

Role of platelet-rich plasma in healing diabetic foot ulcers: a prospective study

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Published Online: 11 Sep 2018 <https://doi.org/10.12968/jowc.2018.27.9.550>

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Abstract

Objective:

To evaluate the role of platelet-rich plasma (PRP) in healing diabetic foot ulcers (DFUs), and to compare the rate of healing and final outcome with conventional therapy.

Method:

A prospective study conducted between October 2013 and July 2015. Participants were divided into two groups: a study group in which PRP was used and a control group receiving standard therapy. Wound assessment was carried out according to the Bates-Jensen Wound Assessment Tool at 0, 7, 14, 21 and 28 days.

Results:

A total of 55 patients were recruited to the study. There were 29 patients in the study group and 26 patients in the control group. After application of PRP, there was significant improvement in mean wound score and significant percent improvement in wound score in the study group ($p < 0.0001$). Complete healing occurred in all patients in the study group in (mean score and standard deviation) 36.7 ± 3 days compared with 60.6 ± 3.7 days in the control group ($p < 0.0001$). There were no unwanted side effects in patients using the PRP in this study.

Conclusion:

PRP appears to be a promising agent in the management of DFUs. In this study, DFUs healed more quickly in the study group than in the control group. There was also significant percent improvement in wound score as compared with debridement and dressing only. If proper selection criteria are applied, PRP could be a useful aid to wound healing in people with DFUs.