



# AN OBSERVATIONAL STUDY ON ETIOPATHOGENESIS OF DADRU WITH SPECIAL REFERENCE TO TINEA CORPORIS

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## ABSTRACT

Skin is a mirror of the body that make us look presentable and reflects both internal as well as external pathology of the body and helps in diagnosis of various diseases. In today's era skin diseases are very common, as in Dermatology a wide range of skin manifestations are observed. In *Ayurveda*, all skin diseases are mentioned under "*Kustha*" which are further classified into *Mahakustha* and *Kshudrakustha*. *Acharyas* had considered *Kustha* as *Mahagada*. *Dadrukustha* is one among the 18 types of *Kustha*. *Dadrukustha* is mentioned in *Kshudrakustha* by *Acharya Charaka* while it is mentioned in *Mahakustha* by *Acharya Sushruta* and *Vagbhatta*. Aim and objective: To study etiopathogenesis of *Dadru* with special reference to *Tinea corporis*. Discussion: The symptoms of *Dadru* and *Tinea* are very much similar as on both expects *Ayurveda* as well as modern science.

**Keywords** - *Kustha*, *Dadru*, *Twacha*, *Tinea corporis*, Skin, Dermatophytosis.

## INTRODUCTION

The skin is the outermost covering of the body the and largest organ of integumentary system that carry a weight of about 3.6 kilograms and 2 square meters of it. <sup>[1]</sup> It acts as a mirror of body that make us look presentable and reflects both internal as well as external pathology of body and helps in diagnosis of various diseases. It also prevents the body from various infections by exuding antibacterial substances. The skin is consists of three layers namely Epidermis, Dermis & Hypodermis (Subcutaneous fat layer). <sup>[2]</sup> The epidermis is the outermost layer and mainly consist of three types of cell namely — Squamous cells, Basal cells and Melanocytes (compose melanin). In today's era skin diseases are very common, as in Dermatology a wide range of skin manifestations are observed. There are so many skin disorders which are commonly categorized as Allergic, infectious,

Traumatic, Autoimmune, Climatic, Occupational etc. Skin diseases effect the person by discomfort, disability, disfigurement etc. In *Ayurveda*, all skin diseases are mentioned under “*Kustha*” which are further classified into *Mahakustha* and *Kshudrakustha*.<sup>[3]</sup> Acharyas had considered *Kustha* as *Mahagada*. *Dadrukustha* is one among the 18 types of *Kustha*. *Dadrukustha* is mentioned in *kshudrakustha* by Acharya Charaka<sup>[4]</sup> while it is mentioned in *Mahakustha* by Acharya Sushruta<sup>[5]</sup> and Vagbhata.<sup>[6]</sup> As per Acharya Dalhana, *DadruKustha* is of two type namely *Sitha* and *Asitha*. He mentioned that *Dadrukustha* considered by Acharya Charaka is of *Sitha* type and *Dadrukustha* considered by Acharya Sushruta is of *Asitha* type.<sup>[7]</sup> As per *Ayurveda*, all types of *Kustha* are due to *Rakta Dosha Vikara* and *Dadru* is *kapha-pitta pradhana twak Vikara*.<sup>[8]</sup> Acharya Charak identified *Kustha* as one among *Dheerga kaalena roga*. As per modern science, *Dadru* can be correlated to the fungal infection *Tinea*.<sup>[9]</sup> Names of infections caused by dermatophytes (ringworm) have been given according to the anatomic locations involved or the body site on which it occur. *Tinea corporis* is Ringworm infection of the body as it usually involves the trunk, shoulders, or limbs.

## MATERIAL & METHOD

### 1. Sources of Data –

#### ➤ Literature Source:

- All available literatures on *Dadru* were gathered from *samhitas* and other ancient and modern text books of *Ayurveda*.
- All available literatures on Dermatophytosis was collected from Textbook of allied medical science, research papers, articles from different periodicals and web material.

#### ➤ Clinical Source:

- Patients were collected from Parul Ayurved Hospital.

### 2. Methods of Collection of Data-

- 31 patients with symptoms of *Dadru* were selected.
- Case proforma was prepared, which had all details of history taking, signs & symptoms as mentioned in our classics and allied science.

#### a. Study Design –

- Clinical observational study having minimum sample size of 31 patients.

#### b. Sample size —

- 31 patients.

#### c. Inclusion Criteria —

- Patients having classical symptoms of *Dadru* will be selected.

- Patients of both Genders between the age group 18-50 years.

#### d. Exclusion Criteria —

- Patients having skin disease other than *Dadru*.
- Patient undertaken any topical or systemic antifungal therapy in the past 2 months at the time of presentation.
- Complicated cases of skin disorder.
- Patients suffering from various complicated systemic disorders.

#### e. Criteria for diagnosis:

Patients presenting with symptoms like —

- *Kandu* (itching)
- *Vedana* (pain)
- *Daha* (Burning sensation)
- *Vivarnata* (Discolouration)
- *Mandala* (Erythema)

#### f. Assessment of result on the basis following Subjective & Objective Parameters

SUBJECTIVE PARAMETERS	OBJECTIVE PARAMETERS
<i>Kandu</i> (itching)	Based on physical examinations (locomotors and skin.) Type of lesion
<i>Vedana</i> (pain)	Area occupied by the lesion.
<i>Daha</i> (Burning sensation)	Margin of the lesion.
<i>Vivarnata</i> (Discolouration)	Number of lesion. etc. and related lab investigation.
<i>Mandala</i> (Erythema)	

#### g. Investigations —

Following investigations were done for diagnosis of patients

KOH mount test, General investigation, CBC, ESR, Urine Routine, Blood sugar

**h. ASSESSMENT GRADE FOR SUBJECTIVE & OBJECTIVE PARAMETER**

S.No	SYMPTOMS	GRADATION 0 (No )	GRADATION 1 (Mild )	GRADATION 2 (Moderate)	GRADATION 3 (Severe)	DURATION
1.	KANDU					
2.	VEDNA					
3.	DAHA					
4.	VIVARNATA					
5.	MANDALA					

S.No	SYMPTOMS	GRADATION 0	GRADATION 1	GRADATION 2	GRADATION 3	DURATION
1.	KANDU	No itching	Mild itching	Moderate itching	Severe itching	
2.	VEDNA	No Vedana	Mild Vedana	Moderate Vedana	Severe Vedana	
3.	DAHA	Normal skin colour	Light red brown colour	Black colour	Red brown (Tamra varna)	
4.	VIVARNATA	Normal skin colour	Faint normal	Blanching plus red colour	Red colour	
5.	MANDALA	Less than 1cm	Less than 5cm	From 5-10cm	More than 10cm	

**RESULTS**

In study it was observed that in *Aharaja Nidana*- *Amla evam lavan rasa Pradhan Ahara* like pickle (mango and lemon pickle), *Dadhi*, buttermilk etc. Intake of fast food, fried food, *Snigdha ahara*, spicy food, *Dhokla*, *khandvi*, fish, chicken are included in maximum amount by patients. In *Viharaja Nidana* — *divaswapna*, *Avyayama*, *Vegdharana*, wearing tight clothes, poor hygiene all these *nidana* acts as etiological factor for pathogenesis of *Dadru*. When there is intake of *Pidana*, then *prakopa* of *Tridosha* takes place which will further lead to *Agnimandya*. Formation of *Uma visha* will occur due to *agnimandya* because of improper indigestion of food. Then this will get mixed with *rasa dhatu* which will *Pravara* in body and create *Dhatushaithilya*. After that *Sthansamsraya* in *Rasavaha*, *Raktavaha* and *Swedavaha Srotas* takes place which will do *dushti* of *Twacha* and *Rakta* and this cause *Dadru*. It was revealed from the present data that there was involvement of *Raktavaha*, *Rasavaha* and *Swedavaha Srotas* in *Samprapti* of *Dadru*. While justifying *Sroto Dusti Lakshana* Acharya had mentioned *Asthitoda*, *Raukshya*, *Vivarnata* leads to *Asthivaha Sroto Dusti*. *Parvaruk*, *Parvabheda*, *Asthitoda*, *Asthisunyata* leads to *Majjavaha Sroto Dusti*. *Raga*, *Pidika*, *Rakatabha pidika*, *Suskata*, *Guru Gatrata*, *Toda* leads to *Mamsavaha Sroto Dusti*. *Vaivarnya*, *Raga*, *Daha*, leads to *Raktavaha Sroto Dusti*. *Daha*, *Kar-Paad Suptata*

etc leads to *Medovaha Sroto Dusti*. *Roukshya*, *Daha* leads to *Swedavaha Sroto Dusti*. From the *Lakshana* it's clear that *Rakta*, *Mamsa*, *Rasa*, *Meda*, *Asthi*, *Majja* and *Swedavaha Srotas* involved in present study of *dadru* patients.

## DISCUSSION

Persons having *Pitta -Kapha prakriti* were more prone towards the disease *Dadru*. It was noted that *Rakatavaha srotas* hampered in all (100%) patients of *Dadru* followed by 87% of patients get pathological changes of *Udakavaha srotas*, 64.5% of patients get pathological changes of *Swedavaha srotas*. Then 45.1% of the patients get pathological changes of *Rasavaha Srotas*, 38.7% of the patients have hampered *Mamsavaha Srotas*, *Medovaha Srotas* had pathological changes in 22.5%, *Majjavaha Srotas* and *Purishavaha Srotas* get involve in 9.6% of patients. And *Annavaha Srotas* get pathological changes in 6.4% patients of *Dadru*. From whole study it, was observed that today's era eating habits are playing major role to enhance the pathogenesis of *Dadru*, like fast food, packed food improper eating habits etc. Stressful conditions, emotional disturbances interfere the condition of *Doshas* in the body. Unhygienic living style is also one of the most important factors which leads to cause *Dadru* like not taking bath daily, not wearing proper washed clothes. Wearing tight clothes is also a major factor and it was found in many patients as due to this excessive sweating occurs and no proper aeration takes place which will lead to itching, rashes etc. In the case of symptoms of *Dadru*, *Kandu* - In 58% patients had mild itching, 58% patients had mild *vedana*, 22.5% of patients had black colour skin in *Daha*, 67.7% patients had blanching plus red colour *vivarnata* and 70.9% patients had margins more than 10 cm. It was concluded, by present study that the symptoms of *Dadru* and *Tinea* are very much similar as on both expects *Ayurveda* as well as modern science. Clinical features of dermatophytosis are itching, annular erythematous scaly lesions, active border consists of papulovesicular lesions.<sup>[10]</sup> The clinical features of *Dadru* are *kandu* (itching), *raga* (redness), *pidaka* (pimples) and *udagata mandala* (raised patch) as per *Madhavanidana*.<sup>[11]</sup>

## CONCLUSION

With the wrapping up my study the conclusion can be drawn are following.

- ✓ From the present study, it can be concluded that there is dominance of *Pitta-kapha* in *Dadru Kustha* while there is involvement of *Tridosha* also as evident from various signs and symptoms.
- ✓ From the present study, it can be concluded that *Dadru* can be correlated with *Tinea corporis* (dermatophytosis) of modern science.
- ✓ It was found that maximum number of patients consume *Pitta – kapha vardhak ahara* and *Amla ras pradhana ahara* which aggravates *Pitta* and *kapha*.
- ✓ It was found that maximum number of patients had addiction of tea, *virrudha ahara*, *adhyashana*, *ajeerna bhojan* which clearly shows the role of *Ama* formation in pathogenesis of *Dadru*.
- ✓ It was revealed from the present data that there was involvement of *Raktavaha*, *Rasavaha* and *Swedavaha Srotas* in *Samprapti* of *Dadru*. While justifying *Sroto Dusti Lakshana*, *Acharya* had mentioned *Asthitoda*, *Raukshya*, *Vivarnata* leads to *Asthivaha Sroto Dusti*. *Parvaruk*, *Parvabheda*, *Asthitoda*, *Asthisunyata* leads to *Majjavaha Sroto Dusti*. *Raga*, *Pidika*, *Raktabha pidika*, *Suskata*, *Guru Gatrata*, *Toda* leads to *Mamsavaha Sroto*

*Dusti. Vaivarnya, Raga, Daha*, leads to *Raktavaha Sroto Dusti. Daha, Kar-Paad Suptata* etc leads to *Medovaha Sroto Dusti. Roukshya, Daha* leads to *Swedavaha Sroto Dusti*. From the *Lakshana* it's clear that *Rakta, Mamsa, Rasa, Meda, Asthi, Majja* and *Swedavaha Srotas* involved in present study of *Dadru* patients.

✓ In *Aharaja Nidana- Amla evum lavan rasa Pradhan Ahara* like pickle (mango and lemon pickle), *Dadhi*, buttermilk etc. Intake of fast food, fried food, *Snigdha ahara*, spicy food, *Dhokla*, *khandvi*, fish, chicken are included in maximum amount by patients.

✓ In *Viharaja Nidana – divaswapna, Avyayama, Vegdharana*, wearing tight clothes, poor hygiene all these *nidana* acts as etiological factor for pathogenesis of *Dadru*.

✓ The symptoms of *Dadru* and *Tinea* are very much similar as on both expects Ayurveda as well as modern science. Clinical features of *Tinea corporis* are itching, annular erythematous scaly lesions, active border consists of papulovesicular lesions. The clinical features of *Dadru* are *kandu* (itching), *raga* (redness), *pidaka* (pimples) and *udagata mandala* (raised patch) as per *Madhavidana*. All these symptoms were found commonly in patients of *Dadru*.

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