Innovative cosmetic uses of platelet rich plasma

Aaron L Shapiro
Jefferson Volunteer Faculty Association, USA

Recently Platelet Rich Plasma (PRP) and Platelet Rich Plasma with a Fibrin Matrix (PRFM) have been utilized as standalone treatments for rhytids, volume loss and hair loss. Combination therapy with other modalities has yielded superior results in fat transfer, micro-needling treatments and hair transplantation. Platelets have proven to be potent sources of growth factors and contain vascular endothelial growth factors, platelet derived growth factors, epidermal growth factors and fibroblast growth factors among others. These factors are crucial to stimulate endothelial budding, revascularization and new tissue formation. Fibrin is also an essential element, not only in the presentation and release of growth factors but also in providing a matrix upon which the platelets can remain and extend their action. Adding the fibrin matrix ensures the growth factors will remain in place and continue their action over many days. We will review the science of PRP and PRFM including available studies on its efficacy. We have used PRFM with fat transfer to enhance both immediate and long-term results. A histologic case study is presented showing neovascularization and the effectiveness of mixing fat with PRP. PRP has also been utilized in our practice as a volumizer and we review these results and studies on its efficacy. It has been shown to improve the nasolabial fold area, tear trough area and acne scarring. There is widespread use of PRP in combination with micro needling and we will review the improved results that can be attained. Enhancement of hair growth and hair transplantation is another exciting application that is just beginning to gain recognition. We will share our study on serial injections of PRP to the scalp in male and female alopecia as well as for male pattern baldness. We also review the current literature on this exciting new and controversial application.

Biography

Aaron Shapiro, MD, After attending Williams College, Dr. Shapiro graduated from The University of Pennsylvania School of Medicine in 1987. Dr. Shapiro then completed a residency in Otolaryngology/Head and Neck Surgery at The New York Eye and Ear Infirmary. He then completed a fellowship in Facial Plastic and Reconstructive Surgery in St Louis under the direction of J. Regan Thomas, MD. Dr. Shapiro is double board certified in Otolaryngology and Facial Plastic and Reconstructive Surgery. He has been in practice in the Philadelphia area since 1993 and is on the faculty of Thomas Jefferson University Hospital. His practice and research focuses on minimally invasive facial plastic surgery, rhinoplasty, and facial rejuvenation. He has been named a “Top Doc” in Main Line Today, Philadelphia Style, and Philadelphia Magazine. Dr. Shapiro serves as the Director of Facial Plastic Surgery for the Center for Smartlipo and Plastic Surgery in Langhorne, Pennsylvania and has offices in Philadelphia and Bryn Mawr, Pennsylvania.

alshapiro1@comcast.net

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