

Intra-articular PRP vs. Corticosteroids – Emerging Clinical Evidence

Study Highlights:

- **Haggag et al. (2025)** – *Knee OA, RCT (n=100)*: PRP showed significantly better WOMAC pain, stiffness, and function scores at 2, 6, and 12 weeks vs. steroids ($p < 0.001$).
- **Chiaromonte et al. (2025)** – *Knee OA, Observational Study (n=46)*: PRP + HA improved knee flexion and function more than HA or PBMNC alone at 6 months.
- **Singh et al. (2024)** – *Adhesive Capsulitis, RCT (n=66)*: PRP delivered superior long-term outcomes in pain and mobility over 12 months compared to methylprednisolone.
- **Karikalan et al. (2025)** – *Frozen Shoulder, RCT (n=70)*: PRP outperformed corticosteroids at 24 weeks on QuickDASH, VAS, SPADI, and ROM scores ($p \leq 0.001$).
- **Chugh et al. (2025)** – *Plantar Fasciitis, RCT (n=60)*: Steroids improved pain at 4 weeks, but PRP showed greater functional outcomes at 12 and 24 weeks.
- **Chowley et al. (2025)** – *De Quervain's, RCT (n=86)*: PRP and corticosteroids were equally effective by 12 weeks, with PRP offering a viable long-term alternative.

Key Takeaways:

Corticosteroids Offer Short-Term Relief, But Limited Durability:

Multiple RCTs confirm corticosteroid injections provide fast symptom relief, but the effect often wanes by 3–6 months, with potential for repeat-use concerns and no structural benefit.

PRP Demonstrates Longer-Term Functional Gains:

Across conditions like knee OA, frozen shoulder, and plantar fasciitis, PRP consistently outperformed corticosteroids beyond 8–12 weeks—offering sustained pain reduction and improved joint function.

Regenerative vs. Palliative Paradigm:

Steroids primarily suppress symptoms. PRP, rich in growth factors, supports anti-inflammatory and reparative mechanisms—shifting from symptom suppression to tissue support.

Broader Utility Across Musculoskeletal Indications:

Efficacy of PRP extends beyond knee OA into shoulder capsulitis, plantar fasciitis, and De Quervain's tenosynovitis. Long-term benefits were seen across all trials reviewed.

Favorable Safety Profile:

No serious adverse events reported with PRP in these trials, reinforcing its potential as a low-risk, autologous option—particularly valuable for patients with contraindications to corticosteroids.

References

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