

# AB132. Therapeutic efficacy of platelet-rich plasma injection compared to corticosteroid injection in plantar fasciitis: a systematic review and meta-analysis

Wafi Abeedi Mohammed<sup>1</sup>, Salma Farah<sup>2</sup>,  
Mujtaba Nassiri<sup>2</sup>, James McKenna<sup>2</sup>

<sup>1</sup>The Health Research Board (HRB), Clinical Research Facility, National University of Ireland Galway, University Hospital Galway, Galway, Ireland; <sup>2</sup>Department of Orthopaedic Surgery, Tallaght University Hospital, Tallaght, Dublin, Ireland

**Background:** Within the past few years, better understanding of the plantar fasciitis as condition stemming from underlying degenerative pathology supported by histological findings from operative specimens, led to strong advocating of platelet rich plasma injection (PRP) as more promising second line treatment due to its regenerative properties. This study aims to assess the long term effect of PRP injection compared to corticosteroid injection to relieve pain and consequently improve function among patients affected with plantar fasciitis. Despite the existence of similar reviews, this study is justified due to the emergence of more recent several trials investigating PRP injection efficacy.

**Methods:** Randomized controlled trials (RCTs) and prospective comparative studies comparing PRP with steroid injections as treatments for Plantar fasciitis were searched using the following databases: MEDLINE (via

PubMed), Excerpta Medica (EMBASE), clinicaltrials.gov, The Cochrane Library and conference proceedings via the web of Science core collection database. Databases have been searched from their establishment to 1st of August, 2019. Inclusion criteria were: adult patients diagnosed with plantar fasciitis, Failure of conservative management for at least 3 months, Ethical approval and consents obtained from patients participated in included studies, Visual analogue score used for baseline and outcome measurement. Random effect model was used for all comparison and results were presented as weighted mean difference with corresponding 95% confidence interval (CI).

**Results:** Ten prospective trials were included with total number of 543 participants, the outcome measure was change of mean VAS score difference. There was no significant difference in VAS score between the two groups at 4 weeks follow-up (WMD: 0.98, 95% CI: -0.38, 2.33, P: 0.16). At three months follow up, VAS scores were significantly improved in the PRP group (WMD, -1; 95% CI: -1.8 to -0.19; P=0.02). Significant improvement was maintained in the PRP group at 6 months follow up (WMD: -1.32; 95% CI: -2.33 to -0.31; P=0.01).

**Conclusions:** PRP injection led to improved pain score compared to CS injection among patients diagnosed with PF at three months and six months follow up but no difference was found at 4 weeks follow up.

**Keywords:** CS corticosteroid; PRP platelet-rich plasma; VAS visual analogue score; WMD weighted mean difference

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