



Your Own Blood in Improving Your Look - Reality that Surprises - Review Article

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Abstract

Aesthetic dermatology is probably the fastest growing branch of the dermato-venereology. New trends in aesthetic medicine underline the natural resources and the use of non-invasive methods in the treatment, replacing the radical invasive methods and the use of medicaments. The benefits of these new procedures are, very short recovery time from the intervention, better tolerance by the patient, low-cost treatment. One of the innovations that is successfully applied in everyday practices at many dermatological and aesthetic departments and clinics is the treatment with plasma rich in platelets (plasma rich platelets). More recently it is being practiced in dermatology for face rejuvenation or so-called vampire lift, and lately in therapy of alopecia and to treat wounds. In fact, the procedure is performed to draw the blood from the patient, then the blood is centrifuged and leads to the isolation of pure plasma rich in platelets that is rich in growth factors. The procedure can be practiced for more than once without any risk to the patient.

New therapeutic modality for rejuvenation combines fractional CO₂ laser with PRP (platelet-rich plasma). The combined treatment maximize the deep ablative effect of CO₂ laser, as well as underlining the therapeutic effect of platelet-rich plasma. Laser micro-perforations improve plasma rich in platelets penetration.

In this era of technological wonders, probably the most surprising things are the natural resources for the treatment of diseases. One of those breathtaking resources is the autologous plasma which demonstrates the inexhaustible possibilities of the human organism. All that is needed is to identify them and explore together with the increasing use of technical means and the hunger for profit of the modern world. However, even in the era of robotics we will remain just people.

Keywords

PRP; Dermatology; Therapy; Natural; Non-invasive

Introduction

Aesthetic dermatology is probably the fastest growing branch of the dermato-venereology due to numerous beneficial reasons. On one hand taking care of the beauty and its relevance for the humans is increasingly prevalent in day today life and is an important element in person's adaptation in the society, looking for the place for own realization. On the other hand, rapid technological development in

medical field makes the past few decades different from previous eras in terms of increased power by the people to influence the correction of certain imperfections.

However, the definition of beauty has been changed over the centuries and different eras had different "ideal models", but the hunger for a nice look is being always there. In the present era it is considered that the person's appearance has a significant impact on wellbeing. The aesthetic dermatology has experienced considerable growth in recent decades. When the beauty is raised to the level of prestige, patients will be offered with numerous aesthetic treatments to enhance their beauty.

Knowledge of aesthetic treatment is the key to future success having benefits such as, relevance of the service provider, quality and efficiency of the service, service availability, as well as information about long-term effects of the treatment and its safety. Expectations from these treatments have very much increased. To decide which treatment shall be used in certain patient depends upon the ratios "cost-benefit" to "risk-benefit". American principle "pay for performance" is applied here [1].

New trends in aesthetic medicine underline the natural resources and the use of non-invasive methods in the treatment, replacing the radical invasive methods and the use of medicaments. Dermatology is increasingly looking for ways to replace certain surgical procedures for rejuvenation and changes for the betterment of the patient's appearance, as well as for correction of imperfections in the appearance. The benefits of these new procedures are, very short recovery time from the intervention, better tolerance by the patient, low-cost of treatment [2].

One of the innovations that is successfully applied in everyday practice at many dermatological and aesthetic departments and clinics is the treatment with plasma rich in platelets (plasma rich platelets). The clinical efficacy of platelet concentrates mainly depends on the number of platelets and the concentration of their growth factors, which act as transmitters in most of the processes in tissues, particularly in wound healing where they are responsible for proliferation, differentiation, chemotaxis and tissue morphogenesis [3].

Platelet-rich plasma (PRP) has already been used in orthopedics and dentistry from a long time [4].

More recently it is being practiced in dermatology for face rejuvenation or vampire lift, and lately in therapy to treat alopecia and in wounds healings. The procedure is initiated by taking blood from the patient, followed by centrifugation of the blood and segregate pure plasma that is rich in platelets and having a large amount of growth factors [5].

Actually PRP means injecting patient's own platelets and fibrin for the treatment of wrinkles and scars on the face, neck or neckline also referred as vampire lift treatment. The plasma is injected with a needle or dermaroller into the face, neck or hands skin of the patient. It is a kind of endogenous (own) filler or supplement [6].

The procedure can be repeated more than once without any risk to the patient. It creates new collagen which stretches the skin. Thus results in rejuvenation - skin rejuvenation [7].

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Recently the plasma is successfully applied in the treatment of hair loss or baldness. The platelet's growth factor in the blood affects the hairs and stimulates their growth. The results clearly highlight the positive effects of PRP injections on male hair loss and absence of major side effects. PRP may serve as a safe and effective treatment against hair loss however, more extensive and controlled studies are needed [8].

It is very popular and most successfully used method in our Department practiced almost daily. The patient's own plasma is injected into the skin of capilitium with the help of a needle or a special gun and stimulates endogenous hair growth. The outcomes of this treatment are very good in terms of patient satisfactio. This method can also be used with other aesthetic treatments such as hair transplantation with FUE technique.

New therapeutic modality for rejuvenation is the combination of fractional CO₂ laser with PRP (platelet-rich plasma). The combined treatment maximizes the deep ablative effect of CO₂ laser, as well as underlining the action of platelet rich plasma. Laser micro-perforations improve the penetration of platelet rich plasma [9].

The plasma is intended to be injected with the needle instead of being poured into the holes already made by the laser treatment. After the laser treatment patients are treated with PRP with high concentration of autologous, non-toxic, non-allergic platelets. The combined treatment results in greater patient satisfaction [10]. The plasma is also well used in healing skin wounds (ulcers) where it stimulates a closure of open wounds in the skin by initiating the generation of a new tissue which fills the holes.

In the age of technological wonders, probably the most surprising things are the natural resources for treatment of diseases.

One of those breathtaking resources is the autologous plasma which demonstrates the inexhaustible possibilities of the human. All we need is to identify and explore them together by increasing the use of technical means and the hunger for profit of the modern world. However, even in the era of robotics we will remain just people.

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