

EFFICACY OF SHIRISHA TWAK LEPA IN THE MANAGEMENT OF DADRU

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ABSTRACT

In recent years, skin diseases have gained more importance and attention, by the medical science as well as the public. There is a definite increase in its incidence especially, in the tropical and developing countries like India due to various reasons like poverty, unhygienic environmental conditions, poor sanitation, illiteracy, malnutrition, improper skin care etc. *Dadru* is one of the commonly occurring skin diseases which can be defined as an entity manifested by intractable itching, scaling, erythema with the lesions discoid in shape. Here an effort is made to see the efficacy of *Shirisha twak churna* (bark powder of *albizia lebbek*) in *Dadru*. This is a single drug study with a sample size of 30 patients. Diagnosed cases of *Dadru* were selected from OPD of SDM College of Ayurveda & Hospital; Hassan. The patients were treated with external application of *Shirisha twak churna* along with water for 21 days. All the results were analyzed statistically for comparing the net effects before and after treatment. Follow up was done on 7th, 14th & 21st day. After 21 days of treatment *Shirisha twak lepa* had showed complete relief in 28.66% patients, moderate improvement in 56.66% and 14.66% had mild improvement in *Kandu* (itching), *Utsannamandala* (elevation of lesion), *Raga* (redness), *Pidaka* (eruption) and *Twakrukshata* (dryness). On conducting the clinical study it was concluded that *Shirisha twak lepa* is an effective treatment modality which can be used in the management of *Dadru* and all parameters showed significant improvement.

Keywords: *Dadru, Kushta, Shirisha, Lepa.*

INTRODUCTION

Though skin diseases are common at any age of the individual, they are particularly frequent in the elderly. The patients always experiences physical, emotional & socio-economic embarrassment in the society. The study of Indian classics reveals that skin disorders were afflicting the human being since time immemorial. Ayurvedic skin treatments may take a few weeks to remove the symptoms but the diseases will be treated permanently¹.

Kushta is considered as one of the *Ash-tamahagada* (dreadful diseases).²*Dadru* is

one of the commonly occurring skin diseases which have been included under the *Maha kushta* by Acharya Sushruta³ and Vagbhatha⁴, and majority of other authors consider it among the *Kshudrakushta*. According to Dalhana commentary on Sushruta Samhitha, *Dadru* can be classified into two, *Sitha* and *Asitha*⁵. He interprets that *Dadru* mentioned by Sushruta under *Mahakushta*, must be *Asitha* type of *Dadru* because its chronicity affects the *Dhatus* (tissues) one after the other associated with excessive pain and is very difficult

to cure. *Dadru* which is enumerated by *Acharya Charaka* under *Kshudrakushta* must be *Sitha* variety because of non-involvement of *Tridoshas* (three humors)⁶.

Dadru can be defined as an entity manifested by intractable itching, scaling, erythema with the lesions discoid in shape. But it is not true for all. Practically we get many variants of *Dadru* as per the involvement of sites. Hence the shape of the lesions is not one and only the same everywhere, it differs as the site of affection changes⁷.

On the basis of presenting symptomatology most of the scholars have simulated *Dadru* with 'Dermatophytoses'. Through modern perspective it comes under 'superficial fungal infections of the skin' the most common dermatological manifestation affecting up to 15% of world's populations in all age groups.

Lepa means the one which is used for anointing. Medicines that are in the form of a paste and used for external applications are usually applied against the hair follicular direction, this facilitates the quicker absorption of the drug potency through *Romakupa* (hair roots), *Swedavahini* (sweat glands) and *Siramukha* (blood capillaries)⁸. Therefore the *Sirisha lepa* mentioned in *Charaka Samhitha*⁹ which reduces the symptoms of *Dadru* is taken up for the study.

Shirisha is one of the drug of choice in many *Yogas*(formulations) and *Acharya Caraka* and *Vagbhata* considered it as the best drug among all the antitoxics¹⁰. Its anti-poisonous characters are well mentioned since ancient times and are being used as a single drug and in combination with other medicines for poisonous infestations by physicians and even by unskilled layman. Researches of recent past have also reported anti-inflammatory, anti-histaminic, anti-

anaphylactic, anti-asthmatic, anti-microbial properties of the plant¹¹.

The drug *Sirisha twak* is very economical. It is having *Kashaya* (astringent), *Thikta* bitter), *Madhurarasa* (sweet taste) , *Laghu* (light to digest) ,*Ruksha* (rough), *Tikshnaguna* (sharp) and also having properties like *Thridoshahara* (pacifies three humors), *Varnya* (gives good complexion), *Vishagna* (anti-toxic), *Vranaropana* (wound healing) and *Kushtagna* (pacifies skin diseases).^{12, 13}.

Aims and Objectives: To evaluate the efficacy of *Shirisha twak Lepa* in the management of *Dadru*.

MATERIALS AND METHODS

30 patients of *Dadru* were selected from O.P.D. of SDM college of Ayurveda and Hospital, Hassan fulfilling the desired inclusion, exclusion and diagnostic criteria.

Shirisha twak churna with *Sheeta jala*(cold water) -*Bahya lepanartha* (external application) for 21 days. The no: of application of the *lepa* per day will be two times.

Ethical clearance was also obtained from the institution.

Diagnostic criteria

Diagnosed cases of *Dadru*

Inclusion criteria

1. *Dadru* patients which were diagnosed as per the criteria.
2. Patients of both sex and age group between 20-50 years will be included.

Exclusion criteria:

1. Patients under long standing medication.
2. Pregnant women & lactating women.
3. Chronicity more than 5 years

Assessment criteria:

1. Changes in the size of lesions.
2. Number of *Pidakas* are counted and observed whether the *Pidakas* adjoin.
3. Reduction in the frequency of *Kandu*.

Scoring criteria:

Kandu (Itching):

Grade 0 - No kandu

Grade 1 - Mild (No disturbance while doing work)

Grade 2 - Moderate (Disturbs the work)

Grade 3- Severe (Disturbs the sleep)

• **Raga (Erythema) :**

Grade 0 – Normal skin colour

Grade 1 – Mild redness

Grade 2 – Moderate red

Grade 3 – Severe / Deep brown

• **Pidaka (Eruption) :**

Grade 0 – No pidaka

Grade 1 – Alpa pidaka

Grade 2 – Madhyama pidaka

Grade 3 – Bahu pidaka

• **Rookshata (Dryness) :**

Grade 0 – No rookshata

Grade 1 – Mild rookshata

Grade 2 – Moderate rookshata

Grade 3 – Severe rookshata

• **Utsannamandala (Elevation of lesion) :**

Grade 0 – No mandala

Grade 1 – Mild mandala

Grade 2 – Moderate mandala

Grade 3 – Severe mandala

Overall assessment: Overall assessment of the results was made by considering the collective effect on all the parameters and scoring criteria.

Medicine used in the study: *Shirisha twak lepa*-For external application

PREPARATION OF DRUG

Drug, *Shirisha twak* was dried and made into fine powder, then packed into air tight locking type of polythene bags. *Shirisha twak churna* was prepared according to *Churna kalpana* (powder formulations) procedure. Each packets contains 50 gms of *Shirisha twak churna* for external application with *Sheetajala* and to retain for 15 minutes and then should be washed with hot water. *Shirisha twak* was collected from *Ayurvedic* raw drug distributor, Trivandrum, Kerala.

The drugs were checked with the criteria mentioned in the classical *Ayurvedic* texts and modern botanical parameters with experts before using them for the study.

Table no.1: Properties of Shirisha

| Drug | Rasa | Guna | Veerya | Vipaka | Karma |
|-----------------|--------------------------------|----------------------|---|-------------|---------------------|
| <i>Shirisha</i> | <i>Kashaya, Tikta, Madhura</i> | <i>Laghu, Ruksha</i> | <i>Anushna</i> (neither hot or cold in potency) | <i>Katu</i> | <i>Tridoshahara</i> |

Sampling methods: Convenient sampling method was adopted. 30 *Dadru* patients were selected from OPD according to the criteria.

Study design: The affected part will be thoroughly washed and dried. Then prepared *Lepa* was applied over the lesion. The thickness of the *Lepa* should be 1/3 of *Anguli* (1anguli-1.905cm). The number of times of application per day will be two times. Each application will be kept until it would dry

up. Once the *Lepa* got dried moist it by sprinkling water and then remove it with clean cotton.

Follow up Study: The changes with the treatment will be observed & recorded on 7th, 14th&21stday in the proforma of case sheet prepared for the study.

Assessment of results: The parameters of base line data were compared with the follow up status for assessment of the results. All the results analysis was done by using

SPSS ver.20 software, and obtained results were interpreted statistically for 'p' value.

Table 2 - Results-Wilcoxon's signed rank test:

| Parameter | Negative ranks | | | Positive ranks | | | Ties | Total | Z Value | P value | Remark |
|------------------------|----------------|-------|-----|----------------|-----|------|------|-------|---------|---------|--------|
| | N | MR | SR | N | MR | SR | | | | | |
| <i>Kandu</i> | 30 | 15.50 | 465 | 0 | .00 | 0.00 | 00 | 30 | -4.949 | 0.000 | HS |
| <i>Raaga</i> | 24 | 12.50 | 300 | 0 | 00 | 00 | 6 | 30 | -4.417 | 0.000 | HS |
| <i>Pidaka</i> | 14 | 7.50 | 105 | 0 | 00 | 00 | 16 | 30 | -3.742 | 0.000 | HS |
| <i>Utsanna mandala</i> | 26 | 13.50 | 351 | 0 | 00 | 00 | 4 | 30 | -5.014 | 0.000 | HS |
| <i>Twak rukshata</i> | 16 | 8.50 | 136 | 0 | 00 | 00 | 14 | 30 | -3.900 | 0.000 | HS |

DISCUSSION

There are many *Agada yogas* which if properly purified can act as *Ra-sayana*(rejuvenates). The *Agada yogas* which are having *Ushna*(hot potency), *Teekshna* and *Vyavayi*(quick spreading) properties will help in the removal of diseases from the body and these *Yogas* mainly acts because of its *Prabhava*(synergic action). In *Ashtanga Hridaya* while explaining about *Agroushadha*(apt medicine)it is mentioned that *Sirisha* is the best medicine for *Visha*.

It has been observed that the *Lakshanas* (symptoms) of *Dadru* can be observed in the *Poorvaroopa* (prodromal symptoms) of *Kushta* like *Raaga*, *Kandu*, *Pidaka* and also *Utsannamandala*, *Rooksha*, *Daha*, *Visarpini* were also observed as *Poorvaroopa* of *Kushta*. In this study salt, sour, curd and milk mixed with foods and some improper diet habits practiced in this area might be a common causative factor of this disease. The factors aggravating *Dooshivisha* (cumulative toxicity) like *Dooshitha Desa*, *Kaala* (polluted land and atmosphere), *Anna* (toxic food), *Divaswapna* (day sleep)

and other aggravating factors like anger, stress etc are observed in the samples which contributed for the expression of *Dooshivisha*. According to Modern medical science, warm & humid climate, tight shorts & shirts, which prevents evaporation of the increased perspiration produced during warm weather, is the chief cause of *Tinea* infections. It is observed that in present sample, though superficial mycoses is confined to the upper layers of the skin, vulnerability to fungal infection was created both by internal as well as external causes. Obstinate itching, scaling, erythema with the lesions discoid in shape are the entities manifested in *Dadru*. But practically we get many variants of *Dadru* as per the involvement of sites. Hence the shape of the lesions is not one & the only same everywhere, it differs as the site of affection changes.

Probable mode of action of drug:

Lepa is included under *Bahiparimarjana chikitsa*(external therapies). This therapy is specially meant for the *Twakgata vikaras*(skin diseases). The *Lepa chikitsa* also facilitates the expulsion of the *Doshas* locally.

In the preparation of *Shirisha twak lepa*, *Shirisha twak churna* with *Seethajala* is used. It is having *Kashaya*, *Thikta*, *Madhura rasa*, *Laghu*, *Ruksha*, *Tikshna guna* and also having properties like *Thridoshahara*, *Varnya*, *Vishagna*, *Vranaropana*, *Kushtagna* and acts on *Dadru kushta*. *Laghu*, *Rooksha Theekshna guna* and *Anushna veerya* properties of *Shirisha twak lepa* deblocks the obstruction in the *Swedavahi srotas* and allows the toxins localised out through the *Sweda* (sweat), thus clearing out the micro channels. *Sheetajala* pacifies the *Teekshnata* of drug and will help in reducing burning sensation etc in body after application. In *Kandu* and *Utsanna mandala*, *Lagu*, *Ruksha* and *Theekshna* properties of *Shirisha twak churna* has acted as these are *Kaphaja* attributes. *Raga*, *Pidaka* and *Twakrukshata* has reduced significantly because of the *Varnya* and *Kushtagna* properties of the drug.

CONCLUSION

The present research work was aimed to evaluate the efficacy of *Shirisha twak lepa* in the management of *Dadru*. From the detailed conceptual compilation, critical review, clinical observations and discussions the following conclusions are evolved.

- In the present study no subjects had history of direct exposure to any *Sthavara* (inanimate) or *Jangama visha* (animate). But all the subjects had exposure to *Viruddhahara* (incompatible food). And some had exposure to drugs, alcohol or fast food.
- Secondary aggravating factors can be further classified as endogenous like *Ajeerna* (indigestion), *Shoka* (sadness) etc and exogenous like *Kala*, *Desha* etc.
- It has been found that *Shirisha twak lepa* which is having both *Vishaghna* as well

as *Kushtaghna* property plays a very important role in reducing almost all the symptoms of *Dadru* like *Kandu*, *Utsannamandala*, *Raaga*, *Pidaka* and *Twak-rookshata*.

- *Shirisha twak lepa* was effective in reducing the *Kandu*, *Pidaka* etc but in some cases *Twakrookshata* got slightly increased during the treatment; it may be because of the *Ruksha* property of the drug.
- From our personal observation and findings, *Dooshivisha* can also be considered as a causative factor for the disease.
- It has been found to be of acute origin and was able to get good results, so it can be considered as *Sadyavyadhi* (curable) only but proper hygiene and food habits should be maintained.
- Tropical applications are found to be producing significant improvement in the disease management, so even if it is used alone without any internal medications can produce favourable results.
- No side effects were noticed during study period.

On conducting the clinical study it was concluded that *Shirisha twak lepa* is an effective treatment modality which can be used in the management of *Dadru*.

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Email: abiprabhakar03@gmail.com

Source of support: Nil

Conflict of interest: None Declared