

## AYURVEDIC MANAGEMENT OF DADRU KUSHTA (TINEA INFECTION) – A CASE STUDY

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### ABSTRACT

Skin is the largest organ of human body. Its size and external location makes it susceptible to various disorders. Skin diseases are mostly caused by infections like bacteria, fungi etc. All the skin diseases in *Ayurveda* have been classified under the broad heading of '*Kushta*' which are further classified into *Mahakushta* and *Kshudrakushta*. *Dadru* is one amongst them. It is *Raktapradoshaja vyadhi* having *kapha*, *pitta* dominance. Due to similarity of all symptoms *Dadru* can be very well correlated with Tinea infection which is a fungal infection especially caused due to poor hygienic conditions. In *Ayurveda Shodhan* and *Shaman chikitsa* is mainly indicated in *Kushtha*. A 21 years male came with complaints of round and reddish, dry patches all over groin, buttock & some on right sided hair line region behind ear with severe itching and also pimples on face for 3 months. He was

treated with *Arogyavardhini vati*, *Gandhak rasayan*, *Aragwadh kapila vati* internally and *Karanj* oil diluted with *Eladi keram* tail apply externally for 14 days. After completion of treatment, significant improvement was observed in the parameters like *Kandu* (itching), *Raaga* (Erythema), *Pidika* (eruptions) and *Utsaana mandala* (elevated circular skin lesion). In *Samhita* repeated *shodhana* is indicated in *Kushtha* hence *nityavirechana* in the form of *Aragwadh kapila vati* was given. *Arogyavardhini vati*, *Gandhak rasayan*, *Karanj* and *Eladikeram* oil having *Kushtaghna*, *Kandughana* and *Krumighna* properties help in elimination of aggravated *doshaja* thus breaks the *samprapti* of the *vyadhi*. From this case study it can be concluded that *Ayurvedic* formulations are effective in the management of *Dadru kushta*.

**KEYWORDS:** *Kushta, Kandughna, Kushtaghna, Dadru, Tinea Infection.*

## INTRODUCTION

The largest organ of human body is skin. Its size and external location makes it susceptible to various disorders. In recent years, there has been a considerable increase in the incidence of skin problem in the tropical and developing countries like India.<sup>[1]</sup> All the skin diseases in Ayurveda have been classified under the broad heading of '*Kushta*' which are further classified into *Mahakushta* and *Kshudrakushta*. *Dadru* is one amongst them.<sup>[2]</sup> *Acharya Charak* has included *Dadru* in *Kshudrakushta*<sup>[3]</sup> whereas *Acharya Sushruta* and *Acharya Vagbhata* have explained under *Mahakushta*.<sup>[4],[5]</sup> *Vishamashana* (Incompatible food), *vegavidharana* (suppression of natural urges), *diwaswapa* (daytime sleeping), intake of *atilavana*, *atitikshnaahar* (excessive salty or spicy food), intake of contaminated food, drinking cold water just after physical work or *atapsevana* (exposure to sunlight) are causative factors of *Kushta*.<sup>[6]</sup> The main *lakshanas* of *Dadru* include *Kandu* (Itching), *Utsanna* (elevated circular lesions), *Mandala* (Circular Patches), *Raaga* (Erythema), and *Pidakas* (Papule). The *samprapti* of *Dadru* mainly involves vitiation of *Pitta-kapha doshas* and *dushti* of *rasa* and *raktavaha strotas*.<sup>[7]</sup> Due to similarity of symptoms *Dadru* can be correlated with Tinea infection, which is a fungal skin infection. The related fungi are dermatophytes capable of causing skin changes of the type known as Tinea or ringworm or dermatophytosis or Mycosis.<sup>[8]</sup> 5 out of 1000 people are suffering from Tinea infection.<sup>[9]</sup> In modern medical science, it is managed with topical and systemic antifungal agents and use of corticosteroids. In Ayurveda *Shodhan*, *Shaman* and *Bahirparimarjan* (topical) *Chikitsa* is indicated for *Dadru*.<sup>[10],[11]</sup> All these treatment modalities are used in this case study. For *shodhana*, *nitya virechana* with *Aragwadthkapila vati* was given. In *Shamana chikitsa* formulations like *Arogavardhini vati* and *Gandhaka Rasayana* having *Kushtaghna*, *Krumighna* and *Kandughna* properties were used. *Bahirparimarjana chikitsa* was given in the form of local application of *Karanj* oil and *Eladi Keram* oil.

## CASE REPORT

21 years old male came to Department of Kayachikitsa, SVNHT's Ayurved Mahavidyalay, Shrishivajinagar, Ta.- Rahuri, Dist.- Ahmednagar, (Maharashtra) with Chief complaints of round and reddish patches over inguinal, buttock and some right sided hair line region behind ear with severe itching and pimples on face for 3 months.

### History of present illness

Patient was well before 3 months, and then he gradually developed the round and reddish patches over inguinal, buttock and some right sided hair line region behind ear with severe itching and pimples on face. For the had taken Allopathic treatment from local practitioner but didn't get satisfactory result so, he came to SVNHT'S Ayurved Chikitsalaya for management.

### Past History

There was no any past history of Diabetes mellitus, Asthma, Any addiction, etc.

### Family History

No any specific family history present.

### Clinical Examination

*Ashthavidh pariksha* was within normal limit except patient had constipation. Patient had *madhyam akruti*.

**Local examination-** 4-5 circular erythematous, well demarcated patches with some vesicular eruption over inguinal, 2-3 patches on buttock area and 1-2 patches behind right ear. No discharge from lesion.

**Vital parameters-** Vitals parameters were within normal limit.

### Diagnosis

From clinical features it was diagnosed as *Dadru* (Tinea infection).

**Table No 1: Treatment suggested.**

Sr. No.	Drug given	Dose /Anupan	Duration/ Time
1	<i>Arogyavardhini vati</i>	500mg twice a day with <i>koshna jala</i> (lukewarm water)	14 days / after food
2	<i>Gandhak rasayan</i>	500mg twice a day with <i>koshna jala</i> (lukewarm water)	14 days / after food
3	<i>Argwadh Kapila Vati</i>	500mg at night with <i>koshnajala</i> (lukewarm water)	14 days / after food at night
4	<i>Karanaj + Eladi keram Tail</i>	Local application	Twice a day

## Investigations

CBC and RBS were within normal limits.

## Assessment criteria

Assessment of patient was done on the basis of improvement in subjective parameters like *Kandu* (Itching), *Raaga* (Erythema), *Utsanna mandala* (Elevated circular skin, Lesion) and *Pidika* (Eruption) and photographs of lesion before and after treatment.

**Table No 2: Gradation of Parameters.**

SN	Grade 0	Grade 1	Grade 2	Grade 3
<i>Kandu</i> (Itching)	Absent	Mild or Occasional Itching	Moderate or Frequent Itching	Severe Itching
<i>Utsanna mandala</i> (Elevated circular skin lesion)	Absent	Mild elevated lesion	Moderate elevated lesion	Severe elevated lesion
<i>Pidika</i> (Eruption)	Absent	01-Mar eruptions	04-Jul eruptions	> 7 eruptions
<i>Raaga</i> (Erythema)	Absent	Present		

## OBSERVATION AND RESULTS

**Table No 3: Assessment before and after treatment.**

Symptoms	BT (On 0 day)	AT (On 14 <sup>th</sup> day)
<i>Kandu</i> (Itching)	3	0
<i>Utsanna mandala</i> (Elevated circular skin lesion)	3	0
<i>Pidika</i> (Eruptions)	1	0
<i>Raaga</i> (Erythema)	1	0

Before treatment Gradation of *Kandu* was 3 (Severe Itching) which and it was absent on day 14 that is after completion of treatment. Before treatment Gradation of *Utsanna mandala* was 3 (Severe elevated lesion) and it was absent on day 14 that is after completion of treatment.

Before treatment Gradation of *Pidika* was 1 (1-3 eruptions) and it was absent on day 14 that is after completion of treatment.

Before treatment *Raaga* (Erythema) was present that was absent on day 14 that is after completion of treatment.

Thus complete improvement was observed in all parameters after completion of treatment.

Same can be seen in following pictures taken before and after treatment.

**Before Treatment: Figure-1- On day 0**



**After Treatment: Figure-2- On day 14**



## DISCUSSION

All *Kushta* are *Tridoshaj*. But according to *Acharya Charak* and *Vagbhata*, *Dadru* is *Pitta-Kapha* dominance and according to *Acharya Sushruta* it is *Kaphapradhan*. There is involvement of *Rasa* and *Rakta* in the *samprapti*. In *Samhita* repeated *Shodhana* and *Shamana* drugs having *Kushtaghna*, *Krumighna* and *Kandughna* properties are described for *Kushta*. Along with this, for better result, *Bahiparimarjana Chikitsa* (local application of drugs) in the form of oil was also advised. In this case study the patient was treated with internally *Arogyavardhini vati* and *Gandhaka rasayana*, *Aragwadhapila vati* with external application of *Karanja oil* diluted in *Eladikeram oil* for 14 days.

### Probable mode of action of *Arogyavardhini vati*

*Arogyavardhini vati* is a herbomineral formulation mainly indicated in *Kushta roga*. The main ingredient of *Arogyavardhini vati* is *Kutki* (*Picrorrhiza kurroa* Royle ex Benth). It also



contains *Haritaki* (*Terminalia chebula* Retz.), *Bibhitaka* (*Terminalia bellerica* (Gaertn.) Roxb.), *Amalaki* (*Emblica officinalis* Gaertn.), *Shilajatu Shuddha* (*Asphaltum*), *Guggulu Shuddha* (*Commiphora wightii* Arn.), *Eranda* (*Ricinus communis* Linn.), and minerals like *Shuddha Parada* (purified mercury), *Shuddha Gandhaka* (purified sulfur), *Lauha Bhasma* (iron compound in ash form), *Abhraka Bhasma* (mica in ash form), and *Tamra Bhasma* (copper compounds in ash form) with *bhavana* of *nimba* (*Azadirachta indica* A.Juss) *patra swarasa*. Due to all these ingredients, it possesses *pitta virechan*, *tridosha shamak*, *deepan*, *pachan*, *kushthaghna*, and *kandughna* properties. Due to these properties it helps in balancing *tridosha*, causes *agnivardhana*, *bhedana*, *malashodhana* and *vatanulomana*.<sup>(12)</sup> *Kushtaghna* and *Kandughna* properties help in relieving symptoms and breaking *samprapti* of disease.

#### **Probable mode of action of *Gandhak rasayan***

*Gandhak rasayan* is a polyherbal drug prepared by giving 12 *bhavanas* of herbal drugs to *Shuddha Gandhaka*. It is mainly indicated in the management of *Kushta Roga*.<sup>[13]</sup> It possesses antibacterial and antifungal properties. It mainly acts on *Rakta Dhatu* and causes *Rakta shodhan* (purification of blood). It helps in reducing infection by its antifungal property. It also acts as *Rasayana* and helps in improving the digestion and skin complexion. Sulfur is used both internally and externally for treatment of diseases of skin. It reduces the *Kandu*, *Pidika*, *Raaga* and *Daha* by its *Rakta shodhak*, *Vranaropak*, *Krumighna* and *Kushthaghna* properties.<sup>[14]</sup>

#### **Probable mode of action of *Aragwadha kapila vati***

Repeated *shodhana* is indicated in *Kushta* by all *Acharyas*. *Arawadh* has *mrudu virechak* property. *Dadru* is *kapha-pitta pradhana vyadhi*. So, *Aragwadha kapila vati* is used for *nitya Virechan* which help in elimination of vitiated *doshas*. It works as a smooth bowel regulator and also shows mild laxative action without spasm. It is beneficial in the case of constipation, bloating, hyperacidity, worm infestation, etc.<sup>[15]</sup>

#### **Probable mode of action of *Karanja oil***

According to Ayurveda, *Karanja* is anthelmintic, alexipharmic and useful in diseases of eye, vagina, skin. It is good for tumour, wounds, ulcers, itching, ascites, enlargement of spleen and abdomen, urinary discharges. It also cures biliousness, piles, head pains, leucoderma, skin diseases and wounds. According to Unani system of medicine, seeds are acrid and carminative, purify and enrich blood, relieve inflammations, cure earache, chest complaints,

lumbago, chronic fever and hydrocele.

*Karanj* oil is described in *Bhaishajya Ratnavali* in *Visarpa Chikitsa*. Its main ingredients are *Karanja* (*Pongamia pinnata* (Linn) Merr.), *Saptachada* (*Alsonia scholaris* R.Br.), *Langli* (*Gloriosa superba* Linn.), *Snuhi* (*Euphorbia nerifolia* Linn.), *Arka* (*Calatropis procera* R.Br.), *Anala* (*Plumbago zeylanica* Linn.), *Bhrigaraja* (*Eclipta alba* Linn.), *Nisha* (*Curcuma longa* Linn), *Gomutra* (Cow urine), *Visha* (*Aconitum ferox* Wall. ex Ser.) in *Murcchita sesame oil*.<sup>[16]</sup> It has *Krumighna* (antifungal, antibacterial activity), *Kandughna*, *Vranaropaka* and *Vranashodhaka* properties.<sup>[17]</sup> These properties help in reducing symptoms. Local application is useful for fast absorption and also reduces roughness.

### Probable mode of action of Eladikream oil

It is made with herbs that have strong anti-inflammatory, antioxidant and purifying properties. These herbs together make a potent Ayurvedic treatment for skin rashes and itching. This oil is used topically to balance the Kapha and Vata Doshas in order to improve the appearance of the skin.<sup>[18]</sup>

*Eladi keram* oil is described in *Sahasra yogam* in *Tilyoga prakaran*. Its main ingredients are *Tila taila* (Oil of *Sesamum indicum*) and Coconut oil Use as base. Paste of *Ela* (*Elettaria cardamomum*), *Kushta* (*Saussurea lappa*), *Chochapatra* (*Cinnamomum zeylanicum*), *Tagara* (*Valeriana wallichii*), *Rasa* (*Commiphora myrrha*), *Sthoola Ela* (*Amomum subulatum*), *Turushka* (*Hydnocarpus laurifolia*), *Phalini* (*Callicarpa macrophylla*), *Mamsi* (*Nardostachys jatamansi*), *Jaladhyamaka* (*Coleus zeylanicus*), *Sprikka* (*Anisomeles malabarica*), *Choraka* (*Angelica archagelica*), *Sthauneya* (*Taxus baccata*), *Jati* (*Myristica fragrans*), *Shukti* (*Ostrea edulis*), *Vyaghranakha* (*Capparis sepiaria*), *Marahva* (*Cedrus deodara*), *Aguru* (*Aquilaria agallocha*), *Shrivasa* (*Pinus longifolia*), *Kumkuma* - Saffron (*Crocus sativus*), *Chanda* (*Costus speciosus*), *Guggulu* (*Commiphora mukul*), *Devadhupa* (*Shorea robusta*), *Khapura* (*Boswellia serrata*), *Punnaga* (*Calophyllum inophyllum*), *Nagahva* (*Mesua ferrea*).<sup>[18]</sup> All these drugs have *Krumighna* (antibacterial, antimicrobial, and antifungal), *Raktashodhak* (blood purifying) and *Vranaropak* (wound healing) properties. Hence topical application of it helps in reducing symptoms of *Dadru* like *Kandu*, *Raaga*, *Utsanna mandala* and *Pidikas*.

### CONCLUSION

*Dadru kushta* is a type of *Kshudrakushta* according to *Acharya Charak & Mahakushta* according to *Acharya Sushruta* and *Acharya Vagbhata*. It can be correlated with *Tinea*

infection or dermatophytosis. As it is a contagious disease, personal hygiene is an important part in its management. From this case study it can be concluded that use of *Chikitsa upakramas* described in Ayurveda like Shodhana (Nitya *virechana* with *Aragwadhkapila vati*), *Shamana* (formulations like *Arogyavardhini vati*, *Gandhak rasayan*) and *Bahiparimarjana* (local application of *Karanj* and *Eladi kreram* oil) are effective in the management of *Dudru kushta*.

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