



Case Report

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Masha Kanji Shirolepa: An effective treatment modality in the treatment of Darunaka - A Case Study

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ABSTRACT

Dandruff is one of the commonest scalp disorders of high cosmetic value. The clinical features include skin flaking, pruritus, irritation, feeling of a tight or dry scalp and hairfall. These symptoms are mentioned in Ayurveda classics as *Twak Sphutana*, *Kandu*, *Kesha Bhoomi Rukshata*, *Keshachyuti* in *Darunaka* described under *Kapaalaroga* by Acharya Vagbhata. Contemporary treatment of Dandruff advocates prescription that is highly expensive. Thus, there is a need for cost effective, simple and safe intervention in the management of the same. In the present study, a 26-year-old female having the features of Chronic Dandruff was treated with *Masha Kanji Shirolepa*. Marked improvement in the signs and symptoms were observed after treatment.

Keywords: Dandruff, Darunaka, Masha Kanji Shirolepa.

INTRODUCTION

The prevalence rate of Dandruff across the world is about 50% in the general population [1], and varies between 30-95% in Indian population [2]. It is the commonest scalp disorder that chiefly occurs in adolescents and young adults. The main clinical feature is skin flaking. Loosely adherent, small white or grey flakes are seen in Dandruff. The other symptoms may be pruritus, irritation, the feeling of a tight or dry scalp and hairfall [3]. Similar features are seen in the *Darunaka*, a *Kapaalagata roga*.

According to contemporary medical science, the treatment protocol advises keratolytic, antimicrobial, and antiproliferative agents for Dandruff [4]. In Ayurveda, abundant number of preparations are mentioned for local and topical administration ie; *Shirolepa*, *Basti*, *Dhara*, etc. One among the simple yogas mentioned is *Masha Kanji Shirolepa* [6]. As this *Lepa* consists of simple, easily available and cost-effective drugs, it is adopted in the current study to check for its effectiveness in *Darunaka*.

CASE REPORT

Presenting Complaints

A twenty six year old female patient, reported to OPD with complaints of:

- Moderate Flaking in scalp region since nine months.
- Associated with Moderate feeling of dry scalp and hair fall since three months.

History of Present illness

A twenty six year old female patient from middle class family was apparently normal with respect to scalp health before nine months. Gradually she observed increased flaking in front of scalp and later spread all over the scalp. She also mentioned about gradual dryness of scalp and increasing hair fall since three months. As the complaints progressed, effecting her social life, she came to the hospital for further management.

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Her frequency of head wash and oiling the scalp were once a week.

History of past illness

Nothing significant.

Treatment history

Nothing significant.

Family History

None of the other family members had similar complaints.

Personal History

Diet – Vegetarian.

Appetite – Good.

Micturition – 6-7 times a day; Regular.

Bowel – Regular.

Sleep – Sound.

Habits – Nil.

Menstrual History – Regular.

Assessment Criteria

Subjective Parameters

- Flaking in scalp.
- Itching in scalp.
- Feeling of tight or dry scalp.
- Hair fall.

Objective Parameters

- Dandruff strip test.

Symptoms seen in the patient on 0th day [Before treatment], 8th day [After treatment], 14th day [1st follow up] and 21st day [2nd follow up] were recorded based on the grading as tabulated below.

After ensuring the hair was dry and clean, partition of hairs was made in centre of scalp. The test strip was placed over the area and was pressed moderately for 10 seconds. Then the strip was removed and compared with the reference scale. It was then grouped as below for assessment.

- Photography.

Before dandruff strip test, photograph of the strip test area of scalp was taken on 0th day, 8th day, 31st day and 60th day.

Clinical Examination

Local Examination

Hair:

Length – Long.

Density – Reduced.

Localized Alopecia – Absent.

Diffuse Alopecia – Absent.

Scalp Skin:

Dry.

Erythema – Absent.

Papules/ erosions/ pustules – Absent.

Nits/ Lice – Absent.

Eyebrows – Normal.

Eyelashes – Normal.

Diagnostic Criteria

Based on history, the manifested symptoms and clinical findings, the case was diagnosed as Dandruff (*Darunaka*). Informed consent was taken from the subject before the treatment.

Table 1: Assessment of subjective parameters

| SL. No. | Symptoms | 0 | 1 | 2 | 3 |
|---------|--|--------------|--|--|---|
| 1. | <i>Twak Sphutana</i> (Flaking in scalp) | No scaling | Mild (Scaling less than 1/4 th part of scalp) | Moderate (Scaling more than 1/4 th part of scalp) | Severe (Scaling more than 3/4 th of scalp) |
| 2. | <i>Kandu</i> (Itching) | No itching | Mild | Moderate | Severe itching |
| 3. | <i>Keshabhumi Rukshata</i> (Feeling of tight or dry scalp) | No dryness | Mild (dryness with rough skin) | Moderate (dryness with scaling) | Severe (dryness with cracking) |
| 4. | <i>Kesha Chyuti</i> (Hair fall) | No hair fall | Mild | Moderate | Severe |

Table 2: Dandruff strip test scoring

| Score | Reference scale reading |
|-------|-------------------------|
| 0 | Absent |
| 1 | Mild |
| 2 | Moderate |
| 3 | Severe |

Table 3: Treatment plan

| Treatment | Dose | Duration | Assessment & Follow up period | Study period |
|------------------------|-------------|----------|--|--------------|
| MASHA KANJI -SHIROLEPA | 30g + 30 mL | 73. DAYS | 1 st assessment - 0 th day 2 nd assessment - 8 th day 1 st follow up - 14 th day 2 nd follow up - 21 st day | 21 days |

Table 4: Description of intervention

| | |
|-----------------------------------|---|
| <i>Shirolepa with Masha Kanji</i> | Dose: 1 Packet of <i>Masha Choorna</i> [30 g] + 30 ml of <i>Kanji</i> Method: <i>Masha Choorna</i> [30 gram] is added to 30 milliliter of <i>Kanji</i> to make a <i>Lepa</i> . This paste was applied over entire scalp. Slight massage done for 5 minutes after the application of <i>Lepa</i> over the scalp and kept for 15 minutes, after which the patient was advised to take head bath. Duration: 7 days |
|-----------------------------------|---|

RESULTS

Considerable positive changes were seen in subjective parameters as well as objective parameter as shown below.

Table 5: Observations seen on 0th day, 8th day, 14th day and 21st day

| Parameters | Assessments | OD |
|--|----------------------|---------|
| <i>Twak Sphutana</i> (Flaking in scalp) | 0 th day | Grade 2 |
| | 8 th day | Grade 0 |
| | 14 th day | Grade 1 |
| | 21 st day | Grade 1 |
| <i>Kandu</i> (Itching) | 0 th day | Grade 1 |
| | 8 th day | Grade 0 |
| | 14 th day | Grade 0 |
| | 21 st day | Grade 0 |
| <i>Keshabhumi Rukshata</i> (Feeling of tight or dry scalp) | 0 th day | Grade 1 |
| | 8 th day | Grade 0 |
| | 14 th day | Grade 0 |
| | 21 st day | Grade 0 |
| <i>Kesha Chyuti</i> (Hair fall) | 0 th day | Grade 2 |
| | 8 th day | Grade 1 |
| | 14 th day | Grade 1 |
| | 21 st day | Grade 1 |
| Dandruff strip test scoring | 0 th day | Grade 3 |
| | 8 th day | Grade 0 |
| | 14 th day | Grade 0 |
| | 21 st day | Grade 1 |



Figure 2: After treatment

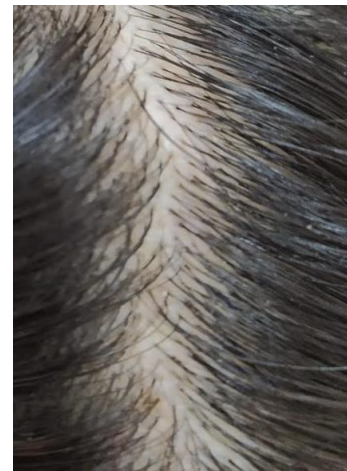


Figure 3: First follow up



Figure 4: Second follow up

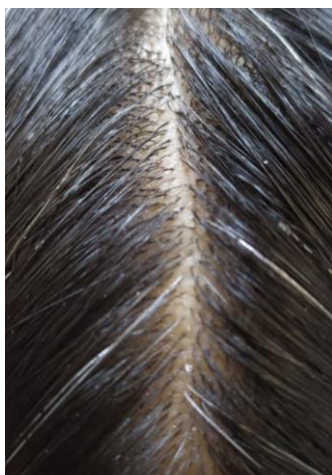


Figure 1: Before treatment

DISCUSSION

Masha Kanji Shirolepa

Shirolepa by *Masha Kanji* is explained by Chakradatta with *Masha Choorna* and *Kanji* as ingredients.

The *Guru, Snigdha, Sara Guna* and *Vata Shamaka* property of *Masha* might help to reduce the *Keshabhumi Rukshata* and *Kesha Chyuti*.

Kanji having *Laghu*, *Teekshna Guna* might help in effective absorption of *Masha Choorna* and also can alleviate the *Prakupita Vatakapha Dosh* which causes *Darunaka*. Due to its *Vatahara* property, effect is seen in symptoms of *Twak Sphutana*, *Keshabhumi Rukshata* and *Kesha Chyuti* while its *Kaphahara* property could have an effect on the symptom *Kandu*. It also might have played the role of base of *Lepa* by its *Laghu*, *Teekshna Guna* and *Ushna Veerya* thereby acting as a potent vehicle for *Masha*. In addition, hair follicles are considerable weak spots in the protective scalp skin against certain hydrophilic drugs and allows a fast delivery of topically applied substances [7].

This formulation has a combination of *Madhura-Amla Rasa*, *Ushna Veerya*, *Madhura Vipaka* and *Laghu*, *Teekshna*, *Snigdha Guna*. Thus has *Doshakarma* of *Vata-Kapha Shamana*. *Masha* has binding property and *Kanji* acts as medium for action of *Dravya*.

The liquid medium is acidic in nature, it aids in removal of excess oil from scalp and thereby creates an atmosphere not suitable for the infectious causative agents to thrive there [8].

CONCLUSION

Darunaka correlated to Dandruff, is one of the scalp diseases of high prevalence rate across the world. Management of this condition is important since it has negative impact on patient's social life. This case showed significant improvement in most of the parameters according to the assessments done during and after treatment which was retained till the follow ups. Thus concluding, simple treatment modality *Masha Kanji Shirolepa* proved an efficient way in this study by preventing its progression and managing the features of *Darunaka* effectively.

Conflict of Interest

None declared.

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