

5th International Conference and Expo on

Cosmetology, Trichology & Aesthetic Practices

April 25-27, 2016 Dubai, UAE

The effect of platelet rich plasma (PRP) in the hair re-growth: A randomized placebo-controlled trial

Pietro Gentile

University of Rome "Tor Vergata", Italy

Platelet-rich plasma (PRP) has emerged as a new treatment modality in regenerative plastic surgery, and preliminary evidence suggests that it might have a beneficial role in hair re-growth. Here, we report the results of a randomized, evaluator-blinded and placebo-controlled, half-head group study to compare, with the aid of computerized trichograms, hair re-growth with PRP versus placebo. The safety and clinical efficacy of autologous PRP injections for pattern hair loss were investigated. PRP, prepared from a small volume of blood was injected on half of the selected patients' scalps with pattern hair loss. The other half was treated with placebo. Three treatments were administered to each patient at 30-day intervals. The endpoints were hair re-growth, hair dystrophy as measured by dermoscopy, burning or itching sensation and cell proliferation as measured by Ki67 evaluation. Patients were followed for 2 years. Of the 23 patients were enrolled, 3 were excluded. At the end of the 3 treatment cycles, the patients presented clinical improvement in the mean number of hairs, with a mean increase of 33.6 hairs in the target area and a mean increase in total hair density of 45.9 hairs per cm² compared with baseline values. No side effects were noted during treatment. Microscopic evaluation showed the increase of epidermis thickness and of the number of hair follicles 2 weeks after the last PRP treatment compared with baseline value ($p < 0.05$). We also observed an increase of Ki67+ keratinocytes in the epidermis and of hair follicular bulge cells and a slight increase of small blood vessels around hair follicles in the treated skin compared with baseline ($p < 0.05$). Relapse of androgenic alopecia was not evaluated in all patients until 12 months after the last treatment. After 12 months, 4 patients reported progressive hair loss; this was more evident 16 months after the last treatment. Those four patients were re-treated. Our data clearly highlight the positive effects of PRP injections on male pattern hair loss and absence of major side effects. PRP may serve as a safe and effective treatment option against hair loss; more extensive controlled studies are needed.

Biography

Pietro Gentile is a Chief of Teaching of Plastic and Reconstructive Surgery at the Catholic University "Our Lady of Good Counsel" in Tirana, Albania. He received the Enabling Associate Professor in Plastic and Reconstructive Surgery in February 2014. He is currently Research Fellow at the University of Rome "Tor Vergata". He received the PhD in Regenerative Surgery at the University of Rome "Tor Vergata". He is Author of the book "THE ADIPOSE TISSUE" published by Monduzzi, ISBN 978-88-6521-075-8. He is Author of the book "Regenerative Plastic Surgery" published by SEU, ISBN 978-88-6515-112-9. He is author, co-author of No. 79 publications.

pietrogentile2004@libero.it

Notes: