

## Medical & Clinical Case Reports Journal

<https://urfpublishers.com/journal/case-reports>

Vol: 1 & Iss: 3

Case Study

### Indralupta (Alopecia areata): A Case Treated with Jalauka Karma

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**Citation:** Jaiswal DK, Shah B. Indralupta (Alopecia areata): A Case Treated with Jalauka Karma. *Medi Clin Case Rep J* 2023;1(3):133-136. DOI: doi.org/10.51219/MCCRJ/Dhananjay-Kumar-Jaiswal/37

Received: 01 December, 2023; Accepted: 02 December, 2023; Published: 05 December, 2023

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### ABSTRACT

Alopecia areata (AA), an autoimmune disease characterized by the appearance of non-scarring bald patches affecting the hair bearing areas of the body. Scalp is the most common site of involvement. AA can affect any age group. The usual pattern of the hair loss is oval or round and can be co-related with Indralupta in Ayurveda. The pathophysiology of Indralupta is the vitiated Tridoshas and Rakta affecting the scalp and also blockage of hair follicles with aggravated Rakta and Kapha which further prevents regrowth of hairs is described as kapalgata roga by Acharya Vaghbata and as a kshudra roga by Acharya Susruta and Madhava. When Alopecia areata patchy develops, the body attacks its own hair follicles.

**Aim:** To evaluate the efficacy of Leech therapy along with Ayurvedic treatment in Indralupta(Alopecia areata). **Material and Methods:** A Hindu, Unmarried 18 yrs. old female patient suffering from a single patch of hair loss over the mid scalp region since three weeks was seen in Shalya Department of Ayurveda Teaching Hospital, Kirtipur OPD No. 7901265. The patient was diagnosed as a case of Alopecia areata patchy (Khalitya) with clinical findings & examination done. Shodhana (Raktamokshan) were done by Leech (Jalauka) along with Internal medicine Tablet Amlaki, and local application of Hairzone spray for 60 days with follow up at every one week.

**Results/Discussions:** After 60 days of treatment, regrowth of hair was achieved remarkably.

**Conclusion:** The current case study demonstrated the effectiveness of Ayurvedic treatment for Indralupta/Alopecia areata which includes Jalauka karma along with some internal and external drugs. The single case report highlights that alopecia can be managed with an appropriate diet regimen, Rakta-mokshana, and can be managed effectively with a minimum requirement of medicine.

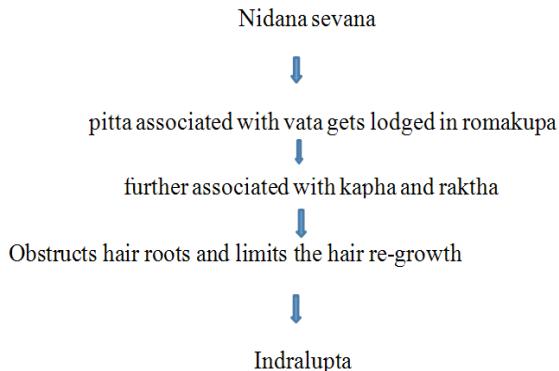
**Keywords:** Alopecia areata patchy; Autoimmune; Indralupta; Leech therapy; Ayurveda

### 1. Introduction

Alopecia aerata is an autoimmune disease characterized by hair loss on body especially on scalp without any clinical inflammatory signs. Its prevalence in general population was estimated at 0.1-0.2% with a lifetime risk of 1.7%<sup>1</sup>. Male was reported to be more affected with the disease in comparison to children and women and causes more emotional problems in

woman and children due to cosmetic concern<sup>2</sup>. Its main treatment in modern science is Corticosteroids which is having harmful side effects so not advisable for long term use<sup>3</sup>. Therefore world is expecting some remedies from Alternative medical sciences. Ayurveda offers different effective treatment modalities for the management of different autoimmune diseases like psoriasis, eczema, etc<sup>4</sup>. Alopecia areata can be correlated with Indralupta

disease described in Ayurveda. Acharya Charaka mentions that pitta by involving VatadiDosha when reaches the scalp, it results in Khalitya (Indralupta)<sup>5</sup>. According to Acharya Sushruta, Pitta along with Vata localize at the roots of hair (Romakoopa) causes fall of hair and thereafter kapha along with Rakta obstructs the channel of Romakoopa leading to the stoppage of the regeneration of hair and this condition is known as Indralupta or Khalitya<sup>6</sup>. Thus Vata, Pitta and Kapha Dosha and Rakta Dushya are the main internal causative factors of Indralupta (**Figure 1**).



**Figure 1.** Samprapti of Indralupta.

## 2. Case

An 18 yrs old unmarried female which was referred to the Ayurvedic hospital by her doctor sister for Ayurvedic management, was presented in shalya department of TU Ayurveda teaching hospital Kirtipur OPD No. 7901265 with following chief complaints.

### 2.1 Chief complaints

A patchy hair loss for 3 weeks on the scalp associated with mild itching.

**History of present illness:** According to patient she was asymptomatic 3 weeks ago then she develops patchy hair loss on scalp, with mild itching over affected area and gradual increment since 3 weeks which was gradual in onset and progressive in nature without any pain. There was patchy hair loss measuring about 4x4 cm on the mid scalp region. Patient didn't notice any exaggerating or relieving factors.

**History of Past Illness:** There was no history of similar illness in past and no history of autoimmune disorders (like Atopic dermatitis, psoriasis, Vitiligo, Asthma, Urticaria, Rheumatoid arthritis, Thyroiditis), no history of drug intake, and no history of any systemic illness.

**Family History:** - No any significant family history i.e. no member of the family had history of such illness.

**Menstrual History:** - Regular with normal duration without any dysmenorrhea and clots.

### Personal History

Diet	Mixed
Micturition	4 - 5 times/day, 0 - 1/night
Appetite	Good
Sleep	adequate, rarely disturbed
Bowelhabit	Irregular
Addiction	Nil

### Astavidha Pariksha (Eight Folds of Examinations)

Nadi (pulse)	78/min, regular, normal in character
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Mala(stool)	Constipation on /off
Mutra(urine)	Samyak (Normal frequency)
Jihva(tongue)	Normal shape and size, no cracked present, Slightly coated
Sabda (speech)	Clear
Sparsa(touch)	Mridu (soft)
Drika (eyes)	Normal
Akruti (built)	Madhyam

### General Examinations

Pulse	78/min
Blood pressure	110/80 mm of Hg
Height	130cm
Weight	50
Respiratory rate	18/min
Temperature	Normal
Tongue	Slightly coated

### Dasvidha Pariksha (Ten Folds of Examinations)

Prakriti (Body constitution)	Vata-pitta
Vikruti	Tridoshaj
Sara	Mamsa sara
Praman(Body proportion)	Sama pramana(symmetrical)
Samhanan(Body built)	Madhyam (medium )
Satmya	Sarwasatmya (homologation for all taste)
Satva(Mental strength)	Madhyam
Aahara skakti (Digestive power )	Madhyam
Vyayam Shakti (Capability of physical activity )	Madhyam
Vaya (Age)	Yuva awastha

### Disease Specific Examinations

Examination showed patchy hair loss measuring about 4x4 cm on mid scalp region and mild dryness over patch, no scarring or cicatrization, nor any other skin lesion over scalp, no tumor in localized area and abnormalities of hair in adjacent area. Length of hair of adjacent scalp was uniform and was not broken off. The patient was clinically diagnosed as case of Indralupta (Alopecia areata) and advised for Leech therapy.

Site of involvement	Mid Scalp
Pattern	Round patch
Skin color	Slight reddish
Discharge	Absent
Sensation	Present

### Systemic Examination

On examination, patient was found to be conscious and well oriented to time, place and person. Assessment of Central nervous system, cardiovascular system, respiratory system and musculoskeletal system of patient was found within normal limits clinically. No clinical abnormality was detected on per abdomen examination.

### Blood investigation

Blood investigations Hb, TLC, DLC, ESR, blood sugar values were within normal limit.

### Treatment Planned

The treatment was planned according to the basic principles narrated in the context of Indralupta disease.

Primary management of Indra lupta (Alopecia areata patchy) is shodhan therapy (Detoxification). As per Ayurvedic literature application of Jalauka (Leeches) on diseased area is a type of Raktamokshan (blood-letting) under Panchakarma Chikitsa. Blood vitiated by Pitta should be removed from the body (Diseased part) by using Jalauka. Leech Therapy (Jalauka) was done once a week along with internal and local medications up to 2 month.

(Tables 1, 2). Application of Jalauka (Leech) was done as per methodology described by Ayurveda text with all aseptic precautions. The follow up was taken once in a week.

**Table 1:** Leech Therapy (Jalauka).

Raktamokshan	Frequency	Duration
Application of Jalauka (Leech) 1 at a time.	Once a week	Up to 2 Months

**Table 2:** Medicines.

Medicines	Dose	Duration
Tab. Amlaki	2 tab x BD x PO (500mg each)	2 months
Hair zone spray	Local application HS	2 months

### Advises

Do	Don't
Washing of hair with herbal shampoo	Avoid junk foods
Use coconut oil for scalp	Avoid use of bleaching agents
Use cap when outside of home	Avoid direct sun exposure
Have adequate sleep	Day sleep
Pranayama for 15 min in the morning	Awakening till late night
	excessive use of salt

### 3. Observations and Results

**Before Treatment:** There was patchy hair loss, no hair roots, slight dryness at the site was present.

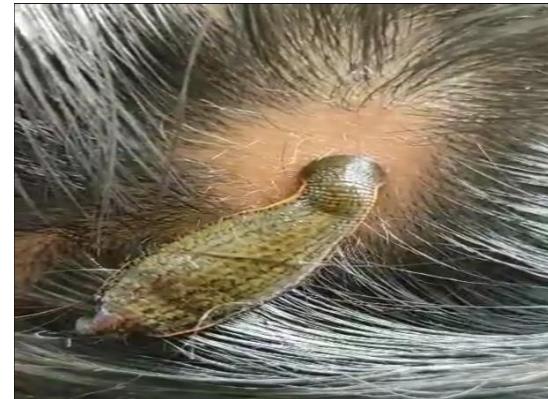
**During Treatment:** There was no any blister formation, etching or any adverse reaction at site or all over body.

**Follow Up:** After 15 days of treatment small whitish grey hairs grew on the lesion. Length and density increased; hair fall decreased. No further complications were observed.

**After Treatment:** After 60 days length and density increased. Black hairs easily observed over the affected site.



**Figure 1:** Before Treatment.



**Figure 2:** After 15 Days of Treatment.



**Figure 3:** After 45 Days of Treatment.



**Figure 4:** After 60 Days of Treatment.

### 4. Discussion

As Vata, Pitta and Kapha Dosha and Rakta Dushya are the main internal causative factors of Indralupta. In Ayurveda, both shodhana (Internal and external cleansing procedures) and shamana treatment (Disease specific internal medications) are prescribed for Indralupta. Charaka in Vimanasthana, while describing the disorders occurring due to over indulgence in Kshara, Lavana and Viruddha Ahara has mentioned the occurrence of Hair Loss as a consequence. It has been mentioned that the Viruddha Ahara like, simultaneous intake of Lavana (salt) with milk in the diet induces Indralupta, as observed in the people of Saurashtra and Bahlika. Thus, it can be said that a person habituated to excessive Lavana or Kshara intake and taking Viruddha Ahara in routine is prone to have Indralupta<sup>7</sup>. So nidana pariwarjana is advised here. Various localized treatment modalities like pracchan karma, Lepa application, Abhyanga<sup>8</sup>, Swedanaa and Nasya<sup>9</sup> along with Rasayana therapy are advised in the context of Indralupta. As Vata, Pitta and Kapha Dosha and Rakta Dushya are the main internal causative factors of Indralupta. So the medications that balance out vata, pitta, kapha, and rakta and having action of keshaya (conducive to the growth

of hair) and rasayana help promote the regrowth of hairs<sup>10</sup>. Amlaki is Keshya, Khalitya-palityahar, Tridoshhar, Deepan, pachan, rasayan which help in rejuvenation process. It promotes digestive fire, clears body channels for the nutrients to reach to the tissues, balances fats in the body and removes toxins by improving the digestive system. Hair zone spray which mainly contains Plasha was topically used. According to Bhavaprakash, Palash is one of the drugs which are krimighana. Palash is katu, tikta, kashaya and katuvipaki, deepan, vrushya, snigdha, and used in krimi, varnadoshanashak, Kapha-Pitta, Raktavikar, dahashamak and kusthaghna<sup>11</sup>. It has also proven that *Butea monosperma* inhibits degeneration of hair follicles, extends the anagen phase of hair growth cycle and enhances proliferation and maturation of precursor epithelial cells of the final hair strand. It prevents the massive apoptosis in the proximal hair bulb and stimulates the multiplication of hair fiber cells with the stimulation of anagenic phase, and reduce the catagenic and telogenetic phase<sup>12</sup>. In-vitro study of Palasa (*Butea monosperma*) seed oil also revealed considerable bactericidal and fungicidal effects<sup>13</sup>. In this way it acts and prevent further hair fall.

Raktamokshana in this case performed with jalauka avacharan (blood-letting in which leech is used) as, it is described as best method to pacify the vitiated Pitta and Rakta<sup>14</sup>. Leech sucks the blood and improves local blood circulation mainly by injecting histamine like substances that causes vasodilatation. After the evacuation of vitiated blood from the affected site, re-channelization of blood flow is stabilized. Many studies have confirmed that leeches have more than hundred bioactive substances in its saliva, which mainly have analgesic, anticoagulant and anti-inflammatory effects. This is the reason for selecting the combination of topical application, systemic medications and leech therapy for treating this particular case. The available treatment in modern medicine mainly based on steroid and minoxidil etc. which have their own side effects. Leech therapy works similar to minoxidil as it improves the local blood circulation along with its anti-inflammatory action.

## 5. Conclusion

From this case report, we can conclude that shodhana therapy along with internal and local medication helps in the management of indralupta. Nidanaparivarjana was also a necessary part of the treatment. The patient suffering from Alopecia areata was successfully treated. This treatment protocol should be clinically evaluated on large number of patients to confirm the efficacy.

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