ORIGINAL RESEARCH PAPER

Volume-8 | Issue-7 | July - 2019 | PRINT ISSN No. 2277 - 8179

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

CLINICAL STUDY TO EVALUATE THE EFFICACY OF *GUNJA LEPA* ALONG WITH *YASHTIMADHUKADYA TAILAM NASYA* IN THE MANAGEMENT OF *KHALITYA* (HAIR FALLING)

Ayurveda

Dr. Sanchit Jain* Assistant Professor, Dept. of Agad Tanta, Shivalik Institute of Ayurveda and Resarch, Dehradun, India *Corresponding Author

Dr. Neeti Aggrawal M.D Scholar, P.G deptt. Of Kriya Sharir, National Institute of Ayurveda Jaipur

Dr. Anita Sharma Professor, P.G, Deptt. Of Agad Tanta, National Institute Of Ayurveda, Jaipur, Rajasthan

ABSTRACT

Hair loss is a universal problem seen across all age groups. It can impel to significant Psychological and emotional distress that supports a multibillion-dollar pharmaceutical andcosmetic effort to reverse these conditions. In *Ayurveda Science*, falling of hair is coined out as in term of '*Khalitya*'**.** The medical term of hair loss is alopecia; any type of hair fall is called alopecia. So the aim of this study was to elaborate & explore the clinical effect of *Upvisha dravya Gunjamol-phala Lepa along* with *Yashtimadhukadya Tailam Nasya* in the treatment of *Khalitya*. As per statment of Aacharya *Charak,* the poison which by nature is destructive of life, if taken in the proper manner, acts as an elixir[1]. Gunjamoolphal Lepa is indicated in *Khalitya* as local application on scalp. These drugs have *Kandughna, Krimighna, Vishaghna*, *Raktasodhaka, Kapha-vatashamaka* and *Keshya* properties can help the breakdown of the pathogenesis of *Khalitya. Nasya* is one of the best choices of treatment for its prime role in maintaining hair growth & preventing *Khalitya*. As per *Ayurveda, 'Khalitya'* (hairs fall) is a sign of ageing process and *Rasayana* therapy is best adjuvant for ageing disorder. So *Rasayana* treatment is included in the form of Nasya for the management of *Khalitya*. *This* current clinical trial *was conducted on 20 clinically diagnosed and confirmed patients with Khalitya. Gunja* is a local irritant. As irritants, accelerate the intracellular activities that might have relation with aggravation of regrowth of hair. Due to their *Ruksha, Tikshana, Laghu*, *Ushna* and *Sookshma Srotoganni* property opens the obstructions of hair roots leading the *Roma-Koopa Vishodhana*. The *Upvisha Gunjamoolphal Lepa* for *external application* greatly improves the blood circulation and promotes the absorption of the drug, thus increasing the nutrition of the hair roots and scalp. *It was observed that there were highly significant results* in reduction of hair fall (*Keshashatan), Darunaka* (dandruff) and *Keshabhoomi-kandu* (itching on scalp). The drug showed highly significant results on increasing resistance of hair to hair-pull test.

KEYWORDS

Khalitya, Gunjamoolphal Lepa, Yashtimadhukadya Tailam nasya,

INTRODUCTION

Hair-fall is one of the common problems, having affected both sexes of all races.

Khalitya is such disease which has high prevalence and frequent relapse. The progression of industrialization and urbanization has posed the greater danger due to pollution, contamination of water, air and due to other intrinsic factors. These along with haphazard dietary habits like excessive intake of salts, sweets, alkalis, starchy, fried foods, spicy irritant foods such as chilly, mustard, garlic etc. along with alcoholic drinks leads to hair fall. The main victims who are facing this problem are youngsters. In A*yurvedic* science, gradual falling of hair is termed as *Khalitya.* As per *Acharya Sushruta*, *Pitta* along with *Vata* by involving the roots of hair (*rom-koopa*) causes fall of hairs and there after *Shleshma* along with *Shonita* obstructs the channel of the *rom-koopa* leading to the stoppage of regeneration of the hair[2]. The main aim of this resarch article is to evaluate the efficacy of *Gunja Lepa* along with *Yashtimadhukadya tailam nasya*. Gunja is mentioned in *Upavisha Varga*[3] and has toxic a profile, so Aacharyas have advocated *Sodhansanskara* (purification)[4] before its therapeutic application which reduces the toxicity of this plant and also enhance the potency and efficacy of the drugs, so that it can be used safely.

AIMS AND OBJECTIVES

AIM

To evaluate the effect of *Gunja Lepa along* with *Yashtimadhukadya Tailam Nasya* on *Khalitya*.

OBJECTIVES

1. To analyze reduction in *Khalitya* (Hair fall) lakshanas.
2. To observe the side effects [if any] during treatment.

MATERIAL AND METHODS

Pharmaceutical preparation : Preparation of trial drug was done in the Pharmacy of National Institute of Ayurveda. The following drugs are made by pharmacy:

1.) *Gunja Lepa*
2.) *Yashtimadhukadya Tailam Nasya*

SELECTION OF PATIENTS:

Total 26 patients were registered for the clinical trial. Among these 20 patients completed the study and 6 patients did not complete the treatment and left during the course of the trial.The selection of patients was done from O.P.D. / I.P.D. wing of P.G. Dept. of *Agad Tantra,* N.I.A., *Arogya Shala*, Jaipur.

Inclusion Criteria:

1. Patient who have classical sign and symptoms of *khalitya.*
2. Patients between 18-45 years age group.
3. Patient of either sex.
4. Patient willing for the treatment

Exclusion Criteria:

1. Patient associated with other systemic disorder were excluded.
2. Alopecia totalis and Alopecia universalis patients were excluded.
3. Cicatricle alopecia patients were excluded.

Discontinuation Criteria:

1. Patient not willing to continue.
2. Appearance of any severe complication.
3. Any other severe acute illness.

DRUG DOSAGE AND DURATION:

Gunja Lepa: local application of *Gunja Lepa* with *madhu* (Honey) once daily for one month

Yashtimadhukadya Tailam Nasya: 2 drop per nostril *Pratimarsh nasya* of *Yashtimadhukadya Tailam* for one month.

PROCEDURE FOLLOWED

***Shodhana* (Purification)**

Gunja root and seeds were cleaned and dried properly. Then *Gunja* root and seeds were purified by boiling them in *Godugdh* for 3 hours in *dolayantra*[5]. They are then powdered with the help of grinder and sieved for fine powder. The preparation has been done in the pharmacy of National Institute of Ayurveda, Jaipur and to avoid moisture and have better acceptability has been packed in 50 mg capacity poly bags.

Assessment criteria

All patients were examined fortnightly during the trial treatment. An assessment scale based on grading system was prepared for the uniformity and assessment of patients suffering from *Khalitya*. Details

of the scoring adopted for this purpose are stated below:

I. Keshshatan (*hair fall*)

Sr.No	Keshshatan (hair fall)	Grading
1.	Absent (no hair fall)	**0**
2.	Mild (hair fall on washing)	**1**
3.	Moderate (hair fall on combing)	**2**
4.	Severe (hair fall without any manipulation)	**3**

II. *Kesharukshatava (*dry hair*)*

Sr.No .	*Kesharukshatava* (dry hair)	Grading
1.	Smooth hair	**0**
2.	Mild dry hair	**1**
3.	Moderate dry hair	**2**
4.	Severe dry hair	**3**

III. *Darunaka (*dandruff*)*

Sr.No .	*Darunaka* (dandruff)	Grading
1.	No dandruff	**0**
2.	Mild dandruff	**1**
3.	Moderate dandruff	**2**
4.	Severe dandruff	**3**

IV. *Keshbhumikandu (*itching on scalp*)*

Sr.No .	*Keshbhumikandu (itching on scalp)*	Grading
1.	No itching on scalp	**0**
2.	Mild itching on scalp	**1**
3.	Moderate itching on scalp	**2**
4.	Severe itching on scalp	**3**

V. For Male Pattern Baldness: The Modified Norwood – Hamilton Scale:

S.No .	STAGES	Grading
1.	Full head of hair without any hair fall	0
2.	Minor recession at the front of the hairline	1
3.	Further loss at the front of the hairline which is considered "cosmetically significant"	2
4.	Progressively more loss along the front hairline and at the crown	3
5.	Hair loss extends toward the vertex	4
6.	Frontal and vertex balding areas marge into one and increase in size	5
7.	The last stage of male-pattern baldness in which all hair is lost along the front hairline	6

VI. The Ludwig Scale for Female Hair Loss:

S.No .	Clinical features of Stages of hair loss in female	Grading
1.	Hairloss is considered to be mild. Hair loss may occur on the top & front of the scalp	1
2.	Hair loss is considered to be moderate, hair may occcur thinning, shedding, general decrease in volume.	2
3.	Extreme Hair loss, hair is so thin that scalp is visible to the naked eye.	3

VII. Hair Pull test:

S.No.	No. of hair in test	Grading
1.	0-10	0
2.	11-15	1
3.	16-20	2
4.	Above 20	3

RESULT

Effect on Subjective Parameters:

For the evaluating the effect of therapy before treatment and after treatment for the subjective parameters **Wilcoxon matched-pairs signed-ranks test** was used.

Table No.1 Showing Effect Of Therapy On Subjective Parameters (wilcoxon Matched Pairs Single Ranked Test):

Chief Complaints	Mean		Mean diff.	Relief %	S.D. ±	S.E. ±	P	S
	BT	AT						
Keshashatan (hair fall)	**2.05**	**1.00**	**1.05**	**51.2%**	**0.6048**	**0.1352**	**0.0001**	**HS**
Kesha rukshatva (dryness of hair)	**1.50**	**1.20**	**0.30**	**20%**	**0.4702**	**0.1051**	**0.0313**	**S**
Darunaka (dandruff)	**1.80**	**0.90**	**0.90**	**50 %**	**0.5525**	**0.1235**	**0.0001**	**HS**
Kesha bhoomi kandu(itching on scalp)	**1.50**	**0.65**	**0.85**	**56.6%**	**0.6708**	**0.1500**	**0.0001**	**HS**
Hair-Pull Test	**1.55**	**0.85**	**0.70**	**45.2%**	**0.4702**	**0.1051**	**0.0001**	**HS**

Table No. 2 The Modified Norwood–Hamilton scale for male pattern baldness:

Modified Norwood–Hamilton Scale	Mean		Mean diff.	Relief %	S.D. ±	S.E.±	P	S
	BT	AT						
	1.92	1.76	0.15	7.9%	0.3755	0.1042	0.5000	NS

Table No. 3 The Ludwig Scale for female hair loss:

Ludwig scale	Mean		Mean diff.	Relief %	S.D. ±	S.E. ±	P	S
	BT	AT						
	1.57	1.42	0.14	8.9%	0.3780	0.1429	0.9999	NS

Table No 4: Overall Effect of Therapy as per *Sammuchya Lakshana* (Overall Symptoms):

No of patients	Mean B.T.	Mean A.T.	Mean Dif.	Mean %	S.D.	S.E.	T	P
20	1.699	1.111	0.5871	34.6	0.3764	0.1423	4.12	0.0156

The analysis of the relief percentage of the *Sammuchya Lakshnas* (overall symptoms) from Table 4 shows that the percentage relief for 20 patients was maximum 34.6 %. The statistical analysis showed that the improvements of this study were significant.

DISCUSSION

Acharya Chakrapani opines that application of *Gunja moola-phal Churna* with Honey cures *Khalitya.* In order to validate these words of *Acharya Chakrapani* with a evidence based protocol, the study was undertaken. *Gunja* has *Kandughna, Krimighna, Vishaghna*, *Raktasodhaka, Kapha-vatashamaka* and *Keshya* property. *Gunja* has *Tikta-Kashaya rasa, Laghu, Ruksha, Tikshan guna* and *Ushna virya*[6].

By virtue of its *Tikta-Kashaya rasa, Ushna Viryatva, Laghu, Ruksha and Tikshna Guna* helps in removing the obstruction of the *Shrotas* by decreasing the *picchila guna* of *kapha* and facilitating the process of *kapha vishyandana*. It results in clearing up of the obstruction caused by vitiated *Kapha* so as to offer growth of new hair. *Sodhan* process is used to enhance the therapeutic potential of a drug. Apart from that, it reduces the toxic effect, so that it can be used safely. Honey was used as a medium or vehicle for the application of *Gunja moola-phal churna*.

In *Ayurvedic* texts, honey is mentioned as a *yogwahi dravya*[7] which means that it potentiate the pharmacological effects of *dravya*s use along with it. It acts as a catalyst when applied along with a therapeutic agent. When *Gunja moola-phal churna* mixed with honey is applied over the skin surface, by virtue of its high viscosity, soothing, antimicrobial and wound healing activity, it is helpful in treatment of *Khalitya*. High viscosity reduces the oxidation of the active principle of *Gunja* as well as prolongs its contact with skin so that significant systemic absorption of drug can take place to achieve therapeutic benefits in *Khalitya.*

Yashtimadhukadya Tailam Nasya contains *Yashtimadhu, Amalaki, Godugdh and TilaTailam.* These drugs are having *Madhura*(100%), *Tikta,Katu, Kashaya* (50% each) and *Amla* (25%) *Rasa*, *Guru* (100%), *Snigdha* (75%) and *Ruksha* (25%) *Gunas, Sheeta* (75%), *Ushna* (25%) *Virya, Madhura Vipaka* (100%), *Tridoshashamaka* (50%) and *Vattapittashamaka* (50%) properties. Beyond this, these drugs are also having the *Rasayana*, *Keshavriddhikara*, *Kriminashaka*, *Kushtaghna, Balya, Varnya, Kandughna, Shothahara, Vishanashak*a, *Twachya*, and *Vayahasthapana* properties[8,9].

In *Astanga Sangraha – Nasa* being the gateway to *Mashtishka*[10], the drug administered through nostrils reaches the brain & eliminates only the morbid *doshas* responsible for producing the disease. As premature hair fall is a sign of early aging process to check the excessive catabolic process, *Rasayana* therapy was also added in the form of *Yashtimadhukadya Tailam Nasya* prepared from the drugs *Amalaki*, *Yashti, Godugdh and TilaTailam* as the all drugs are having *Keshya* and *Rasayana* properties was chosen for nasal administration in this study.
The *Rasa* of the drugs has the dominance of *Madhura* (100%), *Tikta*, *Katu*, *Kashaya* (50% each). These *rasa* are said to be *Pitta shamaka*. The *Guru* (100%) and *Snigdha* (75%) properties would act on the vitiation of *Vata Dosha* whereas *Sheeta Virya* and *Madhura Vipaka* present in *Yashtimadhukadya Tailam* possess the antagonistic properties to act on *Pitta Dosha* which is a main causative factor of *Khalitya*. *Keshya* and *Rasayana* action of drugs enhance the nutritive beneficial effect on the hair. *Vishaghna* and *Jantughna* property removes the local infection and helps in checking the hair fall. All these effects join together act in the cessation of hair fall and ultimately of *Khalitya*. So, this combination would promote the hair growth through its property.

CONCLUSION

In present study, drug showed highly significant results in reduction of hair fall (*Keshashatan), Darunaka* (dandruff) and *Keshabhoomi-kandu* (itching on scalp). The drug showed highly significant results on increasing resistance of hair to hair-pull test. Drugs showed non significant results on new hair growth as per Modified Norwood–Hamilton scale for male pattern baldness and Ludwig Scale for female hair loss. In present clinical trial, duration of one month was very short because new hair growth was not possible in this duration. So it was very difficult to assess the score as per Modified Norwood–Hamilton scale for male pattern baldness and Ludwig Scale for female hair loss. No adverse effect of the drug was found during the trial. From all this, it can conclude that in *Ayurveda Upvisha dravya Gunja* which is indicated in *Khalitya* (Hair-Fall) has a strong possibility to break down the pathogenesis of *Khalitya*.

REFERENCES

1. Kashinatha shastri and Dr. Gorakha-natha chaturvedi ed. Charaka samhita-I Chikitshasthan, 24/60, chaukhambha Bharati Academy, Varanasi, reprint-2012,
2. Ambikadatta Shastri, Sushruta Samhita, Nidana sthan-13/32-33, Chaukhamba Sanskrit Sansthan, Varanasi, reprint-2012,
3. Prof. Kashinath Shastri, Rasa-Taringini, ref-24/163-164, 11th Edition, Motilal Banarasidas Publication, reprint-2014, p-676,
4. Prof. Kashinath Shastri, Rasa-Taringini, ref-24/443-445, 9th Edition, Motilal Banarasidas Publication, reprint-1973, p-728-729
5. Prof. Kashinath Shastri, Rasa-Taringini, ref-24/443-445, 9th Edition, Motilal Banarasidas Publication, reprint-1973, p-728-729
6. Ayurvedic Pharmacopoeia of India, Published by Ministry of Health &Family Welfare , Edition 1,Year of publication 2003,volume-1
7. Ambikadatta Shastri, Sushruta Samhita, Sutra sthan, 45/142, Chaukhamba Sanskrit Sansthan, Varanasi, reprint-2012,
8. Bhava Prakash Nighantu, First Part, Haritkyadiyadi varga,Ref:145-146, Twelfth Edition, Chaukhambha Sanskrita Bhavan, Varanasi, reprint-2016,
9. Bhava Prakash Nighantu, First Part, Haritkyadiyadi varga,Ref:38-41, Twelfth Edition, Chaukhambha Sanskrita Bhavan, Varanasi, reprint-2016,)
10. Dr.Brahmanand Tripathi, Astanga Hridaya, Sutra- sthan 20/1, Chaukhamba Sanskrit Pratishthan, Varanasi, reprint-2011