



A RANDOMIZED CONTROLLED CLINICAL STUDY TO EVALUATE THE COMBINED ACTION OF AMRA BEEJA CHURNA (*MANGIFERA INDICA* LINN.) AND HARITAKI CHURNA (*TERMINALIA CHEBULA* RETZ.) IN MANAGEMENT OF DARUNAKA

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ABSTRACT

Introduction: Ayurveda is one of the most ancient systems and holistic health science of life, health, and care donated to humanity by the Indian heritage. There are 44 diseases considered as *Kshudraroga* [minor diseases]. *Darunaka* (dandruff) is one of 44 minor diseases according to *Acharya Sushruta*¹. It is a *Kaphavataja* condition featured with itching, dryness, and scaling of skin over the scalp region along with shedding off dead tissue from the scalp with an itching sensation is considered a cardinal feature. It has become the most common cause of hair-fall. Even though *Darunaka* is not a life-threatening disease, it is more of a social problem as a person with *Darunaka* is quite likely to feel down in the social ring. Through this study, I am aiming at a cost-effective and simple topical application of *Lepa* (topical application) using *Amra*, *Haritaki*, and milk as a combination. **Aims and Objectives:** The current study is to get relief from *Darunaka* using *Amra beeja churna* with *Haritaki churna* and *Dugdha* (milk) in the form of *Lepa* for topical application on the scalp, to compare the efficacy of this *Lepa* with *Shikkakai churna* hair wash. **Method:** A randomized controlled clinical study, with 30 subjects divided into two groups with fifteen members each as Group A (Trial group) and Group B (Control group), selected based on subjective and objective parameters (dandruff testing strips). **GROUP A:** Application of *Darunaka churna* (*Amra*

beeja churna and Haritaki churna) in equal proportion) made into *Lepa* using *Dugdha*(milk). Followed by *Shikkakai churna* for hair wash. **GROUP B (control group):** Application of *Shikkakai churna* for hair wash. Its efficacy was assessed before treatment (day 0), after treatment (day 7), and follow-up (day 14). **Result:** Before the intervention with *Darunaka churna Lepa* followed by *Shikkakai churna* hair wash (Trial group), the mean was 1.8 and after intervention (on the 7th day) the mean was reduced to 1.47. On (the 14th day) follow-up (in absence of medication), the mean was 1.33 whereas, in the control group, the mean was 1.6 and after intervention (on the 7th day) the mean was reduced to 1.33, on (14th day) follow up (in absence of medication), the mean was 1.33. **Conclusion:** Usage of *Darunaka churna* along with milk as *Lepa* followed by *Shikkakai* hair wash gave considerably good results than simple *Shikkakai churna* hair wash as *Shikkakai* only helped in cleansing.

Keywords: *Churna*: powder, *Lepa*: topical application of paste, *Darunaka*: dandruff, *Nidana*: causative factors, *Kashaya rasa*: astringent taste, *Ruksha guna*: dryness, *Snigdha*: oiliness.

INTRODUCTION

There are 44 diseases considered as *Kshudraroga* [minor diseases]. *Darunaka* is one of 44 minor diseases according to Acharya Sushruta. It is a *Kapalagataroga*(diseases of head)but Sushruta and other acharyas have explained this under *Kshudrarogas*. Dandruff is a skin condition mainly affecting the scalp and is classified under seborrheic dermatitis. It is the most common scalp disorder in adolescence and adulthood. It is a *Kaphavataja* (due to *Kapha* and *Vata Doshas*) condition featured with itching, dryness, and scaling of skin over the scalp region along with shedding off dead tissue from the scalp with an itching sensation is considered a cardinal feature. It has become the most common cause of hairfall. In Ayurveda, various acharyas have talked about the use of *Ahiphena*, *Gunja*, *Priyāla*, *Kodrava*, etc drugs to overcome *Darunaka*. In this study, I am using *Lepa* of *Amra*, *Haritaki*, and milk as the combination followed by *Shikkakai churna* hair wash for the trial group and without *Lepa Shikkakai churna* hair wash for the control group.

OBJECTIVES OF THE STUDY:

- The current study is to get relief from *Darunaka* using *Amra beeja churna* with *Haritaki churna* and *Dugdha* in the form of *Lepa* (*Darunaka churna*) for topical application on the scalp.
- To compare the efficacy of *Darunaka churna* with *Shikkakai churna*.

MATERIALS AND METHOD:

The present clinical trial has been cleared by the Institutional Ethical Committee with reference no. SSIIEC/111/2020 dated 27/02/2020.

STUDY DESIGN:

The source of data was selected from OPD at Sri Sri College of Ayurvedic Science and Research Hospital, Bangalore. A randomized controlled clinical study, with 30 subjects divided into two groups with fifteen members each as Group A (Trial group) and Group B (Control group), was selected based on subjective and objective parameters (dandruff testing strips).

INCLUSION CRITERIA

- Subjects presenting with signs and symptoms of *Darunaka* will be selected.
- Subjects of age group 21 to 40 years.
- Subjects who are willing to give informed consent.

EXCLUSION CRITERIA

- Patients having other skin diseases like psoriasis, immunodeficiency diseases, hypersensitivity, and atopic dermatitis. pregnant women.

INTERVENTION:

GROUP A: Application of *Darunaka churna* (*Amra beeja churna* and *Haritaki churna* in equal proportion) made into *Lepa* using *Dugdha*². Followed by *Shikkakai churna* for hair wash.

GROUP B (control group): Application of *Shikkakai churna* for hairwash³.

Intervention details:

- Mode of administration: *Lepa* (topical application)

- Time of administration: anytime from morning 6:00 am to evening 6:00 pm.
- Duration: 20 minutes.
- Testing using dandruff testing strips on day 1, day 7, and day 14.

DURATION OF STUDY: 14 days

- Duration of drug administration: 7 days.
- Follow up: the 14th day.

ASSESSMENT CRITERIA:

OBJECTIVE PARAMETERS: Anti-dandruff strip test. (High-3, Medium-2, Low-1)

SUBJECTIVE PARAMETERS⁴:

- *Kandu*(itching)
- *Tvaksphutana* (scaling or flakes)
- *Keshachyuti* (Hairfall)
- *Keshabhoomirukshata* (dryness)
- *Daruna* (difficult to tolerate)
- *Swapa* (loss of sensation of touch)

Table 01:

RATINGS	ABSENT	MILD	MODERATE	SEVERE
<i>Kandu</i>	0	1	2	3
<i>Tvaksphutana</i>	0	1	2	3
<i>Keshachyuti</i>	0	1	2	3
<i>Keshabhoomirukshata</i>	0	1	2	3
<i>Daruna</i>	0	1	2	3
<i>Swapa</i>	0	1	2	3

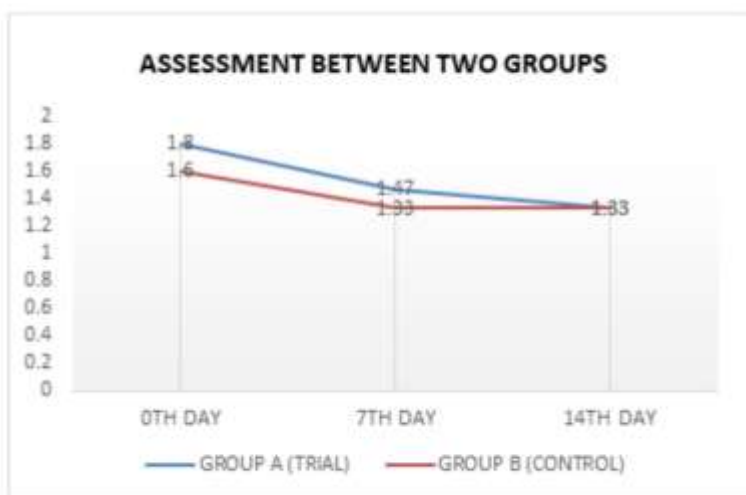
STATISTICAL METHODS:

The results of the present study were analyzed statistically by applying paired and unpaired "t" tests, Wilcoxon's rank sum test, and Wilcoxon's signed rank test. The software used is SPSS Version 20.0

RESULT:

Before the intervention with *Darunaka churna Lepa* followed by *Shikkakai churna* hair wash (Trial

group), the mean was 1.8 and after intervention (on the 7th day) the mean was reduced to 1.47. On (the 14th day) follow-up (in absence of medication), the mean was 1.33 whereas, in the control group, the mean was 1.6 and after intervention (on the 7th day) the mean was reduced to 1.33, on (14th day) follow up (in absence of medication), the mean was 1.33.



Graph showing the effect of treatment, comparing the two groups on day 0, day 7, and day 14.

DISCUSSION

- Reference of this formulation is available in *Bhavaprakasa*⁵, *Shabdakalpadruma*⁶, *Dhanvantari nighantu*⁷, *Kaiyadeva nighantu*⁸, *Sushruta Samhita*⁹.
- The data, based on observing the prevalence of dandruff in the Indian population shows the most occurrence of dandruff in females, age group of 20-25 yrs. and thus necessitates the treatment.
- The drug mango being seasonal fruit and cost-effective gives scope for testing its efficacy in managing *Darunaka*.
- Selection of *Shikkakai* as the standard drug was done, as it is always appropriate to compare the obtained results of trial drug with already proven effective medicine⁷The result indicates that the usage of *Darunaka churna Lepa* helped in reduction of *Kandu*, *Tvaksphutana*, and *Keshachyuti* due to dandruff.
- Usage of *Darunakachurna* along with milk as *Lepa* followed by *Shikkakai* hair wash gave considerably good results than simple *Shikkakaichurna* hair wash as *Shikkakai* only helped in cleansing.
- There was recurrence in dandruff after the treatment period was over and this might be due to the continuation of indulgence in *Nidanas*.
- Medicine application in the form of *Lepa* was difficult to apply and was time-consuming.
- There was relief from the signs and symptoms of *Darunaka* only till the time they used the medications, there was the recurrence of dandruff.
- Subjects who used *Shikkakaichurna* (control group) complained of dryness of hair and scalp.

PROBABLE MODE OF DRUG ACTION:

- As both the drugs have *Kashaya Rasa* and *Ruksha Guna*, which help in reducing the *Snigdhatva* on

the skin, which further helps in regularizing hair growth.

- As the drug has anthraquinone type of glycosides and triterpenoids which are very much responsible for the anti-inflammatory and anti-microbial activity which helps in reducing the production of sebum and controlling the Hairfall by controlling the dry scaly skin.

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