Long-Term Clinical Results of Intra-Articular Injections for Osteoarthritis of the Knee

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Degenerative osteoarthritis of the knee is a major source of morbidity, affecting 35% of patients over age 65. Current treatment options include lifestyle modifications, physical therapy, corticosteroid injections, hyaluronic acid, and total knee arthroplasty. Intra-articular injections of platelet rich plasma (PRP) have been used as an alternative therapy for OA and are hypothesized to have anti-inflammatory, immunomodulatory, and chondroprotective effects. However, previous studies of PRP injections have reported mixed results.

Methods

Retrospective case series of 54 patients that received intra-articular platelet-rich plasma injections for knee osteoarthritis between April 1, 2016 and July 1, 2018. All patients included had failed conservative therapy for OA. Data collected included Visual Analog Scale (VAS), Knee Injury and Osteoarthritis Outcome Score (KOOS), and International Knee Documentation Committee Score (IKDC) on day of injection, 1 month, 3 months, and 6 months. Scores at baseline, 1 month, 3 months, and 6 months were compared using ANOVA. Tukey’s Test was used when ANOVA was significant to difference in group means.

Results

Intra-articular PRP injection improved functional and pain scale outcomes in patients with knee osteoarthritis that had previously failed conservative therapy. Improvement in functional and pain scale scores remained stable at 6-months from date of PRP injection.

Discussion

Patients reported significant improvement in functional and pain scale outcomes as measured by VAS, KOOS, and IKDC Score following PRP injection at 1 month. No significant improvement or decline was seen after 1 month following PRP injection. Mild post procedural pain was the only adverse effect reported in this sample. These results are consistent with previous industry sponsored data on the use of PRP for osteoarthritis. Our results indicate that PRP injections are a safe and promising alternative treatment option for those that have failed conservative therapy.

Conclusion

Intra-articular PRP injection improved functional and pain scale outcomes in patients with knee osteoarthritis that had previously failed conservative therapy. Improvement in functional and pain scale scores remained stable at 6-months from date of PRP injection.

References