

A COMPARATIVE CLINICAL STUDY TO EVALUATE THE EFFICACY OF NEEM LEAVES MIXED WITH MUSTARD OIL SHIRO ABHYANGA OVER THE NEEM LEAVES MIXED WITH MUSTARD OIL SHIRO ABHYANGA AND NASYA WITH TULSI OIL IN THE MANAGEMENT OF DARUNAKA (DANDRUFF)

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ABSTRACT

Dandruff is a common scalp condition characterized by shedding of dead skin cells from the scalp. It can occur due to various factors such as dry or oily skin, fungal infections (particularly caused by *Malassezia* yeast), Seborrheic dermatitis, psoriasis, eczema, stress, poor hygiene and certain haircare products. The typical symptoms include the presence of white or yellow flakes on the scalp, itching and scalp irritation. Darunaka or commonly known as Dandruff according to Ayurveda, Darunaka is a vata kapha predominant tridosha disease. A clinical study was conducted to assess the comparative effect of Neem Leaves mixed with Mustard Oil Shiro Abhyanga over the Neem Leaves mixed with Mustard Oil Shiro Abhyanga and Nasya with Tulsi Oil in the management of Darunaka (Dandruff). 20 patients with Darunaka were taken and randomly divided into 2 groups consisting of 10 patients in each group such as Neem Leaves mixed with Mustard oil Shiro Abhyanga as Group A and Neem Leaves mixed with Mustard

Oil Shiro Abhyanga and Nasya with Tulsi as Group B. Shiro Abhyanga is adopted for both with a duration of 1 month and Nasya is adopted for group B with the duration of 15 days. Grading of severity were given for clinical sign and symptoms based on before and after

treatment. The overall effect of the study showed 50% complete cure, 30% mild cure and 20% have felt no change.

KEYWORDS: Darunaka, Shiro Abhyanga, Dandruff, Nasya, Tulsi oil, Mustard oil.

INTRODUCTION

The word “Dandruff” is of Anglo-Saxon origin, a combination of tan meaning tetter and drof meaning dirty. Thus, dandruff is 'itch-dirt'. Other names for this condition are pityriasis simplex, furfuracea or capitis.

Dandruff or commonly known as Darunaka, is a disorder that affects the scalp. Ayurveda places the problem of dandruff in the category of Shudra Roga and shiroroga, which appears due to an imbalance of all three doshas. The primary doshas involved are Kapha and Vata. Kapha is an Ayurvedic humor which symbolizes Softness, Stickiness, provides nourishment and lubrication. Vata is dry and rough in nature. In an aggravated state, both doshas as per their predominance cause the production of specific impurities in scalp, which are dry and sticky in nature.

Shiro Abhyanga and Nasya are in the line of treatment mentioned by Acharya Vagbhata in Astanga Hridaya and Acharya Chakrapani in Chakradatta in the management of Darunaka. Hence, an attempt is made to know the effect of of Neem Leaves mixed with Mustard Oil Shiro Abhyanga over the Neem Leaves mixed with Mustard Oil Shiro Abhyanga and Nasya with Tulsi Oil in the management of Darunaka (Dandruff). Neem leaves are a great source of minerals, vitamins and good fatty acids with nimbidin that has anti-inflammatory, anti-bacterial as well as anti-fungal properties and also fights off scalp issues like redness, itchiness, etc. The best part about neem is that it can be used to help all kinds of skin (dry, oily or normal). Mustard oil contains allyl-isothiocyanate which is anti-fungal in nature whereas tulsi leaves known as queen of herbs has phytochemical (Linalool, Carvacrol and Eugenol) may help with dandruff by its antiseptic properties, balancing sebum production, reducing scalp inflammation, and improving blood flow to the scalp.

Sushruta elaborated 44 Ksudra rogas, and Vagbhata mentioned 36 Kshudra rogas. Acharya Vagbhata and Sharangadhara explained Kapala Rogas and considered Darunaka under Kapala Roga. In later periods Yogaratnakar, Bhaishajya Ratnavali etc. have also explained Darunaka under Ksudrarogas.

There are three main factors that aid the formation of dandruff. They are fungal infections of the scalp, sebaceous secretion and individual sensitivity to substances. The presence of excess sebum over the scalp, gender, age, region of the scalp and micro-organisms are known as the risk factors for dandruff formation. The most widely accepted microbial organisms are the lipophilic yeasts which belong to the genus *Malassezia*. Frequent exposure to sunlight, over shampooing, frequent combing, use of some cosmetic products and exposure to dust and dirt can be identified as non – microbial causes of dandruff.

Dandruff causes white, dry flakes of dead skin cells to shed from the scalp. Although dandruff rarely causes baldness and hair loss, the itchiness of this condition may most certainly be a cause of concern. If white flakes persist for a long time, the person may experience symptoms of seborrhoea, psoriasis, or eczema. Dandruff affects the self-confidence and makes one embarrassed in public. It may increase sharply with poor hygiene conditions.

AIMS AND OBJECTIVES

To evaluate the efficacy of Neem Leaves mixed with Mustard Oil Shiro Abhyanga over the Neem Leaves mixed with Mustard Oil Shiro Abhyanga and Nasya with Tulsi Oil.

MATERIALS AND METHODS

A total of 20 patients satisfying the analytic standards for Darunaka regardless of their sex and religion were selected by random sampling technique for the present study from OPD of the Kayachikitsa Department, later when requesting authorization from the institutional ethics committee the required material was Neem Leaves, Mustard oil and Tulsi oil.

Inclusion Criteria

1. Patients were selected irrespective of sex, religion, occupation, economic status, food habits, and chronicity.
2. Age group between 15 to 50 years.
3. Only the cases of classical clinical features of Darunaka.

Exclusion Criteria

1. Patients with features other than the Darunaka.
2. Any other skin disorders like scalp psoriasis, eczema, urticarial rashes.
3. Any open wound if noted.

Diagnostic Criteria

1. According to the text, the presence of signs and symptoms of Darunaka is essential for the diagnosis.
2. Routine haematology tests such as CBC, ESR, and RBS were performed to rule out any other pathology.

Assessment Criteria*Subjective Parameter*

- Kandu

Objective Parameter

- Digital USB Microscope
- Rukshata
- Keshabhumi Prapatana
- Keshachyuti

Intervention***Group A***

Neem Leaves mixed with Mustard Oil Shiro Abhyanga daily.

Duration: 28 days

Follow Up: Every 15 days

Group B

Neem Leaves mixed with Mustard Oil Shiro Abhyanga and Nasya with Tulsi Oil daily.

Duration: 28 days

Follow Up: Every 15 days

OBSERVATION

Application group of 20 registered patients. Patients were selected randomly and divided into two groups containing every 10 individuals.

RESULTS

The age group selected for the study is between 15-50 years. The observations of the present study in the age category reveal that 75% of the age group is between 15-30 years, and 25% of the age group is between 30- 50 years. About 35% are male and about 65% are female. In

terms of habitat, 97.5% are found in urban areas. Almost all the symptoms were observed in all the patients, but the rate of the Daruna (flakes) was observed at about 100%. Aggravating factors about 71.11% were exposed to cold weather, and about 28.88% were exposed to wind exposure, it is observed that most of the Darunaka are seen in cold weather. The overall effect of the symptoms in Group B shows that Neem Leaves mixed with Mustard Oil Shiro Abhyanga and Nasya with Tulsi Oil is highly significant in the improvement in Darunaka.

In both groups, all of the patients with Darunaka selected for the trial demonstrated improvement in all of the measures. On the other hand, Neem Leaves mixed with Mustard Oil Shiro Abhyanga and Nasya with Tulsi Oil exhibited a significant result than Neem Leaves mixed with Mustard Oil Shiro Abhyanga. The changes between the groups were also found to be significant in both groups.

DISCUSSION

Darunaka is explained under the context of Kshudra Roga & Kapalgata Ragas. There are 44 Kshudra Rogas explained by Sushrut and under 9 Kapala Gata Rogas by Vagbhatta. In Vedic mythology, we come across the word Darunaka or Kshudra Roga in Garuda Purana. In Garuda Purana, under the section of Dhanvantari Samhita in the 179 chapter that is Ksudraoga Darunaka is elaborated illustrating that the scalp becomes "rough and encrusted". Another well-known Purana, which is one of the main books of Hindu philosophy, is Srimad Bhagavatam. We come across the word Daruna in this text, which is "Daruna Cestasah," which means "very hard-hearted," and thus. the word Daruna means "hard, rough, and dreadful." So, in this context, Darunaka (minor ailment) is rough, hard/harsh relating to the scalp. Considering Nidanas, Pragvata (exposed to wind), Dhooma (exposed to smoke), Atapa (exposed to sun), and Raja (exposed to dust) among the Nidanas mentioned, as well as the related Darunaka ailment. Darunak is primarily Kapha-Vata vitiation but is also associated with Pitta and Rakta. Daruna, Kandu, Keshabhumi Prapatana, Kesha Chyuti, and Rukshata are the Lakshnas considered for the present study by Sushruta. Daruna here means Kathina, harsh, here it is related to flakes of Darunaka, Kandu is related to itching, Keshabhumi Propotana is related to cracking of the scalp, Kesha Chyuti is related to hair fall and Rukshata is related to dryness of the scalp. Other Lakshnas include Swapa and Twak Sphutana. As Darunaka is Kapha-Vata vitiation and Pitta and Rakta as associated with Doshas and present Lakshnas like Daha (burning), and Raga (redness). Neem leaves & Mustard Oil plays an important role in the present study. It is known as the application of the Taila on the head

Shiro Abhyanga is a part of Neem leaves & Mustard Oil. We find the reference in classics about the qualities of Shiro Abhyanga as it removes Kandu, Rukshata, and Mala, and about 2.4 minutes is explained for absorption of Sneha in conditions like Ruksha. Because 300 Matrakala oil enters into the hair follicles and 400 Matra Kala enters the skin, which aids in medication absorption, patients were instructed to massage for at least 2-5 minutes approximately.

Probable mode of action

The Neem Leaves are predominantly tikta and kashaya Rasa, sheeta Veerya, Katu Vipaka, Laghu Guna, and Tridosahara also helpful in all skin disorders. Similarly, Mustard oil is predominantly of Katu, Tikta Rasatmaka, Ushna Veerya, Katu Vipaka, and Laghu, sanigdha Gunas which are beneficial in lowering Vata and Kapha imbalance. They also have qualities like Kandughna, Twachya, and Kustaghna, which are very effective in alleviating the symptoms of Darunaka. A soft and gentle massage improves blood circulation in the Kapala Pradesha and relieving dryness and therefore reduces shedding. Tulsi oil has Katu, Tikta Ras, Ushan Veerya, Katu Vipaka and Laghu, Tikshan Gunas. These Gunas of components deal with microbicidal and other aspects of the ailment.

DISCUSSION ON OVERALL RESULTS

The use of Neen Leaves in Mustard Oil and Tulsi Oil showed a significant impact on Darunaka management. In just one month, there was significant improvement in clinical symptoms.

As a result of the a foresaid research, we may deduce that

Group A- In this 25% are completely cured, 55% are mild cured, and 10% of them have no change in the treatment.

Group B- In this 80% are completely cured, 15% have mild change, and 5% have no change in the treatment.

However, statistical data shows that group B had a greater reduction in all the 5 symptoms (Daruna, Kandu, Keshabhumi Propatana, Keshachyuti and Rukshota) than group A. As a result, we may conclude that Neem Leaves mixed with Mustard Oil Shiro Abhyanga and Nasya with Tulsi oil is more important than the Neem Leaves mixed with Mustard Oil Shiro Abhyanga among the two groups.

CONCLUSION

Since Snehana, in any form, is beneficial and equally nourishes the body and has been used as primary treatment in all Dosha Vikaras since the Samhita time. Darunaka is a condition described in Kapala Gata Rogas, and in today's science, it can be co-related to Dandruff.

As many therapeutic options are available for Darunaka have been listed in Samhitas. Because of the intensity and frequency of recurrence, Shiro Abhyanga and Nasya are one of these modalities.

Shiro Abhyanga is a head massage that has numerous benefits for scalp health and hair growth. The massage is meant to induce a state of complete relaxation by focusing on marma points. Marmas are vital pressure points on our body mapped out by Ayurveda. It is believed that focusing on these points can promote health and longevity, and are used for the treatment of diseases as well.

Shiro Abhyanga counteracts different aspects of the disease process thereby achieving the Samprapthi vighatana and thus pacifies the disease. Abhyanga is the procedure which has to be done on daily basis as told in Dincharya particularly it is done on Shira, Karna and Pad Pradesh.

In the current study, application of oil to the afflicted scalp, i.e., a type of Snehana in the Kapha Vataja Vikara, Neem leaves, Mustard Oil and Tulsi Oil possess Tikshna and Ushna properties, hence it helps to alleviate Kapha and equally provides Snehamsha Guna for Vata and it is also simple, cost-effective, and OPD-based treatment which is universally accepted.

Strengths of the Study

Neem leaves, Mustard Oil and Tulsi Oil Shiro Abhyanga are self-applicable, easy and cost effective. No topical or systemic adverse drug effects were reported throughout the study.

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