

WOUND THERAPY WITH AUTOLOGOUS GROWTH FACTORS USING PLATELET RICH FIBRIN

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Aim: To reach progress and acceleration in healing of chronic and subacute wounds of the lower limb using platelet rich fibrin.

Methods: 10 patients with diabetes mellitus or impaired glucose tolerance presenting with wounds of the lower limbs have been treated conventionally (antibiotics if necessary, surgery in case of osteomyelitis, debridement) followed by application of autologous platelet rich fibrin. For each treatment session 120 ml blood were drawn and processed using a commercially available preparation system. The extract of about 5 ml platelet rich fibrin is applied to the wound in form of a fibrin sealant spray. The procedure is repeated up to three times, depending on the wound healing progress. Gauze dressings are used to maintain a moist wound milieu.

Results: Complete wound healing was achieved in two patients (ulcer duration up to nine years) after 12 and 30 weeks, respectively. In five patients (ulcer duration up to 30 years) a size reduction of up to 80% was detected. One limb ulcer was more flat with lesser secretion after two applications of platelet rich fibrin. In one case of critical ischaemia no healing was achieved, one patient showed no benefit after a single application.

Conclusion: The treatment with platelet rich fibrin seems to be a useful and safe method to induce wound healing of chronic and subacute wounds of the lower limb, particular in case of diabetes mellitus. Even superficial lesions can be treated successfully. In case of critical limb ischaemia the method appears to be less effective.