0.97
B. Ultrasound Synovitis/ Erosions	Oligoarticular PsA without dactylitis [44/69 (63.7%)]	Oligoarticular PsA with dactylitis [25/69 (36.2%)]	Difference/ p value
Total GS≥2	308/1951 (15.8%)	211/1026 (20.6%)	p=0.001**
Total PD≥1	53/1951 (2.7%)	47/1026 (4.6%)	p=0.007**
Total GS≥2+PD>1	46/1951 (2.4%)	41/1026 (4.0%)	p=0.012*
Total US erosions	9/1833 (0.5%)	9/968 (0.9%)	p=0.167
Total erosion score (patient level)	Mean 0.32 (SD 1.0) Median 0 (0,0)	Mean 0.64 (SD 1.3) Median 0 (0,0)	p=0.048*
Total patients US erosive	5/44 (11.4%)	6/25 (24.0%)	p=0.17
C. Ultrasound Synovitis/ Erosions	Oligoarticular PsA without dactylitis [44/69 (63.7%)] (<u>same as above (B)</u>)	Oligoarticular PsA with dactylitis [25/69 (36.2%)] (<u>dactylitis excluded</u>)	Difference/ p value
Total GS≥2	308/1951 (15.8%)	184/1966 (19.1%)	p=0.027*
Total PD≥1	53/1951 (2.7%)	33/966 (3.4%)	p=0.291
Total GS≥2+PD>1	46/1951 (2.4%)	28/966 (2.9%)	p=0.084
Total US erosions	9/1833 (0.5%)	5/912 (0.6%)	p=0.84
Total erosion score (patient level)	Mean 0.31 (SD 1.0) Median 0 (0,0)	Mean 0.32 (SD 1.0) Median 0 (0,0)	p=0.99
Total patients US erosive	5/44 (11.4%)	4/25 (16.0%)	p=0.71
*p<0.05, **p<0.01, ***p<0.001.			

BMI: Body mass index; DLQI: Dermatology quality of life index; HAQ: Health assessment questionnaire disability index; MASES: Maastricht ankylosing spondylitis enthesitis scores; mNAPSI: Modified nail psoriasis severity index; PASI: Psoriasis area severity index; PsAQoL: PsA quality of life.

S3 b) Polyarticular subset

A. Characteristics and outcomes	Polyarticular PsA without dactylitis [48/100 (48.0%)]	Polyarticular PsA with dactylitis [52/100(52.0%)]	Difference/ p value
Clinical			
Age, mean (SD), years	45.2 (13.1)	45.3 (13.9)	-0.1 (-5.5 to 5.3)
Male	22 (46%)	30 (58%)	p=0.24
Symptom duration, median (IQR), months	18.0 (11.0, 48.0)	12.0 (6.0, 24.0)	-6 (-15.7 to 3.7)
Duration from diagnosis, median (IQR), months	0.5 (0.0, 2.7)	1.2 (0.5, 4.6)	0.7 (-0.4 to 1.8)
Early morning stiffness median (IQR), minutes	60.0 (30.0, 120.0)	75.0 (35.0, 240.0)	30 (-20.0 to 80.1)
TJC (78), median (IQR)	8.5 (4.0, 14.5)	12.5 (6.0, 23.5)	4.0 (-1.7 to 9.7)
SJC (76), median (IQR)	2.0 (0.0, 4.5)	7.5 (6.0, 14.0)	6.0 (3.6 to 8.4)***
TJC (78) median (IQR) (excluding dactylitis)	8.5 (4.0, 14.5)	6.0 (4.0-14.0)	-3.0 (-7.5 to 1.5)
SJC (76) median (IQR) (excluding dactylitis)	2.0 (0.0, 4.5)	4.0 (1.0-7.0)	2.0 (-0.1 to 4.1)
Current Psoriasis	48 (100.0%)	45 (86.5%)	p=0.008**
Family history of Psoriasis	27 (56%)	31 (62%)	p=0.56
PASI, median (IQR)	3.0 (1.2, 5.2)	1.9 (0.0, 4.0)	-1.1 (-2.7 to 0.5)
Psoriatic Nail dystrophy	25 (52%)	29 (56%)	p=0.71
mNAPSI, median (IQR)	1.5 (0.0, 9.0)	2.5 (0.0, 10.0)	1 (-2.8 to 4.8)
Clinical Enthesitis	19 (40%)	29 (56%)	p=0.11
MASES, median (IQR)	0.0 (0.0, 2.0)	1.0 (0.0, 2.0)	1.0 (0.1 to 1.9)*
BMI, median (IQR)	29.6 (25.9, 33.2)	29.4 (25.1, 31.3)	-0.4 (-2.7 to 2.0)
Smoking (current)	10 (21%)	4 (8%)	p=0.16
Disease phenotype			
Predominant DIP joint disease	4 (8%)	11 (22%)	p=0.060
Axial disease	16 (33%)	6 (12%)	p=0.011*
Arthritis Mutilans	0	0	0
Laboratory markers			
CRP (mg/L), median (IQR)	5.0 (5.0, 12.0)	9.6 (5.0, 20.5)	4.6 (-0.4 to 9.6)
Elevated (>10)	15 (31%)	25 (48%)	p=0.086

A. Characteristics and outcomes	Polyarticular PsA without dactylitis [48/100 (48.0%)]	Polyarticular PsA with dactylitis [52/100(52.0%)]	Difference/ p value
ESR, median (IQR)	15.5 (7.0, 41.0)	20.0 (9.0, 36.0)	3.0 (-8.8 to 14.8)
Patient Reported Outcomes (PROs)			
PsAQoL, median (IQR)	7.0 (1.0, 13.0)	8.0 (3.0, 13.0)	1.0 (-3.4 to 5.4)
DLQI, median (IQR)	5.0 (1.0, 12.0)	2.0 (1.0, 5.0)	-3.0 (-6.4 to 0.4)
HAQ, median (IQR)	0.8 (0.4, 1.4)	0.9 (0.5, 1.5)	0.1 (-0.3 to 0.
B. Ultrasound Synovitis/ Erosions	Polyarticular PsA without dactylitis [42/86 (48.8%)]	Polyarticular PsA with dactylitis [44/86 51.1%]	Difference/ p value
Total GS \geq 2	243/1471 (16.5%)	431/1695 (25.4%)	p<0.001***
Total PD \geq 1	61/1471 (4.2%)	151/1695 (8.9%)	p<0.001***
Total GS \geq 2+PD>1	43/1471 (2.9%)	130/1695 (7.7%)	p<0.001**
Total US erosions	6/1373 (0.4%)	24/1589 (1.5%)	p=0.004**
Total erosion score (patient level)	Mean 0.23 (SD 0.69) Median 0 (0,0)	Mean 0.77 (SD 1.77) Median 0 (0,1)	p=0.07*
Total patients US erosive	6/42 (14.3%)	14/44 (31.8%)	p=0.04*
C. Ultrasound Synovitis/ Erosions	Polyarticular PsA without dactylitis[42/86 (48.8%)] (same as above (B))	Polyarticular PsA with dactylitis [44/86 51.1%] (dactylitis excluded)	Difference/ p value
Total GS \geq 2	243/1471 (16.5%)	323/1500 (21.5%)	p=0.001**
Total PD \geq 1	61/1471 (4.2%)	93/1500 (6.2%)	p=0.011*
Total GS \geq 2+PD>1	43/1471 (2.9%)	73/1500 (4.9%)	p=0.001**
Total US erosions	6/1373 (0.4%)	20/1403 (1.4%)	p=0.007**
Total erosion score (patient level)	Mean 0.23 (SD 0.69) Median 0 (0,0)	Mean 0.65 (SD 1.7) Median 0 (0,1)	p=0.14
Total patients US erosive	6/42 (14.3%)	13/44 (29.6%)	p=0.088
*p<0.05, **p<0.01, ***p<0.001.			

BMI: Body mass index; DLQI: Dermatology quality of life index; HAQ: Health assessment questionnaire disability index; MASES: Maastricht ankylosing spondylitis enthesitis scores; mNAPSI: Modified nail psoriasis severity index; PASI: Psoriasis area severity index; PsAQoL: PsA quality of life.

Supplementary table S4

Characteristics of the newly diagnosed, early PsA cohort dichotomised by non-dactylitic PsA *versus* current or past history of dactylitis.

Characteristics and outcomes	Non-dactylitic PsA [81/177 (45.8%)]	Dactylitic PsA (Past history or current dactylitis) [96/177 (54.2%)]	p-value
Clinical			
Age, mean (SD), years	44.0 (13.1)	44.2 (12.9)	0.91
Male	35 (43%)	45 (47%)	0.63
Symptom duration, median (IQR), months	13.0 (11.0, 36.0)	12.0 (6.0, 24.0)	0.100
Duration from diagnosis, median (IQR), months	0.1 (0.0, 0.2)	0.1 (0.0, 0.3)	0.18
Early morning stiffness median (IQR), minutes	30.0 (15.0, 60.0)	60.0 (17.5, 180.0)	0.001
TJC (78), median (IQR)	4.0 (1.0, 10.0)	8.0 (3.5, 18.5)	0.001
SJC (76), median (IQR)	1.0 (0.0, 3.0)	6.0 (2.0, 11.0)	<0.001
Current Psoriasis	81/81 (100%)	89/96 (92.6%)	0.013
Family history of Psoriasis	43 (54%)	58 (62%)	0.29
PASI, median (IQR)	2.9 (0.9, 4.8)	1.9 (0.4, 4.2)	0.10
Psoriatic Nail dystrophy	45 (56%)	47 (49%)	0.38
mNAPSI, median (IQR)	2.0 (0.0, 7.0)	0.0 (0.0, 8.5)	0.84
Clinical Enthesitis	29 (36%)	49 (51%)	0.042
MASES, median (IQR)	0.0 (0.0, 2.0)	1.0 (0.0, 2.0)	0.20
BMI, median (IQR)	27.6 (24.0, 31.9)	28.8 (25.1, 31.6)	0.60
Smoking (current)	16 (20%)	12 (12%)	0.36
Disease phenotype			
Oligoarthritis (defined by SJC<5)	70 (86%)	41 (43%)	<0.001
DIP joint disease	6 (8%)	14 (16%)	0.10
Axial disease	15 (19%)	11 (12%)	0.24
Arthritis Mutilans	0	0	0
Laboratory markers			
CRP (mg/L), median (IQR)	5.0 (5.0, 8.2)	6.7 (5.0, 18.0)	0.001
Elevated CRP (>10mg/L)	18 (22%)	42 (44%)	0.003
ESR, median (IQR)	11.0 (6.0, 26.0)	21.0 (7.0, 36.0)	0.060
Patient Reported Outcomes (PROs)			
PsAQoL, median (IQR)	6.0 (0.0, 12.0)	6.0 (1.0, 13.0)	0.47
DLQI, median (IQR)	3.0 (1.0, 9.0)	2.0 (1.0, 6.0)	0.085
HAQ, median (IQR)	0.6 (0.1, 1.2)	0.8 (0.4, 1.4)	0.21
US synovitis and erosions	Non-dactylitic PsA [71/155 (45.8%)]	Dactylitic PsA [84/155 (54.2%)]	p-value
Total GS≥2	414/2786 (14.9%)	779/3357 (23.6%)	p<0.001
Total PD≥1	80/2786 (2.9%)	232/3357 (6.9%)	p<0.001
Total GS≥2+PD>1	61/2786 (2.2%)	199/3357 (6.3%)	p<0.001
Total US erosions	10/2606 (0.4%)	38/3157 (1.2%)	p<0.001
Total US erosive patients	9/71 (12.7%)	22/84 (26.2%)	p=0.036

BMI: Body mass index; DLQI: Dermatology quality of life index; HAQ: Health assessment questionnaire disability index; MASES: Maastricht ankylosing spondylitis enthesitis scores; mNAPSI: Modified nail psoriasis severity index; PASI: Psoriasis area severity index; PsAQoL: PsA quality of life.

Supplementary table S5

Characteristics of the newly diagnosed, early PsA cohort dichotomised by dactylitis excluding those with a symptom duration of >24 months.

Characteristics and outcomes	Non-dactylitic PsA [64/132 (48.5%)]	Dactylitic PsA (Past history or current dactylitis) [68/132(51.5%)]	p-value
Clinical			
Age, mean (SD), years	43.4 (12.7)	43.4 (13.6)	1.00
Male	23 (36%)	34 (50%)	0.10
Symptom duration, median (IQR), months	12.0 (7.0, 18.0)	9.0 (6.0, 18.0)	0.38
Duration from diagnosis, median (IQR), months	0.1 (0.0, 0.2)	0.1 (0.0, 0.4)	0.29
Early morning stiffness median (IQR), minutes	30.0 (15.0, 105.0)	60.0 (15.0, 180.0)	0.033
TJC (78), median (IQR)	4.0 (1.5, 9.0)	8.5 (4.5, 20.0)	<0.001
SJC (76), median (IQR)	1.0 (0.0, 3.0)	6.5 (2.5, 11.0)	<0.001
Current Psoriasis	64/64 (100%)	62/68 (91.2%)	0.02
Family history of Psoriasis	34 (55%)	43 (66%)	0.19
PASI, median (IQR)	2.9 (1.1, 5.2)	1.9 (0.4, 3.9)	0.10
Psoriatic Nail dystrophy	35 (55%)	33 (49%)	0.48
mNAPSI, median (IQR)	1.5 (0.0, 6.0)	0.0 (0.0, 8.5)	1.00
Clinical Enthesitis	24 (38%)	35 (51%)	0.11
MASES, median (IQR)	0.0 (0.0, 2.0)	1.0 (0.0, 2.0)	0.33
BMI, median (IQR)	27.8 (23.5, 31.4)	28.6 (25.0, 31.2)	0.61
Smoking (current)	13 (20%)	8 (12%)	0.40
Disease phenotype			
Oligoarthritis (defined by SJC<5)	56 (88%)	24 (35%)	<0.001
DIP joint disease	4 (7%)	11 (17%)	0.073
Axial disease	11 (18%)	7 (11%)	0.25
Arthritis Mutilans	0	0	0
Laboratory markers			
CRP (mg/L), median (IQR)	5.0 (5.0, 9.1)	8.8 (5.0, 19.7)	0.009
Elevated CRP (>10mg/L)	15 (23%)	32 (47%)	0.005
ESR, median (IQR)	10.0 (5.0, 25.0)	21.5 (7.0, 36.0)	0.065
Patient Reported Outcomes (PROs)			
PsAQoL, median (IQR)	7.0 (0.0, 12.0)	6.0 (1.0, 13.0)	0.87
DLQI, median (IQR)	3.0 (1.0, 9.0)	2.0 (1.0, 6.0)	0.079
HAQ, median (IQR)	0.6 (0.1, 1.3)	0.8 (0.2, 1.4)	0.34
US synovitis and erosions	Non-dactylitic PsA [55/114 (48.3%)]	Dactylitic PsA [59/114 (51.7%)]	p-value
Total GS≥2	383/2218 (17.3%)	561/2373 (23.6%)	p<0.001
Total PD≥1	83/2218 (3.7%)	181/2373 (7.6%)	p<0.001
Total GS≥2+PD>1	66/2218 (3.0%)	157/2373 (6.6%)	p<0.001
Total US erosions	7/2075 (0.3%)	31/2233 (1.4%)	p<0.001
Total US erosive patients	7/55 (12.7%)	19/59 (32.2%)	p=0.013

BMI: Body mass index; DLQI: Dermatology quality of life index; HAQ: Health assessment questionnaire disability index; MASES: Maastricht ankylosing spondylitis enthesitis scores; mNAPSI: Modified nail psoriasis severity index; PASI: Psoriasis area severity index; PsAQoL: PsA quality of life.