PRP (Platelet rich plasma) in Knee arthritis

PRP (platelet-rich plasma): This involves giving an injection of a concentration of a patient's own platelets into the knee to promote healing and reduce symptoms of knee osteoarthritis.

Many studies proves that it provides pain relief and functional improvements, often outperforming placebo or hyaluronic acid injections

Clinical Sports Medicine Update

PRP Injections for the Treatment of Knee Osteoarthritis: The Improvement Is Clinically Significant and Influenced by Platelet Concentration

A Meta-analysis of Randomized Controlled Trials

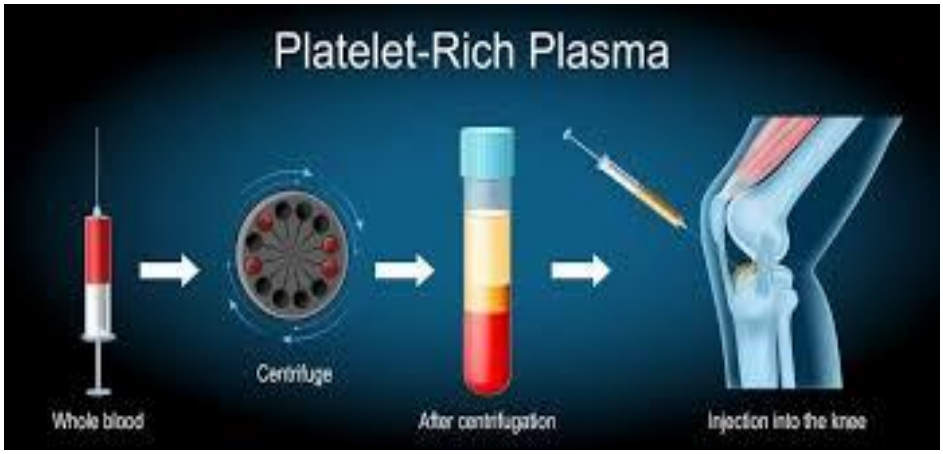
of follow-up. This benefit was maintained up to the 12-month follow-up in the high-platelet group but not in the low-platelet group, where the improvement compared with placebo did not reach statistical significance.

Conclusion: This meta-analysis showed that PRP offered clinically relevant functional improvement at 1-, 3-, 6-, and 12-month follow-up points and pain relief at 3- and 6-month follow-up points compared with placebo for the treatment of knee OA. Platelet concentration was found to influence treatment efficacy, with high-platelet PRP providing superior pain relief and more durable functional improvement compared with low-platelet PRP.

Keywords: platelet-rich plasma; PRP; knee; osteoarthritis; OA; placebo

PROCEDURE

Blood is drawn from the arm, spun in a centrifuge to isolate platelet-rich plasma, and injected into the knee joint, often guided by ultrasound. The process takes about 30-60 minutes,



PRP does not regenerate cartilage, but may slow degeneration and improve symptoms.

Indication

- **Early–moderate knee osteoarthritis**
- **Persistent pain** despite physiotherapy & • **Chondral lesions & early cartilage degeneration**
- **Degenerative meniscal tears** (without locking)
- **Patellofemoral pain / chondromalacia patella**
- **Tendinopathies**
  – Patellar tendon
  – Quadriceps tendon
- **Partial ACL injuries** (non-operative cases)
- P**ost-arthroscopy biological augmentation**

PRP is valuable and a biological option in management of early to moderate knee osteoarthritis, providing meaningful pain relief and functional improvement, especially when combined with physiotherapy and weight optimization.