

Effect of Platelets Rich Plasma on Skin Rejuvenation

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Introduction

Autologous plasma-rich platelet (PRP) is a human platelet concentrated product which is in low volume of plasma. Using PRP in rejuvenation and resolution of some cosmetic problems has been already popular in many countries and also in Iran. As no study performed in this field in Iran and regarding the high prevalence of using PRP in society with no validate references in the case of skin rejuvenation, we are trying to research clinical effects of PRP facial rejuvenation.

Materials and Methods:

In this clinical trial, 30 volunteer persons with Glogau score of II and III were participated. Appropriate amount of blood obtained in two sessions with 3 months interval and used in order to produce plasma-rich platelet. Immediately after production of platelets, platelet concentrated product injected in sterile condition and 4 °C by an expert physician. Injections were 1 cc in upper zone of face, 1 cc in cheeks and 1cc in lower zone of face and were sub-dermal and intra-dermal (Threading technique). Injections were done in two sessions with 3 months interval. Before the beginning and after the end of treatment, digital photography of patients provided. Evaluation of wrinkle improvement was done on the basis of personal judgment of patient and observation of before and after treatment photography by therapeutic physician and a dermatologist who is unaware of order of photos.

Results:

Mean age of patients was 45.1 ± 6.89 years and in the range of 35 to 55 years. In 3 and 6 months follow-ups, most of patients reported moderate to excellent improvement in periorbital darkness, periorbital wrinkle, nasolabial fold and skin rigidity. Also, in general evaluation of patients in 3 and 6 months follow-ups, most of the patients reported moderate to excellent improvement and only 17% of patients reported no improvement or mild improvement. In therapeutic physician assessment, in 3 and 6 months follow-ups, mild to moderate improvement in periorbital wrinkle and dyschromia in most of the patients reported. But in nasolabial fold assessment, no improvement reported in most of them. In second physician assessment, no improvement or mild improvement was observed in periorbital wrinkle in 3 and 6 months follow-ups. For dyschromia, mild to moderate improvement and for nasolabial fold, no improvement were reported in most of the patients.

Conclusion:

In this study, patients' improvement in the assessments of the patients, therapeutic physician and second physician (unaware of study) observed variably which was the most in patients' satisfaction evaluation. Additionally, best effects of PRP in rejuvenation were specified to improvement of periorbital darkness and decreasing skin wrinkle.

Keywords: Facial skin rejuvenation, Plasma-rich platelet.

Poster Presentation

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