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Review Article

REVIEW OF *TUTHHADI LEPA* IN *DADRU*

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ABSTRACT

In recent years, *Twak Vikar* (Dermatological manifestations) are common and more so frequent in the elder age. There is a definite increase in its incidence especially, in the tropical region and developing countries like India due to various reasons like unhygienic environmental conditions, poverty, poor sanitation, illiteracy, malnutrition, improper skin care etc. The patients of skin disease are additionally prone to experience physical, emotional & socio-economic embarrassment in the society due to disfigured appearance. *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. *Dadru*, is a *Kapha* (Energy that forms the body's structure) *Pitta* (Body's metabolic system) *Pradhan Vyadhi*. On the basis of clinical features, it has the closest resemblance with dermatophytosis which is a superficial infection caused by a group of fungi. The information for the present study was obtained from various internet sources like research articles and paper presentation documents and research book publications. This review study has been carried out to review about the use of *Tuthhadi Lepa* in *Dadru*.

KEYWORDS: *Dadru*, Dermatophytosis, *Tuthhadi Lepa*

INTRODUCTION:

The skin is the outer covering of the body and skin is the largest organ of the integumentary system. Because skin interfaces with the environment, it plays an important role in protecting the body against pathogens and other environmental conditions. Now-a-days skin diseases are very common. The patients experience physical, emotional and socioeconomic embarrassment in society. Normally 10- 15% of the general practitioner's work is with skin diseases and it is a second commonest cause of loss of work. Skin is a mirror that reflects external and internal pathology there by helps in diagnosis of disease. It is first organ of the body interacting with environmental stimuli and natural ability of body. Skin diseases accounts for prevalence rate 10-20% of all consultation in general practice.

Recent recognition of skin disease at the global stage re-affirms the need for developing dermatologic guidelines. The World Health Organization's "Guidelines on Skin and Oral HIV-Associated Conditions in Children and Adults"ⁱ, the first such guideline on the dermatologic manifestations of HIV, illustrates a new wave of interest in ensuring that skin disease is included in the global public health agenda. Additionally, scabies was added to the list of neglected tropical diseases and psoriasis was recognized as a priority for health care quality improvement by the 67th World Health Assembly.ⁱⁱ Yet, these conditions only represent a fraction of the dermatological burden in resource-poor settings that demands better support. Clinically, signs mentioned for *Dadru* in Ayurvedic texts such as *Pidaka*, *Kandu*, *Raga*, and *Mandala* of *Dadru* closely resemble features observed in the clinical presentation of tinea infection/dermatophytosis/ ringworm infection.

Modern Concept of Dermatophytosis / Ringworm:ⁱⁱⁱ

Dermatophytosis comes under fungal infections category. The fungal diseases of the skin can be divided into superficial mycoses & the deep mycoses. Dermatophytosis comes under superficial fungal infections of the skin. Superficial infection involving keratinized tissue is called as dermatophytosis. The infection is commonly designated as ringworm or *tenia*. The term literally means insects' larva. The father of modern mycology Raymonds aboraudin 1910 classified dermatophytosis as *tenia cruris*, *corporis* and so on depending on the part affected. These infections are restricted to invasion of horny structures like the stratum concern, the nails & the hair. Ringworm is a contagious fungal infection caused by mold-like parasites that live on the cells in the outer layer of your skin. Ringworm infection is commonly found in stratum corneum of skin, hair and nail. They are also referred as Dermatophytosis or *tenia*. Ringworm is caused by twenty species of Dermatophytes fungi which are grouped into three genera: *Trichophyton*, *Microsporum*, and *Epidermophyton*.

It is transmitted from one person to another person in following ways:

- **Human to human**- ring worm often spread by direct, skin to skin contact with an infected person.
- **Animal to human**- ring worm can spread by rubbing or grooming dogs and cats it is also fairly common in cows.

- **By touching objects**-ring worm can spread by contact with objects or surfaces that an infected person or animal has recently touched or rubbed against, such as clothing, towel, bedding and linens, combs, and brushes.
- **From soil**- if you're working or standing barefoot in soil that's infected with the fungus, that causes ringworm, we can get it.

Pathogenesis:

Following stages are involved in the Pathogenesis:

- Inoculation in the host skin
- Adherence
- Penetration
- Development of host response

AYURVEDIC CONCEPT:

In Ayurveda, skin is considered to be one among the five *Buddhindriya*^{iv} (sensory organs) which is responsible for *Sparsh Gyan* (~touch sensation).^v It is also considered the seat of *Bhrajaka Pitta*.^{vi} Skin diseases have been comprehended under the heading of *Kushtha* in Ayurveda and we find a vivid description of *Dadru Kushtha*, since Samhita period. Acharya Charaka^{vii} as mentioned 18 types of *Kushtha* which are further sub divided into *Maha Kushtha* & *Kshudra Kushtha*. Acharya Charaka mentioned *Dadru* in *Kashudrakushtha*, and Acharya Shushruta has mentioned *Dadru Kushtha* in *Mahakushtha*.^{viii}

Dadru is one of most common *Twak Vikara* affecting all ages of the population, still stands as a challenge to different medical system. In recent years, it has been noticed that there is considerable increase in incidence of the skin problem in tropical and developing countries like India. *Tinea*, superficial fungal infections mostly caused by three species of fungi present the same symptoms as that of *Dadru*. These infections are of different types and are named based on the involvement of body part - *tinea corporis* (general skin), *tinea cruris*/jock itch (groin), *tinea capitis*(scalp), *tinea barbae*/ *tinea sycosis*/ barber's itch (beard and moustache) *tinea unguium* (nail) and *tinea pedis*/athlete's foot (feet) collectively known as dermatophytes. *Tinea* infections are also called as ringworm because it has a clinical presentation like red patches in the shape of ring. According to Ayurveda fungal infection is diagnosed as "*Dadru*" because of its similar symptoms.

Acharya Charaka considered *Dadru* in *Kshudra Kushtha*, and the predominant *Dosha* (regulatory and functional entities of body) of *Dadru Kushth* is *Kapha-Pitta*. According to Charak Samhita, *Dadru* is said to be located in the 4th layer of *Twacha*. As per his definition, the reddish colour *Pidika* (Papules) in the form of *Mandala* (Round swelling or lesion) with elevated borders and itching is known as *Dadru*.^{ix} Acharya Sushrut considered *Dadru* in *Mahakushtha* and involved *Dosha* is *Kapha* having *Atasi Puspha* (flax flower) colour

appearance with *Tamra Varna* (Copper colour) spreading *Pidika*.^x Dalhana , commentator of Sushrut Samhita, has divided *Dadru* into two parts^{xi},

1. *Sita* (White)
2. *Asita* (Black)

Dalhana further differentiated these two by saying that –

- ‘*Sita*’ type of *Dadru* is easily curable because it does not affect the deeper tissues. Also it is associated with fewer signs and symptoms. There is no significant involvement of *Tridosha*.
- ‘*Asita*’ *Dadru* is just opposite of *Sita Dadru*.

Acharya Vagbhatt in Ashtang Samgraha mentioned that *Dadru* is *Durvavata Dirgha Pratana*, having *Atasi* flower colour appearance, elevated circle, itching and *Anushangini* symptoms.^{xii} Whereas, Acharya Kashyap demarcated *Dadru* as a skin disease having "*Vridhimanta Mandala*," i.e., disseminating discoid lesions with intense itching, burning sensation and discharge from it. Sometimes these lesions are dry, which is a crucial point through practical aspect.^{xiii}

Acharya Vriddha Vagbhata^{xiv} has mentioned 18 types of *Kushtha* and mentions that *Dadru Kushtha* is *Kaphapittaja* variety of *Kushtha*. Acharya Laghuvagbhata has followed the same classification as that of Acharya Susrutha. Bhela Samhita has mentioned 18 types of *Kushtha*.

Samprapti Ghataka:

Dosha - Kaphapitta Pradhna Tridoshaja

Vata - Vyana Vata

Kapha - Tarpaka Kapha

Pitta - Bhrajaka Pitta

Dushya - Twak, Raktha, Mamsa And Lasika

Srotas - Rasava, Rakthavaha, Mamsavaha And Lasika Srotas

Srotodushti - Sanga And Vimargagamana

Agni - Jatargnijanya Mandya

Ama - Agnijanya Mandya

Udbhava Sthana - Amashaya

Sanchara Sthana - Rasayani

Adhithana - Twacha***Roga Marga - Bahyarogamarga******Vyadhi Svabhava - Chirakari***

Acharya Charaka has said that “All types of *Kustha* are caused due to *Tridosha* but there may be predominance of some dosha, the treatment is to be planned in the manner of curing predominant dosha first and then lesser one”. (Cha. Chi. 7/31-32)

According to the dosha predominance Charaka has mentioned the treatment-

- For *Vata* dosha *Ghrita Pana*
- For *Pitta Dosha Rakta Mokshan* and *Virechan*
- for *Kapha Dosha Vaman* and
- After the proper *Shodhan* of the body, the *Lepa* applied on the *Kustha Roga* tends to be effective. (Cha. Chi. 7/53)

Acharya Sushruta has also mentioned that first *Sanshodan Karma* is to be done then in *Twachagat* or *Rasagat Kustha Lepa* of *Shodhan Dravya* is to be applied. One of such effective *Lepa* that can be used in *Dadru* is *Tutthadi Lepa*.

Tutthadi Lepa

Tutthadi Lepa Churna is an Ayurvedic medicine, as in a herbo-mineral paste form. It is mentioned to use as external application to treat poisonous bites and wounds.

The reference of this formulation is from Charaka Sutra Sthana 3/12.^{xv}

Sr. No.	INGREDIENTS	LATIN NAME/ ENGLISH NAME	QUANTITY
1	<i>Tuttha</i>	Purified and processed copper sulphate	1 part
2	<i>Vidanga</i>	<i>Embelia ribes</i>	1 part
3	<i>Maricha</i>	<i>Piper nigrum</i>	1 part
4	<i>Kustha</i>	<i>Saussuria lapa</i>	1 part
5	<i>Lodhra</i>	<i>Symplocos racemosa</i>	1 part

6	<i>Manashila</i>	Purified realgar	1 part
7	<i>Sarsapa</i>	<i>Brassica juncea</i>	Q.S.

Effect on Tridosha – Calms Vata and Kapha

1. *Tuthha*

Copper sulphate (Cu SO₄, 5H₂O), also known as blue vitriol, copper vitriol, blue stone or chalcantite mineral.

Rasa - *Katu, Kasāya, Madhura,*

Guna - *Laghu, Sara,*

Vīrya - *Śīta,*

Vipāka - *Katu,*

Doshakarma - *Kaphapittahara*

2. *Vidanga*

Latin name: *Embelia ribes*

Family: Primulaceae

Rasa - *Kasāya, katu,*

Guna – *Laghu ruksha*

Vīrya – *Ushna,*

Vipāka - *Katu*

Doshakarma - *Kaphavatashamaka*

3. *Maricha*

Latin name: *Piper nigrum*

Family: Piperaceae

Rasa : *Katu*

Guna : *Laghu, Tikshna, Sukshma*

Virya : *Ushna*

Vipaka : Katu

Doshakarma - Kaphavatashamaka

4. Kushtha

Latin name: *Saussurea lappa*

Family: Asteraceae

Rasa : Tikta, Katu, Madhura

Guna : Laghu, Ruksha, Tikshna

Virya : Ushna

Vipaka : Katu

Doshakarma - Kaphavatashamaka

5. Lodhra

Latin name: *Symplocos racemosa* Roxb.

Family: Styraceae/Symplocaceae

Rasa :Kasaya,

Guna :Laghu,

Vipaka :Katu,

Virya :Sita,

Doshakarma : Kaphapittanut

6. Manashila

Purified realgar

Rasa : Katu, Tikta

Guna : Snigdha, Ushna, Guru

Virya : Ushna

Vipaka : Katu

Doshakarma – Kaphahara

7. *Sarsapa*

Latin name: *Brassica juncea*

Family: Brassicaceae

Rasa :*Katu, Tikta*

Guna :*Laghu, Snigdha*

Vipaka :*Katu*

Virya :*Ushna*

Doshakarma : *Kaphavatanut.*

Looking at all the above properties and *Doshakarma* of the individual drugs of *Tutthadi Lepa*, we can conclude that it acts on all the three vitiated *Doshas*, which can help in concluding that *Tutthadi Lepa* can prove to be very effective in *Dadru*.

CONCLUSION:

In Ayurveda, fungal skin infection is termed as *Dadru* (Tinea/Ringworm). It affects population of all the age group. Incidence rate of *Dadru* gradually increasing day to day because of improper *Vihara* like uncleanliness of body, sharing cloths of others and improper way of food intake etc., so this type of *Dadru* considered as *Sankramika Vyadhi* (communicable disease). *Dadru Kushta* is one of the types of *Kushta* as in this *Pitta* and *Kapha* Doshas plays major role along with *Vata* as *Anubhanda Dosha*. The properties and *Doshakarma* of the individual drugs of *Tutthadi lepa*, can suggest that it acts on all the three vitiated doshas, which can help in concluding that *Tutthadi Lepa* can prove to be very effective in *Dadru*. In this review we summarize the effect reported for herbs present in *Tutthadi lepa*. Considering this, clinical evaluation can be done.

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