

A STUDY ON EFFICACY OF PRACHANNA AND BRINGARAJA LEPA IN THE MANAGEMENT OF KHALITYA (HAIR FALL)

Bhavya B. M.

MS (Ayu), Department of Shalaky Tantra, Sri Dharmasthala Manjunatheshwara Institute of Ayurveda and Hospital, Bengaluru, India.

ABSTRACT

Introduction: Hair fall is a common problem with both men and women. In Ayurveda it is explained by our acharya as *Khalitya* (hair fall) and it is one among the *Kapalagata Roga*. Some experiences less hair fall while it is acute with others. This is essentially a cosmetic disorder other than affecting patient psychologically. The disorder is significant because it allows ultra violet light to reach the scalp and thus increase the amount of actinic damage. There is gradual conversion of terminal hair into intermediate hairs and finally to vellus hair. Normal hair break up is about 50-100 strands per day. Though, it is replaced by new ones, however, aging, hereditary and hormonal change contributes permanent loss of hair. **Need for the study:** Universally, hair fall is an extremely common disorder that affects roughly 50% of man and perhaps, as many women older than 40 years. **Objectives:** The Objectives of the study is to evaluate the efficacy of *Pracchanna* and *Bringaraja lepa* in *Khalitya* (Hair fall). **Study design:** This study was taken in the Department Of *Shalaky Tantra*. This work was carried out on 60 patients for 60days who were selected from OPD and IPD of SDMIAH, Bengaluru. **Conclusion:** *Pracchanna* is one among the Shastrakrita *Raktamokshana* in which multiple small incisions are made to detoxify the impure blood and to facilitate regrowth, treat hair fall. It also helps in weak roots, damaged hairs, receding hairline, in stimulating and nourishing the hair follicles for hair growth with minimal risk of irritation and allergenicity. Although various treatments are available for hair fall like, topical hair and scalp preparations, hair transplant surgery which is widely used for prevention and treatment of hair fall but it causes permanent tissue atrophy, denatures cellular elements. So the study was designed and conducted in the Department Of *Shalaky Tantra*.

Keywords: *Pracchanna*- Type of Bloodletting, *Bhingaraja*- medicinal plant, *Kapala*- scalp

INTRODUCTION

Hair fall is a common problem with both men and women. Some experiences less hair fall while it is acute with others. *Khalitya* (hair fall) is one among the *KapalagataRoga* as explained by *Vagbhata*. *Langhana* and *Brimhana* are the two basic modalities of treatment for *Santarpana* and *Apatarpanajanya* disor-

ders respectively. *Shodhana* and *Shamana* are two varieties of *langhana*. The procedure which takes out the doshas form the nearest route of its vitiation is considered as *Shodhana*. *Vamana*, *Virechana*, *Shirovirechana*, *Nirooha* and *Raktamokshana* are five types of *Shodhana*. *Raktamokshana* is the only *sho-*

How to cite this URL: Bhavya B. M: A Study On Efficacy Of Prachanna And Bringaraja Lepa In The Management Of Khalitya (Hair Fall). International Ayurvedic medical Journal {online} 2016 {cited 2016 July} Available from: http://www.iamj.in/posts/images/upload/2463_2470.pdf

dhana procedure where the vitiated *doshas* are taken out from the *shakas* itself by creating an artificial route. *Raktamokshana* has its importance in both *shodhana* as well as in Para surgical procedures. *Pracchanna* is one among the *shastrakrita raktamokshana* in which multiple small incisions are made to irrigate the impure blood. Here I have taken it as the pre therapy to Lepa to enhance the efficacy of Lepa. *Sushruta, Vagbhata* focused on the *Raktamokshana* in detail. In *SushrutaSamhita* and *Ashtanga sangraha*, we get separate chapters on *Siravyadha* and *Jalaukavacharana*. *Charaka*, the celebrated physician of ancient school of medicine, also gives brief description on this topic.

Objectives of the study:

- To evaluate the efficacy of *PRACCHANNA* in the management of *KHALITYA*.
- To evaluate the efficacy of *PRACCHANNA* and *Bhringaraja Lepa* in the management of *KHALITYA*.

METHODOLOGY:

Source of data:

Patients of Hair fall attending the outpatient and Inpatient departments of S.D.M INSTITUTE OF AYURVEDA AND HOSPITAL, BENGALURU were being selected for the study randomly.

Method of Collection of Data: A total of 60 cases that fulfil the clinical features were randomly selected irrespective of sex, religion, economic status, and marital status.

Table-1: Showing Study Design of Group A & B

Group	Chikitsa	Prayogaavadhi	Nireekshanaavadhi
A	PRACCHANNA	1day with a gap of 1week for 60days, both inclusive (8sittings)	2months
B	PRACCHANNA AND LEPA	1day with a gap of 1week for 60days, both inclusive (8sittings)	2months

Procurement and Preparation of the Drugs:

Inclusion Criteria

- Patient having the clinical features of hair fall occurring anywhere in the scalp.
- Patients with lesion of duration less than 2yrs
- Patients having age group 16 to 60 years.
- Patients of either sex.

Exclusion Criteria

- Patients with other form of Alopecia areata like Alopecia totalis and Alopecia universalis.
- Alopecia due to other scalp disorders like Tineacapitis, Trichotillomania, Tilogen effluvium and Traumatic alopecia.
- Patient with endocrine disorders.
- Abnormal Clotting Time and Bleeding Time.
- Patient suffering from other systemic disorders, which may affects the study adversely.

STUDY DESIGN

Treatment Group: 60 patients with the classical features of *khalitya* were selected and randomly divided into the following two groups each comprising 30 patients.

Duration of treatment: 60DAYS (8 sittings)

- 1st 3 days for evaluation of
- Weekly once treatment with the gap of 7days for 8 sittings

Follow-up: every 15days once for 2 months (4 visits)

The *Bhringaraja churna* was prepared in the *Shalaky* Preparation Room. Needle

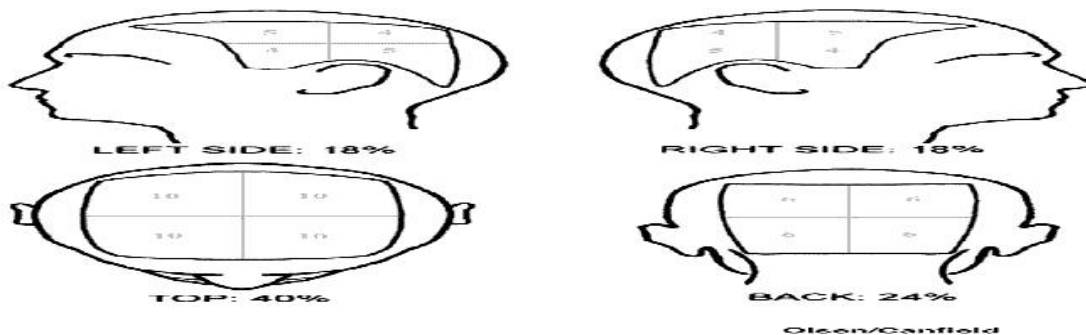
size 26.5mm was procured from MMP pharmacy, Anchepalya, Bengaluru.

Assessment Phase

The effect of treatment was assessed on the basis of both subjective and objective parameters.

OBJECTIVE PARAMETERS:

- **Scalp Photography Visual aid** (Olsen/Canfield) for estimating percentage scalp hair loss:-



Criteria for measuring extent of Hair loss and Hair growth

The proportion of scalp involvement is determined by dividing the scalp into 4 quadrants and estimating the percentage of scalp surface that all alopecia areas will occupy if placed together. The following groups will be used:

S= Scalp Hair loss

S₀=No Hair loss

S₁= < 25% Hair loss

S₂=26%-50% Hair loss

S₃=51%-75% Hair loss

S₄=76%-99% Hair loss

S₅=100% Hair loss

- **Daily Hair counts**

Daily scalp hair counts can be useful to the physician to help quantify how much the patient is losing and make sure that this is not more than the physiologic hair loss. It is said that it is normal to lose up to 100 hairs per day. Patients are instructed to collect hairs shed in one day, count them and place them in plastic bags. All shed hairs in the shower or sink or on the brush are collected. Daily hair counts for 7 days are

Assessment criteria:

SUBJECTIVE PARAMETERS:

- Growth of hair
- Amount of noticeable new hair
- Visibility of the scalp
- Rate of hair loss

maintained. It is expected to lose more hairs on shampoo days.

- **Hair wash test**

In the wash test, the patient refrains from shampooing for 5 days and then he/she shampoos and rinses the hair in the basin with the hole covered by gauze. The hairs remaining in the water and the gauze are collected and counted.

- **Butter paper analysis:**

Assessment was done based on butter paper analysis. Before treatment the area of lesion was marked on to a butter paper, then after treatment the lesion is marked again. Then area of the lesion is calculated based on the shape of the lesion with appropriate corresponding formula (Square, Rectangle, Triangle, and Circle). If the lesion does not correspond to any of the above said shapes then small squares are imagined and respective areas are calculated.

Criteria for Assessment of Overall Effect:

Overall effect of the therapy was assessed in terms of complete remission, marked improvement, moderate improvement, and mild improvement and un-

changed. It was observed by adopting the following criteria.

- Complete Remission: 100% relief in Chief complaints and no recurrence during follow up study were considered as complete remission.
- Marked improvement: 75 – 99% improvement in chief complaints is recorded as marked improvement.
- Moderate improvement: 50 - 74% improvement in chief complaints is recorded as moderate improvement.
- Mild improvement: 25 - 49% improvement in chief complaints is considered as mild improvement.

- Unchanged: Less than 25% reduction in chief complaints
- Recurrence: similar extent of severity of symptoms was noted as recurrence.

OBSERVATIONS AND RESULTS

Sixty patients were selected and divided into 2 Groups (Group A and B) containing 30 patients in each. Group A was treated with *Pracchanna* and Group B with *Pracchanna* and *Bhringaraja Lepa*.

Subjective and objective changes were considered for the assessment of the efficiency of research work.

DEMOGRAPHIC DATA

Table 2: Showing Age Wise incidence of 60 patients

Age in years	Group A		Group B		Total	
	No of patients	%	No of patients	%	No of patients	%
Less than 30 years	21	70	22	73.33	43	71.66
More than 30 years	09	30	08	26.6	17	28.33

Out of 60 patients selected for clinical study 43(71.66%) patients were in the age group of 30years and 17 (28.33%) patients were in the age group above 30 years.

Table 3: Showing Incidence of sex

Sex	Group A		Group B		Total	
	No of patients	%	No of patients	%	No of patients	%
Male	28	93.33	26	86.66	54	90
Female	02	6.66	04	13.33	06	10

Out of 60 patients selected for clinical trial 54 (90%) patients were Male and 06 (10%) patients were Female.

Table 4: Religion Wise Distribution of 30 Patients of Khalitya

Religion	Group A		Group B		Total	
	No. of patients	%	No. of patients	%	No. of patients	%
Hindu	27	90	30	100	57	95
Muslim	03	10	00	00	03	05
Christians.	00	00	00	00	00	00

Religion wise distribution of patients showed that maximum of 95% were Hindus followed by 05 % were Muslims.

Table 5: Socio – Economic Status Wise Distribution of 30 Patients of Khalitya

S –E Status	Group A		Group B		Total	
	No. of patients	%	No. of patients	%	No. of patients	%
Upper class	1	3.33	03	10	04	6.66

Middle class	21	70	22	73.33	43	71.66
Lower class	08	26.66	05	16.66	13	21.66

Socio-economic Status Wise Distribution of patients showed that maximum of 71.66% were belonged to Middle Class followed by 21.66% belonged to Lower Class and 6.66% belonged to Upper Class.

Table 6: Habitat Wise Distribution of 60 Patients of Khalitya

Habitat	Group A		Group B		Total	
	No. of patients	%	No. of patients	%	No. of patients	%
Urban	02	6.66	01	3.33	03	5
Suburban	18	60	21	70	39	65
Rural	10	33.33	08	26.66	18	30

Habitat wise distribution of patients showed that maximum of 65% were residing in Suburban area followed by 30% in Rural and 5% were residing in urban area.

Table 7: Dietary Habit Wise Distribution of Khalitya

Dietary Habit	Group A		Group B		Total	
	No. of patients	%	No. of patients	%	No. of patients	%
Vegetarian	07	23.33	07	23.33	14	23.33
Mixed	23	76.66	23	76.66	46	76.66

Dietary Habit wise distribution of patients shows that 76.66% were mixed and 23.33% were having Vegetarian Dietary Habits.

Table 8: Marital status Wise Distribution of Khalitya

Marital status	Group A		Group B		Total	
	No.	%	No.	%	No.	%
Married	11	36.66	08	26.66	19	31.66
Unmarried	19	63.33	22	63.33	41	68.33

Marital state wise distribution showed that 68.33% were Unmarried and 31.66% were married.

Data related to disease

Table 9: Showing Duration of Hair fall

Duration	Group A		Group B		Total	
	No of patients	%	No of patients	%	No of patients	%
Upto 1 year	06	20	07	23.33	13	21.66
2-5 years	18	60	15	50	33	55
More than 5 years	06	20	08	26.66	14	23.33

Out of 60 patients, 13(21.66%) patients were with duration up to 1year, 33 (55%) patients were between 2-5years, 14(23.33%) patients were having duration more than 5 years.

Table 10: Showing Incidence of Associated Conditions

Associated Symptom	Group A		Group B		Total	
	No of patients	%	No of patients	%	No of patients	%
No symptom	13	43.33	13	43.33	26	43.33
Single symptom	11	36.66	11	36.66	22	36.66
More than one symp-	06	20	06	20	12	20

tom						
-----	--	--	--	--	--	--

Associated symptoms- Dandruff, itching and grey hairs were taken (36.66%) patients were associated with single symptom and 12 (20%) patients were associated with more than one symptom.

Out of 60 patients, 26 (43.33%) patients were having no associated symptoms, 22

Table 11: Showing Incidence of Hair fall percentage before treatment

Hair fall percentage before treatment	Group A		Group B		Total	
	No of patients	%	No of patients	%	No of patients	%
25%	21	70	20	66.66	26	43.33
26-50%	06	20	06	20	22	36.66
51-75%	03	10	04	13.33	12	20

Out of 60 patients, 26 (43.33%) patients were having no associated symptoms, 22 (36.66%) patients were associated with single symptom and 12 (20%) patients were associated with more than one symptom.

Data related to Response

RESULTS

Table 12: Showing Individual study of the parameters in Group A

Parameter	Average		Dif-fer (d)	% of dif-fer % d	SD	SE	df	T value	P value	Re-marks
	BT	AT								
SP	1.46	0.56	0.84	57.53	0.5040	0.09202	29	6.158	<0.0001	HS
DHC	1.76	0.90	0.86	48.86	0.5477	0.1000	29	9.000	<0.0001	HS
HWT	1.3	0.93	0.37	28.46	0.4498	0.08212	29	11.366	<0.0001	HS
BPA	1.26	0.96	0.3	23.80	0.4138	0.07556	29	12.794	<0.0001	HS

Table 13: Showing Individual study of the parameters in Group B

Parameter	Average		Dif-fer (d)	% of dif-fer % d	SD	SE	df	T value	P value	Re-marks
	BT	AT								
SP	1.43	0.83	0.57	39.86	0.5307	0.09689	29	8.601	<0.0001	HS
DHC	2	1	1	50	0.6948	0.1269	29	7.883	<0.0001	HS
HWT	1.56	0.7	0.86	55.12	0.5350	0.09767	29	7.167	<0.0001	HS
BPA	1.16	0.86	0.3	27.27	0.4342	0.07927	29	10.933	<0.0001	HS

INTER GROUP COMPARISON: Table 14: Comparison of effect of treatment on Parameters in "Group A" and "Group B"

Parameter	Group	Mean	% of differ	SD	SE	T-Value	P-Value	Re-remarks
SP	A	0.84	57.53	0.5833	0.1065	2.504	<0.01	S
	B	0.57	39.86					
DHC	A	0.86	48.86	0.6618	0.1208	0.4146	>0.05	NS
	B	1	50					
HWT	A	0.37	28.46	0.7279	0.1329	1.756	>0.05	NS
	B	0.86	55.12					
BPA	A	0.3	23.80	0.6074	0.1109	0.9017	>0.05	NS
	B	0.3	27.27					

Table 15: Comparison of Overall Reduction of Hair fall between the Groups A and B

Group	Average Mean	% of Success Rate
A	0.607	60.7
B	0.69	69

Comparison of overall average mean value in Group A was 0.607(60.7%) of success rate of improvement and in Group B was 0.69(69%) of success rate of improvement.

Table 16: Overall assessment of improvement

Overall assessment of improvement	Group A patients	Group B patients
Unchanged	0	0
Mild Relief	15	17
Moderate Relief	11	11
Marked Relief	1	0
Complete Relief	2	3

DISCUSSION

In every research work, discussion part is most important because it brings into light - about the logical analysis, reasoning and rational interpretations to ignite new ideas, which are helpful in filling the research gaps in the scientific world. Hence, here is an attempt to discuss the concepts, observations and experiences in the clinical study. Universally, hair fall is an extremely common disorder that affects roughly 50% of man and perhaps, as many women older than 40 years. As much as 30% of premenstrual women reportedly have some evidence of hair fall. This is essentially a cosmetic disorder other than affecting patient psychologically¹. The disorder is significant only in that it allows

ultra violet light to reach the scalp and thus increase the amount of actinic damage. There is gradual conversion of terminal hair into intermediate hairs and finally to vellus hair. **Pracchanna** is a method of *shastrakrita Raktamokshana*. *Pracchanna* is performed as a treatment modality to detoxify the vitiated blood and is usually adopted as a *sthanika chikitsa*. Small incisions are taken over the site of vitiation; incisions are taken in such a pattern that they are parallel to the vessels beneath and not too deep or shallow. Precautions are to be taken to avoid the procedure over *sandhi*, *marmas* or vital organs as it may cause fatal outcomes if done on such sites. *Pracchanna Karma* and *Lepa* have been described in classical texts of Ayurveda. In

classics while explaining types of *RaktaMokshana*, it has been explained that *Prachanna* is ideal method of *Raktamokshana* in management of *Raktaja-Vikara*. In this study 60 patients of *Khalitya* were treated by randomly dividing them into two groups each comprising of 30 patients. Patients of one group were subjected to *Prachanna* and the patients of the other group were first were subjected to *Prachanna* and *Lepa*.

Overall Effect of Therapy: In Group A, the highly significant ($P < 0.0001$) reduction of Hair fall of 60.7% was noted after the treatment. In Group B, the reduction of Hair fall of 69% was noted and it was also highly significantly p value < 0.0001 .

This data shows that effect of *Prachanna* with *Lepa* is more effective than *Prachanna* alone which justifies Susrutha's statement that *Prachanna* improves the efficacy of *Lepa*.

Probable Mode of Action: *Raktamokshana* is the only *shodhana* procedure where the vitiated doshas are taken out from the *shakas* itself by creating an artificial route. *Raktamokshana* has its importance in both *shodhana* as well as in Para surgical procedures. *Prachanna* is one among the *shastrakrita raktamokshana* in which multiple small incisions are made to irrigate the impure blood. Here I have taken it as the pre therapy to *Lepa* to enhance the efficacy of *Lepa*. *Lepa* applied over the scalp by the effect of its *Rasa*, *Guna*, *Veerya*, *Vipaka*, is absorbed by the hair follicles and which in turn causes the pores to open up and by the *Prabhava* of the drug hair growth can be observed. *Prachanna* drains out the vitiated blood from *Srotus* and later when *lepa* is applied over the region it facilitates easy and faster absorption of the drug.

CONCLUSION

Khalitya is one among the *Kapala Rogas*. The etiology, pathology and the clinical features are nearly similar to that of Hair fall. Different etiological factors like *Ativyayama*, *Atapa*, *dhooma* and *Rajosevana*, precipitate to cause *Khalitya*. The prevalence of disease is observed more in males than females. *Prachanna* followed by *Lepa* has very significant effect in pacifying it. No side effects of the drug were observed during the course of study after administration.

REFERENCES

1. Sushruta. Sushruta Samhita-- with the Nibandha sangraha Commentary of Sri Dalhanacharya and the Nyayachandrika Panjika of Sri Gayadasacharya on Nidanasthana. Edited by Vaidya Jadavji Trikamji Acharya and Narayan Ram Acharya 'Kavyatirtha', 1st ed. Varanasi: Chaukambha surbharati prakashan; 2008. 322 pp.
2. Vagbhata. Astanga Hridayam – with commentaries (sarvanga sundara) of Arunadatta and (Ayurnveda rasayana) of Hemadri, edited by Bhisagacharya Harisastri paradakara vaidya, Varanasi: Chaukhamba Orientalia; 2014. 860pp.
3. Text book of Shalaky Tantra Dr. D.Lakshmana Chary, Chaukamba Orientalia, Vol - 2 Shiroroga Adhyaya.
4. Richard L Drake, Wayne vogl. Gray's Anatomy for Students. 2nd Ed.
5. <http://medical.diction-ary.thefreedictionary.com/alopecia+areata>
6. <http://dermatology.about.com/cs/hairloss/a/alopeciaareata.htm>.

CORRESPONDING AUTHOR

Dr. Bhavya B.M.

Email: drbhavya25@gmail.com

Source of Support: Nil

Conflict of Interest: None Declared