Hyaluronic Acid Update 2024

HA is useful in tendinopathy and peritendinitis cortisone-free short term pain relive not painful à no limitations in-season or at work not detrimental to tendons

The Role of Hyaluronic Acid for Soft Tissue lndications: A Systematic Review and Meta-Analysis Moin Khan, MD, MSc, FRCSC,*H Ajaykumar Shanmugaraj, BHSc,t Carlos Prada, MD, MHSc,t Ashaka Patel, BHSc,§ Eric Babins, MSc, MD, FCFP (SEM),11 and Mohit Bhandari, MD, PhD, FRCSCH
"When evaluating the function of HA injections by indication, we identified support for HA for rotator cuff disease, elbow pain ankle sprains, as well as Achilles and patellar tendinopathy."

Hyaluronate acid plus platelet-rich plasma is superior to steroids for pain relief less than 6 months using injection therapy of partial rotator cuff tears: A systematic review and network meta-analysis
Weninger V, Agócs G, Kovács N, Váncsa S, Hergár L, Baek CJ, Hegyi P, Holnapy G, Skaliczki G. Hyaluronate acid plus platelet-rich plasma is superior to steroids for pain relief less than 6 months using injection therapy of partial rotator cuff tears: A systematic review and network meta-analysis. Arthroscopy. 2024 Apr 8:S0749-8063(24)00258-5. doi: 10.1016/j.arthro.2024.03.035. Epub ahead of print. PMID: 38599539.
"Conclusion: Our results suggest the combination of HA and PRP to be a more effective therapeutic option for partial RC ruptures for short terms, but there is no significant difference after 6 months."

Comparing lntra-articular lnjections of Leukocyte-Poor Platelet-Rich Plasma Versus Low-Molecular Weight Hyaluronic Acid for the Treatment of Symptomatic Osteoarthritis of the Hip A Double-Blind, Randomized Pilot Study
Kraeutler MJ, Houck DA, Garabekyan T, Miller SL, Dragoo JL, Mei-Dan O. Comparing Intra-articular Injections of Leukocyte-Poor Platelet-Rich Plasma Versus Low-Molecular Weight Hyaluronic Acid for the Treatment of Symptomatic Osteoarthritis of the Hip: A Double-Blind, Randomized Pilot Study. Orthop J Sports Med. 2021 Jan 20;9(1):2325967120969210. doi: 10.1177/2325967120969210. PMID: 33786329; PMCID: PMC7934058.
Conclusion: Intra-articular hip injections of LP-PRP in patients with hip OA resulted in an improvement in WOMAC scores and hip internal rotation at 6 months and delayed the need for THA or a hip resurfacing procedure compared with treatment with LMW-HA. A longer follow-up is necessary to further compare the effects of LP-PRP and LMW-HA injections in patients with hip OA.

Platelet-Rich Plasma Versus Hyaluronic Acid for Knee Osteoarthritis A Systematic Review and Meta-analysis of Randomized Controlled Trials John W. Belk,*t BA, Matthew J. Kraeutler,* MD, Darby A. Houck,t BA, Jesse A. Goodrich,t BA, Jason L. Dragoo,t MD, and Eric C. McCarty,t MD lnvestigation performed at Department of Orthopedics, University of Colorado Schoo/ of Medicine, Aurora, Colorado, USA

Platelet-rich plasma versus hyaluronic acid in the treatment of knee osteoarthritis: a meta-analysis Jia Zhu Tang, Ming Jun Nie, Jian Zhong Zhao, Guang 01eng Zhang, Qing Zhang and Bo Wang·

Platelet-Rich Plasma Versus Alternative Injections for Osteoarthritis of the Knee: A Systematic Review and Statistical Fragility Index-Based Meta-analysis of Randomized Controlled Trials. Conclusions drawn from individual RCTs evaluating PRP for knee OA demonstrated slight robustness. On meta-analysis, PRP demonstrated a significant advantage over hyaluronic acid as well as improved symptom relief, lower rates of reintervention, and more frequent achievement of the MCID for pain improvement when compared with alternative nonoperative treatment options. Statistically significant pooled treatment effects evaluating PRP for knee OA are more robust than approximately half of all comparable meta-analyses in medicine and health care. Future RCTs and meta-analyses should consider reporting FIs and fragility quotients to facilitate interpretation of results in their proper context.

1s the Combination of Platelet-Rich Plasma and Hyaluronic. Acid the Best Injective Treatment for Grade 11-111 Knee Osteoarthritis? A Prospective Study Gianluca Ciapini, Matteo Simonettii, Michele GiuntoliC, Giorgio Varchetta, Silvia De FrancoG!), Edoardo lpponifl!), Michelangelo ScaglioneG!), and Paolo Domenico ParchiG) IH~rtmenl o/Orthopedics and Trauma Surge,y, Uniwnityof Pisa, Pisa 56124, ltaly

Evaluation of the effect of intra-articular platelet rich plasma and hyaluronic acid injections on femoral cartilage thickness in chronic knee osteoarthritis Okan Kü~ükakka~, Teoman Aydin, Ozan Volkan Yurdakul PMID: 36800668 DOI: 10.52628/88.4.10243: "Our study was one of the few studies examining the effect of PRP and HA treatmellts Oll the femoral cartilage thickness in KOA measured by ultrasound"

Injection Techniques for Common Chronic Pain Conditions of the Foot: A Comprehensive Review: All
seven CTs concluded that intra-articular injections HA injections lead to significant effect

The Combination of Glucocorticoids and Hyaluronic Acid Enhances Efficacy in IL-1(J/IL-17-Treated Bovine 0steochondral Grafts Compared with Individual Application Christoph Bauer 1 , Lukas B Moser 2 , Daniela Kern 1 , Vivek Jeyakumar 1 , Stefan Nehrer 1 Affiliations + expand PMID: 37762639 DOI: 10.3390/ijms241814338. "Cytokine treatment led to surface cell death, while GCs, HA, or their combination showed protective effects against inflammation. The GC/HA combination had the best overall results, suggesting its potential as a superior treatment option for osteoarthritis."

Conclusion
i.a. HA injection is safe and effective in OA (hip, knee and ankle)
Enhances lubrification and cartilage thickness
Reduces negative effect of GC
Longer durability of the functional improvement for PRP (Knee and Hip)
à Recommend repetition at 9-12 month
à Combination (?)