

Etiopathogenesis of Dadru in Ayurveda: A Review

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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* (prominent) *Vyadhi* (Disease). *Acharya Charak* has placed *Dadru* under *Kshudra Kushth* (Minor skin disease) but *Acharya Sushrut* and *Acharya Vagbhata* kept it under *Mahakushth* (Major skin disease). *Acharyas* did not explained separate *Nidan* (causative and diagnostic factor) for *Dadru Kushth*. The knowledge of *Nidan* is helpful for proper Diagnosis, prevention and treatment of disease.

Keywords: Aupasrgika, Dadru, Kushth, Nidana, Samprapti, Dosha.**Copyright © 2022 The Author(s):** This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

INTRODUCTION

Skin is being the external covering of the body mostly affected by the fungus. In *Ayurveda*, Tinea infection is termed as *Dadru*. *Dadru* is a type of *Kushta Roga*, (Skin disease) which is characterized by the cardinal symptoms like *Kandu*, *Utsann mandal*, *Raag* and *Pidika*, and the lesions resembling the skin of a tortoise.

Etymology

The word *Dadru* is a "*Puling Shabd*" (masculine word) and "*Anadaya Shabdrupa*," i.e., without any "*Dhatu*" (Structural entities of the bodies) or "*Pratyaya*." *Dadru* means "Tortoise," as the skin lesion, which appears in this disease resembles the skin of tortoise [1].

Historical Aspect

Acharya Charak considered *Dadru* in *Kshudra Kushth*, and the predominant *Dosha* (regulatory and functional entities of body) of *Dadru Kushth* is *Kaph-Pitta*. 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* [2]. *Acharya Sushrut* considered *Dadru* in *Maha-kushth* and involved *Dosha* is *Kapha* having *Atasi Puspha* (flax flower) colour appearance with *Tamra Varna* (Copper colour) spreading *Pidika* [3]. *Dalhana* [4], commentator of *Sushrut Samhita*, has divided *Dadru* into two parts, *Sita* (White) and *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*. In comparison, '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 [5]. 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 [6].

Nidana Panchaka (five-fold approaches of diagnosis) of Dadru [7]

(1). *Nidana*

Acharya Sushrut stated *Nidana Parivarjana* (Removal of causative factor) as the first step of treatment [8]. So for the cure, the knowledge of *Nidana of disease* is most important. The understanding of etiological factor is valuable to deliver proper guidance for the prevention and treatment of the disease.

Ayurveda emphasizes different factors such as improper diet, routine, season, and even the supernatural power, which make the body vulnerable and susceptible to disease. In *Ayurveda* classics, specific aetiology for *Dadru* has not been described, but the general aetiology of *Kushth* (Skin disease). Since *Dadru* has been included under *Kushth*, its aetiology can be constructed based on general aetiology. *Ayurveda* texts have described general causative factors, i.e., *Samanya Nidana* for all types of *Kushth* instead of specific *Nidana* for a particular type of *Kushth*.

(2) *Purvarupa*

The symptoms which appear before the complete occurrence of disease are considered as *Purvarupa* (prodromal symptoms) [9]. But in case of *Dadru*, it can be seen that symptoms (*Rupa*) of disease like *Raga* (Redness), *Kandu* (Itching), *Pidika* (Macule/Papule), *Utsannamandala* (welts), *Ruksha* (Dryness), *Daha* (Burning), *Visarpini* (Spreading) appears as the *Purvarupa* of *Kushta* [10].

(3) *Rupa*

The signs and symptoms which appear after *Dosha-Dusya Sammurchana* (Blending of bodily humour and physiological regulatory entities) is called *Rupa*. *Rupa* appears during the fifth *Kriyakala* [11] (Stage of pathogenesis), and this '*Vyakti*' stage may be quantified to be that of the appearance of the fully developed disease. In *Dadru Kandu*, *Raga*, *Pidika*, *Mandala* (Discoid lesion), etc. symptoms are manifested. *Acharya Charaka* [12] has defined *Dadru* as the reddish colour *Pidikaa* in the form of *Mandala* with elevated borders and itching. Whereas, *Acharya Sushrut* [13] has described it as the *Atasi* (Flax seed) flower colour appearance with copper coloured spreading *Pidika*. *Ashtang Samgraha* [14] mentioned

that *Dadru* is *Durvavata Dirgha Pratana*, having *Atasi* flower colour appearance, Elevated circle, itching and *Anusangini* (Ancillary).

(4). *Upashaya*

Upashaya [15] is defined as those drugs, diet regimens, behavioural and other practices that are beneficial and provide recovery to the patients and have actions contrary to the aetiology of the disease. *Upashaya* is a beneficial diagnostic tool when the disease is not distinct, and it is challenging to diagnose the same. However, in *Dadru roga* sign and symptoms are very clear. Hence *Upashaya* is not required for diagnosis but very useful for treatment. No specific *Upashaya* of *Dadru* is found in the classical texts. Nevertheless, the description of *Pathya* (Ideal diet plan) about *Kushth* may be considered as the *Upashaya*.

(5) *Samprapti*

Samprapti (Etiopathogenesis) corresponds to the sequence of development of the disease. It includes the course of process or event from the inception of causative factors to the manifestation of the disease. According to *Vagbhata's* definition, the knowledge of *Samprapti* must include the idea about nature and manner of vitiation of *Dosha*, associated factors, their spread and nature of lodgement. When the causes of disease (*Kushtha roga*) persist for longer duration, the quality of skin gets depleted. It may effect the body either from inside or outside or both. Deficient transformation power at the *Dhatu* level may precipitate redundant materials inside the body, which may hamper the functions of *Bhrajaka Pitta*.

In healthy persons, the *Bhrajaka pitta* (A type of *pitta* found in skin) is the main principle in maintaining the functions of the skin. Improper actions of *Bhrajaka Pitta* may alter the structural firmness of the skin. As we know, the skin is one of the structural forms of *Rasa* (nutrient fluid) *Dhatu*. So, this can be considered as a part of *Rasavaha Srotasa* (Channel or passage). Causes which persist for longer duration may destruct the structural firmness of the skin at different level of the body, creating the "*Srotovaigunya*." Excess intake of those food items which vitiates *Kapha Pitta Dosha* are the leading cause of the disease. *Dhatvagni mandhya* (Cellular metabolic factor) may precipitate *Malarupa* (Excretory form) *Kapha* through excretory materials like sweat. Thus, vitiated *Dosha* and *Malabhavas* may find lodgement upon the skin in due course, making the skin deficient in resistance. Behind each symptom produced, there will be an altered *Dosha* as a precipitating factor. Circumscribed itchy lesions with chronicity indicate the role of *Kapha Dosha*. Erythematous itchy lesions with discharge, which aggravate on sweating indicate the role of *Pitta Dosha*.

Samprapti Ghataka

(i)	<i>Dosha-</i>	<i>Tridosha</i>
(ii)	<i>Dusya -</i>	<i>Tvaka, Rakta, Mamsa</i>

- (iii) **Adhithana** - *Tvaka*
 (iv) **Srotasaa** - *Rasavaha* and *Raktavaha*
Srotasaa
 (v) **Srotodusti-** *Samga* and *VimargAmana*
 (vi) **Agni-** *Bhranjak Agni*

(a) Doshha

All the *Kushth* are *Tridoshaja*. However, each of them can be differentiated as *Doshika* entity based on the dominance of *Dosha* in them. The involvement of *Dosha* in the symptoms of *Dadru* is analyzed and summarized as follows:

Table 1: Doshha Symptoms

S. No	Symptoms	Dosha
	<i>Kandu</i>	<i>Kapha</i>
	<i>Raga</i>	<i>Pitta</i>
	<i>Pidika</i>	<i>Pitta</i>
	<i>Utsanna mandala</i>	<i>Kapha</i>
	<i>Atasi puspa varna</i>	<i>Pitta</i>
	<i>Tamra varna</i>	<i>Pitta</i>
	<i>Visarpana</i>	<i>Vata</i>

(b). Dushya

Acharya Charak has described four *Dushyas* as *Tvaka* (Skin), *Rakta* (Blood cell), *Mamsa* (Muscle cell) and *Lasika* (Lymph) *Dhatu* [16], which are primarily involved in the manifestation of *Kushth*. *Chakrapani* interprets that when the vitiation is limited up to these four *Dushyas*, it should be considered as '*Samanya Dushti*' & when the *Samprapti* traverse these four *Dhatus* to involve, furthermore in-depth *Dhatus* it may be considered as '*Vishesa Dushti*.' Generally, '*Samanya Dushti* occurs in *Kshudra Kushth* while '*Vishesa Dushti* is traceable in *Maha Kushth*. The analysis of *Dhatu Dushti* in the symptoms of *Dadru* is as follows

Table 2: Dushti symptoms

S. No	Symptoms	Dhatu
	<i>Kandu</i>	<i>Rasa, Rakta</i>
	<i>Raga</i>	<i>Rakta</i>
	<i>Pidika</i>	<i>Rakta, Mamsa</i>
	<i>Utsanna mandala</i>	<i>Mamsa</i>
	<i>Atasi puspa varna</i>	<i>Rakta</i>
	<i>Tamra varna</i>	<i>Rakta</i>
	<i>Visarpansila</i>	<i>Rakta</i>

(c). Srotasa

Rasa and *Raktavaha Srotasa* plays a vital role in the pathogenesis of *Dadru*. Amongst four types of *Sroto-dushti*, *Sanga* and *Vimargagamana* are observed in *Dadru*. *Tiryagagamana* of the vitiated *Dosha* suggests *Vimargagamana*. There is *Srotorodha* due to *Samga* in *Srotasa*.

(D) Agni

Agnimandhya (Diminished digestive power) is the root cause of all the diseases [17]. *Agnimandhya*

occurs due to *Aharaja* (food-related), *Viharaja* (lifestyle-related) and *Acharaja Nidana*. It leads to the formation of *Aamavisha* [18]. Here the referred *Agni* is *Bharajakagni*, and its derangement causes the formation of *Aamavisha* (end product of improper digestion and metabolism) at the local level. This *Aamavisha* then spreads to the nearby area & disturbs the standard configuration of the *Dhatus*, thereby leaving them prone to receive the *Aamavisha*. This susceptibility of the *Dhatus* progresses further. The three *Dosha* and *Poshaka Ansha* (nutritive element) of four *Dushyas* reach the susceptible *Dhatus* and settle there to start the pathology, which leads to the manifestation of local symptoms.

Samprapti concerning Shadhaividha Kriyakala

Acharya Sushrut has described six stages of *Samprapti* (Six stage of disease pathogenesis). All those six stages can be exploited to understand the *Samprapti* of *Dadru* as follows:

- (a) **Samcaya:** *Samcaya* means accumulation or stagnation. The process of *Samprapti* starts from *Samcaya*. In the initial stage, *Dosha* increases in their place and stagnate there. This stagnation is termed as *Dosha Samcaya*. The rate of *Dosha* accumulation is directly proportional to the potency of *Nidana*. *Nidana Sevana* causes *Bhranjakagni Mandhya* with subsequent formation of *Aamavisha* [18] at the local level. This *Amavisa* obstructs the *Srotasa*.
- (b) **Prakopas:** In this stage, the *Dosha*, which had previously accumulated and stagnated in their natural habitat, get further aggravated, but due to *Aamaja Srotorodha*, they could not move from that place, so they get provoked.
- (c) **Prasara:** In this *Kriyakala*, the *Prakupitta* *Doshas* are stated to expand and overflow the limits of their respective locations through *Tiryaga* (Three dimensional) *Sira* (Vein).
- (d) **Sthanasamshraya:** The process of extension of *Dosha* to the other parts of the body & their localization to a specific place or part of the body is known as *Sthanasamshraya* (localization). This stage marks the beginning of particular disease at that specific part of the body. The place of localization should be favourable for the *Doshas* to settle there. This place is known as *Khavaigunya* (Defect in channels of transportation and transformation). Some factors of *Nidana* cause *Khavaigunya*. *Purvarupa* of the disease occurs in the *Sthanasamsraya* stage. In *Dadru*, *Kandu* and *Raga* occur in the *Sthanasamsraya* stage.
- (e) **Vyakti:** This stage may be stated as the manifestation of the fully developed diseases, the result of *Dosha-Dushya Sammurcchana*, as represented by its characteristic symptomatology. In *Dadru*; *Kandu*, *Raga*, *Pidika*, *Mandala* etc. symptoms are manifested.

(f) **Bheda:** At this stage, *Dosha* reaches to the deeper *Dhatu*, But *Dadru Kushth* is *Kshudra Kushth*, and *Kshudra Kushth* never pervades to

the consecutive or deeper *Dhatu*s. however, in this stage, *Dadru* can be defined in terms of their chronicity.

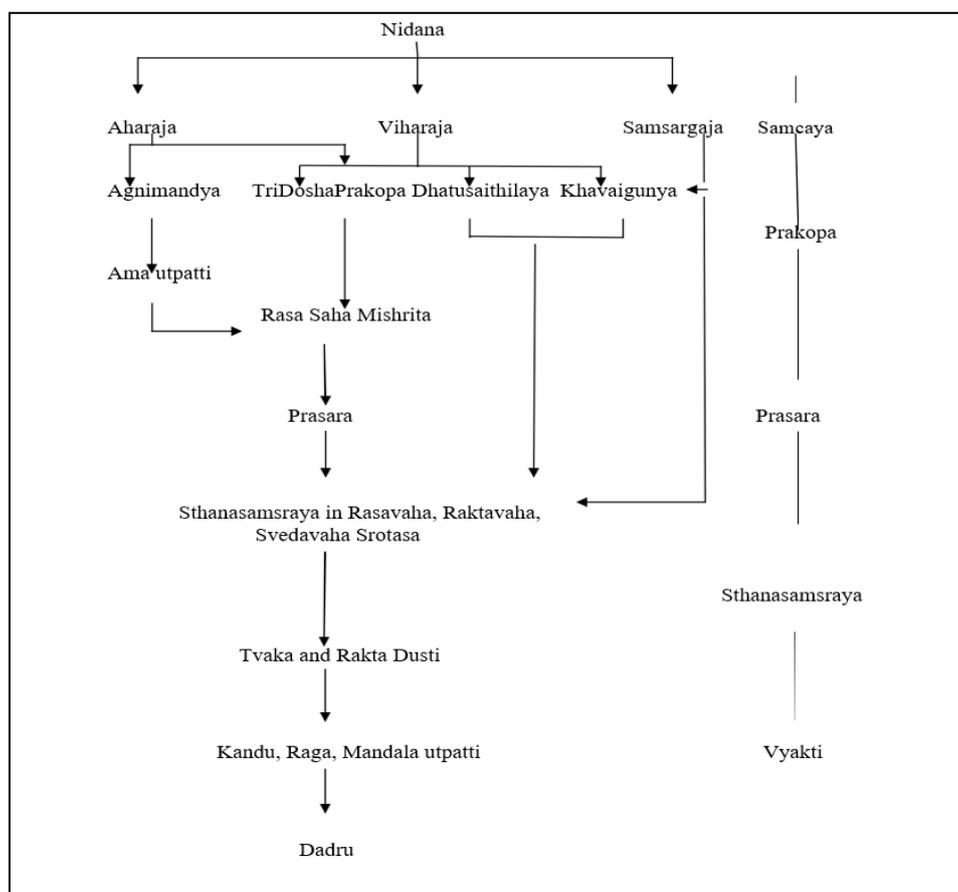


Fig 1: Schematic illustration of etiopathogenesis of Dadru

Chikitsa

There is no specific treatment is mentioned for *Dadru*, but common treatment protocol of *Kusta* is used to treat on the basis of vitiated *Dosha*. *Bahu-Shodhana* (Frequent *Virachana* and *Vaman* [19], *Shamana* (palliative therapy) and *Bahiparimarjana* (Peripheral bio-cleansing) *Chikitsa* like Edgajadi lepa [20], *Dadrughn Lepa* [21] is used to treat it since ages.

CONCLUSION

In Ayurveda, fungal skin infection is termed as *Dadru* (Tinea/Ringworm). It affects population of all the age group. There is no separate description of *Nidana*, *Poorvarupa*, *Samprapti* of *Dadru*, but the *Samanya Nidana*, *Poorvarupa* mentioned for *Kushtha* can be considered here. 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). The knowledge of *Nidana* is helpful for the proper diagnosis, prevention of disease and treatment.

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