MANAGEMENT OF DADRUKUSHTHA (TINEA CORPORIS): A CASE STUDY

Dipti Kalangutkar1*, Rashmi Patekar2, Leena Junagade3 and Rajesh Kumar Gupta4

1Assistant Professor, Department of Panchakarma, Bhaisaheb Sawant Ayurved Mahavidyalaya, Sawantwadi, Maharashtra, India.

2Assistant Professor, Department of Dravyaguna Vidnyan, D. Y. Patil Deemed to be University, School of Ayurveda, Nerul, Navi Mumbai Maharashtra, India.

3Assistant Professor, Dr. D. Y. Patil College of Ayurved and Research Centre, Dr. D. Y. Patil Vidyapeeth (Deemed to be University), Pimpri, Pune. Maharashtra. India.

4Ex. Professor Department of Shalyatantra, Bhaisaheb Sawant Ayurved Mahavidyalaya Sawantwadi, Maharashtra, India.

ABSTRACT

Fungal infections of skin and nails are most common and widespread group of all mycosis, they affect more than 20-25% of world population. Dermatophytes belong to the mold group of fungi and cause cutaneous infections. Fungal diseases are usually classified according to site of infection, and are often referred to as tinea. Included in this group are Tinea barbae (beard), Tinea capitis (scalp and hair), Tinea corporis (non hairy skin), Tinea cruris (groin), Tinea manum (hand), Tinea pedis (feet), and Tinea unguium (nails), also called as onchomyosis. Clinician facing great challenge of fungal infection treatment due to higher rate recurrence and if not treated early lead to development of more extensive form of disease. In this case study patient suffered from Dadru. Tenia corporis simulates with Dadru kushtha due to its characteristics features Kandu (itching), Utsanna Mandala (Elevated Circular lesion), Pidika (Eruptions mostly at borders), Daha (Burning sensation), Raga (Erythema). In present case study, Arogyavardhini vati, Gandhak Rasayan (oral), Mahamanjisthadi kashaya, Gandhak druti oil mix Gandhakadi lepa (local application) was given. Above mentioned medicines having Kushthghna, Kandughna and
Kalangutkar et al.

**INTRODUCTION**

Fungal infections of skin and nails are most common and widespread group of all mycosis they affect more than 20-25% of world population. The incidence of cutaneous mycosis increase particular in tropical countries because of heat and humidity, whereas prevalence of causative species of fungi has shifted or changes are due to migration and changes in socioeconomic status and lifestyle.\(^1\)

Dermatophytes belong to the mold group of fungi and cause cutaneous infections. Although specific organisms usually cause dermatophyte infections in particular parts of the body, dermatophyte diseases are usually classified according to site of infection, and are often referred to as tinea. Included in this group are Tinea barbae (beard), Tinea capitis (scalp and hair), Tinea corporis (non hairy skin), Tinea cruris (groin), Tinea manum (hand), Tinea pedis (feet), and Tinea unguium (nails), also called onchomyosis). Ringworm is a common name for Tinea. (from the Latin word for worm)\(^2\) It is also called as universal itch disease.

Skin diseases in humans are common and can cause complications if not treated properly. A number of antifungal drugs are exploited for the treatment of fungal skin infections, but most of fungi develop resistance towards antifungal drugs. Adverse effects of topical and systemic antifungal drugs can sometimes also limit their use. Clinician facing great challenge in treatment fungal infection due to higher rate recurrence and lead to development of more extensive form of disease if not treated timely.

**Ayurveda** is ancient but time tested science. Its principles are permanent never change from ancient to present era. With logical thinking according principle, Ayurveda cure all types of diseases. In Ayurveda Skin disease described under broad topic Kushtha. Fungal infection simulates with Dadru kushtha due to its characteristics features Kandu (itching), Utsanna Mandala (Elevated Circular lesion), Pidika (Eruptions mostly at borders), Daha (Burning Sensation), Rag (Erythema)\(^3\) It appears especially on glabrous skin, most easily identifiable are enlarging red rings with central area of clearing. Sometimes the skin surrounding the rash may be dry and flaky. Dadru kushtha has appearance like Linseed flower color & are serpiginous with full of eruptions\(^4\). Dadru is classified as a Kshudra

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*krimihar* properties help to correct vitiated *dosha* and break *Vyadhi Samprapti*. After 45 days of treatment showed significant results without recurrence.

**KEYWORDS:-** Tinea, Dadru, Arogyavardhini vati, Gandhak Rasayan, Gandhak druti.
kustha by Acharya Charaka and Maha kustha by Acharya Sushruta and Vagbhatta. It is a Chirkalaja Kushtha is basically Tridoshaja vyadhi. Generally there are Kapha and Pitta domination with superadded Raktadushti. Severe itching is indicating presence of Kaphagata kleda in Rakta dhatu. Reduction in skin based immunity due to lifestyle factors and apthya ahara is important here. Ayurvedic medicines can give long lasting result without recurrence in the case of Dadru along with good hygiene, pathya (Food regimen) mentioned in Kushtha chikitsa and life style modification.

MATERIAL AND METHODS

A case report as follow

60 years old female patient visited to Kalangutkar Ayurvedic Clinic and Panchkarma Center with chief complaint of reddish round patches with elevated margins over abdomen and flank region with severe itching for 2month.

History of present illness

Patient was well before 2 month and then she gradually developed the round and reddish itchy patches over abdominal region with severe itching. Itching mainly present at bedtime and 3 a.m. She had taken allopathic treatment which includes both systemic and topical medication. Initially got relief in itching and lesions but recurrence occurred when medicines stop. So she came to clinic for Ayurvedic treatment.

Past history

There was no any past history of Diabetes mellitus, Hypertension, Asthma & Hypothyroidism.

Family history

No any specific disease history

Clinical examination

Ashthavidh pariksha was within normal limit.
Nadi- Prakrut Manduk Gati Shabda- Prakrut
Mala- prakrut Sparsh- Khara
Mutra- prakrut Druk- Pitavarni prakrut
Jivha- Niram Akruti- Madhyam
Local examination – 6- 7 circular erythematous, well demarcated patches with elevated margins
Over abdominal area and flank region. No discharge from lesion.
Vital parameters- Vitals parameters were within normal limit.

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

**Table 1: Treatment Given**

<table>
<thead>
<tr>
<th>Sr. no.</th>
<th>Drug Given</th>
<th>Dose -Anupan</th>
<th>Duration/time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Arogyavardhini Vati</em></td>
<td>500mg twice a day with Koshna Jala (lukewarm Water)</td>
<td>15days/ after lunch and dinner</td>
</tr>
<tr>
<td>2</td>
<td><em>Sukshma Triphala Vati</em></td>
<td>500mg twice a day with Koshna Jala (lukewarm Water)</td>
<td>15days/ at morning 6 a.m. and at evening 6 p.m.</td>
</tr>
<tr>
<td>3</td>
<td><em>Gandhak Druti oil+ Gandhakadi Lepa Powder (Gandhak[7], Manashila[7], Tankan[8], Sonegeru, Morchut[9], Hartal[10], Kapila[11], Shankhajire)</em></td>
<td>Local Application</td>
<td>Morning and Bed time</td>
</tr>
</tbody>
</table>

In present case study, *Dadru kustha* treated with *Shaman aushadhi – Arogyavardhini vati, Gandhak Rasayan vati* and *Mahamanjisthadi kadha, Gandhak druti* with *Gandhakadi lepa* given as *Bahiparimarjan Chikitsa*. (Table.1) Patient had advised to bath twic daily, dry body properly. Ask to wash clothes seperatly with boiled water mix with disinfectant like dettol.

**Follow up**
Patient visited after 15days. The treatment showed changes in the symptoms

![Before Treatment](image1)
![After Treatment](image2)

*Figure 1: Showing changes before Treatment and After treatment.*
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), Raga (Erythema), Utsanna mandala (Elevated circular skin, Lesion) and Pidika (Eruption) and photographs of lesion before, during and after treatment.

Gradation of Parameters \(^{[12]}\) (Table.2)

<table>
<thead>
<tr>
<th>Sr. no.</th>
<th>Grade 0</th>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kandu (Itching)</td>
<td>Absent</td>
<td>Mild or Occasional Itching</td>
<td>Moderate or Frequent Itching</td>
<td>Severe Itching</td>
</tr>
<tr>
<td>Utsanna mandala (Elevated Circular skin lesion)</td>
<td>Absent</td>
<td>Mild elevated lesion</td>
<td>Moderate elevated lesion</td>
<td>Severe elevated lesion</td>
</tr>
<tr>
<td>Pidika (Eruption)</td>
<td>Absent</td>
<td>1-3 eruptions</td>
<td>4 – 7 eruptions</td>
<td>&gt; 7 eruption</td>
</tr>
<tr>
<td>Raga (Erythema)</td>
<td>Absent</td>
<td>Present</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Observation and Results (Table. 3)

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>On Day 1</th>
<th>On Day 15</th>
<th>On Day 30</th>
<th>On Day 45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kandu (Itching)</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Utsanna mandala (Elevated circular skin lesion)</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Pidika (Eruptions)</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Raga (Redness)</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>
DISCUSSION

Before treatment Gradation of *Kandu* was 3 (Severe Itching) which reduced to 2 (Moderate or Frequent Itching) during first follow up and it was absent on day 30 that is after completion of treatment. Before treatment Gradation of *Utsanna mandala* was 3 (elevated circular lesion) which reduced to 1 (Mild elevated lesion) during 2\(^{nd}\) follow up and it was absent on day 45 that is after completion of treatment. Before treatment Gradation of *Pidi* was 3 > 7 eruptions) which reduced to 1 (1-3 eruptions) during first follow up and it was absent on day 30 i.e. on 2\(^{nd}\) follow up. Before treatment *Raga* (Erythema) was present that persists during first 15\(^{th}\) day follow up and it was absent on day 30.

Thus complete improvement was observed in all parameters after completion of treatment. Same can be seen in following pictures taken before, during and after treatment.

Action of drug and other Procedure use in this case study (Table.4)

<table>
<thead>
<tr>
<th>Sr. no.</th>
<th>Drug</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Gandhak Rasayan Vati[12]</td>
<td>Raktashodhak, Kandughna, Rasayan</td>
</tr>
<tr>
<td>2.</td>
<td>Arogyavardhini Vati[13]</td>
<td>Tridoshshamak, Kandughna, Kushthaghna</td>
</tr>
<tr>
<td>3.</td>
<td>Mahamanjisthadi Kashaya[14]</td>
<td>Varnya, Raktaprasadhan Kushthaghna, Rasayan</td>
</tr>
<tr>
<td>4.</td>
<td>Gandhak Druti[15]</td>
<td>Krumighna, Kushtari, Dadrughna</td>
</tr>
<tr>
<td>5.</td>
<td>Gandhakadi Lepa</td>
<td>Vishnashak,[19] Kushtghan, Kandughna, Raktavikar, Krimighna</td>
</tr>
</tbody>
</table>

Mode of action of drugs

*Arogyavardhini vati* - *Arogyavardhini vati* is a herbomineral formulation mainly indicated in *Kushta roga*. The main ingredient of *Arogyavardhini vati* is *Kutaki* (Picrorrhiza kurroa Royle ex Benth). It also contains *Haritaki* (Terminalia chebula Retz.), *Bibhitaka* (Terminalia bellerica (Gaertn.) Roxb.), *Amalaki* (Emblica officinalis Gaertn), *Shilajata Shuddha* (Asphaltum), *Guggulu Shuddha* (Commiphora wightii Arn.), *Eranda* (Ricinuscommunis 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 Bhasmas* (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. [17] *Kushtaghna* and *Kandughna* properties help in relieving symptoms and breaking samprapti of disease.[18]

**Gandhak rasayan**—*Gandhak rasayan* is polyherbal formulation mainly used in *Kushtha roga*. 12 drugs used as *bhavana dravyas* in this formulation. It has antibacterial and antifungal property.

This drug act as *raktadhu shodhak* so reduces *kadu, daha, pidika and raga*. Also act as *rasayan* so helpful to improve digestion and skin complexion. It has *Kandughna, Krimighna* and *kushtghhnna* properties.[19]

**Mahamanjisthadi kashaya**- This kashya contains Manjistha, Musta, Guduchi, Kutaja, most of drugs having tikya, kashaya, Katu rasa and Ushna virya. It has raktaprasadhan, Kushthghnna, Varnya and Rasayan property.[20]

**Gandhak druti** - *Gandhak Druti* is one of the unique preparation of *Rasoushadhi* (metallic and mineral preparation). It contains *Gandhak, Godudgha, Goghruta, Tila Tail* and *Trikatu*. *Gandhak Has krimighna* property. It acts as *Kushtghna and Kandughna*.[21]

**Gandhakadi lepa**—It is one *Anubhut Yog* contains *Gandhak, Manshila, Hartal, Kapila, Shankhajire, Gairik, Tankan, Morchut*. Most of drugs have *Katu rasa, Ushna virya, Lekhan* property. *Katu rasa* acts on *kleda* as *kledopashoshana*, and thus reduces *kandu* in *dadru*. *Katu rasa* also acts on *mamsa* as its action of *lekhan* on *mansa dhatu* thus reducing the elevated circular patches. *Ushana virya* and *katu rasa* are said to be *kandughna* while *tikta rasa* is said to be *kushtaghna* and *raktashodhak* (Removal of blood impurity) thus acting on skin diseases.

**CONCLUSION**

*Dadru* is classified as a *ksudra kustha* by Acharya *Charaka* and *Maha kustha* by Acharya *Sushruta* and Vagbhatta. It is a *chirkalaja vyadhi*. It can be correlates with Tinea Corporis. This study shows that Tinea can be treated successfully by *ayurvedic* medicines. It is also contagious disease so personal hygiene plays important role. From above case study it can be concluded that tinea infection can be treated successfully without side effect.
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