

ONLINE APPENDICES

Appendix 1. Search Strategy

MEDLINE: 1490 studies	EMBASE: 2407 studies	PUBMED: 420 studies	COCHRANE: 2613 studies
<p>Strategy:</p> <ol style="list-style-type: none"> 1. exp Hyaluronic Acid/ or hyal*.ti,ab. or HA.ti,ab. 2. platelet rich plasma.ti,ab. or exp Platelet-Rich Plasma/ or PRP.ti,ab. 3. exp Cortisone/ or cortisone.ti,ab. or corticosteroid.ti,ab. or exp Glucocorticoid/ or glucocorticoid.ti,ab. or kenalog.ti,ab. or triamcinolone.ti,ab. or tramcinolone.ti,ab. or depomedrol.ti,ab. or betamethasone.ti,ab. or methylprednisolone.ti,ab. or aristospan.ti,ab. or celstone.ti,ab. or corticosteroid shot.ti,ab. or exp Triamcinolone Acetonide/ or exp Methylprednisolone/ or exp Betamethasone/ 4. (viscosup* or viskosup*).ti,ab. 5. orthovisc*.ti,ab. 6. synvisc*.ti,ab. 7. monovisc*.ti,ab. 	<p>Strategy:</p> <ol style="list-style-type: none"> 1. exp Hyaluronic Acid/ or hyal*.ti,ab. or HA.ti,ab. 2. platelet rich plasma.ti,ab. or exp Platelet-Rich Plasma/ or PRP.ti,ab. 3. ortisone.ti,ab. or exp cortisone/ or glucocorticoid.ti,ab. or exp glucocorticoid/ or corticosteroid.ti,ab. or kenalog.ti,ab. or cortisone shot.ti,ab. or triamcinolone.ti,ab. or tramcinolone.ti,ab. or betamethasone.ti,ab. or depomedrol.ti,ab. or aristospan.ti,ab. or celestone.ti,ab. or methylprednisolone.ti,ab. or exp methylprednisolone acetate/ or exp triamcinolone/ or exp triamcinolone acetate/ or exp triamcinolone hexacetate/ or exp betamethasone/ 4. (viscosup* or viskosup*).ti,ab. 5. orthovisc*.ti,ab. 	<p>Strategy:</p> <p>Search: (((synvisc OR orthovisc OR monovisc OR durolane OR viscosupplementati on OR viskosupplementati on OR hyaluronic acid OR HA OR hylan OR hyaluron OR platelet-rich plasma OR PRP OR cortisone OR glucocorticoid OR kenalog OR cortisone shot OR triamcinolone or tramcinolone OR depomedrol OR betamethasone OR methylprednisolone OR aristospan OR celestone OR corticosteroid) AND ((((((randomly OR random OR randomized OR trial OR compare OR comparative OR versus) OR ("clinical trial"[Publication Type])) OR ("controlled clinical trial"[Publication</p>	<p>Strategy:</p> <p>(bursitis OR impingement or tendinopathy OR contusions OR tear OR rupture OR strains OR sprains OR Ligaments OR tendons OR muscle OR soft tissue OR knee OR ankle OR foot OR shoulder OR hip) AND (injection) AND (synvisc OR orthovisc OR monovisc OR durolane OR viscosupplementati on OR viskosupplementati on OR hyaluronic acid OR HA OR hylan OR hyaluron OR platelet-rich plasma OR PRP OR cortisone OR glucocorticoid OR kenalog OR cortisone shot OR triamcinolone or tramcinolone OR depomedrol OR betamethasone OR methylprednisolone OR aristospan OR</p>

<p>8. 1 or 2 or 3 or 4 or 5 or 6 or 7</p> <p>9. inject*.ti,ab.</p> <p>10. 8 and 9</p> <p>11. clinical trial.ti,ab. or exp Clinical Trial/</p> <p>12. controlled clinical trial.ti,ab. or exp Controlled Clinical Trial/</p> <p>13. randomized controlled trial.ti,ab. or exp Randomized Controlled Trial/</p> <p>14. exp Randomized Controlled Trials as Topic/ or random*.ti,ab.</p> <p>15. clinical trials as topic.mp. or exp Clinical Trials as Topic/</p> <p>16. placebo.ti,ab.</p> <p>17. trial*.ti,ab.</p> <p>18. Compar*.ti,ab.</p> <p>19. versus.ti,ab.</p> <p>20. 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19</p> <p>21. exp Ligaments/ or ligament*.ti,ab.</p> <p>22. exp Tendons/ or tendon*.ti,ab.</p> <p>23. muscle*.ti,ab. or exp Muscles/</p>	<p>6. synvisc*.ti,ab.</p> <p>7. monovisc.ti,ab.</p> <p>8. 1 or 2 or 3 or 4 or 5 or 6 or 7</p> <p>9. inject*.ti,ab.</p> <p>10. 8 and 9</p> <p>11. clinical trial.ti,ab. or exp Clinical Trial/</p> <p>12. controlled clinical trial.ti,ab. or exp Controlled Clinical Trial/</p> <p>13. randomized controlled trial.ti,ab. or exp Randomized Controlled Trial/</p> <p>14. exp Randomized Controlled Trials as Topic/ or random*.ti,ab.</p> <p>15. clinical trials as topic.mp. or exp Clinical Trials as Topic/</p> <p>16. placebo.ti,ab.</p> <p>17. trial*.ti,ab.</p> <p>18. compar*.ti,ab.</p> <p>19. versus.ti,ab.</p> <p>20. 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19</p> <p>21. exp Ligament/ or ligament*.ti,ab.</p>	<p>Type])) OR ("equivalence trial"[Publication Type])) OR ("pragmatic clinical trial"[Publication Type])) OR ("randomized controlled trial"[Publication Type])) AND (bursitis OR impingement or tendinopathy OR contusions OR tear OR rupture OR strains OR sprains OR Ligaments OR tendons OR muscle OR soft tissue OR knee OR ankle OR foot OR shoulder OR hip)) AND (injection)) AND (("2020/02/24"[Date - Publication] : "3000"[Date - Publication]))</p>	<p>celestone OR corticosteroid)</p>
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24. (soft tissue or soft-tissue).ti,ab.	22. exp Tendon/ or tendon*.ti,ab.		
25. sprains.ti,ab.	23. muscle.ti,ab. or exp Muscle/		
26. strains.ti,ab.	24. (soft tissue or soft-tissue).ti,ab.		
27. exp "Sprains and Strains"/	25. sprain.ti,ab. or exp sprain/		
28. contusion.ti,ab. or exp Contusions/	26. muscle strain.ti,ab. or exp muscle strain/		
29. exp Tendinopathy/ or tendin*.ti,ab.	27. contusion.ti,ab. or exp Contusion/		
30. bursitis.ti,ab. or exp Bursitis/	28. exp Tendinitis/ or tendin*.ti,ab.		
31. (tear* or rupture*).ti,ab.	29. bursitis.ti,ab. or exp Bursitis/		
32. impingement*.ti,ab.	30. (tear or rupture).ti,ab.		
33. 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32	31. impingement*.ti,ab.		
34. 10 and 20 and 33	32. 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30		
35. limit 34 to humans	33. 10 and 20 and 32		
	34. limit 33 to humans		

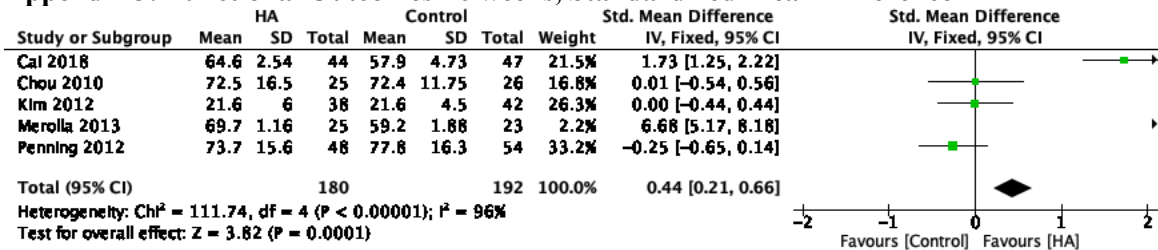
Appendix 2: Functional Outcomes <6 weeks, Constant Scores, Mean Difference (MD)

Study or Subgroup	Hyaluronic acid			Control			Weight	Mean Difference IV, Fixed, 95% CI	Mean Difference IV, Fixed, 95% CI
	Mean	SD	Total	Mean	SD	Total			
Cal 2018	64.6	2.54	44	57.9	4.73	47	90.8%	6.70 [5.15, 8.25]	
Chou 2010	72.5	16.5	25	72.4	11.75	26	3.5%	0.10 [-7.79, 7.99]	
Penning 2012	73.7	15.6	48	77.8	16.3	54	5.7%	-4.10 [-10.29, 2.09]	
Total (95% CI)			117			127	100.0%	5.86 [4.38, 7.33]	

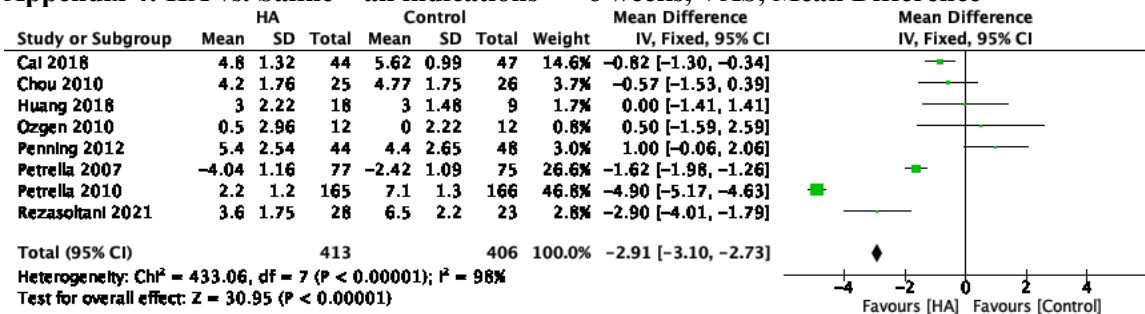
Heterogeneity: $\text{Chi}^2 = 13.11$, $\text{df} = 2$ ($P = 0.001$); $I^2 = 85\%$
Test for overall effect: $Z = 7.79$ ($P < 0.00001$)

-20 -10 0 10 20
Favours [Control] Favours [HA]

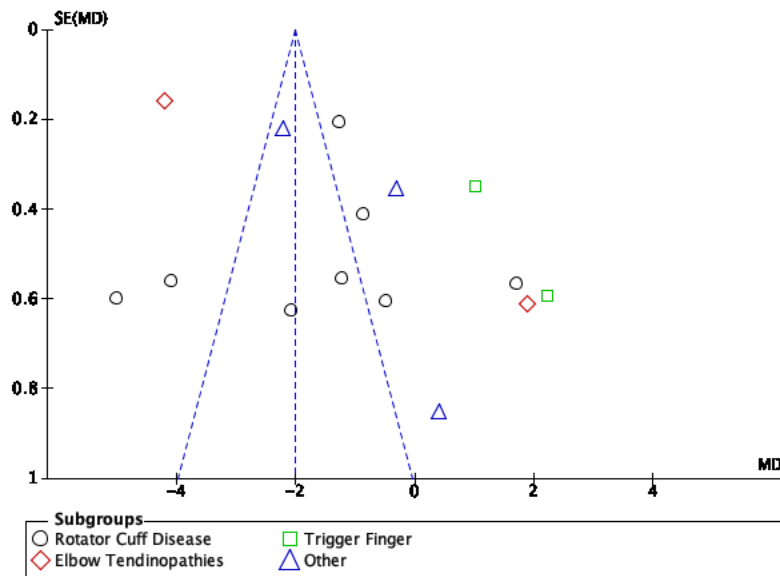
Appendix 3: Functional Outcomes <6 weeks, Standardized Mean Difference



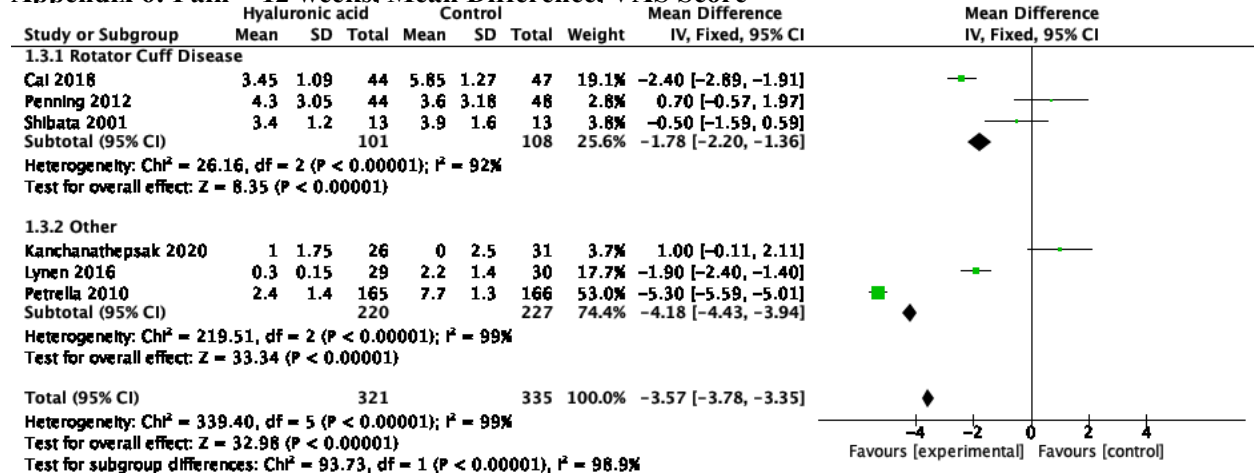
Appendix 4: HA vs. Saline – all indications - < 6 weeks, VAS, Mean Difference



Appendix 5: Funnel Plot



Appendix 6: Pain > 12 weeks, Mean Difference, VAS Score



Appendix 7: Functional Outcomes >6 weeks, <=12 weeks Constant Scores, Mean Difference (MD)

