



CASE REPORT

Use of Verteporfin with Dermal Wounding to Regenerate New Hair in Androgenetic Alopecia

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Summary

Off-label use of approved medication for hair regrowth without hair transplantation.

Keywords

Hair, Hair transplant, Wound, Surgery

Verteporfin is FDA-approved for neovascular macular degeneration. Recent Stanford research [1] has revealed a novel use for verteporfin promoting scarless skin regeneration by inhibition of Yes-associated protein (YAP), preventing the activation of En1-positive fibroblasts causing scars [2-4].

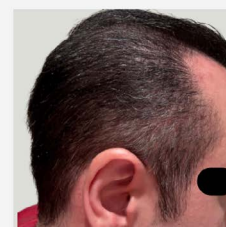
Two male subjects aged 35 and 48 with androgenetic alopecia and history of remote (>3 years) FUE hair transplant sought de novo hair growth without additional hair transplant. One participant had undergone remote (>3 years) scalp micro pigmentation. Patients were blocked with tumescent solution (2% Lidocaine with epinephrine and bicarbonate with 0.25% Marcaine). An 11 blade was used without guide to create dermal incisions per standard procedure for follicular placement for Follicular Unit Extraction (FUE) placement and 25 mg of compounded verteporfin was injected subcutaneously diffusely beneath the dermal wounds. Patients received topical neomycin, polymyxin B and dexamethasone for twice daily use for one week and were instructed to avoid direct sunlight for seven days. Patients healed well and returned at one and

three months for subjective and objective assessments (Ultimate Hair Densitometer, Eschenbach, Germany) including density in treated areas. Regrowth was most noticeable in traditional donor sites with greatest density pre-operatively (mean increase of 63%), less in areas of thinning (mean of 38%), and no growth (0%) was noted in areas of baldness or complete recession.

Dermal Incision + Verteporfin For Hair Restoration

BEFORE

1 MONTH AFTER



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TOYOS CLINIC

Figure 1: Dermal incision + Verteporfin for hair restoration.



Figure 2: 8 weeks post full thickness incision plus verteporfin.

Regrowth of donor sites in hair transplantation has been reported [5,6] but no reports exist to demonstrate that hair regrowth may be possible with de novo incisions combined with subcutaneous injections of verteporfin (Figure 1 and Figure 2). This may represent a novel method of regrowth in thinning areas due to androgenetic alopecia and a way to bolster donor areas for future transplant procedures [7,8].

References

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