

Ayurvedic Methods of Diagnosis and Management of Dadru Kushta W.S.R. to Fungal Infection

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ABSTRACT

Dadru is one of the common skin disease mentioned in ayurveda. In modern science the clinical manifestation of *dadru* is closely similar to local fungal infection/tinea infection which is affecting upto 15% of population. Excessive severe itching and red patches are the common clinical manifestation which can be diagnosed by *darshana* and *prashana pariksha*. KOH and fungal culture are the specific tools for diagnosis of fungal infection. *Virechana karma* and *Raktamokshana* and *Shamana chikitsa* will help to cure *dadru*.

Key words- *Dadru, Shodhana, Rakta- mokshana, virechana-Karma*

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 play 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 practitioners work is with skin diseases and it is a second commonest cause of loss of work.

All the skin diseases in *Ayurveda* have been classified under the broad heading of "*kushtha*" which are further categorized in to *mahakushtha* & *kashudrakushtha*.^[1] *Aacharya Charaka* mentioned *dadru* in *kashudrakushtha*, and *Aacharya Shushruta* has mentioned *dadru kushtha* in *mahakushtha*.^[1] According to most of ayurvedic texts, all types of *Kushtha* have been considered as *Rakta Doshaja vikara*. *Dadru* is one of the *kapha-pitta pradhana twak vikara*.^[2] As per modern perspective disease *Dadru* comes under

"Superficial fungal infection of skin" the most common dermatological manifestation affecting up to 15% of world's population in all age group.

AIMS AND OBJECTIVES-

- 1) To evaluate, elaborate and discussion of etiological factors and method of diagnosis of *Dadru*.
- 2) To give complete protocol of ayurvedic management of *Dadru*.

MATERIAL AND METHDOS

The matter related to pathology, etiology and management has been collected from text book of *Ayurveda* and its concert commentaries. The text book of modern medicine has been reviewed to collect concert matters of *Dadru* in details. National-international, index-non index, peer reviewed journals has been also referred to update the knowledge of diagnosis and management of *Dadru*. All the collected matters have been framed into primary and secondary causes of *Dadru* along with its etiology, pathology and *Ayurvedic* management.

Conceptual and Fundamental Study

1.) Causes of Dadru (hetu)

1.1) Primary causes of Dadru(Fungal Infection of skin):

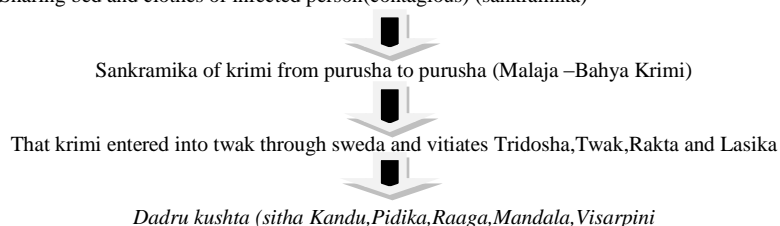
As per ayurveda-

Acharyas not explained separate nidana for dadru kushta. But dadru kushta spread person to person by malaja krimi through sweda (contact with infected person, contact with clothes of infected person etc.) [3] Due

to the sharing of towels, bed sheets, soap, handkerchief etc of infected person causes the spreading of micro-organism from one person to another person. [4]

Dadru which is likely similar to fungal infection of skin in which the fungal spore has been transferred from diseased person to healthy person by above given methods.

Samprapti [5] - Sharing bed and clothes of infected person(contagious) (sankramika)



As per Modern- [6] ringworm is a contagious fungal infection caused by mold-like parasites that live on the cells in the outer layer of your skin. it can be spread in the 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.

1.2) Secondary causes of Dadru – secondary cause of fungal infection (dadru) has been divided either local or systemic in both ayurvedic and modern science.

According to ayurveda

Table no.1: shows the secondary causes of kushta (dadru)(fungal infection)as per ayurveda science.

Mithya Ahara	Ch.S [7]	Su.S [8]	B.S [9]	H.S [10]	M.N [11]
Adhyashana	+	+	-	+	+
Vishamashana	+	+	-	-	-
Atyashana	+	+	-	-	-
Intake of food during indigestion	+	+	-	-	+
Continuous and excessive use of Madhu, Fanita, Matsya, Lakucha, Mulaka, Kakamachi, and intake of above substances while having Ajirna	+	-	-	-	-
Excessive Snehana	-	-	-	-	-
Vidahi Ahara without emesis of undigested food	+	-	+	+	-
Rasatah					
Excessive intake of Amla and Lavana Rasa	+	-	-	-	+
Dravyataha					
Excessive intake of gramya, anupa, audaka, mamsa	-	-	+	-	-
Navanna, dadhi, masa, matsya, mulaka, tila, pishanna, kshira, guda	+	-	-	-	+
Dushivisha	-	+	-	-	-
Dushita Jala	-	-	-	+	-
Gunataha					
Excessive Dravya, Snigdha Ahara	+	-	-	+	+
Guru Ahara	+	+	-	-	+

As per modern science

Table no.2:shows the secondary causes of dadru(fungal infection)

Sr.No	Hetu(cause) ^[12]	MODERN
1.	Tinia corporis (fungal infection)	+
2.	Weak immune system	+
3.	Poor nutrition	+
4.	Stress	+
5.	Obesity	+
6.	Contact with contagious	+

Differential diagnosis of DADRU:

Table no.3:shows the Differential diagnosis of dadru(fungal infection).




DISEASE	SYMPTOMS	DIAGRAM ^[13-15]
Vicharchika (Eczema)	Bahusraava yukta pidika originate in vicharchika	
Paama	Scattered pidika with different varna(white,red, black)	
Dadru	Atasi pushpa like pidika,varna with mandala(round patches)	

Table no-4 Sign & symptoms of dadru kushta according to various aacharayas and modern science-

Sr.no	Sign & symptoms	Charaka ^[16]	Shusruta ^[17]	A.H ^[18]	A.S ^[19]	M.N ^[20]	Yogratnakar ^[21]	Modern ^[22]
1.	<i>Kandu(itching)(pruritus)</i>	+	-	+	+	+	+	+
2.	<i>Raga(redness)(erythema)</i>	+	-	-	+	+	+	+
3.	<i>Atasi pusp vat pidika(macular rashes similar to flax flower)</i>	-	+	+	-	-	-	-
4.	<i>Tamra varna pidika(copper coloured macular rashes)</i>	-	+	-	-	-	-	-
5.	<i>Visarpani pidika(diffused macular rashes)</i>	-	+	+	+	-	-	-
6.	<i>Dirgha pratana (tendrill like macular rashes)</i>	-	-	+	+	-	-	-
7.	<i>Unnata mandala (raised border ring)</i>	-	-	+	+	+	-	-
8.	<i>Scaling</i>	-	-	-	-	-	-	+
9.	<i>vesiculations</i>	-	-	-	-	-	-	+

Diagnosis of Dadru-Trividha Pareeksha of the patients of Dadru(Fungal infection)

Ayurveda has recommended *trividha pareeksha* (tri examination system) like

darshan, sparshan, prashana to diagnose the patient. [23]

A) Darshana Pareeksha (Inspection)- Darshan pareeksha is very important because it will be done by doctor by his naked eyes to see the appearance, extension and dimensions of visible disease. In patient of dadru the doctor see the appearance of patches whether it is look like reddish, elevated or not, along with site, extension and dimensions of patches. It will be done on locally. In patient of dadru the doctor should be examine for % of area involved ,no of mandalas, dryness, rigidity, discoloration of nails, circular lesion, itchy lesion in axilla and the breast in females.

B) Sparshana Pareeksha (Palpation)- If there is not necessary or essential to do the sparashana pareeksha by touching, the doctor should be avoided to touch the patches by naked hands because it is a contaminated disease. There are some possibilities that doctor may be infected by the contact of that patches.

C) Prashana Pareeksha (Questioning)-

Doctor should be asked by prashana pareeksha about the nature, intensity and frequency of itching. He used to be asked also any exaggerated factors responsible for aggravation of this disease like excessive sweating, itching are any other factors. He used to be asked also about initiation and duration of disease.

As per modern science- Dermatophytes are fungi that infect skin, hair, nails and include members of the genera trichophyton, microsporum, and epidermophyton. Typical infections have an annular appearances that patients refer to as “Ring worm”. Dermatophyte infection is confirmed by microscopy or culture of skin scrapings.

Clinical examination [24] - Typical infections have an annular appearance that patients refer to as” ringworm” and following are the sign and symptoms of –

Table no-5 Showing clinical manifestation of Tinea

Sr.No	Type of tinea	Clinical manifestations
1	Tinea cruris	Mainly involvement of groin region, Scaling, Erythematous eruption sparing the scrotum
2	Tinea pedis	Most common infection of foot, Variable erythema, Edema, Scaling, pruritis, and occasionally vesiculations, Involvement may be widespread or localized but generally involves the web space between the fourth and fifth toes.
3	Tinea unguium	Mostly affected nails, Opacified ,thickened nails, Sub-ungual debris, Distal-lateral variant is most common, Proximal subungual onychomycosis may be marker for HIV infection
4	Tinea capitis	Infection of the scalp, Produce a relatively non-inflammatory infection with mild scale and hair loss that is diffuse or localised

2) Pathological examination-

a) KOH MICROSCOPY [24] - The diagnosis of tinea can be made from skin scrapings, nails scrapings, or hair direct microscopic examination with potassium hydroxide (KOH).

b) CULTURE [25] - Whenever dermatophytes infection is suspected, skin scrapings should be sent for culture. It takes at least two weeks before the fungus grows sufficiently to be identified.

Nail clippings and hair samples should be examined in the same way as skin scrapings.

DOSHA DUSHYA SANKALPNA –

Table no-6-Doshas,dushya,strotas,adhistan involved according to various aacharayas,

	Charaka ^[26]	Shusruta ^[27]	A.H ^[28]	A.S ^[29]	M.N ^[30]
Dosh	Pitta-kapha	Kapha	Kapha-pitta	Kaphapitta	Kapha-pitta
Dushya	Twak,Rakta, Mansa , Ambu	Twak,Rakta, Mansa, Ambu	Twak,Rakta, Mansa, Ambu	Twak,Rakta, Mansa, Ambu	Twak,Rakta,Lasika, Ambu
Strotas	Rasa,Rakta	Rasa,Rakta	Rasa,Rakta	Rasa,Rakta	Rasa,Rakta

TREATMENT- The treatment of dadru should be done on the basis of their cause. As per ayurveda treatment of dadru are

sodhana karma,shamana karma,local application of lepa.

1) **Sodhana-** *sodhana chikitsa* is very important to excrete the vitiated *doshas* from diseased person. In *dadru kushta virechana* and *raktmokshan* should be given to remove out vitiated pitta and rakta.

1.1) **Virechana karma-**

a) **Snehana karma-** *Snehana* should be done with *Panchtikta ghirt* daily by increasing manner starting from 50 ml,150 ml,250 ml upto appearance of manifestation of “*samyaka snehana*” in the early morning after the completions of physiological urges.

b) **Swedana karma-**After the completion of the *snehana* and before the *virechana karma*. The *peti sweda* should be given after applications of massage on whole body.

2.1) **Internal drugs-**

Table no-8 herbal drug used in dadru

Sr.no	Drug	Dose	Anupan
1	Chakramard	Leaf juice- 10-20 gm Churna-1-6gm	Water
2	Manjisthadi kwath	40ml	Madhu
3	Panchnimbadi churna	5gm(3-5 masha)	Madhu,mand-ushna jal
4	Haridra khand	3-5gm	Milk
5	Panchatikata guggulu	250mg	Luke warm Water
6.	Aaragvadhadi kwath	40ml	Sambhag ghrit

2.1) **External drugs(local application)/Lepa-**After *shodhana* or *rakta-mokshana karma* local application like *lepa* should be used in treatment of *Dadru*.In *ayurveda* samhitas there are many *lepa* described in *Dadru*.

Sr. No.	Lepa	Charaka	B.R	Chakradatt	Yoga ratnakar
1.	Durvadi lepa	-	+	-	-
2.	Dadru gajendra singh	-	+	-	-
3.	Aragvadhadi lepa	-	+	-	-
4.	Edagajadi lepa	+	-	-	-
5.	Maha Marichyadi tail	-	-	-	+

DISCUSSION

The basics principles of *hetu* of *Dadru* have been mentioned in *Brihatrayi* and *Laghutrayi* in the *Kushta Nidana*. Most of the *Apathya Ahara Vihara* mentioned in *Ayurveda* for causes of *Kushtha*, produces the healthy environment for the growth of fungal infection in the skin tissues. In modern science the clinical manifestation of *Dadru* is closely similar to *Tinea* infection which is caused by contact with diseased person, the weak immune system, poor nutrition, stress, obesity and contact with contagious things etc. These are the risk factor for *Tinea* infection. Severe itching and Red patches are the common clinical

c) **Virechana karma-**After *samyaka snehana shodhana* and examination of patients the planned induce purgation should be given to the patients by giving *trivrita kwath* early in the morning .Then patients should be observed for *samyaka virechana* and *sansarjana karma* should be maintain as per schedule.

1.2) **Rakta-mokshana karma-***Rakta-mokshan* should be done by using 18 no bore needle early in the morning near about 60 ml blood should be withdrawn per sitting.

2) **Shamana chikitsa-** *Pitta-kaphaghana* and *kushthagna* poly herbal, herbo-minerals drugs should be used for external and internal uses.

manifestations described in Ayurvedic texts, which can be evaluated by *Darshana* and *Prashana pareeksha*. In modern science *KOH* scraping (a Fungal Culture) would be useful to diagnose the *Tinea* along with clinical manifestations. Most of the *Acharayas* has mentioned predominance of *Pitta-Kapha dosha* in *Dadru* except *Acharya Sushruta*, who has considered *Kapha* predominance in *Dadru*. *Tvak, Rakta, Lasika* and *Ambu* these are the *Dushyas* described in *Ayurveda* along with *Raktavaha Srotasa Dushti*. *Shodhana* and *Shamana* these are the two pillars of treatment for any disease including *Dadru*. Before *Shamana Chikitsa*, *Shastrokta*

Virechana Karma by Trivruit Kwath will be helpful to remove out vitiated Kapha and Pitta Dosha from body. Rakta mokshana will also help to remove vitiated Rakta from patients. *Chakramard beeja, Manjisthadi kwath, Panchnimbadi churna, Haridra khand, Panchatikta guggulu* etc will help to pacify and purify the Raktavaha Srotasa. While Durvadi lepa, *Dadru gajendra singh, Aragvadhadi lepa, Edagajadi lepa* etc will help to pacify the local clinical manifestation of *Dadru*.

CONCLUSION

Dadru is the common disease in developing countries like India as most of the population lived in unhygienic condition. *Dadru* almost all the *acharayyas* has mentioned along with its management. This Ayurveda have capacity to cure the skin Disease like *Dadru*.

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