Herb Based Medication of Alopecia: An Alternative Medicine and Side Effects

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Alopecia or pattern alopecia or androgenic alopecia means baldness or loss of hair from head. Alopecia areata signifies hair loss in patches which may lead to alopecia totalis or complete baldness. Alopecia may occur by trichotillomania, iron deficiency or malnutrition, improper management and lack of care of hair, cancer chemotherapy, fungal infection, inflammatory response, hypervitaminosis etc. In ethnobotanical literature, plants such as Rosmarinus officinalis (Ceuterick et al., 2008; Gonzalez et al., 2010), Centaurea ornata (Gonzalez et al., 2010), Urtica dioica (Pieroni, 2000, Pieroni et al., 2005b; Gonzalez et al., 2010; Mustafa et al., 2012a), Eclipta prostrata (Lee et al., 2008), Hibiscus rosa-sinensis (Sankaranarayanan et al., 2010), Thuja orientalis (Mustafa et al., 2012b), Betula pendula, Sonchus asper (Pieroni, 2000), Allium cepa, Cassia angustifolia (Pieroni et al., 2005a) etc. have been reported in the treatment of alopecia.

Botanicals have been cited in the management of hair fall by various authors (Iagodka, 1986; Abdullah and Rashid, 2010). Earlier, galenicals of Bidens triparta has been reported in the treatment of alopecia areata (Levin et al., 1974). Garlic is being used in the treatment of alopecia areata in Turkey (Gonul et al., 2009). Cuscuta reflexa, Citrullus colocynthis and Eclipta alba were tested as polyherbal formulations as hair growth promoter in rat model (Roy et al., 2007). Contact dermatitis was noted as a result of application of neem oil in the treatment of alopecia (Reutemann and Ehrlich, 2008). Acute hepatitis was observed following a treatment of hair loss by oral green tea extracts (Camellia Sinensis) (Verhelst et al., 2009). Moreover, some forms of alopecia were not found to be cured by some Nigerian herbal remedy (Ajobe, 2007). In another study, Chinese herb extract (Dabao) was found to have a positive effect on the nonvillus hair growth in males with alopecia androgenetica (Kessels et al., 1991). IGF-1 (insulin-like growth factor), TGF-β2 (transforming growth factor-β2), Wnt5a etc. were used as various target proteins related to hair growth/loss to determine the herbal extracts in the treatment of alopecia (Kim et al., 2013). In another study, extract of Puerariae Flos (the flowers of Pueraria thomsonii) had exhibited positive response against androgenic alopecia and saponins, including soyasaponin I and kaikasaponin III were identified as active principles of the said extract (Murata et al., 2012b). In another androgenetic alopecia model, ginseng rhizome and ginsenoside Ro have shown in vivo hair re-growth against testosterone 5α-reductase (5αR) in a dose dependent manner (Murata et al., 2012a). Earlier, ginseng radix has exhibited growth promoting activity on mouse vibrissal hair follicles under cultural conditions and 20(S)-ginsenoside-Rg(3) has also shown hair growth promoting activity (Matsumura et al., 2003).

As psychological and sociological aspects are the integral parts of alopecia (Semalty et al., 2011), human civilization has always been in the quest to found better remedies to prevent hair loss and promote hair growth. The treatment is usually time-consuming (Miteva and Tosti, 2012). Even Siddha medicine of south India advocates the use of herbal and herb mineral treatment for alopecia (Thas, 2008). Although many of these herbal formulations have been popularized as hair growth promoters, necessity of randomized control trials, enough statistical data and toxicological aspects are to be considered before reaching to final conclusions.

REFERENCES


