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Michael Swartzon

Doctors Hospital; Miami Orthopedics & Sports Medicine Institute, michaelsw@baptisthealth.net

Andre Anderson

West Kendall Baptist Hospital, AndreAnd@baptisthealth.net

Luis Rodriguez

Miami Orthopedics & Sports Medicine Institute, luisr4@baptisthealth.net

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

Michael Swartzon MD ¹, Robert Hassan ², Raed Narvel ², Andre Anderson MD ¹, Luis Rodriguez MD ¹

1. Miami Orthopedics & Sports Medicine Institute, Baptist Health South Florida, Miami, FL

2. Florida International University Herbert Wertheim College of Medicine, Miami, FL



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)

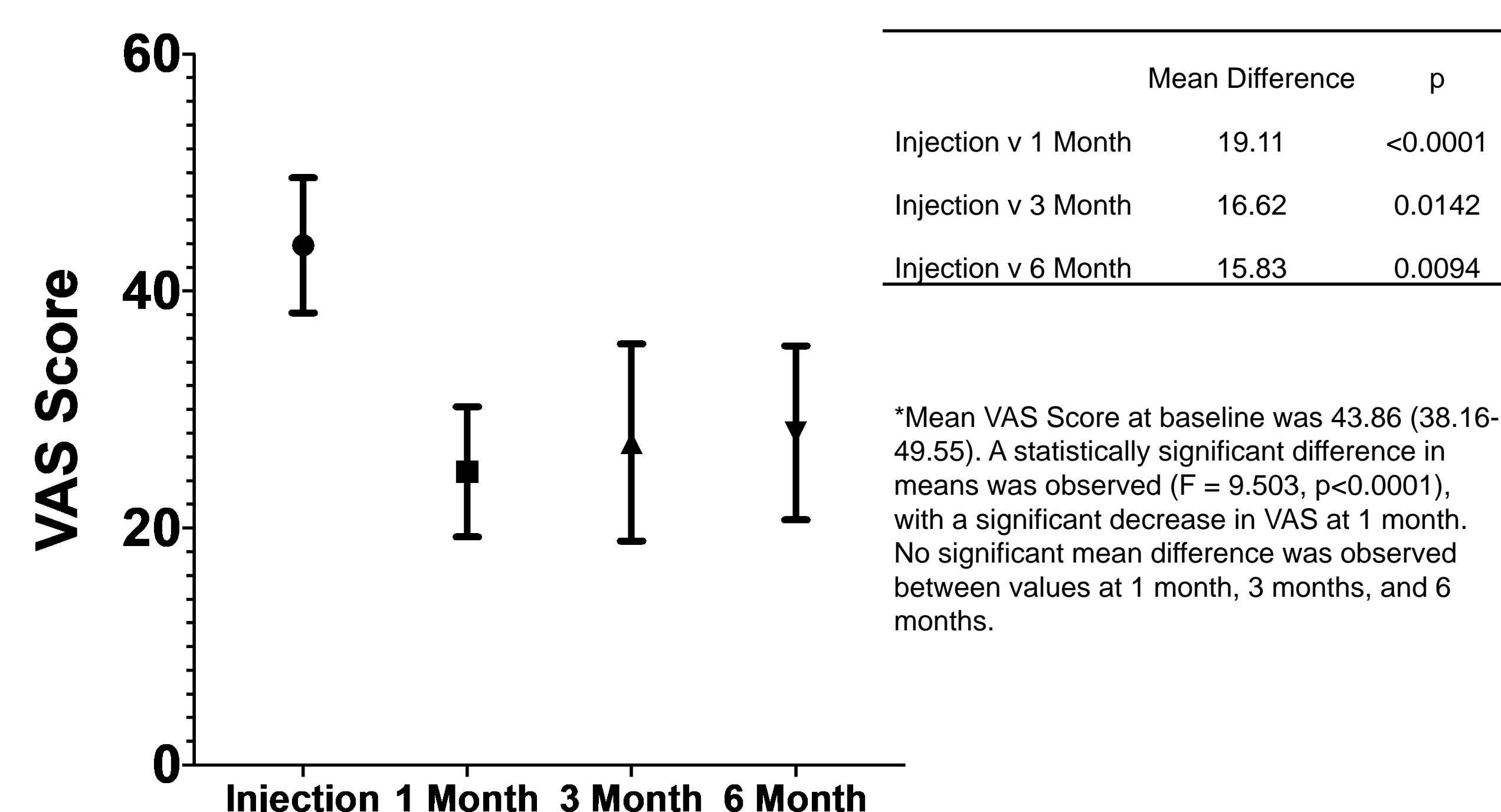


Figure 2. KOOS Score (Mean +/- 95% Confidence Interval)

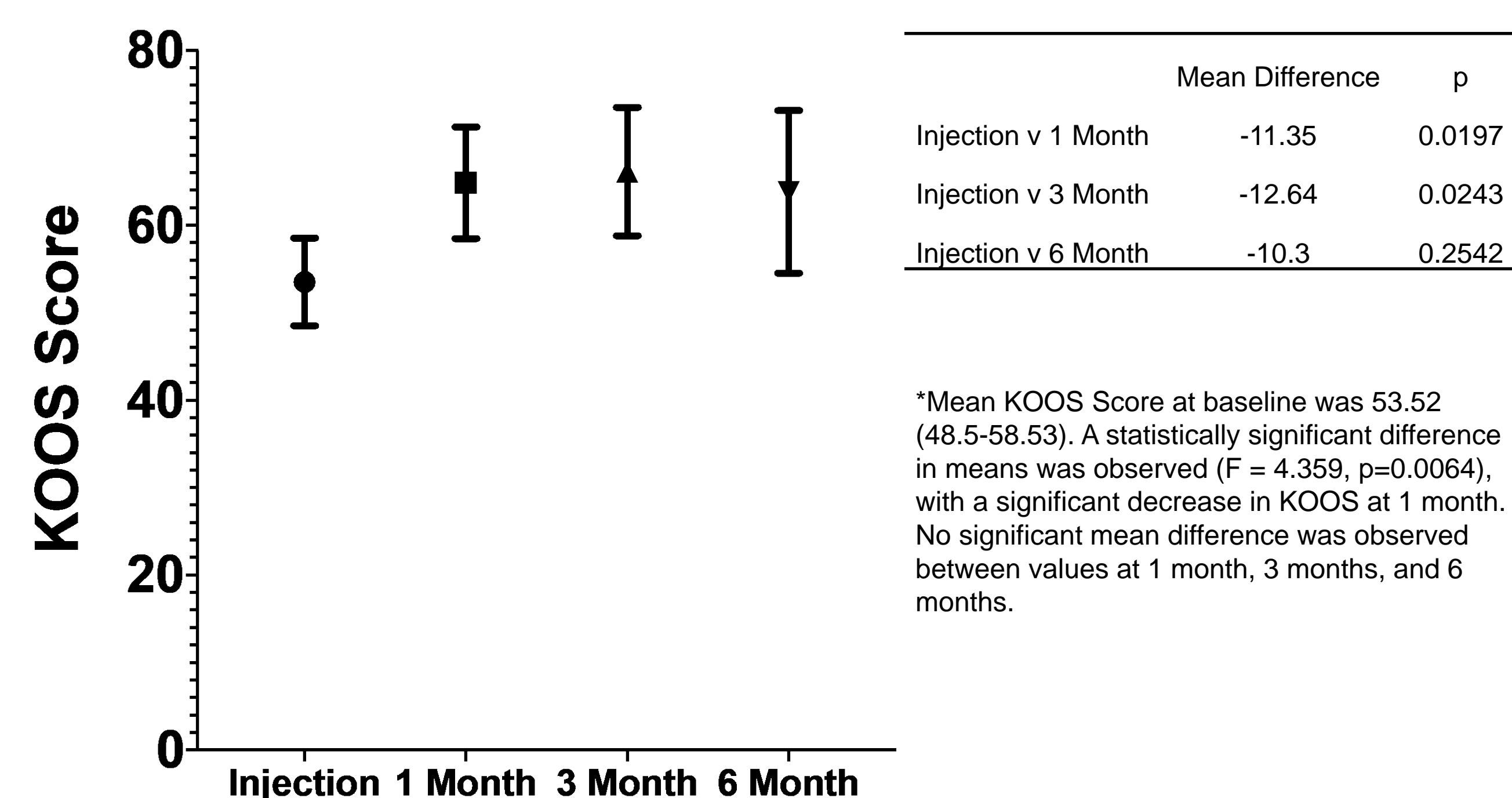
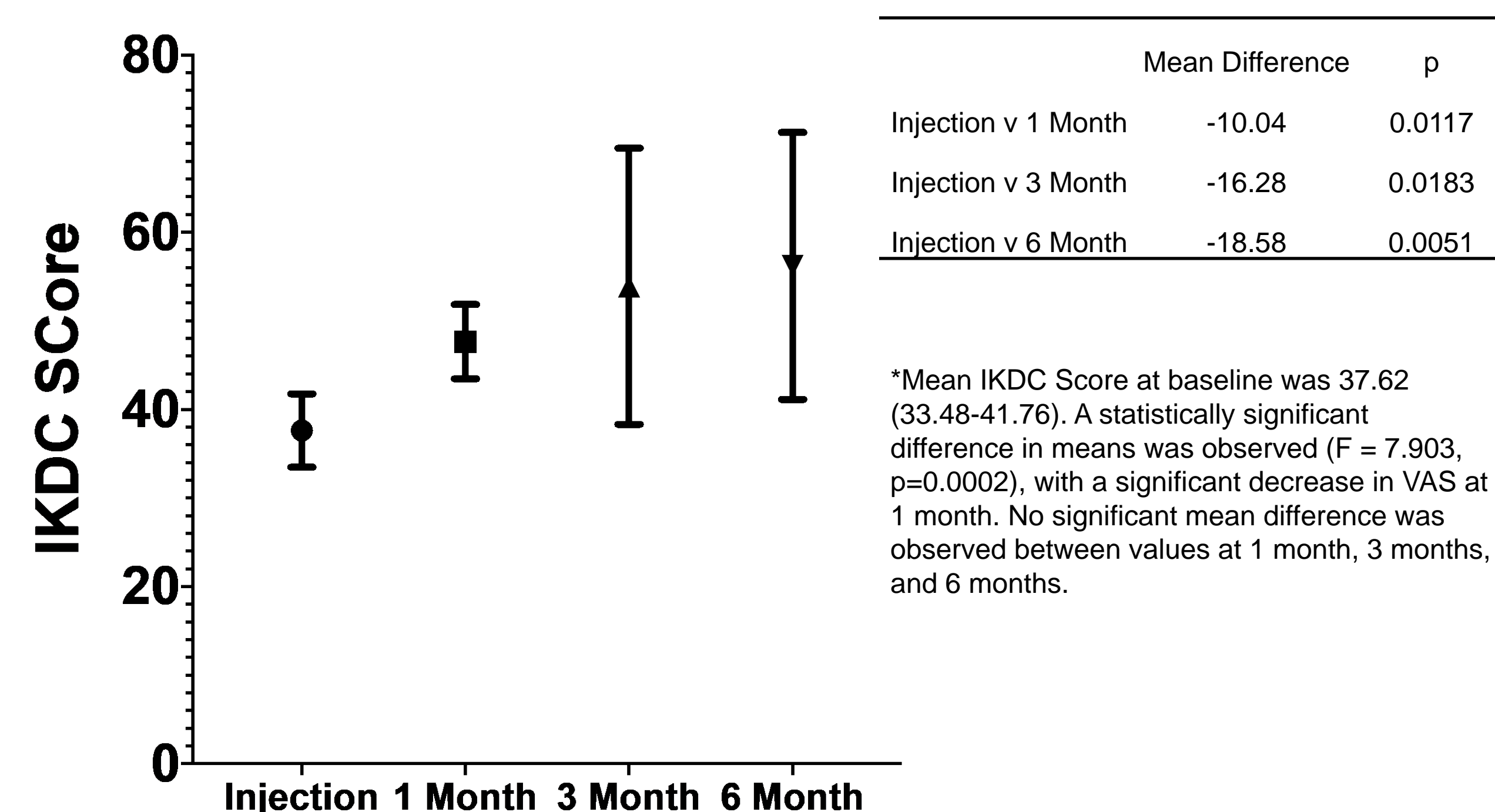


Figure 3. IKDC Score (Mean +/- 95% Confidence Interval)



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.

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