

P 59

PLATELET RICH FIBRIN SEEMS TO BE A SAFE AND EFFECTIVE TREATMENT IN DIABETIC PATIENTS WITH LOWER EXTREMITY FISTULAE

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Aim: Platelets are considered to play an important role in the healing process of bones and wounds, as they release growth factors upon activation following application onto the wound bed. Growth factors released from the activated platelets contribute to the repair of injured tissue through angiogenesis, synthesis of extracellular matrix components like collagen, granulation tissue formation, and re-epithelialisation. Platelet Rich Fibrin* concept was developed to provide a fully automated system for convenient preparation and efficient application of autologous platelet rich fibrin in wound treatment. A prospective, controlled European multicentre trial evaluating the effect of Platelet Rich Fibrin* in superficial diabetic foot ulcers is ongoing. The aim of this case series was to evaluate Platelet Rich Fibrin* treatment in consecutively included patients with diabetes mellitus and lower extremity deep fistulae.

Method: The system consists of 3 components; an automatic Processor Unit and an Applicator Unit and a single use kit providing the required consumables, including the unique application device** for application of Platelet Rich Fibrin*. 5-6 mL of Platelet Rich Fibrin* is prepared in less than 30 minutes from 120 mL blood drawn from the patient. The Platelet Rich Fibrin* is applied into the ulcer by the application device** and the ulcer is then covered by a non-absorbent dressing. Treatment is repeated every second week.

Results: Outcome of the three included patients is given in the table.

Conclusion: Platelet Rich Fibrin seems to be a safe and effective treatment in patients with diabetes mellitus and deep fistulae in the lower extremity. Further larger prospective controlled studies are needed.

Location	Duration	Depth	Osteomyelitis	#Treatments	Outcome
Post-amp knee	9 weeks	60 mm	Yes	4 treatments in 4 weeks	Healed 4 weeks after last treatment
Post-amp dig 2	5 months	24 mm	No	2 treatments in 4 weeks	Healed 4 weeks after last treatment
Forefoot	6 months	25 mm	Yes	5 treatments in 10 weeks	Healed 2 weeks after last treatment

*Vivostat PRF®, **Spraypen