A Comparative Clinical Study To Assess The Effect Of *Dhurdhurapatradi Taila* And *Malatyadi Taila Shirodhara* In *Darunaka*

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ABSTRACT: *Darunaka* is common problem of the scalp and hair in all age group, either sex. It is a *Vata Kapha* predominant condition and *Kandu, Twaksphutana, Shirorukshata* and *Keshachyuti* are the symptoms explained in classics. Different procedures and medication like *Shirodhara, Shirobasti, Shiroabhyanga,* and *Shirolepa* etc. are mentioned in *Ayurveda* for the treatment of the disease *Darunaka*. A total number of 40 patients were selected for the study and divided into two equal groups of 20 patients each and subjected to *Dhurdhurapatradi Taila Shirodhara* and *Malatyadi Taila Shirodhara* respectively. Both *Dhurdhurapatradi taila* and *Malatyadi taila Shirodhara* showed significant relief in the *Darunaka*, especially in *lakshanas* like *Kandu* and *Twaksphutana*.

Key words: *Darunaka;* Dandruff; *Shirodhara; Dhurdhurapatradi taila; Malatyadi taila.*

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INTRODUCTION:

Ayurveda is one of the most eternal ancient sciences of the life and its object is to protect health of healthy and to cure the disease of diseased[1]. It describes the basic and applied aspect of life process, health, disease and its management. *Panchakarma* therapy is considered as a complete, holistic approach to the elimination of the root cause of each and every chronic disease[2]. It is needless to say that cosmetics occupy a very important place in every women and men's life. Now a day's people all over the world are more conscious regarding the aesthetic look of their hair. Hair loss is a major problem as hair has not only been a symbolic indicator of gender, but of social, religious and professional status as well. So definitely nobody wants to lose hair. *Darunaka* is a *Kapha Vataja vyadhi*[3] concerned to hair root according to modern which can be compared to Dandruff word

means "flakes of dead skin in the hair" which is the most common cause for hair loss. It is more of a social problem as a person with Dandruff is quite likely to feel down on the social ring. *Sushruta* and *Vagbhata* mentioned *Darunaka* under *Kshudraroga's*[3] and *Shiroroga's*[4] respectively under *Kapalagatha Roga* with symptoms like *Rukshata, Kandu, Twaksphutana, Keshachyuti*. Dandruff can occur due to air pollution, water pollution, changed life style, irregular daily regimen, poor hygiene and immune system, sweating, mental stress etc which can lead to several bacterial and fungal infections leading to complete baldness[5]. Several studies across the world have shown a prevalence of dandruff of up to 50 percent in the general population[6] and are greatest in young men, less frequently in women and rarely in children and elderly people.

Shiroabhyanga, Shirodhara, Shiropichu, Shirobasti, Nasya and *Siravyadha* are the line of treatment for *Darunaka*[7] in the classics where *shirodhara* is more effective in *uttorouttar gunavata*[8]. *Dhurdhurapatradi taila*[9] and *Malatyadi taila*[10, 11] has been explained as one of the most effective medicine in the treatment of *Darunaka*. In spite of the present medical solutions Dandruff relapses quite often. A permanent and holistic solution is the need of the hour. Hence, this work is intended to study and compare the efficacy of *Dhurdhurapatradi taila Shirodhara* and *Malatyadi taila Shirodhara* in *Darunaka.*

AIMS AND OBJECTIVES:

1. To evaluate the effect of *Dhurdhurapatradi taila Shirodhara* in *Darunaka.*
2. To evaluate the effect of *Malatyadi taila Shirodhara* in *Darunaka.*
3. To compare the efficacy of *Dhurdhurapatradi taila Shirodhara* and *Malatyadi taila Shirodhara* in *Darunaka.*

MATERIAL AND METHODS:

The patients attending the *Panchakarma* OPD and IPD of Dhanvantari Ayurveda College and Hospital, Siddapur, with complaints of *Kandu, Keshachyuti, Rukshata* and *Twakshputana* were screened. Out of these, 40 patients of *Darunaka*, who fulfilled the below mentioned Inclusion criteria were selected for the study. Demographic Data and Data related to disease were collected as per the case record proforma.

INCLUSION CRITERIA:

a) Patients suffering from *Darunaka* having classical signs and symptoms as mentioned below

- Itching of scalp (*Shirokandu*)
- Diffuse hair falling (*Keshachyuti*)
- Roughness of scalp (*Shirorukshata*)
- Scaling of scalp skin (*Twaksphutana*)

b) Patients between age group of 16-60 years of both sexes.
c) Patients fit for *Shirodhara* procedure.

EXCLUSION CRITERIA:

a) Patients below 16years and above 60 years of age.
b) Patients *Ayogya* for *Shirodhara.*
c) Systemic disorders like DM, HTN etc.

d) Patients with other scalp disorders like *Arumshika, Indralupta*, etc.
e) Allergic manifestations.
f) Psychological disorders.

STUDY DESIGN:

Type of study - The study design set for the present study is a "comparative clinical study".

SAMPLE SIZE AND GROUPING:

A minimum of 40 patients, fulfilling the inclusion criteria of *Darunaka* were selected for the study irrespective of sex, religion, occupation and socio economic status and randomly distributed into 2 groups of 20 patients each.

Group A - 20 patients were subjected to *Dhurdhurapatradi taila Shirodhara*.

Group B - 20 patients were subjected to *Malatyadi taila Shirodhara*.

Duration of Treatment- Patients from both the groups was treated for a period of 7 days.

Follow-up - 14th day and 21st day

Total Duration of the Study – 21 days

Table 1- Showing Method of *taila* preparation.

NAME	GROUP (A) *DHURDHURAPATARADI TAILA*	GROUP (B) *MALATYADI TAILA*
Ingredients and Method of preparation	1) *Dhatura beeja choorna* (Datura Metel)-1part *Dhatura patra Swarasa* (Datura Metel)- 1part 2) *Tila taila* (Sesamum indicum)-1part Mix the ingredients and prepare the *taila* according to the *taila siddhi paka*[12].	1)*Malati patra* (Jasminum grandiflorum) 2) *Karaveera twak* (Nerium indicum) 3) *Agni* Root bark (Plummbago zeylanica) 4)*Karanja beeja* (Pongamia Pinnata) (*Kalka* 1part of all these drugs) 5)*Tila taila* (Sesamum indicum)- 1 Part 6)Water- 1 Part

		Mix the ingredients and prepare the *taila* according to the *taila siddhi paka*[13].

PROCEDURE:

The patient is allowed to sleep over *shirodhara* table in supine position and *dharapatra* should be fixed 4 *angula* (4 inch) above the forehead. The eyes and the ears should be covered with cotton to prevent the entry of oil. The indirectly heated lukewarm oil, nearly equal to body temperature should be kept in the *dharapatra* and poured continuously in the pendulum manner from side to side, neither very fast nor very slow on the forehead of the patient. The oil is collected in another vessel, lukewarmed again and is used to refill the *dharapatra* before it becomes empty. Same process is done for 30 minutes in the morning in between (7 am to 10 am) up to 7 days. After the completion of *dhara* process, the head of the patient is wiped followed by light head massage. Patient is advice to take short duration of rest followed by a lukewarm water bath. Apply *Rasnadi Choorna* over the vertex of the head.

Follow up – The patient was advised to report on the 14th day and 21st day for follow up counting the day as one, from where the treatment schedule started.

HYPOTHESIS:

H_0: There is neither effect of *dhurdhurpatradi taila shirodhara* nor *malatyadi taila shirodhara* in *darunaka*.

H_1: There is an equal effect of *dhurdhurpatradi taila* and *malatyadi taila shirodhara* in the *darunaka*.

H₂: *Shirodhara* with *dhurdhurpatradi taila* is more effective than with *malatyadi taila* in the *darunaka*.

H₃: *Shirodhara* with *malatyadi taila* is more effective than with *dhurdhurpatradi taila* in the *darunaka*.

ASSESSMENT CRITERIA:

SUBJECTIVE PARAMETERS:
1. *Kandu*
2. *Keshachyuti*
3. *Shirorukshata*
4. *Twaksphutana*

Subjective Parameters were used to assess the response to the treatment. Assessment was done on 1st day before starting the treatment, on 7th day after the treatment, on 14th day and 21st day after follow-up. The grades for assessment of all Subjective parameters are as follows

Table 2- Showing the Grading of *Kandu*

Grades	Symptoms
Grade 0	Absent
Grade 1	Occasionally
Grade 2	Frequently
Grade 3	Constantly

Table 3-Showing the Grading of *Keshachyuti*

Grades	Symptoms
Grade 0	Absent
Grade 1	Occasionally
Grade 2	Moderate loss
Grade 3	Maximum Loss

Table 4- Showing the Grading of *Shirorukshata*

Grades	Symptoms
Grade 0	Absent
Grade 1	Negligible
Grade 2	Without discomfort on scalp
Grade 3	With discomfort on scalp

Table 5- Showing the Grading of *Twaksphutana*

Grades	Symptoms
Grade 0	Absent
Grade 1	Visible inside hair
Grade 2	Visible over the hair
Grade 3	Spread over the shoulder

The sum points of all the parameters of assessment before and after treatment were taken into consideration and the total effect of the treatment was assessed as follows –

1. Marked improvement   relief of >60%
2. Moderate improvement   30 to 60% relief
3. Mild improvement   < 30% of relief
4. No Change   0% relief

STATISTICAL ANALYSIS:

Paired 't' test and Unpaired 't' test were used for statistical analysis.

OBSERVATION AND RESULTS:

The demographic data reveals the following factors about *Darunaka* patients. 70% of 16-26 age group, 25% of 27-36 age group, 05% of 37-46 age group. 15% were males and 85% were females. 97.5% were Hindus, 2.5% were Muslims. 62.5% were Active, 17.5% were Sedentary and 12.5% were Heavy workers. 27.5% were married and 72.5% were Unmarried. 30% were lower middle class, 57.5% were higher middle class and 12.5% were higher class. 47.5% were Vegetarian and 52.5% consumed mixed diet. 7.5% had *Mandagni*, 45% had *Tikshnagni*, 47.5% were having *Vishmagni*, 15% were *Mrudu Koshta,* 65% were *Madhyama koshta* and 20% were *Kroora koshta.* 47.5% were having *Sukha Nidra*, 17.5% were having *Alpa Nidra,*

17.5% were having *Ati Nidra* and 17.5% were having *Vishama Nidra*. 35% were from *Jangala desha*, 65% were from *Anupa desha*. 17.5% belonged to *Vata Kapha prakriti,* 7.5% belonged to *Vata Pitta prakriti*, 45% belonged to *Kapha Vata prakriti*, 17.5% belonged to *Pitta Vata prakriti,* 7.5% belonged to *Kapha Pitta prakriti* and 5% belonged to *Pitta Kapha prakriti.* 100% belonged to *Rajasika prakriti*. 40% had *Amla ahara atisevana*, 42.5% had *AtiSheeta ambu sevana*, 35% had *Dushta ama*, 55% had *Guru ahara*, 25% had *Harita ahara atiseva* and 57.5% had *Hima ahara.* 37.5% gave history of *Atapa atisevana*, 32.5% gave history of *Ati swapna*, 45% gave history of *Jagarana,* 47.5% gave history of exposure to *Praagvata,* 05% gave history of *Rajaha Sevan*, 25% gave history of *Bhaspa nigraha*, 40% gave history of *Rodrna,* 57.5% gave history of *Vegadharana,* 37.5% gave history of *Abhyangadvesa* and 22.5% gave history of *Mrjadvesa*. 47.5% of the

patients, *Shoka* were observed in 12.5% of the patients, *Krodha* was observed in 37.5% of the patients and *Bhaya* was observed in 22.5% of the patients.

Table 6-Showing the Distribution of Patients on the basis of Presenting Complaints.

Presenting Complaints	Group A		Group B		Total	
	No.	%	No.	%	No.	%
Shirokandu	20	100%	19	95%	39	97.5%
Keshachyuti	20	100%	19	95%	39	97.5%
Shirorukshata	14	70%	11	55%	25	62.5%
Twakshputana	20	100%	20	100%	40	100%
Raga	03	15%	05	25%	08	20%
Gaurava	04	20%	02	10%	06	15%
Daha	07	35%	07	35%	14	35%
Toda	00	00%	00	00%	00	00%

RESULTS:

Table 7-Showing Overall response for the treatment.

	Response							
	Marked improvement		Moderate improvement		Mild improvement		No Change	
	No. of patients	%	No. of patients	%	No. of patients	%	No. of patients	%
Group A	00	00	09	45	11	55	00	00
Group B	00	00	09	45	11	55	00	00

The study reveals that in Group A, 09 patients (45%) had moderate improvement, 11 patients (55%) had mild improvement and 0 patient (0%) showed marked improvement and no change.

The study reveals that in Group B, 09 patients (45%) had moderate improvement, 11 patients (55%) had mild improvement and 0 patient (0%) showed marked improvement and no change.
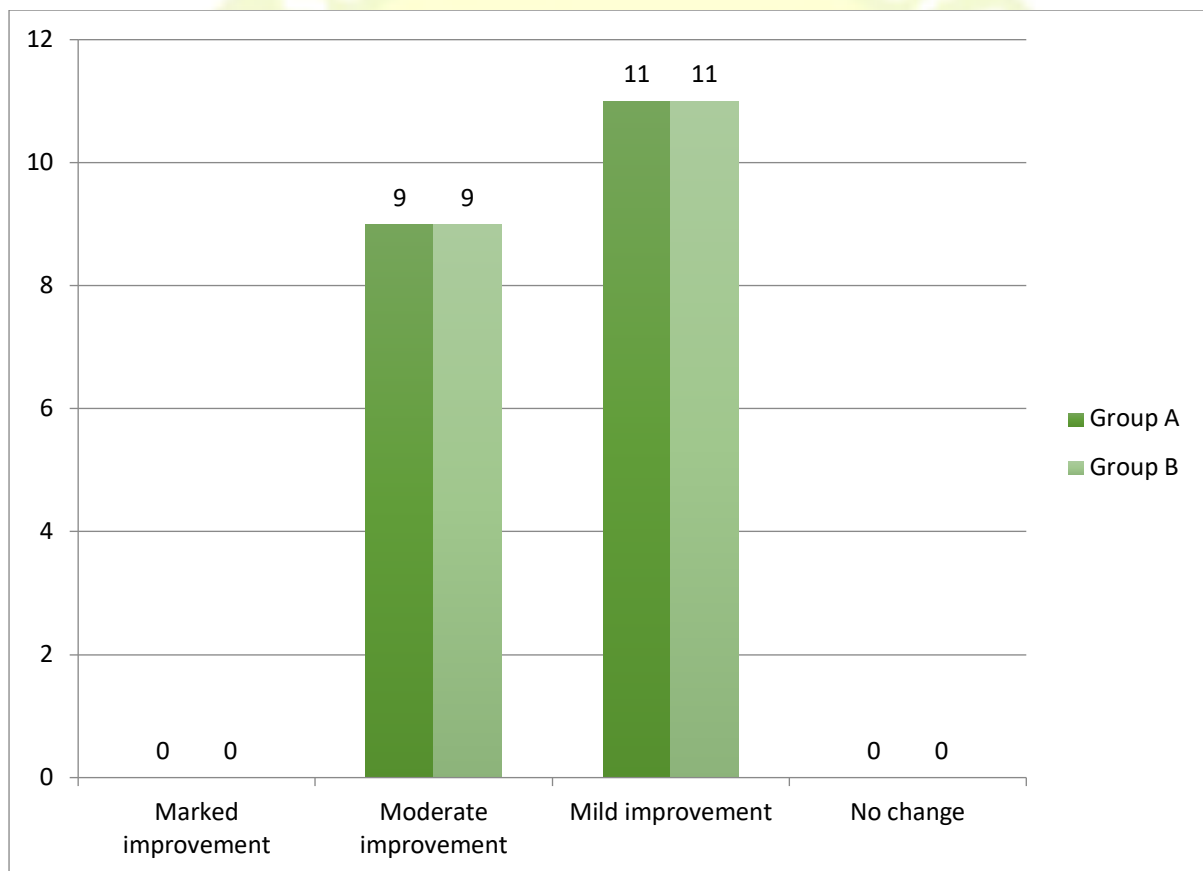
Graph Shows Overall response for the treatment

Clinical Interpretation –

By comparing the overall response for the treatment it can be concluded that Group A Group B both are equally response for treatment.

STATISTICAL ANALYSIS:

Paired 't' test

Following are the statistical data obtained –

Table 8- Showing the Statistical Analysis of Group A after treatment

Parameters		*Kandu*	*Keshachyuti*	*Shirorukshata*	*Twaksphutana*
Mean	BT	1.55	1.80	1.20	1.60
	AT	0.25	0.95	0.40	0.25
MD		1.30	0.85	0.80	1.35
Reduction	%	83.87	47.22	70.83	84.37
SD		0.47	0.36	0.83	0.58
SE		0.10	0.08	0.18	0.13
DF		19	19	19	19
t value		12.36	10.37	4.29	10.28
p value		<0.001	<0.001	<0.001	<0.001
Remarks		HS	HS	HS	HS

*HS – Highly Significant, SS –Statistically Significant

Table 9-Showing the Statistical Analysis of Group A after follow up on 14th day

Parameters		Kandu	Keshachyuti	Shirorukshata	Twaksphutana
Mean	BT	1.55	1.80	1.20	1.60
	AF	0.25	0.95	0.40	0.25
MD		1.30	0.85	0.80	1.35
Reduction		83.87	47.22	70.83	84.37
SD		0.47	0.36	0.83	0.58
SE		0.10	0.08	0.18	0.13
DF		19	19	19	19
t value		12.36	10.37	4.29	10.28
p value		<0.001	<0.001	<0.001	<0.001
Remarks		HS	HS	HS	HS

*HS – Highly Significant, SS –Statistically Significant

Table 10 -Showing the Statistical Analysis of Group A after follow up on 21st day

Parameters		Kandu	Keshachyuti	Shirorukshata	Twaksphutana
Mean	BT	1.55	1.80	1.20	1.60
	AF	0.25	0.95	0.40	0.25
MD		1.30	0.85	0.80	1.35
Reduction		83.87%	47.22%	70.83%	84.37%
SD		0.47	0.36	0.83	0.58
SE		0.10	0.08	0.18	0.13
DF		19	19	19	19
t value		12.36	10.37	4.29	10.28
p value		<0.001	<0.001	<0.001	<0.001
Remarks		HS	HS	HS	HS

*HS – Highly Significant, SS –Statistically Significant, NS – Not Significant

Table 11-Showing the Statistical Analysis of Group B after treatment

Parameters		Kandu	Keshachyuti	Shirorukshata	Twaksphutana
Mean	BT	1.45	1.95	0.90	1.95
	AT	0.35	1.25	0.35	0.80
MD		1.10	0.70	0.55	1.15
Reduction		75.86%	35.89%	61.11%	58.97%
SD		0.44	0.47	0.68	0.48
SE		0.10	0.10	0.15	0.10
DF		19	19	19	19
t value		11.00	6.65	3.58	10.51
p value		<0.001	<0.001	<0.001	<0.001
Remarks		HS	HS	HS	HS

*HS – Highly Significant, SS –Statistically Significant, NS – Not Significant

Table 12- showing the Statistical Analysis of Group B after follow up on 14th day

Parameters		Kandu	Keshachyuti	Shirorukshata	Twaksphutana
Mean	BT	1.45	1.95	0.90	1.95
	AF	0.35	1.25	0.35	0.80
MD		1.10	0.70	0.55	1.15
Reduction		75.86%	35.89%	61.11%	58.97%
SD		0.44	0.47	0.68	0.48
SE		0.10	0.10	0.15	0.10
DF		19	19	19	19
t value		11.00	6.65	3.58	10.51
p value		<0.001	<0.001	<0.001	<0.001
Remarks		HS	HS	HS	

*HS – Highly Significant, SS –Statistically Significant, NS – Not Significant

Table 13-Showing the Statistical Analysis of Group B after follow up on 21st day

Parameters		*Kandu*	*Keshachyuti*	*Shirorukshata*	*Twaksphutana*
Mean	BT	1.45	1.95	0.90	1.95
	AT	0.35	1.25	0.35	0.80
MD		1.10	0.70	0.55	1.15
Reduction		75.86%	35.89%	61.11%	58.97%
SD		0.44	0.47	0.68	0.48
SE		0.10	0.10	0.15	0.10
DF		19	19	19	19
t value		11.00	6.65	3.58	10.51
p value		<0.001	<0.001	<0.001	<0.001
Remarks		HS	HS	HS	

*HS – Highly Significant, SS –Statistically Significant, NS – Not Significant

Statistical Interpretation –

Based on paired 't' test, the changes recorded in subjective parameters after treatment and after follow up in both Group A and Group B were highly significant.

Unpaired't' test

Table 14- Showing the Statistical Analysis of Group A and Group B after treatment

Parameters		*Kandu*	*Keshachyuti*	*Shirorukshata*	*Twaksphutana*
Group A	N	20	20	20	20
	MD	1.30	0.85	0.80	1.35
	SD	0.47	0.36	0.83	0.58
Group B	N	20	20	20	20
	MD	1.10	0.70	0.55	1.15
	SD	0.44	0.47	0.68	0.48
t value		1.38	1.10	1.04	1.18
Df		38	38	38	38
p value		0.72	0.26	0.30	0.24
Remarks		NS	NS	NS	NS

*HS – Highly Significant, SS –Statistically Significant, NS – Not Significant

Table 15- Showing the Statistical Analysis of Group A and Group B after follow up on 14th day

Parameters		*Kandu*	*Keshachyuti*	*Shirorukshata*	*Twaksphutana*
Group A	N	20	20	20	20
	MD	1.30	0.85	0.80	1.35
	SD	0.47	0.36	0.83	0.58
Group B	N	20	20	20	20
	MD	1.10	0.70	0.55	1.15
	SD	0.44	0.47	0.68	0.48
t value		1.38	1.10	1.04	1.18
Df		38	38	38	38
p value		0.72	0.26	0.30	0.24
Remarks		NS	NS	NS	NS

Table 16-Showing the Statistical Analysis of Group A and Group B after follow up on 21ˢᵗ day

Parameters		*Kandu*	*Keshachyuti*	*Shirorukshata*	*Twaksphutana*
Group A	N	20	20	20	20
	MD	1.30	0.85	0.80	1.35
	SD	0.47	0.36	0.83	0.58
Group B	N	20	20	20	20
	MD	1.10	0.70	0.55	1.15
	SD	0.44	0.47	0.68	0.48
t value		1.38	1.10	1.04	1.18
Df		38	38	38	38
p value		0.72	0.26	0.30	0.24
Remarks		NS	NS	NS	NS

Based on Statistical Analysis by unpaired't' test, overall the improvements observed in both Group A and Group B are equally effective.

DISSCUSION:

Darunaka is one of the *kshudra roga* explained by *Acharya* Sushruta, Madhavakara, Yogaratnakar, Bhaishajya Ratnavali, Bhavaprakasha. All *Acharyas* have the same opinion about its *nidana, lakshana, samprapti* and *chikitsa*.

According to *acharya* Vagbhata *Darunaka* is one among the 9 types of *kapala roga*. Due to the *nidana* like *ati sheeta ahara seevana, abhyanga dwesha manstapa* etc results in the *gunataha vruddi (ruksha, sheeta guna)* and dust accumulation, it

vitiate *vata* and *kapha dosha* in scalp which leads to *Darunaka roga*. To counter this, *Nidanparivarjan* is very important. But owing to busy schedules people hardly have time for *nidanparivarjan.* Hence, a remedy which acts on vitiated *kapha & vata*, heals ulcerated scalp and at the same time which strengthens scalp hair is needed. Many market preparations are available but either the effect isn't long lasting or cost of treatment is very high. Where as in our classics, use of different drugs and oil both internal and external procedures like *Shirodhara, Shiropichu, Shirobasti, Shiroabhyangadi* counter *Darunaka* effectively. This study is an attempt to specify the efficacy of *Shirodhara* in *Darunaka.*

As its *Vata* and *Kapha Dosha vyadhi, Samprapti vighatana* is said to be the treatment. Therefore the action of the drug means to dismantle the *sampraptighatakas* of the disease. Hence to explain the mode of action of the drug means to establish a relationship between the *sampraptighatakas* of *Darunaka* and principles of *rasa, guna, virya, vipaka* of trial drugs. The *samprapti ghataka* of *Darunaka* are as *Dosha-Vata, Kapha;*

Dushya-Rasa, Rakta, Mansa; Adhisthan-Twaka (Keshbhumi).

For the treatment of *Darunaka tikta, katu rasa, ushana virya, vatakaphanashaka, raktashodhaka, kandughna, kushthaghna dravyas* should be used.

The drug used in this study are *Dhurdhurapatradi taila* (Ingredients-*Dhatura* and *tila taila*) for Group A and *Malatyadi taila* (Igredients- *Malati, Agni, Karaveera, Karanja* and *tila taila*) in Group B both taila is indicated in *darunaka* and various other *kapala rogas* Mentioned in Bhaisajya ratnavali, Chakradatta, Sahasra yoga. Properties of *Dhatura* and *Karaveera* are *Tikta, katu rasa; Laghu, ruksha guna; ushna virya; katu vipaka; vatakaphashamak. Malati* is *tikta, kashaya rasa; snighdha, laghu, mrudu guna; ushna virya; katu vipaka; tridoshashamaka. Agni* is *katu rasa; laghu, ruksha , tikshna guna; ushna virya; katu vipaka; kaphavatashamaka. Karanaj* is *tikta, katu, kashaya rasa; laghu tikshna guna; ushna virya; katu vipaka; kaphavatashamaka. Tila taila* is *madhura rasa; tikta, kashaya anurasa; snigdha, guru, sukshma, vyavyi, sara, vikasi guna; ushna virya; madhura vipaka; vatahara.*

Tikta, katu rasa; laghu ruksha guna properties do the *pachana karma* of *Kapha dosha* by which *margavarodha* of *romakupa* is removed. After that, the *snighdha, guru, mrudu guna* of *taila* does vatashamana. The tikta rasa is also raktashodhaka. It also helps curing *Darunaka* by *varan shodhaka* property. All the *dravyas* are *Kandughna* so it reduces the most embarrassing symptom of *Darunaka*. Therefore with the mentioned properties, when used on the scalp acts as *vatakaphanashaka, vrana shodhaka, kandughna, rukshatanashaka* resulting in cure of *Darunaka. Shirodhara* is one type of the *Bahya snehana,* which comes under one of the four *Murdhani taila*, which are basically used for the management of *Shiro roga, Kapala roga* and *Urdhwa jatrugata roga*.

Mode of Action of *Bahya Snehana*:

Sushruta described the mode of action of *Bahya snehana* as the virya of drugs presents in *Abhyanga, Dhara, Avagaha, Lepa* etc are absorbed into skin and then digested by *agni (Bhrajaka Pitta)*. Commentator Dalhana also explained that the oil used in *Bahya snehana* reaches up to the different *Dhatu* if applied for sufficient time. Thus in this study *Shirodhara* is selected as continuous pouring of oil for 24

minutes is done in this procedure to facilitate the maximum absorption of drugs. Sushruta has told that oil used for *Bahya snehana* enters the *Romakupa*(root of the hair), *Siramukha*(Opening of the vein) and *Dhamani* nourishes the body.

Acharaya Charaka also described that *vayu* dominates in *sparshanendriya* and lodges in skin and the *abhyanga* is exceedingly beneficial to the skin, so one should practice it regularly. *Indriyas* are in close contact with the mind if *indriya* remains healthy, mind also remains healthy.

The gentle poring improves blood circulation to the *kapala pradesha*. The *snigdhata* present in the *taila* pacifies *rukshta* thereby preventing the shedding of flakes and hairfall. Thus *Shirodhara* process with its *guna* of *taila* counters the *samprapti vighatana* and thus pacifies the disease.

The heat and the pressure by *Shirodhara* causes the blood vessels to dilate, which increases blood circulation and promotes healing, evacuation and cleansing of the secretary passages and also enhances the absorption of medicine through the skin.

In this way *Shirodhara* acts through the above properties of *sneha*. Because all properties are opposite to the *vata, Taila*

Shirodhara is consider useful treatment in the disease occurred by *vata*.

Discussion on overall effect of therapies-
Overall effect of therapies after treatment shows that in Group A, 09 patients (45%) had moderate improvement, 11 patients (55%) had mild improvement.
In Group B, 09 patients (45%) had moderate improvement, 11 patients (55%) had mild improvement.

CONCLUSION:

- *Darunaka* is a *Kapha Vataja vyadhi* confined to scalp and thus local treatment over scalp take care of preventive and curative aspect with reference to *Darunaka.*
- In present clinical study, two preparations i.e. Group A *Dhurdhurapatradi Taila* and Group B *Malatyadi Taila* were taken with intention of assessing and comparing which would be more effective. Both the Groups showed highly significant relief in the *Darunaka*, especially in *lakshanas* of *Kandu* (itching of the scalp), *Twaksphutana* (scaling of scalp skin).

- This study reveals that *Shirodhara* is an effective and promising treatment in *Darunaka* management.
- It was noticed that in the present study *Darunaka* was more prevalent in those who are prone for stressful lifestyle, who as *chinta, Bahya, Shoka, khroda*. Therefore *shriodhara* was effective in curing *Darunaka* symptoms by treating *nidana* like *chinta, Khroda, Anidra* etc.

Scope for Further Research:

- Present study pattern can be contributed in the form of prospective clinical study with increased sample size.
- These therapies also have effects on scalp related diseases. So it states that the further research can be carried out on such diseases.
- Other procedure mentioned for *Darunaka* can be selected for the comparative study with *Shirodhara.*
- More research is must as the prevalent rate of *Darunaka* now a day is more due to globalized world.

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