



Research Article

STUDY ON EFFICACY OF *GUNJA TAILA SHIRO ABHYANGA* AND *NIMBA TWAK CHURNA* IN THE MANAGEMENT OF *DARUNAKA* W.S.R TO *PITYRIASIS CAPITITIS*

D.Venkata Krishna Naik^{1*}, P.Srikanth Babu²

¹P.G.Scholar, ²Guide & Associate Professor, P.G.Dept. of Kayachikitsa, Dr.BRKR.Govt.Ayurvedic College, S.R. Nagar, Hyderabad, Telangana, India.

ABSTRACT

Back ground: In Ayurveda head is said to be root of the plant for possessing all special senses and *Prana*, so one has to protect and care the head. In modern era, among diseases related to head due to varying factors lot of people suffering from this faulty lifestyle related disorders, in this context visual perception of individually distinguishable flakes on the scalp, in the hairs, or on the clothing is considered an abnormal condition frequently referred to as *Pityriasis capitis* i.e., Dandruff (*Darunaka*). *Darunaka* is an irritative disease of the scalp, affecting almost half of the population at the pre-pubertal age and of any gender and ethnicity. It occurs in both sexes and persons of all races. The response to treatment is commonly swift, but transient. So there is a need to find a safe and effective remedy in the management of *Darunaka*, which initiated for the study. **Aims of study:** To evaluate the efficacy of *Gunjatailashiroabhyanga* and *Nimbatwak churna* in the management of *Darunaka* i.e., *Pityriasis Capitis*. **Materials and Methods:** It was an open trail randomised clinical study of 30 patients, was taken for the study with pre and post-test design. The patients were assigned to single group and were administered *Gunjataila* and *Nimbatwak Churna* for a duration of 40 days and the results were analysed statistically. **Results:** Results were assessed in terms of change in subjective parameters taken before and after the treatment. Out of 30 pts, 8pts got Complete relief, 15pts got good relief, and 7 pts got moderate relief. **Conclusion:** The present study reveals that clinically *Gunjatailashiroabhyanga* with *Nimbatwak churna* showed better results in treating *Darunaka*.

KEYWORDS: *Pityriasis capitis*, *Darunaka*, *Shiroabhyanga*, *Gunja Taila*, *Nimbatwak churna*.

INTRODUCTION

Ayurveda is more than a healing system; it is an ultimate science and art for an appropriate life style, which helps us to achieve longevity. Ayurveda advice every individual to select the proper choice of diet (*Ahara*) and living habits (*Vihara*) to restore equilibrium of the body and mind. Thus it prevents diseases by gaining a foothold in the health system¹. Every human being is having lot of consciousness and also alertness towards skin scalp. Among them *Darunaka* (Dandruff) management is a very challenging problem in spite of all the modern tools in our hand. Many factors are responsible for the specific problem (*Darunaka*)². Dandruff (*Pityriasis Capitis*) is a common scalp disorder affecting almost half of the population at the pre-pubertal age and of any gender and ethnicity.³ No population in any geographical region would have passed through freely without being affected by dandruff at some stage in their life.⁴ Dandruff affects aesthetic value and often causes itching. It has been well established that keratinocytes play a key role in the expression and generation of immunological reactions during dandruff formation⁵. The severity of dandruff may fluctuate with season as it often worsens in winter⁶.

Prevalence

Dandruff is considered as very frequent, and appears to be more frequent among men than women and more frequent among young people than older people (Misery et al., 2013). The prevalence of dandruff across the

world was up to 50% in the general population (Ranganathan, & Mukhopadhyay 2010). Prevalence of Dandruff is high, in India 18.38%⁷. It occurs in both sexes and persons of all races⁸. The peak incidence and severity of dandruff occurs at approximately 20 years of age⁹.

Need for the study

In *Darunaka* the dead tissue shedding down from scalp, with symptoms like *Kandu*, *Kesha Chyuti Rookshata*, *Twakspatana*, etc. due to the vitiation of *Vata* and *Kaphadosha*. Till now with present available treatment and procedures are not much effective and frequent recurrence is noted. So there is a need to find a safe and effective remedy in the management of *Darunaka*, which initiated for the study.

Ayurvedic classics dealt different procedures and medication to treat the disease *Darunaka* effectively. Among those *Siro-abhyanga*¹⁰ procedure with *Gunjataila*¹¹ and *Nimbatwakchurna* are selected for my present study, with the reference from *Yogarathnakara*, *Bhavamishra* & *Chakradatt*¹², were all the drugs present in this yoga have *Kapha-vatahara*, *Kustghna*, *Krimighna*, *Keshya*, properties. Latest researches proved that all the ingredients present in *Gunjatail* are anti-inflammatory¹³, anti-fungal, anti-helminthic¹⁴, and anti-bacterial activities and *Nimbatwak churn*¹⁵ worked as an effective immune booster. The treatment is cost effective, easy to adopt for patients, safe, require short term duration for result. Hence *Gunjatail* and

Nimbatwakchurna can be considered as drug of choice in treating *Darunaka* the dreadful itching disease.

Aims & Objectives of the study

1. To assess the efficacy of *Gunja taila Shiroabhyanga* and *Nimbatwak churna* internal in the management of *Darunaka* w.s.r. to Pityriasis Capitis.
2. To evaluate the therapeutic effect of the *Gunjataila Shiroabhyanga* and *Nimbatwak churna* in 30 patients.

Materials and Methods

Patients has been selected from OPD of Kayachikitsa Dept from Dr.BRKR Govt Ayurvedic College and Hospital, were thoroughly assessed on the basis of various subjective parameters after every 10 days till the completion of trial period i.e. 40 days.

Study design: Prospective Randomized open clinical study

Inclusive Criteria

1. Patients only of *Darunaka* are included in the trial
2. Age group between 16 to 50 years will be included
3. Both genders.
4. Trust and accepts the rules of clinical trial.

Exclusive Criteria

1. Patients below 16 year and above 50 years

Scoring pattern given for Parameters

A. Subjective parameters

Kandu (Itching)

- 0 - No itching
- 1 - Mild; Tolerable (1 to 2 times in a day)
- 2 - Moderate; Intolerable (3 - 4 times in a day)
- 3 - Severe; Intolerable (5 to 8 times in a day)

Kesha Chyuti (Falling of hair)

- 0 - 1 to 5 hairs fall on combing/washing
- 1 - Mild (less than 20 hair falls on combing/washing)
- 2 - Moderate (more than 20 hair falls on combing/washing)
- 3 - Severe (less than 20 hair falls on simple hand strength)

Rookshata (Dryness)

- 0 - No dryness
- 1 - Mild; Dryness with rough skin
- 2 - Moderate; Dryness with scaling
- 3 - Severe; Dryness with cracking skin

Twaksputana (scaling/cracking of skin)

- 0 - No scaling
- 1 - Mild; scaling <1/4th part usually on vertex
- 2 - Moderate; scaling is more than 1/2 part
- 3 - Severe; complete scaling

Method of preparation of *Gunja taila*¹⁶

Ingredients

I. *Gunja Taila*

1. *Gunjabeeja* 1 part (To prepare *Kalka*)
2. *Tilataila* 4parts
3. *Bhrungaraja* 16 parts (*Swarasa*)

Subjected to *Snehapaka* as per the *Yogaratnakara*

All the above drugs are to be taken in the above mentioned quantities to prepare *Taila*.

Dose: Quantity sufficient (QS)

II. *Nimbatwak churna: (Anubhootayogam)*

1. *Nimbatwak* (stem bark) *Churna* is prepared in the form of capsules

Dose: 2 cap Tid.

2. Any serious life threatening diseases

3. Associated with other dermatological conditions like psoriasis etc.

Selection of patients

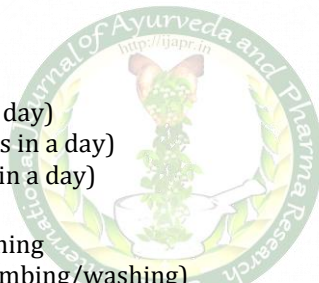
A total of 30 patients were selected randomly irrespective of their sex, caste, creed, religion, economic status, profession or marital status. All the cases were recorded with the help of a proforma prepared for this purpose. All the patients had given informed consent for clinical examination.

During the period of study patients were asked to come for every 10 days and changes were recorded. During this period of treatment the patients were advised to follow the *Pathyaaharaviharas* as per Ayurvedic classics explained especially for the disease *Darunaka*.

Criteria for assessment of treatment

Assessment of treatment were made before and after the treatment based on symptoms

1. *Kandu* (Itching)
2. *Kesha Chyuti* (Falling of hair)
3. *Rookshata* (Dryness)
4. *Twaksputana* (Scaling/flaking of the scalp skin)



Gunja Beeja/Seeds



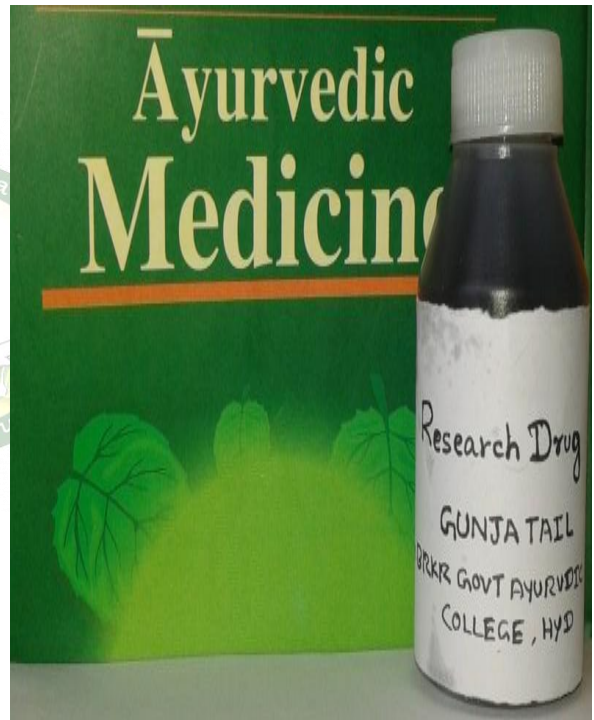
Bhrungaraja



Tila Taila



Gunja Taila



Nimba Twak Churna



INVESTIGATIONS

Routine hematological and urine examinations will be carried out to access the general condition

Statistical analysis: The data generated in this study was expressed in terms of mean, standard deviation. Paired 't' test was applied to test the significance of comparative mean values of before and after treatment by using statistical software – SPSS and Graph pad.

Assessment Criteria

1. Grades to be taken for all subjective parameters.
2. Changes in that grades i.e., before and after treatment. values are to be taken for results assessment.

Criteria For Overall Results Assessment

- Good relief - 75%-100% relieved
- Moderate relief - 50-74% were relieved
- Mild relief - 25-49% were relieved
- No relief - 0-24%no reduction in symptoms

Duration of treatment

- 1 *Mandala* (40days).
- Review once in every 10 days.
- Follow up after 1 month.

Observations and Results

As per the prepared proforma, observations were made on the demographic profile like incidence of Age, sex, occupation, religion, work stress, Nature of hair, Personal hygiene of the patient like Hair wash, Oiling to hair, Pillow wash, affected area of Scalp, *Prakruti*.

- Analysis of age incidence of 30 patients suffering from *Darunaka* showed 10% patients between the age group of 17 to 20years, 63% were between 21-30 years, 23% were 31-40 years and 3% were 41-50.
- Gender wise distribution of patients shows that male was 46% female were 54%.
- Matrial status wise distribution of patients shows that Un-Married was 63%, Marriedwere11%.
- The religion of the patients is dominantly Hindu. 25 out of 30 making 83% Patients were Hindu, where as 13% patients were Muslims and4% were Christian.
- Most of the patients were students i.e. 70% while professionals like doctor (1), software (1), nurse (2), compounder (1), lecturer (2) total 7 i.e. 23% and 1 patient is house wife i.e. 3%, 1 patient is business i.e. 3%
- Maximum number of patients are with mental stress i.e.25 patients- 83% and 5 patients-17% are with physical stress.
- Maximum numbers of patients are with Straight & Rough natured hair i.e., 25 patients -83% and 3

patients are with Curly & Rough natured hair i.e 10% and 2 patients are with Soft & Straight natured hair i.e 7%.

- Maximum numbers of patients are not using any hair colour i.e., out of 30 patients 27 patients(90%) are not using any colour and 3 patients (10%) are using hair colours.
- In this present study maximum numbers of patients are non-vegetarians i.e. out of 30 patients 20 patients (67%) are Non-vegetarians and 10 patient's i.e. 33% are Vegetarians.
- In this present study maximum numbers of patients who take *Danatisevana* 15Pts (50%) and *Shaakaatisevana* 10 Pts (33%) were effected more with *Darunaka* than *Amlaatisevana* 5 Pts (17%).
- In this present study out of 30 Patients who exposed to sun are 14 Pts (46.6%), wind are 8Pts (26.6%) and fog are 8Pts (26.6%).
- The incidence of washing of hair in the patients with *Darunaka* was more in users of Shampoos (80%) in the present study. The incidence of Hair wash per week in the patients of *Darunaka* was more in the Pts who take hair wash once in a week (73%).
- In the present study maximum patients24(80%) those using coconut oil for hair are more effected with *Darunaka* than the patients using castor 4 (13%) and seasm oil 2 (7%).
- In the present study maximum patients 22 (73%) those who apply oil to the hair per week are more effected with *Darunaka* than those who apply oil 2,3,4 times /wk.
- In the present study maximum patients 15 (50%) not washing pillow covers regularly are more affected with *Darunaka* than the patients washing pillow covers once in a month 9 (30%) & once in 10-15 days 6 (20%).
- In the present study maximum patients 17 (57%) frontal area is more affected with *Darunaka* than other areas like occipital 8 (27%), all over scalp 4 (13%), Parietal 1 (3%).
- In the present study maximum *Vata pitta* patients 20 (67%) are affected with *Darunaka* than other *Prakruti's* like *Pitta kapha* 6 (20%), *Vatakapha* are 4 (13%).

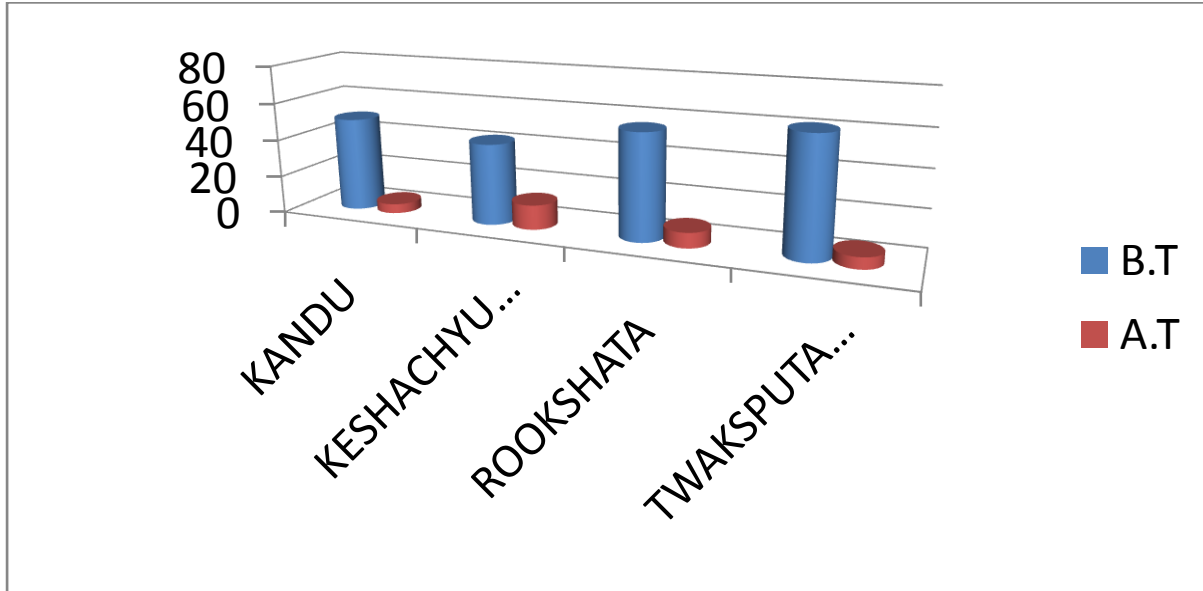
Distribution of Subjective Parameters

The symptom like *Kandu*, *Keshachyuti*, *Rookshata*, *Twaksputana* was observed in all of patients (100%) incidence of symptomatology are given in the table below.

S.No	Lakshana	No. of patients	%
1	<i>Kandu</i>	28	93
2	<i>Kesha Chyuti</i>	28	93
3	<i>Rookshata</i>	30	100
4	<i>Twaksputana</i>	30	100

Observations of Parameters B.T And A.T

Statistical analysis of the Subjective parameters



Overall Results

Subjective Parameters	Before Treatment	After Treatment	Net diff in Scores	% of Improvement	Result
<i>Kandu</i>	50	5	45	90%	Good
<i>Kesha chyuti</i>	43	13	30	70%	Moderate
<i>Rookshata</i>	56	8	48	86%	Good
<i>Twaksputana</i>	62	6	56	90%	Good

Out of 30 pts, 8pts (26%) got Complete relief (100%), 15 pts (50%) got good relief, and 7 pts (24%) got moderate relief.

SUM OF ALL B.T & A.T VALUES

Mean, SD, & SE Values for Total B.T and A.T Values

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
B.T	7.0333	30	1.37674	.25136
A.T	1.0667	30	.82768	.15111

Test Statistics for total B.T & A.T Values

	A.T - B.T	P value	Percentage of relief
Z	-4.824 ^b	<0.0001	85
Asymp. Sig. (2-tailed)	.000		

P value shows extremely statistically significant.



Before Treatment

After Treatment

DISCUSSION

- Even though *Darunaka* is not a life threatening disease, it has high Cosmetic importance and it causes Social disturbance in both gender with untidy look by producing irritation, itching, shedding of the scales and hair fall. Hence Ayurveda classics dealt different procedures and medications to treat the disease *Darunaka*. One such treatment is *Shiro Abhyanga* which is a simple and easy procedure which does not have complications.
- It is noted that Students of age group in between 21-30 yrs and particularly females are more affected. This might be due to their habits and habitats or emotional ups and downs or might be of work stress or due to some hormonal changes.
- Present study it is observed that Frontal region of Scalp of females and *Vata pitta prakruti* Pts 20 (67%) is more affected with *Darunaka*.
- Common causes like Mental Stress, Non-timing daily activities & Exposure to environment (sun, fog, wind), *Atijagarana* played an important factors in aggravation of *Darunaka* in this study.
- In this study people with unhygienic activities like irregular hair wash, hatred to apply oil to hair and regular change of shampoos and improper life style are more involved. This show that unhygienic activity is one of the causes for *Darunaka*.
- In this study *Kandu*, *Rookshata*, *Twakspatana* showed good results compared to *Keshachyuti* (Moderate relief). Its is observed that Personal hygiene, diet, lifestyle, stress of an individual plays an important role in aggravation and remission of *Darunaka*.
- All the drugs present in both the yoga's are easily and economically available and have *Kaphavatahara*, *Kustagna*, *Krimigna*, *Kanduhara* and *Keshya* properties, which are effective in treating *Darunaka* (Pityriasis Capitis). Latest researches also proved that all these drugs have anti inflammatory, antifungal, anti helmenthic and antibacterial activities.

CONCLUSION

- Statistically *Gunja taila* with *Nimbatwak churna* showed significant effect with $P < 0.001$
- Hence clinically *Gunja taila* with *Nimbatwak churna* showed better results in treating *Darunaka*.

- No adverse effect occurred during and after the treatment.

REFERENCES

1. Harisadasivasastri, Editor. Ashtanga Hridayam by Vagbhata. 9th ed. Varanasi: Choukamba Samskruta Samsthan; 2012. p.59.
2. Classical uses of medicinal plants by P.V.Sharma (chowkambha vishwabharati) Page no. 127
3. Elewski BE. Clinical diagnosis of common scalp disorders. J Investig Dermatol Symp Proc. 2005; 10:190-3.
4. Gupta AK, Batra R, Bluhm R, Boekhout T, Dawson TL, Jr Skin diseases associated with Malassezia species. J Am Acad Dermatol. 2004; 51:785-98.
5. Piérard-Franchimont C, Xhaufaire-Uhoda E, Piérard GE. Revisiting dandruff. Int J Cosmet Sci. 2006; 28:311-8.
6. Piérard-Franchimont C, Piérard GE, Kligman A. Seasonal modulation of the sebum excretion. Dermatologica. 1990; 181:21-2.
7. Piérard-Franchimont C, Xhaufaire-Uhoda E, Piérard GE. Revisiting dandruff. Int J Cosmet Sci. 2006; 28:311-8.
8. Giacomoni P. U., Mammone T. & Teri M. Gender-linked differences in human skin. J Dermatol Sci 55, 144-149 (2009)
9. Leyden, JJ and Kligman, A.M. (Dandruff: Cause and Treatment), Cosmetics & Toiletries, 94, 23, 24 (1979).
10. Charakasuthrastanam 5/83 Vol I by R.K.Sharma, Bhagwan dash page no:124.
11. Text book of Dravyagunaby Dr. K. Nisteshwar (chowkambha surabharati prakashan) Page no. 419.
12. Chakradatta -Kshudra rogadhikara (A treatise on principles on Ayurvedic medicine) by P.V.Sharma -268
13. Dravyagunaviijnana by Dr.JLNSastry (Chowkambha) page no 126-127. Anti inflammatory activity- ref (Tidjani et al; 1989, Lorenz, 1976&kaki, 1976).
14. Dravyagunaviijnana by Dr.JLNSastry (Chowkambha) page no 691, Anti-helmenthic property (J.Res.Ind.Med. 1975, 10,138).
15. Dravyagunavignana by Dr. J.L.N. Sastry page no.126-127.
16. Yogaratnakara by Yeturu Srinivasacharyulu with Telugu Commentary "Amritikara, Vol-II, Pg;482.

Cite this article as:

D.Venkata Krishna Naik, P.Srikanth Babu. Study on Efficacy of Gunja Taila Shiro Abhyanga and Nimba Twak Churna in the Management of Darunaka w.s.r to Pityriasis Capitis. International Journal of Ayurveda and Pharma Research. 2016;4(12):15-20.

Source of support: Nil, Conflict of interest: None Declared

*Address for correspondence

Dr.D.Venkata Krishna Naik

P.G.Scholar,

P.G.Dept.of Kayachikitsa,

Dr.BRKR.Govt.Ayurvedic College,

S.R. Nagar, Hyderabad,

Telangana.

Email: krishnaayu111@gmail.com

Mobile no: 9652739467