

CELLULAR CHANGES IN SCALP TISSUE BIOPSIES ON MEN WITH ANDROGENIC ALOPECIA TREATED WITH A NATURAL ORGANIC EXTRACT SOLUTION: AN IMMUNOHISTOCHEMICAL PERSPECTIVE

ABSTRACT

Histological analysis of seven patients with male pattern baldness (androgenic alopecia) were assessed before and after treatment with a natural organic extract solution. Initial scalp biopsy specimens were obtained from an area of the balding scalp greater than 2.5 cm in diameter. Patients were provided with a scalp cleansing shampoo and the natural organic extract solution. They were instructed to cleanse the scalp daily and apply the extract at least twice daily. Fourteen weeks after the treatment the patients were re-biopsied from an area of the scalp adjacent to the initial biopsy and were evaluated. Five of the seven patients demonstrated histological changes consistent with a significant increase in hair follicles at the cellular level, of their post treatment biopsies. Decreased levels of surface and epidermal scalp layer dihydrotestosterone (DHT) was also observed in the post treated biopsies using immunoperoxidase techniques. The monoclonal antibody QB-END-10 (CD 34) was also used immunohistochemically and demonstrated reactivity on the cell surface membrane of a portion of cells associated with the inner root sheath of the hair follicles of the post treatment biopsies. The reactivity of the QB-END-10 antibody raises many questions that require further investigation. Its significance is yet unknown, however the possibility that the natural organic extract may act as an endothelial derived relaxing factor (EDRF) and/or a stem cell stimulator cannot be ruled out.

Figure 1: Scalp biopsy of a patient before Nisim treatment showing high levels of DHT on the scalp.

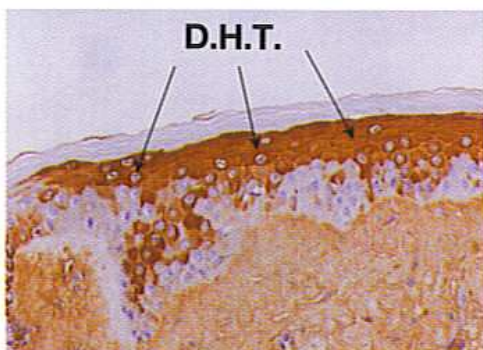
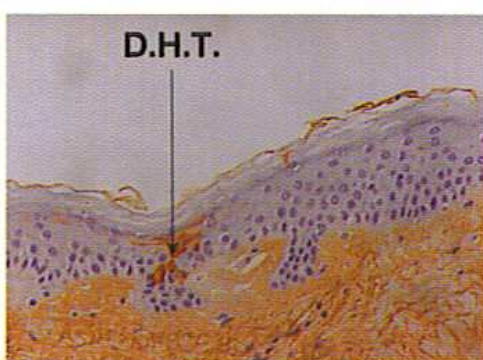


Figure 2: Scalp biopsy of the same patient in Figure 1 after treatment with Nisim NewHair Biofactors. Note the decreased levels of DHT.



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A CLINICAL STUDY ON A NATURAL ORGANIC EXTRACT SOLUTION FOR THE TREATMENT OF ANDROGENIC ALOPECIA

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Effect of Topical Application of an All Natural Herbal Extract Solution on Male Pattern Baldness

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SUMMARY

One-hundred-and-forty-eight participants with varying degrees of male pattern baldness (androgenic alopecia) from Stage III to Stage VIII, participated in an open-ended study using an all natural compound solution to determine the effects of hair regrowth.

The participants were photographed and initial hair counts were done in a 2.5cm diameter area of their balding scalp. After five months of treatment the participants were re-photographed and hair counts were done on the same 2.5cm diameter area of the scalp. The results indicate that 85.7% of the men in the study had an increase in their terminal hairs of 30% or greater. When evaluating the percent increase more closely we find that we can break the data down into three separate groups:

1. Significant regrowth.
2. Moderate regrowth.
3. No change.

Showing a significant regrowth was 40.8% of the study group and had an increase of 100% or greater (doubling, tripling or more) of terminal hairs counted on their five month post-treatment photo as compared to their initial pre-treatment photo. Of this group the highest increase of hairs was 472%, the lowest increase was 102% with the mean at 193.7% increase of hairs.

The group of men showing moderate regrowth, which we classed as 30%–100% increase in terminal hair regrowth, was 44.9% of the study group. The mean increase of that group was 61.5% increase of hair regrowth.

The remainder of the group, classed as no change, was 14.3% of the study group, with the range

being minus 13% to +27% increase in hair counts with the mean at 6.7%.

The participants were also classed according to their degree of baldness using Hamilton's classification scheme. Class IV balding men showed the greatest percent increase at an overall average of 144% more terminal hairs than pre-treatment, with Classes V and VI both slightly less at approximately 120% average increase. Class VII and VIII responded the poorest at 102% and 65% average increases respectively.

Another factor considered was the amount of treatment used during the study. The participants were told to use at least one bottle per month (five bottles in five months) but were allowed to use more if desired. We did not see any significant advantage to using more than one bottle per month. Our conclusion is that the stimulatory effect of the compound is achieved at the use rate of one bottle per month.

The age range of the participants in the ability to regrow hair was not a factor. The range of the participants in this study was 24–68 years old, with the average age being 38.7 years.

In summary, this study concludes that the natural herbal extract solution has a stimulatory effect on hair growth for at least 8 out of 10 men with androgenic alopecia. The earlier stages of balding appear to respond to a higher degree, but significant improvement was seen in participants at all stages of baldness. There appears to be an optimum rate of use of the product, and age does not seem to be a factor in response. Further studies are being carried out to determine significant factors in the response to the treatment, and to analyze the mechanism of action of the compound.