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

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Background

• Degenerative osteoarthritis of the knee is a major source of morbidity, affecting 35% of patients over age 651
• 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. 2,3 However, previous studies of PRP injections have reported mixed results

Purpose

• To determine if intra-articular PRP injection improved functional and pain scale outcomes in patients with osteoarthritis of the knee that failed conservative therapy.

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

Figure 1. VAS Score (Mean +/- 95% Confidence Interval)

Figure 2. KOOS Score (Mean +/- 95% Confidence Interval)

Figure 3. IKDC Score (Mean +/- 95% Confidence Interval)

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