



Effect of Darunakaroganashaka Arka In Darunaka - A Case Series

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ABSTRACT

Darunaka is a common relapsing scalp condition that negatively effect the quality of life of the sufferer. It is a kapha vata predominant condition and kandu, twak sputana, rukshata and keshachuti are the symptoms explained in classics. Different procedures and medication are mentioned in Ayurveda for the treatment of the disease Darunaka. This is a pre and post study to evaluate the efficacy of Darunakaroganashaka arka mentioned in Arkaprakasha for the management of Darunaka. Arka is prepared out of Haritaki, Amrabeeja majja and goksheera and is applied externally over the scalp to reduce the condition. The study was effective in reducing the symptoms of Darunaka with less reoccurrence rate and easy application.

Introduction

Darunaka¹ is a common scalp disorder affecting large number of population that negatively affect the quality of life of a person. It is included under one among the Kshudrarogas by Susruta, Bhavaprakasa, Madhava nidhana, Yogaratnakara, Bhaishajya ratnavali, and Cakradatta while Vagbhata mentioned it under Kapala rogas². It's a Kapha Vata predominant condition. The symptoms include Twak sputana (cracking of the skin), Kandu (itching),Kesha chyutti (falling of hair), Keshabhoomi rukshata(dryness of scalp). Based on the symptoms it can be correlated with dandruff of modern medical science. Different kinds of antidandruff product are available in the market and modern pharmaceutical companies are spending millions of dollars each year for introducing new antidandruff products. But most of the time many of these products are high cost, low efficacy, and with high reoccurrence rate. Our Ayurvedic classics mentions different procedures and medication for the treatment of disease Darunaka. So one such treatment is mentioned in Arkaprakasha, the external application of Darunakaroganashaka arka³ prepared out of Haritaki, Amrabeeja majja and Ksheera.

Materials And Method

Collection and procurement and authentication of raw drugs

Preparation of Arka

Physicochemical analysis of the drug

Clinical study

Collection, Procurement And Authentication Of Raw Drugs

Raw drugs are collected from authentic source and are taxonomically identified.

Preparation Of Darunakanashaka Arka

Simple distillation was used for the preparation of arka. 60g each of coarsely powdered Amrabeejamajja and Haritaki was taken in a vessel. To that 1200 ml of Goksheera was added and soaked it for 3 days. After 3 days the soaked material along with the milk was transformed into a round bottom flask. And the apparatus

was fitted for distillation. About 700 ml of distillate was collected and when cooled was stored in airtight container. Process was repeated for several times to get the sufficient quantity of distillate for clinical study.

Physicochemical Analysis

All the physicochemical parameters of Arka was done.

Clinical Study

This study has conducted to assess the clinical efficacy of Darunakaroganashaka Arka. 20 patients were selected randomly as per the inclusion and exclusion criteria. Only one group was selected for the study and pre and post assessment has done. All the 20 patients participated successfully till the end of study.

Duration Of Study- 21 Days

Method

Patient is asked to apply the arka over the scalp and wait for 30 minutes and wash with normal water. The procedure was done in alternate days. During these study period patient is advised not to use any shampoos over the scalp.

Inclusion Criteria

Patient of age group between 10 to 60 yrs of both sex are selected.
Patients having classical features of Darunaka was selected for the study.

Exclusion Criteria

Psoriasis of the scalp, Allergic manifestation, condition were head wash restricted.

Assessment Criteria

Assessment was done based on the signs and symptoms of Darunaka and scoring was done using the gradation index. Assessment was done before treatment, after treatment (14 day) and during follow up (21day). Findings are recorded and result is statistically analysed.

Gradation Index ⁴

Kandu;(Itching)

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

Twak sputana(Scaling/Cracking of skin)

- 0 – No scaling
- 1 – Mild scaling
- 2 – Moderate
- 3 – Severe

Rukshata(Dryness)

- 0 – No dryness
- 1 – Mild(Dryness with rough skin)
- 2 – Moderate(Dryness with scaling))
- 4 – Severe(Dryness with cracking skin)

Keshachyuti (Falling of hair)

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

Result

Stastical analysis was done using SPSS VER 20. Wilcoxon sign rank test is used to interpret the result. (Table 1,2,3,4)

Table 1. Effectiveness of treatment on Kandu

Kandu		N	Mean Rank	Z -value	P- value
Kandu AT – Kandu BT	Negative rank	20 ^a	10.50	-4.035 ^b	0.0001
	Positive rank	0 ^b			
	Ties	0 ^c			
Kandu FU – Kandu BT	Negative rank	20 ^d	10.50	-4.058 ^b	0.0001
	Positive rank	0 ^e			
	Ties	0 ^f			
a - AT< BT; b - AT>BT; c - AT = BT d - AT< BT; e - AT>BT; f - AT = BT					

Table 2. Effectiveness of treatment on Twak sputana

Twak sputana		N	Mean Rank	Z -value	P- value
Twak sputana AT – Twak sputana BT	Negative rank	18 ^a	9.50	-3.804 ^b	0.0001
	Positive rank	0 ^b			
	Ties	2 ^c			
Twak sputana FU – Twak sputana BT	Negative rank	18 ^d	9.50	-3.862 ^b	0.0001
	Positive rank	0 ^e			
	Ties	2 ^f			
a - AT< BT; b - AT>BT; c - AT = BT d - AT< BT; e - AT>BT; f - AT = BT					

Table 3. Effectiveness of treatment on Rukshata

Rukshata		N	Mean Rank	Z -value	P- value
Rukshata AT – Rukshata BT	Negative rank	20 ^a	10.50	-4.179 ^b	0.0001
	Positive rank	0 ^b			
	Ties	0 ^c			
Rukshata FU – Rukshata BT	Negative rank	19 ^d	10.00	-4.065 ^b	0.0001
	Positive rank	0 ^e			
	Ties	1 ^f			
a - AT< BT; b - AT>BT; c - AT = BT d - AT< BT; e - AT>BT; f - AT = BT					

Table 4. Effectiveness of treatment on Kesa chyuthi

Kesa chyuthi		N	Mean Rank	Z -value	P- value
Kesa chyuthi AT – Kesa chyuthi BT	Negative rank	19 ^a	10	-3.963 ^b	0.0001
	Positive rank	0 ^b			
	Ties	1 ^c			
Kesa chyuthi FU – Kesa chyuthi BT	Negative rank	19 ^d	10	-4.021 ^b	0.0001
	Positive rank	1 ^e			
	Ties	1 ^f			
a - AT< BT; b - AT>BT; c - AT = BT d - AT< BT; e - AT>BT; f - AT = BT					

DISCUSSION

The aim of the study was to evaluate the efficacy of Darunakaroganashaka Arka in Darunaka, assessed by reduction in the symptoms like Kandu, Twak sputana, Rukshata and Keshachyuthi which are the cardinal symptoms explained in our classics. In this study 80% of the patients were females. Highest patients were seen in student category and are of 70%. Excess sebum secretion, excess use of hair care products may be the reason for increased occurrence in students. 65% of the patients are from urban area may be due to the use of chlorinated water causing skin of scalp to become dry and flake, ultimately leads to dandruff and hair fall. The statistical analysis shows that Darunakaroganashaka Arka is effective in reducing the symptoms of darunaka. Wilcoxon sign rank test is used to interpret the result. Overall assessment in reduction of Kandu, Twak sputana, Rukshata and Keshachyuthi was found to be significant at p < 0.05. Although there was a slight elevation during the follow up but it is not statistically significant. Haritaki has lavana varjita pancha rasa, laghu, ruksha guna, ushna virya , madhura vipaka and tridosahara property. Due to this it helps in

reducing the twak sphutata and rukshata. Amrabeeja has kasaya rasa, katu vipaka, sheeta virya and kaphapittahara property which help in reducing the kandu and keshachuti. Also both haritaki and amrabeeja has krimigna property. Godugdha gives snigdhatva to scalp and reduces the rukshata. So combination of all these drugs with their combined action helps in breaking the pathology of the disease.

CONCLUSION

Darunaka is a disease confirmed to Scalp and local application in scalp gives preventive and curative effect to Darunaka. Arka when compared to other formulation is more potent, has more shelf life, easy absorption, fast action and patient compliance. Because of all these property the arka prepared out of Haritaki, Amrabeeja majja and Ksheera is an effective medicine for Darunaka which is convenient to use and with less reoccurrence rate.

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