

## A CASE STUDY OF LEECH THERAPY (*JALUKAVACHARANA*) IN *KHALITYA* W.S.R. ALOPECIA

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### ABSTRACT

Leech therapy is a treatment using medical leeches. Leeches remove blood from their host, and they release pain killing and blood thinning substances with their saliva. Indications for treatment with medical Leeches blood and skin diseases like neurodermatitis, psoriasis, eczema, acne vulgaris, hair loss (*Khalitya*) and etc. *Jalukavacharana* is a type of *Raktamokshana* which is very much useful especially in *Pitta Dushti* conditions and *Rakta dushti roga*. Current treatment procedures which include surgery, hair transplant, hormonal replacement therapy, topical applications and may be treated by local steroid injections are associated with many side effects. But in *Ayurveda*, the treatment procedures mentioned like *Vamana*, *Nasya*, *Mukha&Shiro Abhyanga*, *Pradeha*, *Siravedha*, and *Raktamokshana* using with *Jaluka* can provide a simple, pain less, economical treatment for this common element. A female patient of 28 years old was presented in our OPD with the chief complaint of scalp hair fall, associated with dandruff, itching, and roughness since 6 years. For that *Jalukavacharana* was planned and result was significant assessments were observed clinically and recorded with photography.

**Keywords:** *Jalukavacharana*, *Raktamokshana*, Bloodletting technique, *Khalitya*, *Jaluka*.

### INTRODUCTION

*Jalukavacharana* (leech therapy), is an *Ayurvedic* surgical procedure, practised and documented in the *Susrutha samhita*, one of the primary text in *Ayurveda* dated 2 BC<sup>1</sup>. *Acharya Susruta* has dedicated a whole chapter to this speciality in *Samhita*<sup>2</sup>. It is a painless minimal invasive technique of *Raktamokshana* (controlled

bloodletting). Listing the preventive benefits of *Raktamokshana*, *Acharya Susruta* states that one who undergoes controlled bloodletting therapy periodically, doesn't suffer with *Twak roga* (diseases of skin), *Granthi roga* (diseases presenting with nodules), *Sopha roga* (diseases presenting

with swelling / oedema), *Rakta prodoshaja roga* like *khalitya*.

Loss of previously existing scalp hair is termed as alopecia. Alopecia is a type of hair loss that occurs when your immune system mistakenly attacks hair follicle, which is where hair growth begins. The damage to the follicle is usually not permanent. Alopecia is most common in people younger than 20, but children and adults of any age may be affected. Women and men are affected equally. In *Ayurveda* classic, symptoms of alopecia correlate with *Khalitya*<sup>3</sup>.

In *Khalitya*, *Bhrajaka Pitta* sites in *Twak* (skin) and *Roma kupa* (opening of hair follicle) get vitiated and enter in skin through *Roma kupa* with vitiated *Vata dosha* due to which hair fall occurs, after that vitiated *Rakta* and *Kapha dosha*<sup>4</sup> block the opening of hair follicle due to which production of new hair stop. Overall in *Khalitya*, hair fall occurs and new hair does not appear that leads to baldness<sup>5</sup>.

*Khalitya* is *Tridoshaja vyadhi* i.e. *Vata, Pitta, Kapha* with *Rakta Dosha*. All *Doshas* are vitiated but have predominance of *Pitta* and *Rakta Dosha* mainly. In *Ayurveda* classics, *Jalaukavacharana* is best treatment for *Pitta* and *Rakta* predominant disease. *Raktamokshana* is one of karma of *Panchkarma, Shodhana* therapy. In this, impurity of body and toxic waste of the body is removed through blood. In *Khalitya* we used *Jalauka* (leech-*Hirudo medicinalis*) for bloodletting due to predominance of *Pitta* and *Rakta*. Application of leech is a method where impure blood is removed from body which is being sucked by leeches. Application of leech, bring out the impure blood caused by vitiated *Dosha* and balance *Pitta, Rakt, Vata Dosha* which in turns hold the hair on scalp and open the

blocked hair follicle opening which helps in growing new hair follicle and hair. By providing oral medication we give strength to hair to proliferate and retain their normal status. Oral medications which were prescribed to patient were *Saptamrita Loha*<sup>6</sup>, *Bhringaraja Churna*, *Nimbhadi Churna*, *Manjista Churna* and *Asthi-poshaka Vati*. All this conservative medication was used for the pacification of *Pitta* and *Rakta*. As hair is described as mala of *Asthi dhatu*, to maintain the growth of hair supportive medication for *Asthi dhatu* is prescribed. Thus it was assumed that purification mechanism in combination with oral medication would helpful in the treatment of *Khalitya*.

#### **Aims and Objectives:**

- To study the *Jalukavacharana* (Leech Therapy) in the management of *Khalitya* (Alopecia).

#### **MATERIAL AND METHODS:**

A 28 yrs old female was presented in O.P.D number 3 of *Sharira Kriya* department with chief complaint of hair fall, thinning of hairs with recession of hairline in temporal and frontal region, dandruff, itching scalp, and roughness around about 6 yrs back the person was a in a healthy situation. Later, initial thinning of hair started and then hair started shedding off. Simultaneously she was suffering from symptoms of mental stress and disturbed sleep. She has taken treatment of allopathic medicine for 2 years but was not satisfied. When he visited to O.P.D., first of all we carried out his routine blood investigation as complete blood count, blood sugar level; liver function test, renal function test, routine urine examination and Thyroid function test to rule out any possible associated disorder but findings of

these investigations were found within normal limit. There was no significant past history of any other chronic illness in patient. No history of any type of addiction was found.

**TREATMENT PLAN:**

Treatment included *Samshodhana Karma* that is *Jalaukavcharana*. Total five sittings of *Jalaukavcharana* were done on day1, day 15, day 30, day 45, and day 60 with oral medication for 2 months regular. The composition of oral administration of drug was *Saptamrita Loha (250mg)*, *Manjista Churna (3gm)*, *Bringaraja Churna (3gm)*, *Nimbhadi Churna (1gm)*, *Abhraloha (250mg)* and *Asthiposhaka Vati (2tab)*. Preparation and process of *Jalaukavcharana* is considered most unique and most effective method of bloodletting. It can be

tried in all mankind including females, children, old and patient having poor threshold to pain. Two leeches are applied over to fronto-temporal region of both side .When leeches left the site by their own (after sucking blood for approximately 30 min), dressing with *Haridra* (turmeric powder) and *Jathyadi taila* is done, it acts as antiseptic for small wound created by leech. Removed leeches were than stored after emesis of sucked blood and reused after 15 days. After 2 month the patient was examined for the presence of hair follicles and growth of hair over affected area. Criteria of assessment were done by digital photography and clinically by presence of hair on the affected site of scalp. Before and after treatment was recorded. Follow up period on day 75 and day 90.



**CRITERIA:**

1. GRADATION OF HAIR FALLING:

S.No.	Symptoms	Gradation
1	Abscent	0
2	Mild (hair fall on washing)	1
3	Moderate (hair fall on combing)	2
4	Severe (hair fall on simple strengthening)	3

2. Gradation of microscopic examination of hair root and hair shaft Spore and hyphae :

S.No	Symptoms	Gradation
1	No spore or hyphae	0
2	Occasional fungal and bacterial spores or hyphae	1
3	Minimal fungal and bacterial spores or hyphae	2
4	Many fungal and bacterial spores or hyphae	3

## 3. Roughness:

S.No.	Symptoms	Gradation
1	Smooth hair surface	0
2	Occasional rough hair surface	1
3	Slight rough hair surface	2
4	Rough hair surface	3

## 4. Itching:

S.No.	Symptoms	Gradation
1	Abscent	0
2	Mild itching	1
3	Moderate itching	2
4	Severe itching	3

## 5. Dandruff:

S.No.	Symptoms	Gradation
1	Abscent	0
2	Mild	1
3	Moderate	2
4	Severe	3

Table 6: Observations:

Assessment criteria	Therapeutic period							
	In course assessment						Follow- up period	
	BT	day 1	Day 15	Day 30	Day 45	Day 60	Day 75	Day 90
Gradation of hair fall	3	3	3	2	1	1	0	0
Hair shaft spore/ hyphe	1	1	1	1	1	1	1	0
Roughness	2	2	2	1	1	0	0	0
Itching	2	2	1	1	0	0	0	0
Dandruff	3	3	2	1	1	0	0	0

## DISCUSSION

After five sittings of leech application, patient had reported significant improvement in his symptoms, hair growth in affected area, and thickness of hair in scalp, hair shaft spore/hyphae, roughness, itching, and dandruff. The principal of the therapy (*Jalukavacharana*) is removal of vitiated *Pitta* and *Rakta*, impurities, toxin from body through blood. *Pitta* and *Rakta* have *ushna guna*, leech described by *Acharya Sushruta* have *Sheeta guna* because they live in cold water. Leech (*Hirudo medicinalis*) have property of discrimination of impure blood and pure blood, it sucks the impure one and left the site. Leech

contains *Hirudin* in saliva which inhibits blood coagulation by binding to thrombin, *Hyaluronidase* which increases interstitial viscosity, *B-dellins* which is anti-inflammatory, *Acetylcholine* which is vasodilator<sup>7</sup>. In all leech increase the blood flow of the affected site, helps in infection and inflammation. In *Khalitya*, mainly *Pitta* and *Rakta dosha* are vitiated with *Vata dosha*, *Jalaukavacharana* helps in removal of *Pitta* and *Rakta dosha* and obstruction caused by *Vata* and *Kapha dosha* due to which pure blood circulation over affected site is occur.

## CONCLUSION

*Jalaukavcharana* is best alternative therapy which can be used to treat *Khalitya* with oral medication. Leeching can be learned relatively quickly and can reduce the complication arising from the excessive use of synthetic drugs. In addition it is economical and cost effective therapy for this common ailment with no short term side effects. The result of this case study has shown a potential for treating alopecia.

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