



DERMATOLOGICAL SURGERY

EFFICACY OF STROMAL VASCULAR FRACTION (SVF) IN COMBINATION WITH PLATELET- RICH PLASMA (PRP) FOR THE TREATMENT OF ANDROGENETIC ALOPECIA : CASE REPORT SERIES

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Background: Androgenetic alopecia (AGA) is characterized by miniaturization of the hair follicle and alterations in the hair cycle, resulting in a progressive reduction of thickness, density, and total numbers of hair on the scalp. Approved therapeutic options are limited and show side effects.

Observation: Two male and one female patients suffering from AGA at stage II to III according to the Norwood-Hamilton scale, have been treated with a single injection of autologous stromal vascular fraction (SVF) in combination with platelet-rich plasma (PRP) in the upper scalp. Preinjection and 12 weeks postinjection changes in hair density were assessed by Trichoscan. The result is a single treatment of SVF plus PRP injected on the scalp of patients with AGA significantly increased hair density after 12 weeks.

Key message: Stromal vascular fraction (SVF) contains large numbers of cells composing interrelated cell populations, adipose stem cells (ASCs) progenitors, pericytes, endothelial progenitor cells and transit amplifying cells. The adipose lineage cells is defined as skin niche cells that regulate hair follicle stem cell activity, and the number of adipocyte precursor cells changes with the hair cycle, the cell number peaks in the skin during follicular stem cell activation and decreases during the catagen phase. The expression of several growth factors in ASCs have an angiogenic capacity and ability to induce tissue neovascularization, may contribute to a microenvironment with an abundant blood supply for hair cells to regenerate hair follicles.

