

## SUPPLEMENTARY MATERIAL

**Table a.** Details of the studies included in this systematic review, including time to surgery and to post-operative clinical outcomes (n/r, data not reported)

Author/s	Study type*	Patients (n)	Mean (SD) age (range)	Tendons torn†	Tear size (mm)	Surgery type‡	Mean time to surgery (mths) (SD; range)	Post-operative...		Mean follow-up (mths) (range)	Relationship between time to surgery and post-operative clinical outcomes§
								Retears or defects (n)	Complications (n)		
<b>&lt; 1 month</b>											
Lähtenmäki et al <sup>1</sup>	R	26	53 (25 to 68)	n/r	Full thickness, > 10 mm	n/r	0.4 (0.1; 0.1 to 0.7)	n/r	Infection (1)	70.8 (19 to 180)	n/r
<b>&lt; 3 months</b>											
Björnsson et al <sup>2</sup>	R	42	59 (38 to 79)	Primarily SS (±other)	Full thickness, ≥ 1 tendon	Open	1.3 (0.5; 0.2 to 3.0)	13	Infection (1), regional pain syndrome (2)	39 (12 to 108)	No significant differences in CS, DASH score, or WORC index were found, irrespective of whether the repair had been performed < 3 weeks, < 6 weeks, or < 12 weeks
Bassett and Cofield <sup>3</sup>	R	37	56 (19 to 74)	n/r	All sizes	Open	1.5 (0.8; 0.8 to 3.0)	n/r	n/r	84 (15 to 252)	Repair < 3weeks of injury leads to significantly greater active abduction, compared to > 3 weeks to repair. Strength in abduction or external rotation not statistically significant
Hantes et al <sup>4</sup>	R	35	55 (28 to 70)	n/r	> 10 mm	Mini-open/arth	2.4 (4.3; 0.1 to 10.1)	12	n/r	36 (26 to 70)	Significantly greater CS, UCLA score, shoulder flexion and abduction with repair < 3 weeks (mean 0.4 months), compared with > 3 weeks (mean 4.4 months)
Van Riet et al <sup>5</sup>	P	13	58 (37 to 82)	SSC (±SS)	Full thickness	Open	2.5 (1.5; 1 to 6)	6	n/r	45.8 (23 to 105)	n/r
Ide et al <sup>6</sup>	P	20	62 (45 to 69)	SS + SSC (±IF)	Full thickness (mean 25.7 mm SSC, 19.3 mm SS)	Arth	2.7 (1.0; 1 to 6)	7	Transient anterior interosseous nerve injury (1)	36 (24 to 60)	n/r
Peterson and Murphy <sup>7</sup>	P	36	57 (21 to 74)	1 to 3 torn tendons	Full thickness: mean 18 mm	Open	2.8 (1.5; 0.5 to 6)	n/r	n/r	31 (9 to 71)	No statistical difference in UCLA, ASES score and active elevation between < 8 week (mean 5.9) and 9-to-16 week (mean 12.1) to surgery groups, but both groups are significantly different from the > 16 week group (mean 21.7) in all outcome measures
<b>&gt; 3 months</b>											
Heikel <sup>8</sup>	R	22	56 (40 to 67)	Combined	> 10 mm, full and partial thickness	Open	3.7 (4.4; 0.1 to 18)	n/r	n/r	35 (13 to 67)	15-to-60 days to surgery, only excellent and good results were obtained. > 6 months to surgery results were never excellent, and good in only one case (based on subjective complaints, pain, extent and power in active abduction, flexion, and rotation)
Kreuz et al <sup>9</sup>	R	34	51 (27 to 66)	SSC (±other)	Full and partial tears	n/r	3.8 (2.5; 0.3 to 8.0)	n/r	Infection (1), suture granuloma (1), delayed mobilisation due to haematoma (1), stiff and painful shoulder mobilised under anaesthesia (1)	37 (28 to 48)	Delay between trauma and surgery is inversely proportional to improvement in CS (0 to 8 month delay). Improvement ≥ 40 points in CS in patients with delay ≤ 3 months for isolated tears or 4 months for combined tears
Warner and Parsons <sup>10</sup>	R	7	61 (50 to 71)	SS + SSC (±IF)	> 50 mm	Open	4 (1.7; 2 to 6)	n/r	Axillary artery injury (1)	36.6 (24 to 72)	Significant correlation between a lower CS and duration of symptoms > 6 months, as well as an appearance of severe fatty degeneration and atrophy of the SSC muscle on MRI
Namdari et al <sup>11</sup>	R	30	57 (43 to 73)	SS + SSC (±IF)	n/r	Open	4.5 (3.5; 1 to 12)	n/r	n/r	56.5 (26 to 90)	There were no significant correlation between DASH score, VAS pain score, SST score, active forward elevation, active external rotation, passive internal rotation, mean strength, SF-36 findings, and duration of symptoms (range 1 to 12 months).
Bartl et al <sup>12</sup>	P	26	56 (42 to 67)	SS + SSC	Full thickness. Mean SSC 18 mm	Open	5.2 (1.5; 0.5 to 9)	5	Stiffness (1). No infection/neurovascular injuries/hardware failure	49	n/r
Mansat et al <sup>13</sup>	R	12	58 (49 to 68)	SSC (±SS, ±IF)	> 10 mm	Open	5.3 (1.7; 3 to 8)	n/r	n/r	55.6 (12 to 99)	n/r
Warner et al <sup>14</sup>	R	6	62 (38 to 78)	SS + IF (±TM)	Massive tear	n/r	7 (n/r; 3 to 11)	n/r	n/r	25 (18 to 31)	n/r
Frank et al <sup>15</sup>	R	25	57 (44 to 74)	SS (±IF, ±SSC)	Full thickness	Arth	7.2 (5.6; n/r)	3	n/r	> 12	n/r

\* R, retrospective; P, prospective

† SS, supraspinatus; SSC, subscapularis; IF, infraspinatus; TM, teres minor

‡ arth, arthroscopic

§ CS, Constant score; DASH, Disabilities of the Arm, Shoulder and Hand; WORC, Western Ontario Rotator Cuff Index; UCLA, University of California, Los Angeles shoulder score; ASES, American Shoulder and Elbow Surgeons score; VAS, visual analogue scale; SST, Simple Shoulder Test; SF-36, Short-Form 36

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