

Recent Progresses in Hair Research

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Introduction

Both male and female suffer from hair loss. Bald head sometimes personifies the age of the people, which is most undesired trend among mid-aged people. However, alopecia is treatable through a process called 'hair transplantation'. The procedure involves transfer of intact hair follicles from hairy part of body to the less haired or bald region. A hair transplant can help bring back what looks like a full or at least a fuller head of hair. The same procedure is applied for the restoration of eyebrows, chest hair and eyelashes. The present Journal of Hair Therapy & Transplantation Volume 6, Issue 2 documented the clinical effect of tropical lipid Cepharanthine (CEP) on hair growth and to treat hair problems, Hair Up™ treatment, elucidated the cellular hair bulb stimulation brought about by miliacin associated lipids.

CEP is biscoclaurine alkaloid extracted from the *Stephania* sp., has successfully been used to treat a diverse range of medical conditions such as, idiopathic thrombocytopenic purpura, alopecia pityrodes, xerostomia, sarcoidosis, venomous snake bites, various types of cancer related conditions. Although CEP has been suggested to have effect on hair growth, though, the mechanism behind it is still unidentified. Inui et al. contemplated clinical effect of tropical lipid CEP on hair growth of male androgenetic alopecia (AGA) [1]. They reported that, CEP significantly accelerates the hair growth rate, but the changes are not satisfactory, when compared to the standard methods that are employed for AGA.

Alopecia areata arises when immune system attacks a patch scalp area by mistake. It usually begins, when clumps of hair fall out, resulting in totally smooth hairless patches on the scalp or other areas of the body. In rare cases complete loss of scalp hair and body hair occurs. It is common problem facing by both male and female. Alopecia totalis and alopecia universalis are the most severe forms of the disorders. Jaffe et al. discussed the Hair Up™ treatment for individuals suffering from alopecia areata [2]. In patients treated with

topical Hair Up™, nearly 96% achieved vellus hair growth, out of which 81% developed quality vellus hair very early on, i.e. within three months after commencement of treatment. Finally, they concluded that, topical Hair Up™ is an effective and safe method to treat Alopecia totalis and alopecia universalis.

The dermal papillae are responsible for maintaining a normal cycle through its interaction with epithelial cells in the hair follicles. Miliacin which is present in millet, possesses the healing properties and activity on cell proliferation. Miliacin is associated with polar lipids that increases the bioavailability of the active compounds and eventually increases the cellular proliferation. Boisnic et al. demonstrated that miliacin associated lipids stimulates hair bulb growth [3]. They employed a model, in which the hair follicles are maintained in survival conditions and they focussed on the modulation of collagen and glycosaminoglycans in the dermal papillae, growth factor secretion, and mitotic index for keratinocytes in the hair bulb. The results of this study suggested that, miliacin is associated with IGF-1 production and proliferation of keratinocytes in the hair bulb. It also plays a role to increase the thickness of the extracellular matrix of the connective tissue.

References

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