

# AN AYURVEDIC APPROACH IN ALOPECIA AERATA

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## ABSTRACT

*Alopecia areata is a common form of non-scarring hair loss of scalp/and or body characterized by hair loss without any clinical inflammatory signs. It has the estimated prevalence of about 1 in 1000 people<sup>1</sup>. Both men and women are affected globally. A systemic review of the epidemiology of Alopecia aerata indicates a similar worldwide lifetime incidence of around 2%<sup>2</sup>. In Ayurveda, it can be understood with the term Indralupta which has the same signs and symptoms. In contemporary science cortico-steroids, local injections, topical ointments are used to treat this condition but long term use has its own complications and side effects. Hence an attempt is made to understand different treatment modalities adopted in Ayurveda for the management of Indralupta.*

**Keywords-** Indralupta, Alopecia aerata, chikitsa

Hairs are keratinised elongated structures derived from invaginations of epidermis. It consists of two distinct parts, the follicle and hair shaft. Hair growth and maintenance depends on 3 phases of hair cycle, Anagen (active growth phase), Catagen (involution phase) and Telogen (Resting phase). The type and length of the hair depends on the Anagen phase. In normal individuals, hair sheds out after the resting phase when the new hair anagen growth starts (exogen). In alopecia, hair shedding occurs even before the anagen starts leaving the hair follicle empty (kenogen)<sup>3</sup>.

## DEFINITION OF ALOPECIA

Alopecia is defined as partial or complete or partial loss of hair. Alopecia is psychologically damaging, causes intense emotional disturbance and leads to personal, social and work related problems<sup>4</sup>. Male patients maybe more likely to be diagnosed in childhood, while females are more likely to present in adolescence<sup>5</sup>.

There are two major forms of alopecia, scarring and non-scarring.

Scarring alopecia is associated with fibrosis, inflammation and loss of hair follicle. A smooth scalp with a decreased number of follicular openings is usually observed clinically, in few

patients the changes are seen only in biopsy specimens from affected areas<sup>6</sup>.

In non-scarring alopecia, hair shafts are absent or miniaturized, but the hair follicles are preserved, explaining the reversible nature of non-scarring alopecia. The most common causes of non-scarring alopecia including androgenetic alopecia, telogen effluvium, alopecia areata, tinea capitis and traumatic alopecia<sup>7</sup>.

## OTHER FORMS OF ALOPECIA

- Alopecia Aerata (AA)
- Alopecia Totalis (AT) - It is described as complete loss of scalp hair.
- Alopecia Universalis (AU) - It is complete loss of all hairs.
- Alopecia Barbae- wherein the patches of hair loss is seen on beard and mustache.
- Androgenetic Alopecia (AGA) - It is physiological in men over 20years old, it can occur in teenagers. It is found in women, particularly post-menopause. It involves bitemporal recession initially and subsequent involvement of the crown<sup>8</sup>.

## ALOPECIA AERATA (AA)

It is a common form of non-scarring, usually patchy hair loss affecting up to 2% of the population. It can occur at any age, but severe form start during childhood and are more frequent in males. The

natural history of alopecia aerata is unpredictable. Studies indicate that 34-50% of patients recover within 1 year and 15-25% will progress to alopecia totalis/universalis<sup>9</sup>

### Types<sup>10</sup>

- **Reticular-** Hair loss is more extensive and the patches coalesce, multiple alopecia plaques occur which are separated by narrow bands of preserved hair.
- **Sisaipho-** It involves frontal, temporal and parietal scalp but spares hair along the periphery and it mimics androgenetic alopecia.
- **Ophiasis (snake-like)** - It presents along the posterior occipital and temporal regions, it is characterized by the loss of hair in the shape of wave at the circumference of head and the prognosis is poor.

### Etiology

- Genetic factors
- Auto-immunity- SLE, Vitiligo, Hashimoto thyroiditis and haemolytic anaemia
- Stress
- Drugs- Carbamazepine, Bismuth, Iodine and amphetamines.
- Infectious agent- Syphilis and fungal infections

### Pathology of Alopecia Aerata

The exact pathophysiology of alopecia aerata remains unknown. The most widely accepted hypothesis is a T cell-mediated autoimmune condition that is most likely to occur in genetically predisposed individuals<sup>11</sup>

### Differential Diagnosis<sup>12</sup>

Alopecia aerata is usually diagnosed based on the symptoms and clinical features. It is often easy and simple to detect Alopecia aerata. Many conditions may mimic Alopecia aerata. Tinea capitis, especially in children, should be differentiated. Signs of inflammation, scaling, and cervical lymphadenopathy are present in tinea capitis, in contrast to smooth, non-scaly surface of Alopecia

aerata. Trichotillomania presents with broken hair of varying lengths with a wire brush feel compared to smooth hair loss of Alopecia aerata. In doubtful cases, a scalp biopsy may be of help. Side pins, which are used by women to keep the hair in place, may cause pressure alopecia, resembling Alopecia aerata. Traction alopecia is another condition, which mimics Alopecia aerata. Scalp biopsy is needed to identify, which shows normal number of hair follicles, but all are vellus or indeterminate.

### Other Examination

- Hair-pull test
- Hair pluck test

### Investigation<sup>13</sup>

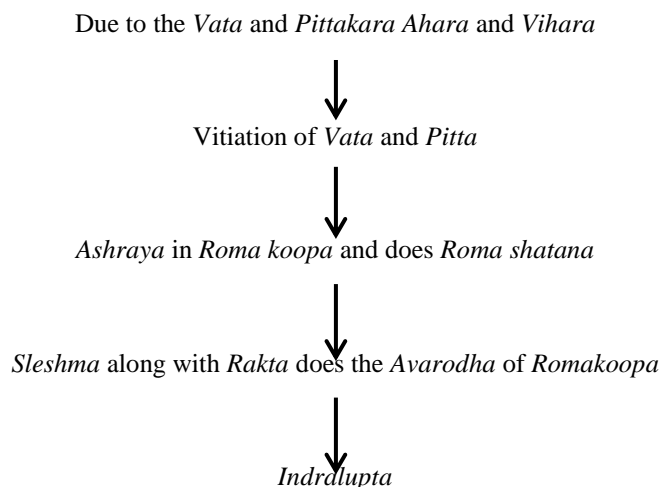
- Dermoscopy- Also called as trichoscopy, it blocks the filter against light reflection from the skin surface and can be done without application of the gel
- Salt score (Severity of alopecia tool)- It is useful to find the quantitative assessment of scalp hair loss
- Optical Coherence Tomography- detect hair shaft abnormalities

### Treatment

- Minoxidil- Successful in hair growth by stimulating proliferation at the base of bulb.
- Finasteride- it decreases the amount of natural body hormone (DHT), it leads to increased hair regrowth and slower hair loss.
- Cortico-steroids- Mainstay therapy for Alopecia Aerata due to their anti-inflammatory activity.

### According to Ayurveda,

In *Sushruta Samhita*, *Indralupta* is mentioned under *Kshudra roga*, resembles signs and symptoms of Alopecia Aerata. *Acharya Charaka* explains that *Tejas* by involving *Vatadi Doshas* reaches the scalp it leads to *Khalitya*<sup>14</sup>. He further clarifies that excessive intake of *Lavana* or *Kshara* intake and *Viruddha Ahara* is prone to have *aIndralupta*<sup>15</sup>.

**Samprapti****Chikitsa**

*Sushruta Samhita* explains mild incision has to be done after *Snehana* and *Swedana* as it relieves the obstruction, paste of *Gunja Bheeja* after incision to be applied. It helps in re-growth of the hair. *Taila* prepared from *Malathi*, *Karavira*, *Agnimantha* and *Naktamala* is best for external application as these drugs contain *Ushna Tikshna Guna*, having the penetrating property and thus improves the circulation.

According to *Bhaishajya Ratnavali*, Scraping of scalp with paste of *Gunjabeeja* and applied the paste for some duration. *Siravyadha* has to be carried out followed by application of paste prepared from *Manahshila*, *Kasisa* and *Tuttha*. Scraping of Scalp and *Siravyadha* helps to remove the obstruction, application of the paste will promote new hair growth<sup>16</sup>. In *Yogaratanakara*, it is explained that application of *Hastidanta Masi* mixed with goat's milk can grow the hair even on the palm<sup>17</sup>. This explains about the potency of the dravya.

**Other Treatment**

- *Krimikutara Rasa* 1-0-1
- *Vidangarishta* 3tsp-0-3tsp
- *Vidangadi Kashaya* 3tsp-0-3tsp
- *Brihat Marichadi Taila* for ext/application
- *Marichadi Taila* for ext/application

**CONCLUSION**

Alopecia aerata is the common form of hair loss affecting the quality of life of many patients. Genetic susceptibility, infectious agents, vaccinations, environmental factors and auto-immunity are the main etiological factors. Although various treatments have been mentioned in the contemporary science they have their own limitations and complications. The drugs mentioned in our classics are with minimal side effects, *Acharya Sushruta* advises *Rasayana chikitsa* in *Kesha Vikaras*<sup>18</sup>, they act as immunomodulators. *Nidana Parivarjana* and *Shamanoushadis* are necessary part of the treatment and will help in improving the condition. It is also believed that *Shonitaja Krimi* directly affects the hair roots causing hair loss, thus use of *Krimighna dravyas* are beneficial in the management of *Indralupta*.

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