

## Chapter 5

# Ethnobotanical and Pharmacological Importance of the Herbal Plants With Anti-Hair Fall and Hair Growth Activities

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### ABSTRACT

*The primary aim of this study is to access the salient herbal plants with the active constituent of potentially anti-hair fall activities. It also presents the various reasons behind hair loss ailments. As part of this study, a focus is placed on active phytochemicals within these medicinal plants or natural products in terms of various hair fall disease treatments. As natural products have a beneficial effect to minimize hair loss and have promoted the potential for new hair growth, it presents the medicinal values of natural plants in reference to safety and effectiveness for health.*

## **INTRODUCTION**

A term “hair” is used for large series of proteins especially  $\alpha$ -keratin flourished from follicles that are encrypted in the corium. Except hairless region, the body of human is blanketed with follicles that are thought to be the cause for developing vellus and terminal hair i.e., short, fine and thick lengthy hair respectively. Hair as a cuticle projection encrypted in the corium and may arise from a tubular appendage that is familiar with the term follicle. The follicle is like a sac residing in cuticle because if a mini finger had squeezed the cuticle into the corium and cardinal hypodermis. Several studies have shown that on human head approximately one to two million hair follicles (Ebling, 1987). In Human lives, hairs have immense importance because of their functionality. There are numerous causes of hair loss in men and women. Several studies have suggested that, it is related to hereditary elements others argue it to be a skin problem (Arakawa, 1962; Adhirajan *et al.*, 2003). The corneal and mental strain may also result in hirsuteness, hair fall and dander (Han & Mirmirani, 2006). Along with other factors, it is found that androgens also contribute to hair loss (Bagatell & Bremner, 1996). Hair loss can also occur because of poor diet, long term disease, variance in thyroid production, chemical actions of contraceptive pills, definite therapies, treatment of cancer via radiations, pregnancy, hereditary inclination and menopause (Olsen & Kadunce, 1997). A large number of drugs such as minoxidil, corticosteroids and dithranol etc. have been used for different types of hair loss. These drugs are linked with different adverse effects like redness of the skin, chronic itchy skin and dental scaling, skin swelling, dryness and itching (Chizick & Delorscio, 1999; Kaushik *et al.*, 2011). Thereby, to tackle the issue of Alopecia, now, we have induced towards the valuable products and searched a lot of herbs that have shown good result. In order to cure Alopecia, mostly herbs are used as they have been found to be useful in terms of sufferer consent, less chance of bad effects and single approach. Many and different approaches such as transfer of organ via operation; chemical and natural products are adopted to cure Alopecia. For hair loss treatment, herbal products are very important as they can provide nutritional support and enhance blood circulation in the scalp.

To promote healthful growth of hair miscellaneous minerals such as Fe, Ca, Cu, Cr, I, Mg and Zn are very important as they enhance the probability of modulation of blood flow however, iron may contribute to toxicity when it is used in excess. Thyroid hormones also play a vital role in reducing the hair fall, dryness and hair pigmentation. Before supplementing the minerals, it is necessary to know which minerals are beneficial for reducing hair loss. Different vitamins such as vitamin-B (particularly folic acid, B6, B3, B5 and), vitamin-E and vitamin-A have remarkable effects on hair growth. Besides this, vitamin-A may also have importance to moisturize the roots of hair it also functions against oxidizing agents and stimulates the sebaceous gland for its secretion in the head. Vitamin A may contribute to hair falling when used in excess. Vitamin E thought to be indispensable by virtue of its action against oxidizing agent. The property as an antioxidizing agent makes it effective for improving the blood flow in the scalp (Kaushik *et al.*, 2011).

Plants and other medicinal herbs are packed with various kinds of minerals, vitamins and other nutrients essential for hair growth and development. It is observed that  $5\alpha$ -Reductase inhibitors, also known as dihydrotestosterone (DHT) blockers are extremely effective against the alopecia. Several herbal products are found to be enriched with DHT-blockers. Different plants like *Urtica dioica* Linn. (Urticaceae), *Senecio repens* Hook.f (Asteraceae), and *Panax ginseng* (Baill.) Oken (Araliaceae) are the potent sources of DHT-blockers (Rathnayake & Sinclair, 2010). Alopecia is also treated with concentrated extracts from the various parts of the plants like roots, flowers, leaves and bark. The method of treatment is known

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