

Advances of autologous mesenchymal stem cell and platelet growth factor therapeutics to support tissue regeneration in chronic wounds



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Biography

Everts P has been pioneering in the science and clinical applications of platelet-rich plasma and other biological therapies and technology since 1992. He has been leading research teams in regenerative medicine in cardiac surgery, orthopedics, and sports medicine, plastic reconstructive surgery, and chronic wounds in using biological therapies. He received his PhD in Medicine from the University of Utrecht in the Netherlands in 2007 on the subject of PRP basic research and applications in orthopedics. He served as board member and chairman of several health care organizations and was member of the sport steering group at the International Olympic Committee. At present he is the program director of Gulf Coast Biologics, and Chief Scientific Officer of EmCyte Corporation, Fort Myers, USA. He has published over 60 peer reviewed publications and book chapters, that have been cited over 2000 times, and his publication H-index is 22. He has been serving as an editorial board member of reputed Journals.

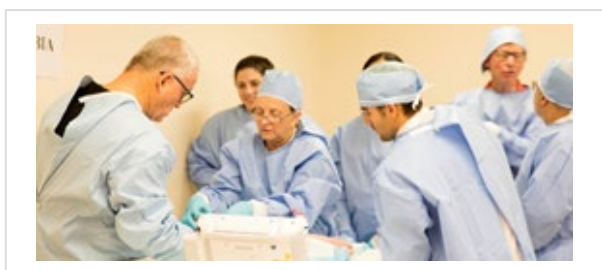
Abstract

Emerging autologous cellular therapies, utilizing mesenchymal stem cell applications and platelet-rich plasma, are frequently and successfully used in a variety of regenerative medicine applications. These biological therapies have also the potential to play an adjunctive role in specialized wound care treatment plans, in patients suffering from chronic and recalcitrant wounds. The use of mesenchymal stem cell-based therapies is an attractive and upcoming approach for the treatment of difficult-to-heal wounds. This specialized field of regenerative medicine focuses on stem cells with the ability to self-renew and differentiation into multiple cell types. Mesenchymal stem cells can be isolated from bone marrow and adipose tissue, via minimally manipulative harvesting and cell-processing techniques, at point of care. Platelet-rich plasma growth factor therapies are based on the fact that platelet growth factors can support the three phases of wound healing and then ultimately contribute to potentially full wound closure. Both autologous applications have the potential to become an effective and ideal biological cell-based therapy, which can be applied to chronic poor healing wounds to effectively change the wound bed micro-environment, enabling supportive and accelerated wound closure. There is an unmet need to stimulate the healing of chronic wounds to a level that is not possible with the current standard care measures and therapy approaches. Furthermore, mesenchymal stem cells are successfully injected in lower extremities, in patients with critical limb ischemia and who are no candidates for surgical interventions. The essentials of biological mesenchymal and growth factor therapies will be discussed and a summary of patient outcomes following these therapies will be presented.

Publication

Autologous pure platelet-rich plasma injections for facial skin rejuvenation: Biometric instrumental evaluations and patient-reported outcomes to support antiaging effects

Plateletrich plasma injections for facial rejuvenation



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