

Table I. Details of the 101 studies included in the systematic review

Author/s	Subject	Pathology*	Spectrum of disease [†]	Tissue studied [‡]	Type of study [§]
Archambault et al ⁷	Rat	Overuse model	-	SST	mRNA
Archer et al ⁸	Human	RCD	CT	SST	Histology/Protein
Attia et al ⁹	Rat	Overuse model	-	SST	mRNA
Bank et al ¹⁰	Human	RCD	RCD	SST	Protein
Benson et al ¹¹	Human	RCD	IS/RCT	SST	Protein
Benson et al ¹²	Human	RCD	IS (5 with ptRCT)	SST/SAB/CAL	Histology
Blaine et al ¹³	Human	RCD	RCD	SAB	mRNA
Blaine et al ¹⁴	Human	RCD	RCT	SAB	Protein/mRNA
Buck et al ¹⁵	Human	ARD	RCD	SST/IST/SBT	Histology
Chard et al ¹⁶	Human	ARD	Asymptomatic, no massive cuff tears	SST	Histology
Codman and Akerson ¹	Human	ARD	39% ruptured SST	SST/IST/SBT	Histology
Cole et al ¹⁷	Human	RCD	RCT	SST	Histology
de Castro Pochini et al ¹⁸	Rat	Overuse model	-	SST	Histology
Determe et al ¹⁹	Human	ARD	No macroscopic lesions	SST	Histology
Feeney et al ²⁰	Human	ARD	RCT and non-RCT	SST/GHJ cartilage	Histology
Fuchs et al ²¹	Human	RCD	RCT	SS muscle	mRNA
Fukuda et al ²²	Human	RCD	RCT (bursal sided)	SST	Histology
Gigante et al ²³	Human	RCD	RCT	SST	Histology
Goodmurphy et al ²⁴	Human	RCD	RCT	SST	Histology
Gotoh et al ²⁵	Human	RCD	SAB/ptRCT and ftRCT	SAB	Protein
Gotoh et al ²⁶	Human	RCD	ptRCT and ftRCT	GHJ synovium	Protein/mRNA
Gotoh et al ²⁷	Human	RCD	ptRCT and ftRCT	SST	Histology/IHC
Gotoh et al ²⁸	Human	RCD	ptRCT and ftRCT	GHJ synovium	Histology/Protein/mRNA
Gotoh et al ²⁹	Human	RCD	SAB/ptRCT and ftRCT	SAB	Protein/mRNA
Goutallier et al ³⁰	Human	RCD	RCT	SST	Histology
Gumina et al ³¹	Human	RCD	RCT	SST	Histology
Hamada et al ³²	Human	RCD	RCT	SST	mRNA
Hashimoto et al ³³	Human	RCD	RCT	SST	Histology
Hijjoka et al ³⁴	Human	ARD	RCT and non-RCT	SST	Histology
Hyvonen et al ³⁵	Human	RCD	IS (RCT and non-RCT)	SAB	Histology/Protein
Ishii et al ³⁶	Human	RCD	IS (RCT and non-RCT) and CT	SAB	Histology/Protein
Jacob et al ³⁷	Human	RCD	RCT	SST	Protein
Jelinsky et al ³⁸	Rat	Overuse model	-	SST	mRNA
Joseph et al ³⁹	Human	RCD	RCD	LHBT	Histology/Protein
Karahan et al ⁴⁰	Dog	Overuse model	-	GHJ synovium, humeral cartilage	Protein
Kim et al ⁴¹	Human	RCD	Unclear	SAB	mRNA
Ko et al ⁴²	Human	RCD	RCT +/- stiffness	SAB	Protein/mRNA
Kumagai et al ⁴³	Human	RCD	ftRCT	SST	Histology/Protein
Lakemeier et al ⁴⁴	Human	RCD	ftRCT	SST	Protein
Lakemeier et al ⁴⁵	Human	RCD	ftRCT	SST	Histology/Protein
Lakemeier et al ⁴⁶	Human	RCD	RCT	LHBT	Histology/Protein
Lakemeier et al ⁴⁷	Human	RCD	RCT	LHBT	Protein
Lehmann et al ⁴⁸	Human	RCD	IS (RCT and non-RCT)	Synovial fluid	Protein
Lindblom et al ⁴⁹	Human	ARD	ARD and RCT	SST	Histology
Lo et al ⁵⁰	Human	RCD	ftRCT	SST	mRNA
Lo et al ⁵¹	Human	RCD	ftRCT	SST	mRNA
Longo et al ⁵²	Human	RCD	ftRCT	SST	Histology
Longo et al ⁵³	Human	RCD	ftRCT	SST	Histology
Lundgreen et al ⁵⁴	Human	RCD	ftRCT	SST	Histology/Protein/mRNA
Mutsuzaki et al ⁵⁵	Human	RCD	RCT/IS non-RCT, and CT	SAB	Histology
Matthews et al ⁵⁶	Human	RCD	RCT	SST	Histology
Millar et al ⁵⁷	Human	RCD	RCT	SST	Histology
Millar et al ⁵⁸	Human	RCD	RCT	SST/SBT	Histology/Protein
Millar et al ⁵⁹	Human	RCD	RCT	SST/SBT	Histology/Protein/mRNA
Millar et al ⁶⁰	Rat	Overuse model	-	SST	mRNA
	Human	RCD	RCT	SST/SBT	Histology/mRNA
	Rat	Overuse model	-	SST	mRNA
Molloy et al ⁶¹	Rat	Overuse model	-	SST	mRNA
Nakagaki et al ⁶²	Human	ARD	ARD	SS muscle	Histology
Neuwirth et al ⁶³	Human	RCD	RCT	SAB	Protein/mRNA
Ogata et al ⁶⁴	Human	ARD	ARD	Acromion and cuff	Histology

Oliva et al ⁶⁵	Human	RCD	RCT	SST	Histology/mRNA
Osawa et al ⁶⁶	Human	RCD	RCT	Synovial fluid	Protein
Panni et al ⁶⁷	Human	ARD	ARD (non-RCT and RCT)	Acromion and cuff	Histology
Perry et al ⁶⁸	Rat	Overuse model	-	SST	mRNA
Premdas et al ⁶⁹	Human	RCD	RCT	SST	Histology
Rahme et al ⁷⁰	Human	RCD	IS	SAB	Histology
Riley et al ⁷¹	Human	RCD	RCT	SST	Histology
Riley et al ⁷²	Human	RCD	RCT	SST	Histology/protein
Riley et al ⁷³	Human	RCD	RCT	SST/STB	Protein
Riley et al ⁷⁴	Human	RCD	RCT	SST/STB	Protein
Sakai et al ⁷⁵	Human	RCD	RCT	SAB	Protein
Santavirta et al ⁷⁶	Human	RCD	IS (RCT and non-RCT)	SAB	Histology
Sarkar et al ⁷⁷	Human	RCD	IS (6 RCT and 5 non-RCT)	CAL	Histology
Sarkar et al ⁷⁸	Human	RCD	RCT/IS/CT	SAB	Histology
Sarkar et al ⁷⁹	Human	RCD	CT	SST	Histology
Schmutz et al ⁸⁰	Human	RCD	RCT	SS muscle	mRNA
Shah et al ⁸¹	Human	ARD	ARD (non-RCT and RCT)	Acromion and cuff	Histology
Shindle et al ⁸²	Human	RCD	ptRCT and ftRCT	SST/STB	Histology/mRNA
				GHJ synovium	mRNA
				SAB	mRNA
Shirachi et al ⁸³	Human	RCD	ftRCT	SST	mRNA
Singaraju et al ⁸⁴	Human	RCD	LHB tendinitis	LHBT	Histology/Protein
Sonnabend et al ⁸⁵	Human	RCD	RCT (ptRCT and ftRCT)	SST	Histology
Soslowsky et al ⁸⁶	Human	Overuse model	-	SST	Histology
Steinbacher et al ⁸⁷	Human	RCD	ftRCT	SS muscle	Histology
Szomor et al ⁸⁸	Rat	Overuse model	-	SST	mRNA
Tajana et al ⁸⁹	Human	RCD	ptRCT, ftRCT, cuff arthropathy	Synovial fluid	Protein
Takase et al ⁹⁰	Human	RCD	IS (non-RCT and RCT)	Acromion/SAB	Histology
Takeuchi et al ⁹¹	Human	RCD	CT	SST	Histology/Protein/mRNA
Tillander et al ⁹²	Human	RCD	IS (non-RCT and RCT)	SST	Histology/Protein
Tomonoga et al ⁹³	Human	RCD	RCT (ptRCT and ftRCT)	SST/SAB	Histology/mRNA
Tuoheti et al ⁹⁴	Human	RCD	IS (non-RCT)	SST	Histology/Protein
Uthoff and Sarkar ⁹⁵	Human	RCD	IS (non-RCT and RCT)	CAL	Histology
Uthoff ⁹⁶	Human	RCD	CT	SST	Histology
Uthoff et al ⁹⁷	Human	RCD	CT with RCT	SST	Histology
Uthoff et al ⁹⁸	Human	RCD	CT	SST	Histology
Voloshin et al ⁹⁹	Human	RCD	IS and ftRCT	SAB	Histology/Protein
Wang et al ¹⁰⁰	Human	RCD	RCT	SST	Protein/mRNA
Wilson and Duff ¹⁰¹	Human	ARD	ARD (non-RCT and RCT)	SST	Histology
Wu et al ¹⁰²	Human	RCD	RCT	SST	Histology
Xu et al ¹⁰³	Human	RCD	IS (non-RCT and RCT)	SST	Protein
Yanagisawa et al ¹⁰⁴	Human	RCD	IS (non-RCT), ptRCT, ftRCT	SAB	Histology/mRNA
Yoshihara et al ¹⁰⁵	Human	RCD	ptRCT and ftRCT	Synovial fluid	Protein
Yuan et al ¹⁰⁶	Human	RCD	RCT	SST	Histology

* RCD, rotator cuff disease; ARD, age-related degeneration

† CT, calcific tendinopathy; IS, impingement syndrome; pt, partial thickness; SST, supraspinatus tendon; SAB, subacromial bursa; ft, full thickness; LHB, long head of biceps

‡ CAL, coracoacromial ligament; IST, infraspinatus tendon; SBT, subscapularis tendon; GHJ, glenohumeral joint

§ mRNA, messenger ribonucleic acid; IHC, immunohistochemistry