

ROLE OF TOLENORM OIL IN THE MANAGEMENT OF ALOPECIA AREATA

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ABSTRACT

Hair is an appendage of skin having very much cosmetic value in human. There are so many causes of hair fall (alopecia) including malnutrition, infections and autoimmunity. Alopecia areata is an autoimmune based hair fall of scalp, eyebrows, etc. Tolenorm Oil is a product of Dr.JRK Siddha Research and Pharmaceuticals Pvt Ltd, Chennai, India which is indicated in vitiligo. This oil is very much effective in the treatment of alopecia areata also.

Keywords: Alopecia areata, Tolenorm Oil, Vitiligo, *Khalitya*

INTRODUCTION

Hair is a cutaneous appendage of mammalian skin. It evolved originally as a protective coat but it has lost this functional value in human except over the scalp. Although hair has lost its biological significance, its cosmetic and esthetic importance has increased. Alopecia areata (AA) is a discoid patchy hair loss of scalp, face and other hair bearing part of the body without scarring and inflammation, caused by T cell autoimmune mediated attack on hair follicles¹. The presence of exclamation mark hair at the periphery of the lesion is pathognomonic². It frequently occurs in association with other autoimmune diseases such as thyroid disorder, vitiligo, psoriasis, pernicious anemia, etc. Patients may have multiple relapses and its progression to alopecia totalis or universalis. It occurs irrespective to age, sex, religion and occupation and causes significant psychological morbidity. There are three variants of alopecia areata- ophiasis (hair loss like band at the periphery of the scalp), alopecia totalis (hair loss of whole scalp) and alopecia universalis (hair loss of whole body)³. In the case of fulminant alo-

pecia areata, all pigmented (dark) hairs fall out, leaving the person with only depigmented (white/grey) hairs causing mysterious phenomenon of “growing grey overnight”. This condition is called canities subita. Nails in the patients of alopecia areata may show fine pitting, mottled lunula, trachyonychia (rough surface) or onychomadesis (shedding of nails).

According to *ayurvedic* point of view, *kesh* (hair) is formed by *kitta bhag* (waste part) produced during formation of *asthi dhatu* (bone) from *meda dhatu* (adipose tissue)⁴. *Acharya Vagbhat* has explained that persons of *vata prakriti* have brittle and brown hair, persons of *pitta prakriti* have *pingal*(yellowish) hair and persons of *kaph prakriti* have dense and bluish hair⁵. Some methods have been described by *acharyas* for protection and nourishment of hair which are as follows- *shirobhyanga* (application of oil on the head)⁶, *nasya* (nasal administration of medicated oil)⁷, *dhumpan* (nasal inhalation of medicated smokes)⁸, *ushnisha dharan*(wearing of pagari)⁹, etc. *Acharyas* have described many terms for hair loss (al-

opelia). Acharya Charak writes *khalitya* and *khalati*¹⁰, acharya Sushruta writes *khalitya*, *indralupta*, *rujya*¹¹ and acharya Vagbhat writes *indralupta*, *khalati*, *ruhya* and *chach* for hair loss¹². Acharya Vagbhat has explained four types of *khalitya*- *vataj*, *pittaj*, *kaphaj* and *sannipataj*¹³. In the pathogenesis of *Indralupta*, Acharya Sushruta has depicted that *pitta* (*bhrajak*) present in hair follicles when increases in association with *vata*, causes hair fall, then, *kaph* and *rakta* block hair follicles which don't allow new ones to grow¹⁴.

Tolenorm Oil is medicated oil manufactured by Dr.JRK Siddha Research and Pharmaceuticals Pvt Ltd, Chennai, India for the treatment of vitiligo or leucoderma¹⁵. But after studying its compositions, its role in alopecia areata was expected and clinical research was done to find out its role in the management of alopecia areata.

AIMS AND OBJECTIVES

To evaluate the effect of Tolenorm Oil in the management of alopecia areata

MATERIAL AND METHODS

For the study, patients fulfilling the clinical criteria of *khalitya* (alopecia areata) were selected, irrespective to age, sex, religion and occupation from researcher's clinic at Anisabad, Patna, India.

Criteria for selection of the patients

Inclusion Criteria

- Patients having clinical features of alopecia areata

Exclusion Criteria

- Patients having clinical features of diffuse hair loss
- Patients having *keshbhumi kandu* (itching of scalp), *keshbhumi dah* (burning sensation of scalp) and *keshbhumi swed* (sweating of scalp)

- Patients having fungal, bacterial and viral infections of scalp

LABORATORY INVESTIGATIONS

Hb%, TLC, DLC, ESR, Serum Calcium, FT₄, TSH

SELECTION OF THE DRUG

Khalitya is a *pitta* predominant *vata kaphaj* disease. *Pippali* fruit and coconut oil pacify *pitta* and *vata* by virtue of their *madhur vipak*. *Bakuchi*, *Nili* and *Indrayava* pacify *kaph* by virtue of their *katu vipak*. *Pipali*¹⁶ fruit is *tridosh shamak*. Coconut¹⁷ is *vata-pitta shamak*, *Bakuchi*¹⁸ is *vata-kapha shamak*, *Nili*¹⁹ is *vata-kaph shamak* and *Indrayava*²⁰ is *kaph-pitta shamak*. After studying *tridosh shaman* property of the medicated oil, it was expected to be effective in *khalitya*.

According to modern point of view, *Wrightia tictoria* has anti-inflammatory and anti-dandruff property. *Psoralea corylifolia* has irritant and trichogenous property and after sun exposure exhibits effect like PUVA (an immunosuppressant treatment). *Indigofera tictoria* has irritant and trichogenous property. *Piper longum* fruit has antioxidant, trichogenous, thermogenic, vasodilator, topical immunomodulator and yogawahi (catalytic) property. *Oleum Cocos nucifera* has antioxidant and trichogenous property. After studying these medicinal properties of compositions of the medicated oil, it was expected to be effective in alopecia areata.

DRUG DETAILS

Tolenorm Oil, manufactured by Dr.JRK Siddha Research and Pharmaceuticals Pvt Ltd, Chennai, India was bought from local medical store. Each 5 ml. of oil contains-

1. *Wrightia tictoria*- 50 mg
2. *Psoralea corylifolia*- 50 mg
3. *Indigofera tictorea*- 50 mg
4. *Piper longum*- 50 mg

5. Oleum Cocos nucifera- Q.S.

PLAN OF TREATMENT

Tolenorm Oil was applied locally on the patchy area of alopecia areata once daily in the morning upto three months.

CRITERIA OF ASSESSMENT

As itching, sweating and burning sensation of scalp has not been included as criteria in the research, so, assessment was done on the basis of hair growth only. Assessment was done by considering changes in the objective parameter (hair growth) before the treatment and after the treatment. Hematological changes were also observed during the assessment. The effect of therapy was assessed on the basis of following criteria-

Complete remission- 100% hair growth on patches

Markedly improved- more than 75% hair growth on patches

Moderately improved- 40-75% hair growth on patches

Unchanged- less than 40% hair growth on patches

FOLLOW UP STUDY

Patients were advised to come after completion of one month of treatment to see the effect of the drug. Then, the drug was continued again for one month and patients were advised to come after completion second month of the treatment. Then, the drug was continued again for one month and medication was stopped after completion of third month of treatment. Patients were advised to come after one month of stopping the drug to see its post therapeutic effect.

RESULTS

Tolenorm oil was found very effective for hair growth in the patients of alopecia areata. As there was no any oral drug given to the patients, only oil was applied locally, so, there was no any significant change in hematological profile of the patients.

DISCUSSION

In present study, previously mentioned laboratory investigations of the patients were done. Hb%, TLC, DLC, ESR and Serum Calcium of all 20 patients was normal. FT₄ was normal in all 20 patients but TSH was slightly elevated in three patients out of 20 patients. Thus, three patients were associated with subclinical hypothyroidism. Two patients out of 20 patients were found associated with vitiligo. Thus, causes of alopecia may be mainly due to autoimmunity, physical and mental stress, heredity, etc. 24 patients were registered in this clinical research, out of which 4 patients didn't come after completion of therapy. Out of 20 patients, 12 patients were female and 8 patients were male. All patients were between ages 12-50 years. Patients had multiple patches of alopecia but total baldness was below 50% of the scalp.

CONCLUSION

Tolenorm oil is highly effective in the management of alopecia areata, if it isn't associated with microbial infections. The oil doesn't cause significant changes in the hematological profile of the patients. This drug shows good tolerability with high acceptance to the patients without any reported adverse reaction.

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