Clinical Experience of Vivostat[®] Platelet Rich Fibrin (PRF[®]) in treatment of Diabetic foot ulcers

Abstract:

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Introduction: Growth factors released from platelets play an important role in the wound healing process. Autologous platelet rich plasma and autologous platelet rich plasma gels have been used in treatment of chronic wounds, and have been reported to improve healing in chronic wounds.

The Vivostat PRF® concept is automated system for preparation and efficient application of autologous PRF in wound treatment. 120 ml of blood is drawn into a preparation Unit, processed in an Automatic Processor Unit and in less than 30 minutes some 5-6 mL of Vivostat PRF is prepared. No thrombin or bovine components are added to the Vivostat PRF at any time. The syringe containing the Vivostat PRF is then loaded in an Applicator Unit and is applied on the wound with the Spraypen.

Method: 12 patients with diabetes and chronic foot ulcers were treated with PRF in a multidisciplinary setting. Treatment was given once weekly for 6 weeks.

Results: Long term outcome of the first six cases is 1/1 healed fistula and 3/5 healed ulcers. Treatment of 1 fistula and 5 ulcers is ongoing. No local or systemic adverse event has so far been identified.

Discussion: Vivostat PRF seems to be a safe and easy handled method in the treatment of chronic diabetic foot ulcers. The results are promising, but further controlled studies are needed to evaluate the clinical efficacy.