

## **Abstract SMWJC21**

**Ingestuurd door: Liam Paget**

**Study type: Clinical studies**

### **Effect of Platelet-Rich Plasma Injections versus Placebo on Ankle Symptoms and Function in Ankle Osteoarthritis: A Randomized Clinical Trial**

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## **Abstract**

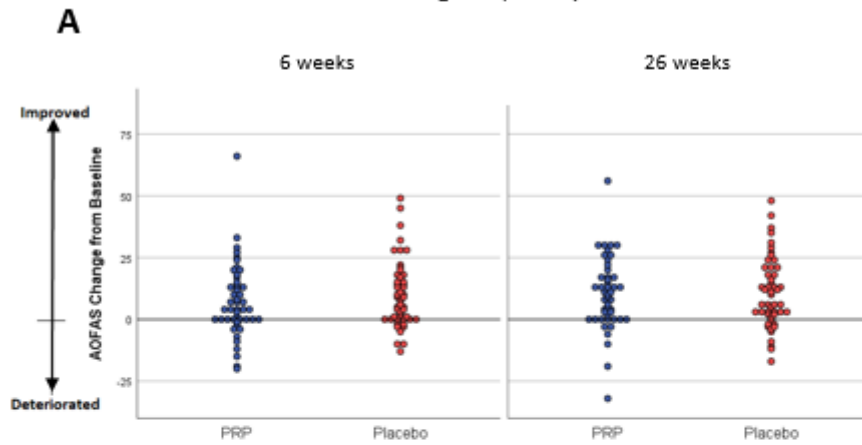
**Introduction and Objective** Approximately 3.4 % of adults have ankle (tibiotalar) osteoarthritis, and among younger patients, ankle osteoarthritis is more common than knee and hip osteoarthritis.(1) Few effective non-surgical interventions exist, but platelet-rich plasma (PRP) injections are widely used with some evidence of efficacy in knee osteoarthritis.(2) The objective was to determine the effect of PRP injections on symptoms and function in patients with ankle osteoarthritis

**Methods** A multicenter, block-randomized, double-blind, placebo-controlled clinical trial performed at six sites in the Netherlands that included 100 patients with pain  $\geq$  40 mm on a visual analogue scale (0-100 mm) and tibiotalar joint space narrowing. Enrollment began August 24<sup>th</sup>, 2018 and follow-up was completed December 3<sup>rd</sup>, 2020. The trial was registered in the Netherlands trial register NTR7261 and a detailed description of the study design was published.(3) Patients were randomly assigned (1:1) to receive 2 ultrasound-guided intra-articular injections of either PRP (n=48) or placebo (saline, n=52). The primary outcome was the validated American Orthopaedic Foot and Ankle Society (AOFAS) score (range, 0-100; with higher scores indicating less pain and better function; minimal clinically important difference: 12 points) over 26 weeks.

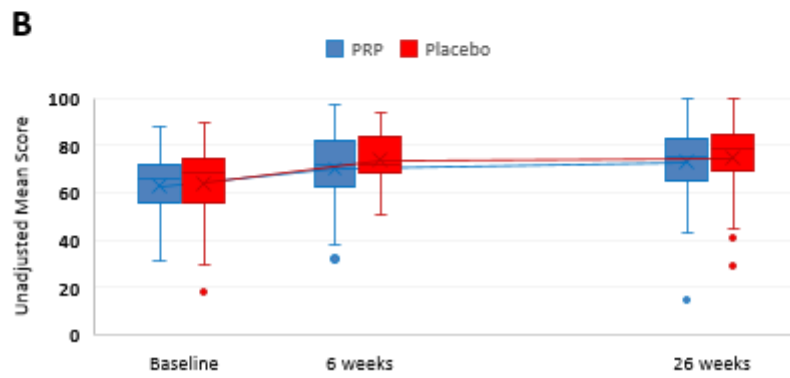
**Results** Among 100 randomized patients (mean age, 56 years; 45 females [45%]), no patients were lost to follow-up for the primary outcome. Compared to baseline, the mean AOFAS score improved by 10 points in the PRP group (from 63 to 73 points; 95% CI: 6 to 14;  $p < 0.001$ ) and 11 points in the placebo group (from 64 to 75 points; 95% CI: 7 to 15;  $p < 0.001$ ). The adjusted between-group difference over 26 weeks was -1 point (95% CI, -6 to 3;  $p = 0.56$ ). One serious adverse event was reported in the placebo-group unrelated to the intervention; there were 13 other adverse events in the PRP group and 8 in the placebo group.

**Conclusions** Among patients with ankle osteoarthritis, intra-articular platelet-rich plasma injections, compared with placebo injections, did not significantly improve ankle symptoms and function over 26 weeks. The results of this study do not support the use of PRP injections for ankle osteoarthritis.

American Orthopaedic Foot and Ankle Society (AOFAS) score (0-100)  
Individual changes in primary outcome



American Orthopaedic Foot and Ankle Society (AOFAS) score (0-100)  
Mean changes in primary outcome



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## Conflict of Interest Disclosures statement

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