

A CLINICAL STUDY OF BHRINGRAJADI RASAYANA WITH AND WITHOUT GUNJA TAILA (SHIROABHYANGA) IN THE MANAGEMENT OF KHALITYA

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ABSTRACT

Introduction: Hair fall is silent but devastating problem which may occur to a healthy person also. Millions of the people worldwide suffer from hair fall and this is from why hair fall remedies are billion dollar industry. According to *Ayurveda*, it can be co-related to *Khalitya*. **Aim:** To evaluate efficacy of chief drug *Bhringrajadi rasayana* with and without *Gunja taila*. **Material and Methods:** Total 40 patients of age group 16-45 years were registered. Assessment was done based on objective and subjective criteria. The data obtained in clinical study was analyzed by using Wilcoxon Test. **Result:** moderate improvement is seen 50% and mild improvement in 27.77% of patients. **Conclusion:** *Bhringrajadi rasayana* along with *Gunja taila* was effective in the management of *Khalitya*.

Keywords: *Bhringrajadi rasayana*, *Gunja taila*, *Khalitya*

INTRODUCTION

While in 21st century with modernization in each and every walk of life, a person has neither time to think and act for healthy life nor to follow the proper *Dinacharya* especially (*Shirobhyanga*) nor *Ritucharya*.

Hair loss is silent but devastating problem which may occur to a healthy person also. Millions of the people worldwide suffer from hair fall and this is from why hair fall remedies are billion dollar industry. Spending vast

amount on treatment like hormonal therapy, some wonder drugs, hair transplant, hair weaving etc., those are effective but have many side effects and higher cost.

But *Ayurveda* has recommended safely, effective and less costly treatment for it.

It has been regarded as geriatric physiological phenomena, generally after the mid forties. So before forties *Khalitya* is a sign of ear-

ly ageing process so we can use *Rasayana* in it. *Rasayana* is also described in *Khalitya chikitsa* by *Acharya sushruta*.

HYPOTHESIS:

H₀: There is no different effect of *Bhringrajadi rasayana* alone and along with *Gunja taila* in the management of *Khalitya*.

H₁: *Bhringrajadi rasayana* along with *Gunja taila* are more effective than *Bhringrajadi rasayana* alone in the management of *Khalitya*.

AIMS AND OBJECTIVES:

- To evaluate the efficacy of *Bhringrajadi rasayana*.
- To see effect when *Bhringrajadi rasayana* and *Gunja taila (Shiroabhyanga)* together in management of *Khalitya*.

MATERIALS AND METHODS:

Selection of the patients: Patients were selected irrespective of caste, sex, profession etc. from O.P.D. and I.P.D. of Govt. Akhandanand Ayurveda College & Hospital, Ahmedabad and Govt. Maniben Ayurved Hospital, Ahmedabad.

Ethical clearance

As this was a clinical research, Institutional Ethics Committee (IEC) approval was taken prior to initiation of research vide its letter No.18, DATED 07/04/2014. Adverse drug reaction (ADR) if any was duly note and reported. Written consent of the present of each patient was taken before starting the treatment. Basic information of the disease and treatment was given to the patient. This trial is also reg-

istered in Clinical Trial Registry of India (CTRI), ref. No. **CTRI/2015/08/006118** [Registered on: 19/08/2015]

Inclusion criteria

- Patients other than those were excluded and coming within age limit of 16 to 45years will be included without any bar of caste, sex, religion and occupation.
- Duration of chief complaint was not more than 1 year.

Exclusion criteria

- Patients whose age was less than 16 & more than 45 years.
- Patients who had been diagnosed to have local disease like Alopecia areata, Alopecia totalis, Tinea capitis, Folliculitis decalvans and in *Ayurvedic* terms *Arunshika, Indralupta*.
- A patient suffered from any severe systemic disease was excluded.

Plan of Study:-

- Two groups of 20-20 patients who fulfilled the inclusive criteria were selected. one group was treated with only *Bhringrajadi rasayana* and other group was treated with *Bhringrajadi rasayan* with *Gunja taila* as *Shiroabhyanga*

Bhringrajadi rasayana

20 patients were treated with *Bhringrajadi rasayana*.

Dose: 4 gm/day in two divided dose (500 mg of each *vati*)

Anupana: milk

Administration: oral

Kala: prataha (morning) and

Ratrikala (night)

Duration: 6 weeks

Gunja taila as a Shiro abhayanga

Dose: 15ml/day

Application: local (*shiroabhyanga*)

Duration : 6 weeks

CRITERIA FOR ASSESMENT:-

1. Weight of mass of hair fall before and after treatment Patients was instructed to collect their hair which was fall every morning on first 5 comb strokes in 1st week before start the treatment & after treatment.

Measure the difference of weight of mass of hair fall between before and after treatment.

2. To facilitate the statistical analysis of the effect of therapy, scoring system was adopted.
3. Cessation of hair fall was counted as the main feature to assess the effect of therapy

STATISTICAL ANALYSIS:

The information gathered on the basis of above observations was subjected to statistical analysis. The Wilcoxon's signed-rank test was carried out for all non-parametric data to analyst the effect of individual therapy in the both groups.

The obtained results were interpreted as

- Insignificant- $p > 0.05$
- Significant- $p < 0.05$
- Significant- $p < 0.01$
- Highly significant- $p < 0.001$

Criteria for overall assessment:

The total effect of the therapy was assessed considering the following criteria.

1. **Cured** - 100% relief in the signs & symptoms was considered as cured.
2. **Markedly Improvement** - 76% to 99% relief in the signs & symptoms was considered as markedly improvement.
3. **Moderately Improvement** - 51% to 75% relief was considered as moderate improvement in the signs & symptoms.
4. **Mild Improvement** – 26 to 50% relief in the signs & symptoms was considered as mild improvement.
5. **Unchanged** – Up to 25% relief was considered as unchanged

OBSERVATION:

Kesha Suraksha Samlangna Nidana related Observations-

- 97.22% of patients were applying oil while 2.77% were not applying any type of oil. Maximum numbers of patient (38.88 %) were applying herbal oils in their hair,
- The data of oil applying frequency wise distribution shows that maximum numbers of patients i.e. 55.55% were applying oil regularly.
- 69.44% were applying heena and conditioner, use of color or dye, gel and spray was also observed in routine of hair care.
- Frequency of hair washing in a week was observed twice in 55.55% and 88.88 were using shampoo as hair washer.
- Maximum numbers of patients 66.66% had clipping in hair style.

RESULTS:

Group 1-Bhringrajadi rasayana (table 1&2)

- **Keshpata (Hair Falling):** Before treatment mean score was 1.54 which reduced to 1.15 after the treatment. This relief (22.79%) was highly significant (P 0.001).
- **Darunaka (dandruff):** The initial mean score was 2.53, which was reduced to 1.60 after the therapy. This 38.83% relief was highly significant (P<0.001).
- **Shirah Kandu (itching in scalp):** Before treatment mean score was 2.20, which was reduced 1.47 after the therapy. This 32.22% relief was significant (P>0.001)
- **Keshatanutva:** The initial mean score was 2.00, which reduced to 1.50 after treatment. This 19.44% relief was statistically significant (P>0.01).
- **Kesha rukshata:** The initial mean score was 1.92, which reduced to 1.50 after treatment. This 25% relief was statistically insignificant (P>0.1).
- **Kesha Bhoomi Parushya:** The mean gradation was 1.0 before treatment, which was as such after treatment. This relief (00.00%) was statistically insignificant (P>0.1).
- **Kesha Bhoomi Daha :** Before treatment the mean score was 1.00, which was as such after treatment. The relief (0.00%) was statistically insignificant (P>0.1).
- **Kesha snigdha:** The initial mean score was 1.71, which reduced to 1.00 after treatment. This 1% relief was statistically insignificant (P>0.1).

- **Pratishyaya:** The initial mean score was 2.00, which reduced to 1.00 with the therapy. This 8.04% relief was statistically insignificant (P> 0.1).

Group B: Bhringrajadi rasayana along with Gunja Taila (Table 3&4)

Keshpata (Hair Falling): Before treatment mean score was 0.93 which reduced to 0.58 after the treatment. This relief (40.23%) was highly significant (P 0.001).

Darunaka (dandruff): The initial mean score was 2.82, which was reduced to 0.91 after the therapy. This 63.64% relief was highly significant (P<0.001).

Shirah Kandu (itching in scalp): Before treatment mean score was 2.27, which was reduced 0.64 after the therapy. This 56.06% relief was highly significant (P>0.001)

Keshatanutva: The initial mean score was 2.29, which reduced to 0.93 after treatment. This 59.52% relief was statistically highly significant (P<0.001).

Kesha rukshata: The initial mean score was 1.78, which reduced to 1.00 after treatment. This 25.93% Result was statistically significant (P<0.05).

Kesha Bhoomi Parushya: The mean gradation was 1.0 before treatment, which was as such after treatment. This relief (00.00%) was statistically insignificant (P>0.1).

Kesha Bhoomi Daha : No one patient was reported with this symptoms.

Kesha snigdha: The initial mean score was 2.00, which reduced to 0.57 after treatment. This 40.48% relief was statistically significant (P<0.05).

Pratishyaya: No one patient was reported with these symptoms.

Overall Effect of Therapies: (Table 5)

Group A: Overall effect of only *Bhringrajadi rasayana*- 5.55% patients had marked improvement and 11.11% patients had moderate improvement, while 55.55% patients had mild improvement; 27.77% patients remained unchanged. While evaluating the overall effect of therapy, it was observed that none of the patients showed complete remission.

Group B: Overall effect of the *Bhringrajadi rasayana* along with *Gunja taila* 50% patients had moderate improvement, while 27.77% patients had mild improvement, 22.22% patients had marked improvement.

Percentage wise improvement of treated Group was 61.41% .

DISCUSSION

Gunja Taila:

The ingredients of this recipe are *Gunja, Ela, Bhringaraja, Jatamansi, Shati, Kustha* and *Tila Taila*. These drugs are having *Madhura* (57%), *Katu* (71%), *Tikta* (85%), and *Kashaya* (57%) *Rasa*. *Ushna* (71%) and *Sheeta* (28%) *Virya*. *Guru* (14%), *Laghu* (85%), *Snigdha* (28%), *Ruksha* (57%) and *Tikshna* (42%) *Gunas*, whereas *Katu* (71%) and *Madhura* (28%) *Vipaka*. *Tridosha-shamaka* (42%) and *Vata-kaphashamaka* (57%) property. The drugs are also having the other properties like *Keshya, Vishaghna, Jantughna, Daurgandhya-nashaka* and *Kandughna*.

But as these constituents were prepared by the *Taila Paka Vidhi* according to “*Sanskaro Hi Gunantaradhanam*” their individual properties

emerged into each other and emerges some new properties.

As such, the *Taila* thus prepared had *Laghu* and *Snigdha* properties with *Madhura* and *Kashaya* and *Tikta* and *Katu Rasa* with *Madhura Vipaka* and *Ushna Virya* which was intended to have a *Tridosha-shamaka* effect.

The application of *Taila* on the scalp with finger tips, it leads to increase the local blood circulation and promotes the absorption of the drug.

Keshya and *Rasayana* action of drugs enhance the nutritive beneficial effect on the hair. *Vishaghna, Kandughna* and *Jantughna* property removes the local infection and helps in checking the hair fall and thus help in cessations of the further process of *Khalitya*.

Bhringrajadi rasayana:

This formulation contains the drugs – *Amalaki, Bhringaraja* and *Krishna til*. These drugs are having *Madhura, Tikta, Katu, Kashaya* (60% each) and *Amla* (40%) *Rasa*, *Guru* (40%), *Laghu* (60%), *Sheeta* (20%), *Snigdha* (20%) and *Ruksha* (80%) *Gunas*, *Ushna* (60%), *Sheeta* (40%) *Virya*, *Madhura* (80%) and *Katu* (20%) *Vipaka*. *Tridoshashamaka* (60%), *Kaphapittashamaka* (20%) and *Vata-kaphashamaka* (20%) properties. They break the pathology of *Khalitya* . Beyond this, these drugs are also having the *Rasayana, Keshavridhikara, Keshya, Kriminashaka, Vishanashaka* and *Twachya* properties. So, these both are helping in break down the hair falling pathology by clearing the pores blockage and nourish the hair properly So, this combination would promote the hair growth through

its property and may help in eradication of fungus and bacterial infection.

CONCLUSION

- *Bhringrajadi rasayana* along with *Gunja taila* are effective in the management of *Khalitya*.
- Main reason for these results was, 'In the management of *Khalitya* hair care and local application are most important things.'
- Faulty hair care was found main reason for *Khalitya*. So to do proper result of *Khalitya*, one should be focus on all parameters i.e. how to and how many times wash the hair? How to and which types of oil apply?, Which type of applicants can or can't used? Etc....These types of all parameters should be keep in mind along with oral medications while treating *Khalitya*. At the end of this study conclude that null

hypothesis (H_0) is rejected and alternative hypothesis (H_1) is accepted.

- *Bhringrajadi rasayana* along with *Gunja taila* are effective in the management of *Khalitya*.

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Table 1: Effect of *Bhringrajadi rasayana* on Chief complaints of *Khalitya*.

Chief Complaint	N	MEAN SCORE		Diff.	%	SD	SE	“t”	“P”
		BT	AT						
<i>Keshpatana</i>	18	1.54	1.15	0.39	22.79%	0.40	0.095	4.045	<0.001

Table 2: Effect of *Bhringrajadi rasayana* on Associated Symptoms of *Khalitya*.

SYMPTOMS	N	MEAN SCORE		Diff.	%	W	“P”
		BT	AT				
<i>Darunaka</i>	15	2.53	1.60	0.93	38.83%	105	<0.001
<i>Shirah Kandu</i>	15	2.20	1.47	0.73	32.22	45	0.004
<i>Kesh tanutva</i>	18	2.00	1.50	0.50	19.44	21	0.031
<i>Kesh rukshata</i>	12	1.92	1.50	0.42	25.00	06	0.250
<i>Keshbhoomi parushya</i>	2	1.00	1.00	0.00	0.00	0	1.00
<i>Keshbhoomi Daha</i>	2	1.00	1.00	0.00	0.00	0	1.00
<i>Keshbhoomi snighata</i>	7	1.71	1.00	0.71	42.86	15	0.156
<i>Pratishyaya</i>	1	2.00	1.00	1.00	0.00	1	1.00

Table 3: Effect of *Bhringrajadi rasayana* along with *Gunja Taila* on Chief complaints of *Khalitya*.

Chief Complaint	n	MEAN SCORE		Diff.	%	SD	SE	“t”	“P”
		BT	AT						
<i>Keshpatana</i>	18	0.93	0.58	0.35	40.23%	0.183	0.043	8.228	<0.001

Table 4: Effect of *Bhringrajadi rasayana* along with *Gunja Taila* on Associated Symptoms of *Khalitya*.

SYMPTOMS	n	MEAN SCORE		Diff.	%	W	“P”
		BT	AT				
<i>Darunaka</i>	11	2.82	0.91	1.91	63.64	66	<0.001
<i>Shirah Kandu</i>	11	2.27	0.64	1.64	56.06	66	<0.001
<i>Kesh tanutva</i>	14	2.29	0.93	1.36	59.52	91	<0.001
<i>Kesh rukshata</i>	09	1.78	1.00	0.78	25.93	28	0.016
<i>Keshbhoomi parushya</i>	01	1.00	0.00	0.00	0.00	1	1.00
<i>Keshbhoomi Daha</i>	0	-	-	-	-	-	-
<i>Keshbhoomi snighata</i>	7	2.00	0.57	1.43	40.48	28	0.016
<i>Pratishyaya</i>	0	-	-	-	-	-	-

Table 5: Group wise overall effect of therapy on 40 Patients of *Khalitya*.

Results	Group A		Group B	
	No.	%	No.	%
Complete remission (100%)	0	0%	0	0%
Marked improvement (76-99%)	1	5.55%	4	22.22%
Moderate improvement (51-75%)	2	11.11%	9	50%
Mild improvement (26-50%)	10	55.55%	5	27.77%
Unchanged (= and < 25%)	5	27.77%	0	0%

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