



The use of autologous PRP gel as an aid in the management of acute trauma wounds

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Summary Autologous platelet-rich plasma (PRP) gel is increasingly used in the treatment of a variety of soft and bony tissue defects, such as accelerating bone formation and in the management of chronic non-healing wounds. We performed this study to assess the benefits of using autologous PRP gel in the treatment of acute limb soft tissue wounds. 59 patients with acute wounds (open fractures, closed fractures with skin necrosis and friction burns) were randomised into two groups. Group A (32 patients) were treated with conventional dressings and Group B (27 patients) were managed with local application of PRP gel. Gustillo grade IIIb or IIIc open fractures were not included in this study, as these injuries required coverage with flap. The clinical endpoints were the healing rate and/or the time required to bring about adequate tissue regeneration in order to undergo reconstructive plastic surgery. The rate of wound healing rate was significantly faster in Group B at week 1, 2 and 3 ($p = 0.003$, $p < 0.001$ and $p < 0.001$, respectively). The mean time to plastic reconstruction in Group B was 21.26 days, S.D. = 1.35 vs 40.6 days in Group A, S.D. = 5.27 ($p < 0.001$). This study has shown that PRP gel treatment can be a valuable and effective aid in the management of acute trauma wounds.

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