

A COMPARATIVE CLINICAL STUDY OF EFFECT OF MAHABHRINGARAJA TAILA NASYA AND SHIROABHYANGA IN THE MANAGEMENT OF KHALITYA

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ABSTRACT

Hair plays an important role in making body externally beautiful healthy and good looking. In Ayurveda falling of hair is termed as *Khalitya*¹. Ayurveda has explained various treatment modalities, among them *Nasya* (Trans nasal drug administration)² & *Murdha taila*³ has got much importance in *Khalitya*. *Mahabhringarajataila*⁴ is well known medicated oil used for head application which contains all the *Keshya*, *Rasayana* drugs. So, to see the efficacy of *Nasya* and *Shiroabhyanga* (head Massage) oil was selected. The study was planned to compare the efficacy of *Nasya* and *Shiroabhyanga* with *mahabhringarajataila* in *Khalitya*. Total 30 patients of *Khalitya* were diagnosed and divided into two groups. Group A were treated with *Mahabhringarajataila Nasya*, and Group B patients were treated with *mahabhringarajataila Shiroabhyanga*. Duration of the treatment was 8 days and patients were followed up next 16 days in both the groups. Gradations of assessment parameters were noted on 1st day and 24th day and analyzed using Wilcoxon Signed Rank test. There is significant difference between Group A and Group B. It was observed that mean rank for Group A is greater than Group B. Hence, we conclude that effect observed in Group A is more than Group B.

Keywords: *Khalitya*, *Nasya*, *Shiroabhyanga*, *MahabhringarajaTaila*.

INTRODUCTION

In Ayurvedic approach, falling of hair is coined out as in term of '*Khalitya*' under the broad heading of *Shiroroga*⁵. Nose is gateway of cranial cavity and it is also said that all diseases of Supra-clavicular region can be treated by *Nasya* karma⁶. In Ayurvedic classic, we can say that *Nasya* is the best therapy for *Khalitya*. *Khalitya* is one of the cosmetic problems. It is also a burning problem of society now days. It is included under *Kshudraroga*⁷. Hence, the present study is selected with intention to find out the most effective

response of *Nasya* Karma in *Khalitya*. For *Khalitya*, *MoordhaTaila* is the choice of management and when is done with that *Taila* which is medicated by hair growing drugs, is more efficacious. So, in this present study *mahabhringarajataila* advocated in *bhaishajyaratnavali* for *Khalitya* has been selected. *Khalitya* is a sign of early ageing process and to check it a *Rasayana* and *Keshya* drug combination has been chosen for the present study.

Aim and Objectives:

- 1) To evaluate the effect of Nasya with Mahabhringarajataila in Khalitya.
- 2) To evaluate the effect of Shiro abhyanga with Mahabhringarajataila in Khalitya.
- 3) To compare the efficacy of Nasya and Shiro abhyanga with Mahabhringarajataila in Khalitya.

Materials and Methodology:

Selection of Patients: Patients were selected randomly with symptoms of Khalitya irrespective of sex, religion, age etc. from OPD and IPD Department of Panchakarma, RGES Ayurvedic Medical College and Hospital, Ron. Patients were then subjected to detailed clinical history on the basis of specially prepared case proforma. Then the patients are randomly placed by coin method into two groups having 15 patients in each group. Clinical Data obtained from the trial was analyzed with Wilcoxon Signed Rank -test method & the results are presented.

Material:

- 1) Group A- Treated with MahabhringarajatailaNasya,

- 2) Group B- Treated with Mahabhringarajataila Shiroabhyanga

Duration:

- Procedure: 8 days
 Follow up 16 days
 Total 24 days

Drug – MahabhringarajaTaila:

Mahabhringarajataila is the drug which is used for the treatment in both the comparative groups.

Mahabhringarajataila has been prepared in RGES AMC Pharmacy, Ron. The Standard Operating Procedures (S.O.P) were applied for the preparation of Mahabhringarajataila.

Ingredients/drugs used in Mahabhringarajataila Preparation:

- a) Swarasa of Bhringaraja.
- b) Kalka of Manjishtha, Padmaka, Lodhra, Chandana, Gairika, Bala, Haridra, Daruharidra, Nagkeshara, Priyangu, Yashti, Prapundarika, Sariva.
- c) Sneha Dravya – TilaTaila
- d) Milk

Table 1: Showing Methodology of study

Therapy	Nasya	Shiroabhyanga
No. of patient	15	15
Kaala	Morning	Morning
Route of administration	Nasal route	External
Drug of therapy	Mahabhringarajataila	Mahabhringarajataila
Dose for oil	8 drops in each nostril	with qs oil for head massage
Time for therapy	As required	10 min
Duration	8 day	8 day
Follow up	16 th , 24 th day	16 th , 24 th day

Inclusion Criteria: -

1. Patients having textual symptoms of Khalitya were taken as subjects to study.
2. Patients within age group of 15 to 45 years of either sex.
3. Patients who are fit for Nasya karma.
4. Patient who were ready to give written consent.

2. Patient suffering from any systemic diseases.
3. Patients who are unfit for Nasya karma
4. Patients who are unfit for Shiroabhyanga

Assessment Criteria

Following parameters of baseline data to post medication data are used for assessment of results.

Parameters: Keshashatan; SirobhumiDaha; Sirokandu; Darunaka

Exclusion Criteria:

1. Patients who have diseases like Alopecia Totalis, Tinea capitis, Folliculitis devaculans and in ayurvedic terms patients of Arunshinka, Indralupta.

Gradation of Keshashatana

Table 2: Showing gradation of keshashatana

Absent (hair fall<50/day)	0
Mild (hair fall50-75/day)	1
Moderate (hair fall 75-100/day)	2
Severe (hair fall>100)	3

Gradation of ShirobhumiDaha

Table 3: Showing gradation of shirobhumidaha

Absent	0
Mild (coming1-2 episode in a day)	1
Moderate (coming3-4 episode in a day)	2
Severe (coming more than 5 episodes in a day)	3

Gradation of Shirokandu

Table 4: Showing gradation of shirokandu.

Absent	0
Mild (coming1-2 episode in a day)	1
Moderate (coming3-4 episode in a day)	2
Severe (coming more than 5 episodes in a day)	3

Gradation of Darunaka

Table 5: Showing gradation of darunaka.

Absent	0
Mild (occasionally seen)	1
Moderate (seen after 2-3 days hair wash)	2
Severe (permanent seen)	3

Gradation of Palitya

Table 6: showing gradation of Palitya.

Absent	0
Mild (visible occasionally)	1
Moderate (few but scattered all over scalp)	2
Severe (seen all over the scalp)	3

Observations and results:

Table 7: Showing Gender wise distribution of patient data

Gender	Group A		Group B	
	Frequency	Percentage	Frequency	Percentage
Male	6	40.0	6	40.0
Female	9	60.0	9	60.0
TOTAL	15	100.0	15	100.0

Table 8: Showing age wise distribution of patient data.

Age Group	Group A		Group B	
	Frequency	Percentage	Frequency	Percentage
< 20 Years	1	6.7	3	20.0
20-30 Years	8	53.3	8	53.3
30-40 Years	4	26.7	2	13.3
40-50 Years	2	13.3	2	13.3
TOTAL	15	100.0	15	100.0

Table 9: Showing Diet wise distribution of patient data

Diet	Group A		Group B	
	Frequency	Percentage	Frequency	Percentage
Irregular	9	60.0	12	80.0
Regular	6	40.0	3	20.0
TOTAL	15	100.0	15	100.0

Table 10: Showing *Prakruti* wise distribution of patient

Prakruti	Group A		Group B	
	Frequency	Percentage	Frequency	Percentage
KP	1	6.7	0	0.0
KV	0	0.0	0	0.0
PK	2	13.3	3	20.0
PV	2	13.3	3	20.0
VK	2	13.3	1	6.7
VP	8	53.3	8	53.3
TOTAL	15	100.0	15	100.0

Effect of the Treatment on different Parameters

1. *Keshashatana* -

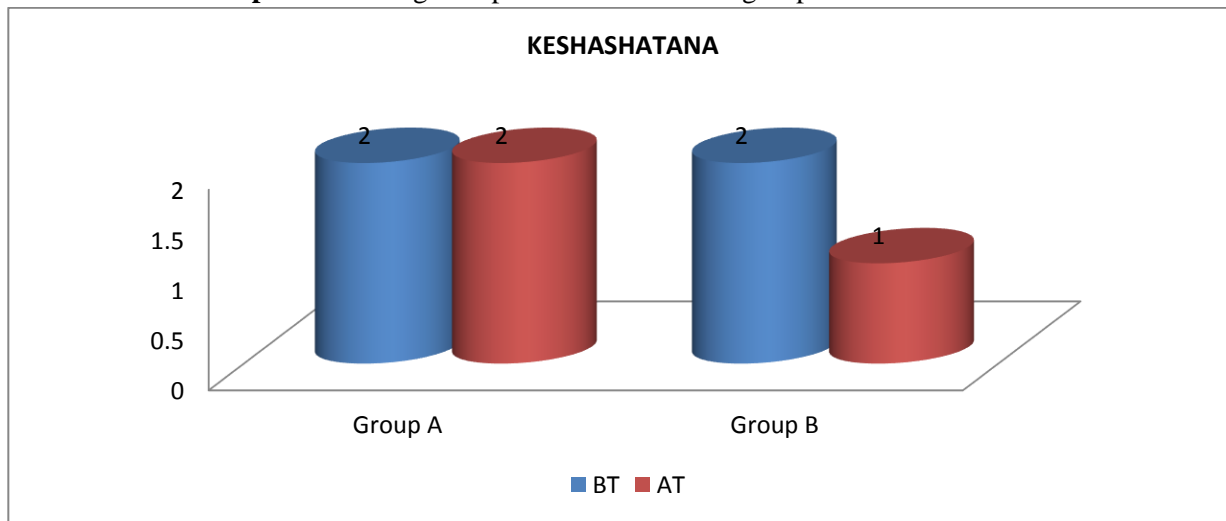
P-Value shows that both therapies are significantly effective on *Keshashatana*, but percentage improvement of A (32.5%) is more than of group B (30.1%).

Table 11: Showing Comparison between two groups for *Keshashatana*.

KESHASHATANA	Median		Wilcoxon Signed Rank W	P-Value	% Effect	Result
	BT	AT				
Group A	2	2	-3.357 ^a	0.001	32.5	Significant
Group B	2	1	-3.357 ^a	0.001	30.1	Significant

From above table we can observe that P-Values for Group A and Group B is less than 0.05. Hence, we conclude that effect observed in both groups are significant.

Graph 1: Showing Comparison between two groups for *Keshashatana*.



2. *ShirobhumiDaha*

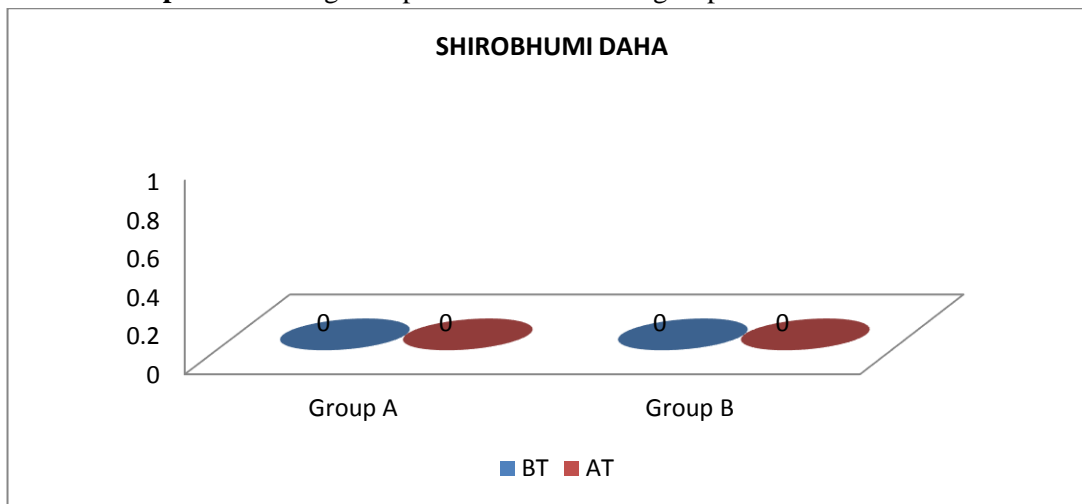
P-Value shows that both therapies are significantly effective on *ShirobhumiDaha*, but percentage improvement of Group A (87.5%) is more than of Group B (80%).

Table 12: Showing Comparison between two groups for *ShirobhumiDaha*.

<i>Shirobhumi Daha</i>	Median		Wilcoxon Signed Rank W	P-Value	% Effect	Result
	BT	AT				
Group A	0	0	-2.646 ^a	0.008	87.5	Significant
Group B	0	0	-2.000 ^a	0.046	80.0	Significant

From above table we can observe that P-Values for Group A and Group B is less than 0.05. Hence, we conclude that effects observed in both groups are significant.

Graph 2: Showing Comparison between two groups for *ShirobhumiDaha*.



3. Shirokandu:-

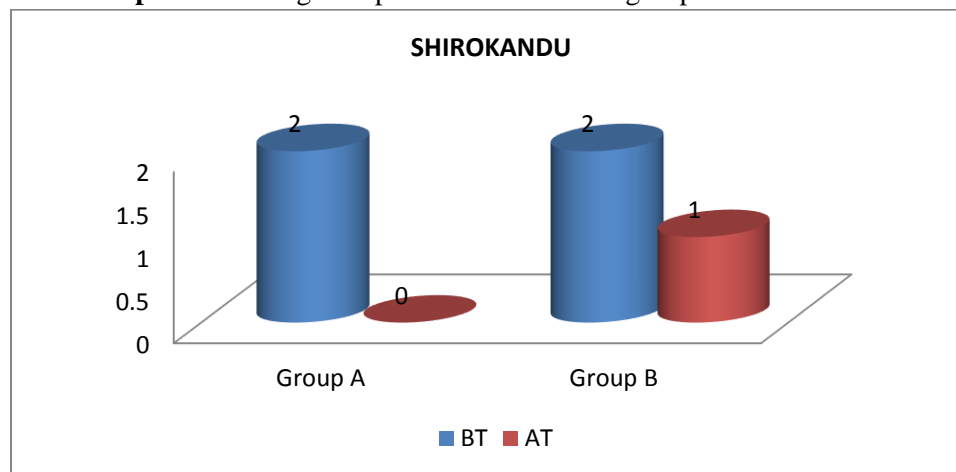
P-Value shows that both therapies are significantly effective on *shirokandu*, but percentage improvement of Group A (70%) is more than of Group B (66.7%).

Table 13: Showing Comparison between two groups for *Shirokandu*.

SHIROKANDU	Median		Wilcoxon Signed Rank W	P-Value	% Effect	Result
	BT	AT				
Group A	2	0	-3.275 ^a	0.001	70.4	Significant
Group B	2	1	-3.256 ^a	0.001	66.7	Significant

From above table we can observe that P-Values for both groups are less than 0.05 hence we conclude that effect observed in both groups are significant.

Graph 3: Showing Comparison between two groups for *Shirokandu*.



4. Darunaka-

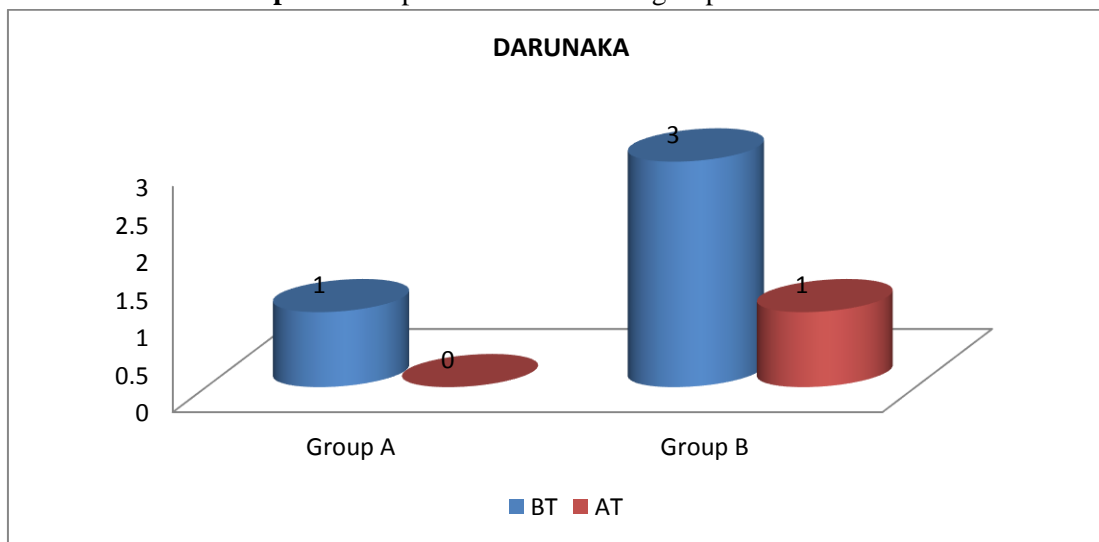
P-Value shows that both therapies are significantly effective on *Darunaka*, but percentage improvement of Group A (73.9%) is more than of Group B (61.5%).

Table 14: Showing Comparison between two groups for *Darunaka*

DARUNAKA	Median		Wilcoxon Signed Rank W	P-Value	% Effect	Result
	BT	AT				
Group A	1	0	-3.153 ^a	0.002	73.9	Significant
Group B	3	1	-3.247 ^a	0.001	61.5	Significant

From above table we can observe that P-Values for Group A and Group B is less than 0.05. Hence, we conclude that effect observed in both groups are significant.

Graph 4: Comparison between two groups for *Darunaka*



5. Palitya:-

P-Value shows that both therapies are significantly effective on *Palitya*, but percentage improvement of GROUP A (4.5%) is more than of Group B(00%).

Table 15: Showing Comparison between two groups for *Palitya*.

PALITYYA	Median		Wilcoxon Signed Rank W	P-Value	% Effect	Result
	BT	AT				
Group A	1	1	-1.000 ^b	0.317	4.5	NS
Group B	1	1	.000 ^c	1.000	0.0	NS

From above table we can observe that P-Values for Group A and Group B is greater than 0.05. Hence, we conclude that effect observed in both groups are not significant.

Graph 5: Showing Comparison between two groups for *Palitya*.

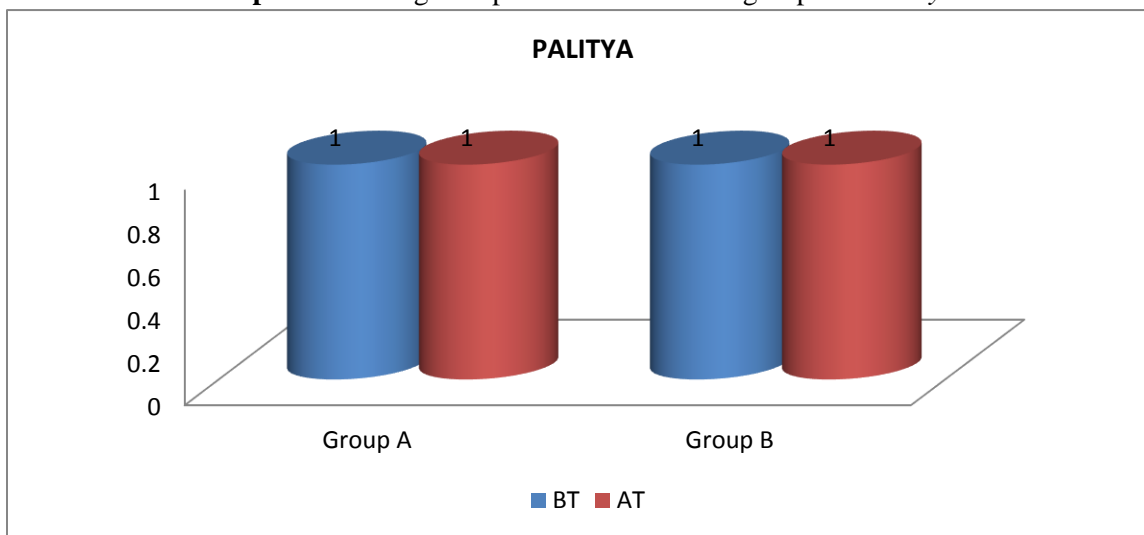


Table 16: Comparison Between Group A and Group B

	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	P-Value
<i>Keshashatana</i>	Group A	15	25.79	438.50	115.500	0.046
	Group B	15	17.30	259.50		
	Total	30				
<i>ShirobhumiDaha</i>	Group A	15	23.59	401.00	109.000	0.040
	Group B	15	15.27	259.50		
	Total	30				
<i>Shirokandu</i>	Group A	15	24.68	419.50	96.500	0.021
	Group B	15	18.57	259.50		
	Total	30				
<i>Darunaka</i>	Group A	15	23.74	403.50	80.500	0.026
	Group B	15	19.63	259.50		
	Total	30				
<i>Palitya</i>	Group A	15	24.06	409.00	120.000	0.035
	Group B	15	17.00	259.50		
	Total	30				

For comparison between Group A and Group B, we have used Mann Whitney U test. From above table we can observe that P-Values for all parameters are less than 0.05. Hence, we conclude that there is significant difference between Group A and Group B.

Further we can observe that mean rank for Group A is greater than Group B. Hence, we conclude that effect observed in Group A is more than Group B.

DISCUSSION

Mode of Action of Nasya with Mahabhringarajataila:-

Nasya is the procedure in which administration of the Drugs (Taila, Ghrita, Kwatha) is done by Nasal Route. In present study, 15 patients of Khalitya were treated with the Nasya of Mahabhringarajataila was done with the standard operating procedures. Khalitya occurs at head region & Nasya is preferably done in supra clavicular diseases. Therefore, Nasya can be done for treating Khalitya. The Role of Nasyakarma in Keshashatan can be strengthened by the fact that, the Vagbhata has included this disease in the group of 'KapalgataVyadhi' This is in addition to the number of Chikitsasutras of Khalitya stated by various Acharyas like Sushruta, Charaka.

NasyaMatra was decided according to SharirBala of the patient. ShodhanaNasya Matras (Heena-4 Bindu, Madhyam-6 Bindu, Uttam-8 Bindu). According to Bhaishajyaratnavli, 8 Bindu=1 Shana, 1 Shana=1/4th

Tola and 1/4th Tola=3ml. (for liquid substance it is 2.5ml.) Hence, we conclude that 1Bindu=0.375ml approximately 0.4 ml. And therefore, used MadyamMatra was 2.4ml.

Snehana of tiltaila and NadiSwedana was done before Nasya Karma as PurvaKarma.

It has been observed from present study that MahabhringarajatailaNasya with abhyanga significantly effective in reducing keshapatana. Nasyadravya get absorbed through mucus membrane. And such absorbed Nasyadravya spreads in peripheral surface of mucus membrane. Nerve endings Olfactory and trigeminal nerve get stimulated by this Nasyadravya. This act results in transmission of impulses to the central nervous system. This results in better circulation of blood and nourishment to the scalp as well.

Mode of action of abhyanga in Khalitya-

Shiro-abhyanga – one of the types of MurdhaTaila means direct application of medicated oil on scalp. Thus, the medicaments come into direct contact on hairs and hair roots as the Khalitya is a disease when the hairs and hair roots are affected. To treat the same Shiro-abhyanga was chosen as therapy for this purpose. MahabhringarajaTaila a preparation prescribed by Bhaishajyaratnavali for treating Khalitya was opted. Majority of the drugs are having the properties like Keshya, Vishaghna, Daurgandhyahara, Jantughna and Kandughna. As

premature hair fall is a sign of early aging process, to check the excessive catabolic process *RasayanaGuna* is also needed. So, in the present study, the trial drug combination was prepared from the drug *Bhringaraja* which is having *Keshya* and *Rasayana* properties also. Other drugs in the formulation used were having the properties like *Keshya*, *Vishaghna*, *Jantughna*, *Daurgandhya-nashaka* and *Kandughna*. But as these constituents were prepared by the *TailaPaka 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*, *Kashaya* and *Katu Rasa* with *Madhura Vipaka* and *UshnaVirya* which was intended to have a *Tridosha-shamaka* effect. The *Laghu* and *Snigdha* properties would act on the vitiation of the *Kapha* and *VataDosha* whereas *SheetaVirya* and *Madhura Vipaka* would act on *Pitta Dosha*. *UshnaVirya* and *Snigdha* property would act on the vitiation of *Kapha* and *Tikta Rasa*, *SheetaVirya* and *Madhura Vipaka* would act on *Pitta Dosha*. The *UshnaVirya* and *Snigdhatva* would aid in liquefying the dried *Kapha* in the pores of the scalp locally clearing up the obstruction offered to the growth of new hairs. The application of *Taila* on the scalp with fingertips, 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 cessation of the further process of *Khalitya*.

CONCLUSION

This study was designed with a sample size of 30 distributed among two groups 15 each based on classical signs and symptoms of *Khalitya*. No incidence of any untoward effect noted throughout the study. From the statistical analysis, there is significant difference between in the mean effect of Group A and Group B with higher mean rank in Group A. Hence *MahabhringarajatailaNasya* is more effective than *Mahabhringarajataila Shiroabhyanga* in the management of *Khalitya*.

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