



Research Article

A CLINICAL STUDY OF *MALTYADI TAIL* IN THE MANAGEMENT OF *DARUNAK* W.S.R. TO DANDRUFF

Deepti Negi^{1*}, Anoop Kumar Singh², Vipin Kumar³, Shweta G Shukla⁴

¹Assistant Professor, Department of Agad Tantra Evum Vidhi Vaidyaka, Dev Bhoomi Medical College of Ayurveda & Hospital, Dehradun, Uttarakhand.

²Associate Professor, P.G. Department of Agad Tantra, Uttarakhand Ayurved University, Rishikul Campus, Haridwar, Uttarakhand.

³Assistant Professor, Department of Pharmaceutical Sciences, Gurukul Kangri, Vishwavidyala, Haridwar.

⁴Assistant Professor, P.G. Department of Kayachikitsa, Uttarakhand Ayurved University, Rishikul Campus, Haridwar, India.

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ABSTRACT

Darunak is a *Vata-Kaphaj Vyadhi*. *Sushruta* mentioned it under *Kshudra roga*. *Chakradatta* has mentioned application of *Maltyadi Tail* (*Jaati, Karveer, Chitrak, Karanj*, base oil- *Tila Tail*) in the treatment of *Darunak*. Aggravation of *Kapha* and *Vata* in *Darunak* causes, itching, falling of hair, loss of sensation, dryness and small cracks of the skin of the scalp. Several factors increase the risk of developing dandruff, including a person's age, the weather, stress levels, fungus, medical conditions, and choice of hair products. Oiling is the best way to get a healthy scalp. **Aim and objective:** To evaluate efficacy of *Maltyadi Tail* in the management of *Darunak* w.s.r to dandruff. **Materials and Methods:** In this clinical study total 46 Patients of *Darunak* were registered out of which 3 patients left the treatment; remaining 43 patients were divided into 2 groups. 23 patients were treated in group A (test drug- *Maltyadi Tail*) and 20 patients were treated in group B (control drug- *Tila Tail*) for 30 days. The effect of therapy was assessed on the basis of changes in grading score. **Result:** In clinical study, All the cardinal and associate symptoms except *Raag, Daah, Ruja* were statistically significant improved after the complete course of test drug (*Maltyadi Tail*). Effect of Group A reduced *Kesha Bhoomi Rookshta* by 92.68%, *Kandu* by 100%, *Keshbhoomi Prapatan* by 92.68% and *Keshchyuti* by 87.50% which was statistically highly significant. **Conclusion:** The study revealed that test drug (*Maltyadi tail*) is more effective in *Darunak* /dandruff compare to control drug (*Tila Tail*).

INTRODUCTION

In today's world, where a person's physical appearance plays a significant role in his or her social programmes or gatherings, where an individual may have several issues as a result of severe dandruff, a component of dandruff therapy comprises both physiological and psychological methods.

The possible non-microbial causes for dandruff are excessive exposure to sunlight, irritation of the scalp due to over shampooing, frequent combing, use of certain cosmetic products, and exposure to dust and dirt^[2-3]. *Darunak Vyadhi* is a *Vata-Kaphaj Vyadhi*. It was stated by *Sushruta* under the *Kshudra roga*^[4]. Under (*Kshudra roga*) this heading many diseases is described. Many of them are primarily skin diseases and some of them are the manifestations found in other diseases. *Darunak* is one of them; it is disorder of the scalp which may lead to fine cracking of skin of scalp, itching, dryness and loss of hair. Dandruff can have so many causes, like poor hygiene, sensitivity to hair care products, dry skin, Seborrhoeic dermatitis, Scalp psoriasis, Eczema, or Yeast like fungus. Some common factors that may trigger dandruff include- weather conditions, a suppressed immune system^[5].

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AIM AND OBJECTIVE

To evaluate the efficacy of *Maltyadi Tail* in the management of *Darunak* wsr to dandruff.

METHOD OF STUDY: The method adopted in this study is randomized, controlled and single blind trial. Type of study was single blind, period of study was 30 days. Follow up were done on one month after completion of treatment.

Selection of Patients

Total 46 Patients of *Darunak* were selected from the O.P.D./I.P.D at Uttarakhand Ayurved University, Rishikul Campus- Haridwar. The study was conducted on the patients randomly divided into 2 groups that means 25 patients were taken in group A (*Maltyadi tail*) and 21 patients were taken in group B (control group *Tila tail*) on the basis of inclusion and exclusion criteria depending on the detailed clinical history, physical examination and other necessary/ desired investigations.

Drug Trial Schedule

The selected 46 patients were randomly divided into two groups.

Group A (Test group): In this group total 25 patients were registered and 23 patients completed the full course of treatment (*Maltyadi tail*).

Group B (Control group): In this group total 21 patients were registered and 20 patients completed the full course of treatment (*Tila tail*).

Dose of drug: as per need (*Shiroabhyanga*)

Inclusion Criteria

- Age- 18-50 years
- Both male and female
- *Kandu* (Pruritis on scalp)
- *Keshbhumi prapatan* (Skin Cracking/ Scaling)
- *Keshcyuti* (hair loss)
- *Rukshata* (dryness on scalp)
- *Ruja* (pain on scalp)
- *Raag* (Redness on scalp)
- *Daah* (burning sensation on scalp)

Exclusion Criteria

- Age-below 18 and above 50years will be excluded.
- Psoriasis of Scalp
- Eczema of Scalp
- Immune compromised condition and systemic infection

Table 1: Criteria for Assessment

<i>Kandu</i> (Pruritus on scalp)	<i>Rukshata</i> (dryness on scalp)
<i>Keshbhumi prapatan</i> (Skin Cracking/ Scaling)	<i>Ruja</i> (pain on scalp)
<i>Keshcyuti</i> (hair loss)	<i>Raag</i> (Redness on scalp)

<i>Daah</i> (burning sensation on scalp)	
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Grading of the Assessment Criteria**Subjective Criteria*****Kasha Bhoomi Rookshata* (Dryness)**

Parameters	Grade
Absent (No dryness)	0
Mild (Dryness with rough skin)	1
Moderate (Dryness with scaling)	2
Severe (Dryness with cracking skin)	3

***Kandu* (Itching)**

Parameters	Grade
Absent (No itching)	0
Mild (Occasionally, does not disturb routine)	1
Moderate frequent itching, disturb routine activity but not sleep	2
Severe (Constantly, itching disturbs both routine and sleep)	3

***Keshbhumi Prapatan* (Scaling)**

Parameters	Grade
Absent (No scaling)	0
Mild (Visible inside the hair)	1
Moderate (Visible over the hair)	2
Severe (Spreads over the shoulder)	3

***Keshachyuti* (Hair fall)**

Parameters	Grade
Absent (hair fall 0-20/day)	0
Mild (hair fall 21-40/day)	1
Moderate (hair fall 41-60/day)	2
Severe (hair fall -more than 60/day)	3

***Raag* (Redness on scalp)**

Parameters	Grade
Absent (no redness)	0
Mild (redness after itching)	1
Moderate (redness after combing)	2
Severe (redness without itching and combing)	3

***Daah* (burning sensation on scalp)**

Parameters	Grade
Absent (no burning)	0
Mild (occasionally, sensation mostly exposed to the sun)	1
Moderate (frequent burning which increases exposed to the sun)	2
Severe (continuous burning without the sun exposure)	3

Ruja (pain on scalp)

Parameters	Grade
Absent (no pain)	0
Mild (feels pain during combing/ pressure)	1
Moderate (feels pain due to touch)	2
Severe (continuous pain without touch, comb and pressure)	3

OBSERVATION

The collected data was put down to statistical analysis on the basis of observations made on the subjective parameters. Median, percentage and p-value were calculated. Mann-Whitney U test is used to calculate p-value for two comparable groups. The overall total result, including the comparative effect of the treatment was presented in a tabular form.

Table 2: Observations

Group	Completed	Drop out	Total
Group A	23	2	25
Group B	20	1	21
Total	43	3	46

Table 3: Over All Important Criteria

Complete remission	100%
Marked improvement	75%- 99%
Moderate improvement	50%- 74%
Mild improvement	25%- 49%
Unchanged	<25%

OBSERVATION AND RESULT

After Diagnosis the Patients Were Randomly Divided in Two Groups

Group A (Test drug)- *Maltiyadi tail*

Group B (Control drug)- *Tila tail*

Table 4: No. of patients and Groups

Category	No. of patients		Total
	Group A (Test drug)	Group B (Control drug)	
Completed	25	21	46
Discontinued	02	01	03
Total	23	20	43

In this study, total 46 patients of *Darunak* were registered. Out of which 43 patients completed the course of the treatment, 03 patients discontinued the treatment.

Table 5: Effect of Group A (Test Drug) on Subjective Parameters *Darunak/Dandruff* (Wilcoxon Test)

Parameter	N	Mean		SD		SE		% of improvement	Z	P Value	Result
		BT	AT	BT	AT	BT	AT				
<i>Kesha Bhoomi Rookshta</i>	15	1.1	0	0.9	0.21	0	0.2	92.68%	-3	<0.001	HS
<i>Kandu</i>	17	1.1	0	0.8	0	0.2	0	100.00%	-4	<0.001	HS
<i>Keshbhoomi prapatan</i>	23	1.8	0.1	0.5	0.46	0.1	0.1	92.68%	-4	<0.001	HS
<i>Keshchyuti</i>	17	1	0.1	0.8	0.34	0.2	0.1	87.50%	-4	<0.001	HS
<i>Raag</i>	0	0	0	0	0	0	0	0.00%	0	>0.05	NS
<i>Daah</i>	0	0	0	0	0	0	0	0.00%	0	>0.05	NS
<i>Ruja</i>	1	0	0	0.2	0	0	0	100.00%	-1	>0.05	NS

Effect of group A highly significant on *Kesha Bhoomi Rookshta*, *Kandu*, *Keshbhoomi Prapatan* and *Keshchyuti*. Effect of Group A reduced *Kesha Bhoomi Rookshta* by 92.68%, *Kandu* by 100%, *Keshbhoomi prapatan* by 92.68% and *Keshchyuti* by 87.50% which was statistically highly significant. As p value>0.05 on *Raag*, *Daah* and *Ruja* we said that Group A was not effective on *Raag*, *Daah* and *Ruja*.

Table 6: Effect of Group B (Control Drug) On Subjective Parameters Darunak/Dandruff (Wilcoxon test)

Parameter	N	Mean		SD		SE		% of improvement	Z	P Value	Result
		BT	AT	BT	AT	BT	AT				
<i>Kesha Bhoomi Rookshta</i>	5	0.4	0.1	0.8	0.4	0.2	0.1	75.00%	-2	<0.001	HS
<i>Kandu</i>	17	1.5	0.6	0.8	0.7	0.2	0.2	58.62%	-4	<0.001	HS
<i>Keshbhoomi prapatan</i>	20	1.7	1	0.5	0.8	0.1	0.2	42.42%	-3	<0.001	HS
<i>Keshchyuti</i>	17	1	0.7	0.5	0.5	0.1	0.1	26.32%	-4	<0.001	HS
<i>Raag</i>	0	0	0	0	0	0	0	0.00%	0	>0.05	NS
<i>Daah</i>	0	0	0	0	0	0	0	0.00%	0	>0.05	NS
<i>Ruja</i>	0	0	0	0	0	0	0	0.00%	0	>0.05	NS

Effect of group B significant on *Kesha Bhoomi Rookshta*, *Kandu*, *Keshbhoomi prapatan* and *Keshchyuti*. Effect of group A reduced *Kesha Bhoomi Rookshta* by 75%, *Kandu* by 58.62%, *Keshbhoomi prapatan* by 42.42% and *Keshchyuti* by 26.32% which was statistically significant. As p value>0.05 on *Raag*, *Daah* and *Ruja* we said that Group B was not effective on *Raag*, *Daah* and *Ruja*.

Table 7: Comparison of Group A (Test drug) And Group B (control drug) on Subjective Parameters in Darunak/ Dandruff

Parameter	% of improvement		Mann-Whitney U	P Value
	Group A	Group B		
<i>Kesha Bhoomi Rookshta</i>	96.15%	75.00%	228	0.89
<i>Kandu</i>	100.00%	58.62%	115	0.0001
<i>Keshbhoomi prapatan</i>	92.68%	42.42%	91	0
<i>Keshchyuti</i>	87.50%	26.32%	99	0.0001
<i>Raag</i>	0.00%	0.00%	230	1
<i>Daah</i>	0.00%	0.00%	230	1
<i>Ruja</i>	100.00%	0.00%	230	1

As p value were <0.05 there were statistically significant difference in improvement *Kandu*, *Keshbhoomi prapatan*, and *Keshchyuti*. P value was >0.05 there were no statistically significant difference in improvement on *Kesha Bhoomi Rookshta*, *Raag*, *Daah*, *Ruja*.

Also as percentage of improvement seen from above table we get percentage of improvement in Group A was more than Group B we can say that Group A is more effective than Group B on subjective parameters in *Darunak* w.s.r to dandruff.

Probable mode of action of medicine (Maltyadi Tail): *Maltyadi tail* contains *Malti*, *Karveer*, *Chitrak*, *Karanj* and *Tila* oil. Oil work as a moisturizer on our skin and reduces dryness, the yeast that causes dandruff feasts on the saturated fatty acids found in oils like coconut and olive oil^[6]. *Tila tail* is unsaturated oil and having antinociceptive, anti-inflammatory^[7,8], anti-fungal, anti-oxidant^[9] properties. *Tila taila* which is base of *Maltyadi Tail* is very useful in dandruff. According to Ayurvedic texts all content used in preparation of *Maltyadi Tail* are *Usna* in *Veerya*. *Ushna Veerya* is necessary to counteract the *Vata* and *Kapha Dosh*. Hence this *Tail* is effective in the controlling *Darunaka*. *Jaati* has antifungal, anti-inflammatory^[10],

antioxidant^[11] properties. Acharya Charak mentioned *Jaati* and *Karveer* in *Kushtaghna Mahakashay*, it indicates that both are useful in skin diseases. So they may be effective in dandruff also. According to *Priya Nighantu Jaati* is *Varanropnam*. *Sushruta* described *Karanj* and *Chitrak* in *Arkadi* and *Aargvadhadi Gana*. Those *Gana* has *Varanashodhan* property. Acharya Charak described *Karanj* in *Kandugna Mahakashay*^[12], presence of *Karanj* may reduce scalps itching. These properties are beneficial to combat *Darunak/dandruff*.

CONCLUSION

This study shows that *Maltyadi tail* has efficacy to reduce dandruff. The trail drug i.e., *Maltyadi Tail* showed statistically highly significant results in various sign and symptoms of *Darunak* that include *Kesha Bhoomi Prapatan* (scaling or flakes), *Kandu* (itching), *Kesha Bhoomi Rookshta* (dryness of scalp) and *Keshchyuti* (hair fall).

REFERENCES

1. Pierard-Franchimont C, Xhaufaire-Uhoda E, Piérard GE Int J Cosmet Sci. 2006 Oct; 28(5): 311-8
2. Pierard-Franchimont C, Xhaufaire-Uhoda E, Pierard GE (2006) Revisiting dandruff. Int J Cosmet Sci 28: 311–318.

3. Jo JH, Jang HS, Ko HC, Kim MB, Oh CK, et al. (2005) Pustular psoriasis and the Kobner phenomenon caused by allergic contact dermatitis from zinc pyrithione-containing shampoo. *Contact Dermatitis*. 52: 142-144.
4. Kaviraja Ambikadutta Shastri, *Susruta Samhita, Ayurveda- Tattva- Sandipika*, Hindi commentary, Chukhamba Sanskrit Sansthan, edition- reprint- 2012, page no- 368.
5. New Postulate on-two Stages of Dandruff: A Clinical perspective, Frederick Manuel and S Ranganathan, *IntJ Trichology* 20011, Jan-Jun, 3(1) 3-6.
6. Dawson, T.L., Jr. (2007). *Malassezia globosa* and *restricta*: Breakthrough understanding of the etiology and treatment of dandruff and seborrheic dermatitis through whole-genome analysis. *J Invest Derm Symp Proc* 12(2) 15-19.
7. Érika Maria Henriques Monteiro, *Antinociceptive and Anti-Inflammatory Activities of the Sesame Oil and Sesamin*, *Nutrients* 2014, 6, 1931-1944; doi: 10.3390/nu6051931.
8. Prof. Priya Vrat Sharma, *Priyanighantuh*, Padma Hindi Commentary, Chaukhamba Surbharti Prakashan, Varanasi, Edition 2004, pg no.96.
9. Brar GS, Ahuja L (1997) *Sesame: its culture, genetics, breeding and biochemistry*. *Ann Rev plant Sci* 1: 245-313.
10. Srinivas, Ampati, *Evaluation of Flowers of Jasminum Officinale for Antibacterial Activity*, *Journal of Advanced Pharmaceutical Sciences*, 2013/07/01, Vol.3, Issue1, 2013, 28-431.
11. Pandey Ganga Sahay, *Bhavprakash nighantu of Bhav mishra*, Pushpavarga, Chaukhamba bharti academy. reprint- 2004; pg no. 491.
12. Priyavat Sharma, *Dravayagun Vigyan* 2nd part, Chaukhamba Bharti Academy. Reprint 2006 page no.144.

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***Address for correspondence**

Dr. Deepti Negi

Assistant Professor

Department of Agad Tantra

Evum Vidhi Vaidyaka,

Dev Bhoomi Medical College of

Ayurveda & Hospital,

Dehradun, Uttarakhand.

Email: dr.deeptinegi@gmail.com

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