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Table 1: Characteristics of included studies

Author/Year of publication	Study population	Number of participants	Intervention	Comparator	MRI field strength	Sequences	MRI sites	Scoring systems
Cross sectional studies								
Fournie 1997	AS fulfilling Amor criteria and PsA based on seronegative joint disease with psoriasis	8 (5; 3)	MRI	NA	NA	T1W Gd	Anterior chest wall	Qualitative
McGonagle 2002	SpA with plantar fasciitis; Mechanically induced plantar fasciitis	28 (17; 11)	MRI	NA	0.5; 1.5	T1W; SPIR	Plantar fascia	Semi quantitative
Olivieri 2002	SpA with dactylitis	6	MRI	NA	1.5	T1W; T2W FS; GRE-T2W	Finger tendon insertions	Semi quantitative
Tan 2006	DIP joint PsA; DIP joint OA; Healthy subjects	30 (10; 10; 10)	MRI	NA	1.5	T1W; T2W FS; PD; 3DGE; T1W FS Gd	DIP joints	Qualitative
McQueen 2007	PsA	10	MRI	NA	0.6	T1W; T1W Gd; STIR	2nd-5th finger	Semi quantitative
Tan 2007	DIP joint PsA; DIP joint OA; Healthy subjects	30 (10; 10; 10)	MRI	NA	1.5	T1W; T2W FS; PD; 3DGE; T1W FS Gd	DIP joints	Qualitative
Marzo-Ortega 2009	SpA; RA	20 (10; 10)	MRI	NA	1.5	T1W; DCE-MRI; SPIR FS Gd	MCP joints	Qualitative
Maksymowicz 2010	SpA or suspected SpA	35	MRI T1W FS Gd	MRI T2W FS	1.5	T1W; T1W FS; T2W FS; T1W FS Gd	Enthesitis of SIJ ligaments	Semi quantitative
Feydy 2012	SpA; Controls hospitalized low-back pain	75 (51; 24)	MRI	NA	1.5	T1W; STIR	Heel enthesitis	Qualitative
Althoff 2013	SpA	75	MRI	NA	1.5	T1W; STIR	Whole-body	Qualitative
Aydin 2013	SpA with swollen knee	21	MRI	US	1.5	T1W; T2 SPIR; TI SPIR; TI SPIR Gd	Knee entheses	Qualitative
Braum 2013	Suspected inflammatory joint disease	69	MRI	Clinical	1.5	T1W; T1W FS Gd; STIR	Collateral ligaments of finger joints	Qualitative
Paramarta 2014	Knee or ankle arthritis: SpA; RA; crystal arthritis	41 (13; 20; 8)	MRI	NA	1.5	T1W; T2W FS; STIR; T1W FS Gd	Knee and ankle entheses	Qualitative
Ramirez 2014	Greater trochanter pain: SpA/RA/no inflammatory disease	40	MRI	NA	1.5	T1W; T2W FS	Greater femoral trochanter	Qualitative

Poggenborg 2015	PsA; SpA; Healthy subjects	48 (18; 18; 12)	MRI	NA	3	T1W; STIR	Whole-body	Semi quantitative
Tan 2015	PsA with dactylitis; Healthy subjects	22 (12; 10)	MRI	NA	1.5	T2W FS; T1W; TSE; T1W FS Gd	Fingers/toes	Qualitative
Agten 2016	Suspected SpA	68	MRI T1W Gd	MRI STIR	1.5; 3.0	T1W FS Gd; STIR	T12-S1 interspinous and supraspinous ligaments	Qualitative
Giraud 2016	Suspected SpA	106	MRI T2W; MRI PD	T1W Gd	3	T2W; PD; T1W; T1W FS Gd	SIJ anterior and posterior ligaments	Qualitative
Aivazoglou 2017	SpA	16	MRI	NA	1.5	T1W FS; T1W FS Gd; STIR	Enthesitis of SIJ ligaments	Qualitative
Maldonado 2017	SpA	40	MRI	US; CR	1.5	T1W; T1W FS Gd; T2W FS or STIR	Achilles tendon insertion; Plantar fascia	Qualitative
Case control studies								
Olivieri 1998	SpA fulfilling Amor's criteria and showing severe Achilles enthesitis	19 pathologic 9 normal tendons	MRI	US	0.5	T1W, PD, T2W	Ankle	Qualitative
Lambert 2004	AS; Healthy subjects	111 (17; 94)	MRI	NA	1.5	T1W; T2W; PD; T2W FS or STIR	Shoulder	Qualitative
Erdem 2005	AS; Healthy subjects	33 (23; 10)	MRI	NA	1.5	T1W; T2W; STIR	Heel enthesitis	Qualitative
Wiell 2007	PsA; RA; Healthy subjects	25 (15; 5; 5)	MRI	US	0.6	T1W; STIR; T1W Gd	Fingers/toes	Qualitative
Emad 2010	PsA/AS/ReA/IBD/Skin psoriasis; Healthy subjects	76 (56; 20)	MRI	NA	1.5	T1W; T1W Gd	Knee entheses	Qualitative
Weckbach 2011	PsA	30	MRI	Clinical	1.5	STIR, VIBE; VIBE Gd	Whole-body	Qualitative
Wiell 2013	SpA; non-SpA; Healthy subjects	37 (12; 15; 10)	MRI	US	0.6	T1W; STIR; T1W Gd	Achilles tendon and entheses	Qualitative
Chen 2018	PsA; Healthy subjects	16 (9; 7)	MRI 3D UTE Cones	MRI T1W	3	3D UTE Cones; T1W	Achilles tendon	Quantitative
Cohort studies								

Godfrin 2004	Entheseal pain at multiple sites	33	MRI	Clinical	1.5	T1W; T2W; T1W FS Gd and/or STIR	Not described	Qualitative
Eshed 2008	SpA with hindfoot pain	27	MRI	NA	0.2; 1.5	T1W; STIR; T1W FS Gd; T1W GRE FS	Heel enthesitis	Qualitative
Karpitscha 2013	AS	10	MRI	NA	1.5	T1W; STIR	Whole-body	Qualitative
Zhen-Guo 2013	AS	58	MRI	CR; Clinical	1.5	T2W; T1W; STIR; T1W FS Gd	Hip	Qualitative
Althof f2016	SpA	41	MRI	Clinical	1.5	T1W; STIR	Whole-body	Qualitative
Marzo-Ortega 2001	SpA	10	MRI	NA	1.5	T1W; T2W FS; T1W FS Gd	Depending on symptoms of each patient	Qualitative
Tan 2004	AS fulfilling modified NY criteria	9	MRI	NA	1.5	T1TSE, STIR	SIJ and spine	Semi quantitative
de Hooge 2013	Chronic back pain	127	MRI T1W FS Gd	MRI STIR	1.5	T1W; T1W FS Gd; STIR	SIJ enthesitis/capsulitis	Qualitative
Randomised controlled trials								
Dougados 2010	SpA with heel enthesitis	24	MRI	NA	Not reported	T1W; STIR	Heel enthesitis	Quantitative
Song 2011	SpA	76	MRI	NA	1.5	T1W; STIR	Whole-body	Qualitative
Krabbe 2018	SpA	49	MRI	NA	3	T1W; STIR	Whole-body	Semi quantitative

* AS – ankylosing spondylitis, SpA – spondyloarthritis, PsA – psoriatic arthritis, RA – rheumatoid arthritis, OA – osteoarthritis, MCP – metacarpophalangeal joint, DIP – distal interphalangeal joint, SIJ – sacroiliac joints, T1W – T1 weighted, T2W – T2 weighted, Gd – gadolinium, FS – fat suppressed, SPIR – spectral pre-saturation with inversion recovery, GRE – gradient recalled echo, PD – proton density, 3D-GE – 3D gradient echo, STIR – short tau inversion recovery, DCE – dynamic contrast enhanced, TSE – turbo spin echo, VIBE – volumetric interpolated breath-hold sequence, UTE – quantitative ultrashort echo time, US – ultrasound, CR – conventional radiograph