

Controversies in Regenerative Medicine: Platelet Gel: Does it really work?

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Background: Many technologies have been developed to address the issue of skin aging and its aesthetic implications: Improving skin appearance is one of the main goals of past and current modalities in dermatology and aesthetic medicine. The Regenerative Medicine is one of the new therapeutic approaches finalised by the biologic regeneration of the cells and tissues instead of their replacement. The woundhealing process taking place in injured living skin can be compared with the happenings in tissue regeneration in ageing skin. This process is complex and –in a prominent role- driven by the action of the platelets: The platelets release cytokines and growth factors who actually initiate and accelerate tissue regeneration by chemoattraction and deposition of extracellular matrix.

There are many aspects on the quality of the PRP itself due to different harvesting methods, different issues on the concentrating process, different aspects on platelet-recovery-rates, different approval-status on the available delivery-kits, different clinical protocols, controversary aspects on stem cells in PRP and last but not least a lack of large-scale approved clinical trials.

Anyway, it is clinically proven, that PRP has a broad acceptance in the medical and now finally in the aesthetic field.

Method: This regeneration process can be accelerated and optimized by concentrating the platelets and therewith concentrating the working agents: For this purpose, the patient's own blood is centrifuged to gain a high concentrated gel in both, platelets and plasma. This platelet gel than can be applied to the skin by injections into the skin superficially in terms of mesotherapy and deeply intradermally as filler injections and volumizing therapy. Recent techniques for the autologous concentrating process have been streamlined with the result that now platelet gels are clinically accessible to any physician.

Results:

The clinical response to this biostimulation technique is tissue regeneration due to increased fibroblast cells proliferation with a visible increase of the synthesis of collagen and the increase of the fundamental substance. The purpose and focus of this technique is to reduce and ameliorate facial skin wrinkles, together with enhancement of texture, colour and secretions. Platelet Gel can be applied as predominantly primary facial rejuvenation procedure or as adjunct to any conventional anti-wrinkle- and skin-rejuvenation-procedure.

Conclusion:

My experience with Platelet Rich Plasma (PRP) demonstrates, this modality may well be an alternative or an adjunctive therapy for tissue regeneration to any of the existing therapies. Its biostimulation is safe, is dedicated to create an immediate and a long lasting volumetric result, is easy to perform and a is a cost-effective procedure with high levels of patient satisfaction.