



Vidangadi Ointment And Vidangadi Yoga Pilot Study In Management Of Tinea Infections

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Abstract:

Introduction- Tinea corporis is a superficial fungal skin infection of the body caused by Dermatophyte. There is treatment available for fungal infection in modern medicine which gives good results like topical application of various antifungal ointment. They providing relief within short period but the recurrence of disease and some side effects like burning, swelling, irritation, redness, blisters, tenderness of drugs are noted. On analysing the disease symptomatology and condition it can be compared to Kustha Roga, which is *Tridoshaja Vyadhi* which involves *Rasa, Rakta, Mamsa* etc. *Dhatu*.

Aim- To evaluate the efficacy of *Vidangadi* ointment and *Vidangadi Yoga* in tinea infection.

Material and Methods- *Vidangadi* ointment and *Vidangadi Yoga* were given to patient having tinea infections to verify efficacy.

Results- *Vidangadi* ointment and *Vidangadi Yoga* has reduced the recurrence time and improve the patient compliance. A pilot study on *Vidangadi* ointment and *vidangadi yoga* has shown its effectiveness on Tinea as external medication. General feeling of wellbeing and no symptoms were seen in follow-up.

Conclusion –all the drugs of *Vidangadi* ointment and *Yoga* having *Dadrughna* property and its effective in management of various tinea infection.

Key words: *Kustha*, Tinea, *Vidangadi* Ointment, *Vidangadi Yoga*

Introduction:

Evaluation, diagnosis, and treatment of tinea corporis were the subjects of this article's narrative updated review..Dermatophytosis, is a skin infection brought on by a fungus. Typically, it causes a circular, red, itchy, and scaly rash. One of these infections is present in 20% of the world population¹.

In Ayurveda skin diseases are mentioned under the name *Kushta*. It is *Tridoshaja Vyadhi* which involves *Rasa, Rakta, Mamsa and Lasika* etc..² there is a need to evaluate the efficacy of *Ayurvedic* formulation which will have best anti-fungal action, In this study *Vidangadi* ointment is having such action.

Materials And Methods:

In this pilot study total 10 patients were enrolled from outpatient department of various hospitals of Vadodara, Gujarat, India. *Vidangadi* ointment and *Yoga* was prepared in Parul Ayurved Pharmacy Vadodara, Gujarat, India. Special case record proforma were used for collection of data.

AIM

- To evaluate the efficacy of *Vidangadi* ointment and *Vidangadi Yoga* in tinea mycotic infection

Inclusion criteria:

- Patient age group 18-60 year.
- Based on sign and symptoms of *Dadru Kushtha* fulfilling the diagnosis.
- Patient of either gender will be included.

Exclusion criteria:

- Clinical condition like, known case of HIV
- Known case of HBsAg
- Immunosuppressant taking steroidal therapy
- Signs of systemic fungal illness
- Mixed skin infection required antibiotics.

- All type of *Kustha* except *Dadru* will be excluded

a) Assessment criteria:

- Assessment will be done at day 0, 15 and 30.

Follow up: 15 days after completion of clinical trail

Treatment Protocol And Posology:

Vidangadi Ointment was given for local application quantity sufficient to affected area for twice a day Local application of *Vidangadi* ointment will not done at patches on the area of genitals, eyes, axilla.

Vidangadi yoga was given for oral administration 6—6--6 (500 mg each tab.) – TDS before meal .

2.2 Methodology of preparation of Vidangadi ointment:³

1.2. Ingredients of Vidangadi ointment.⁴

Sr No.	Ingredient	Quantity
1.	<i>Vidangadi Taila</i>	600 ml
2.	Emulsifying wax	180 gm
3.	Liquid paraffin	125 ml
4.	Methyl paraben	1.5 gm
5.	Distilled water	700 ml
6.	Carbopol 934	3.3 gm
7.	Glycerine	180 ml
8.	TEA	3.3 ml
10	Final product	1.7 kg

2.3. Ingredients of Vidangadi Taila

Sr No.	Ingredient	Quantity
1.	<i>Vidanga</i>	30 gm
2.	<i>Chakramarda</i>	30 gm
3	<i>Kustha</i>	30 gm
4	<i>Haridra</i>	30 gm
5	<i>Saindhava Lavana</i>	30 gm
6	<i>Sarshapa</i>	30 gm
7	<i>Kanji</i>	2800 ml
8	<i>Murchita Tila Taila</i>	700 ml
9	Loss	100 ml
10	Final product	600 ml

2.3 Methodology of preparation of Vidangadi ointment:⁵

- All the drugs listed in Table No.2.3 were taken in equal quantity.
- All the material was converted into *Yavakuta* form and bolus form.
- Then *Tila Taila* was taken into stainless steel vessel.
- Then *Kalka* was added into *Tila Taila* and after that *Kanji* and *Kwatha* were added in the vessel.
- Then *Taila Paka* was done at medium fire and *Vidangadi Taila* was made.
- The oil phase i.e. *Vidangadi Taila* , Emulsifying wax, Liquid paraffin, Methyl paraben, Distilled water, Carbopol 934, Glycerine, TEA were added in a glass beaker.
- It was heated on a water bath at 65 C while continuous stirring.
- The water phase i.e. Glycerine, Carbopol 934 and distilled water were added in another glass beaker.
- It was also heated at 65 C on water bath simultaneously.
- On complete liquefying of both the phases, they were moved into the mortar while continued stirring.
- Tri ethanol amine (TEA) was added while stirring the mixture.
- On cooling to 30-40 C , methyl Paraben was added to the mixture and blended with the help of mechanical stirrer altogether to acquire uniform ointment.
- Rose essential oil was added for fragrance.

1.1 VIDANGADI YOGA⁶

Sr.No.	Name of Ingredient	Botanical name	Family name	Part used	quantity
1	<i>Vidanga</i>	<i>Embelia ribes</i> Burm F.	<i>Myrsinaceae</i>	Fruit	300 gm
2	<i>Amalaki</i>	<i>Embelia officinale</i>	<i>Euphorbiaceae</i>	Fruit	300 gm
3	<i>Haritaki</i>	<i>Terminalia chebula</i>	<i>Combretaceae</i>	Fruit	300 gm
4	<i>Bibhitaki</i>	<i>Terminalia belerica</i>	<i>Combretaceae</i>	Fruit	300 gm
5	<i>Pippali</i>	<i>Piper longum</i>	<i>Piperaceae</i>	Fruit	300 gm
6	Acacia Gum powder	-	-	-	150 gm
7	Distilled water	-	-	-	12 litre
8	Loss				200 gm
9	Final quantity obtained				1.3 kg

Method of preparation⁷ -

- All the raw material were collected and all physical impurities were removed.
- Raw material were authenticated in Pharmacognosy laboratory of Pharmacy, Parul Institute of Ayurveda, Vadodara, Gujarat, India.
- Fine powder of all the ingredients were prepared by using 60# mesh.
- Then fine powder was taken to make granules of it.
- Wet granules were made by triturating with distilled water in edge runner.
- Granules were dried in hot air oven.
- Gum acacia powder was added as binding agent and tablet was prepared by using tablet making machine.

After completing treatment , follow up were carried out at 7th,14th,30thday

Criteria of Assessment

Assessment was done mainly on the basis subjective and objective criteria. These parameters were graded from 0-4 according to severity as given below. Number, color and length were assessed by taking photographs of the affected part.

Scoring pattern**Number of patches**

1. No. of patches Score None: 0
2. No. of patches Score 1: 1
3. No. of patches Score 2-3: 2
4. No. of patches Score 4-5: 3
5. No. of patches Score More than 5:4

Size of Patches

1. Size of patches None: 0
2. Size of patches Less - than 2 cm: 1
3. Size of patches 2cm - 3cm: 2
4. Size of patches 4cm - 5 cm: 3
5. Size of patches More than 5 cm: 4

Color of patches

1. Normal skin color: 0
2. Rash: 1
3. Reddish: 2
4. Reddish Black: 3
5. Blackish: 4

Kandu

1. No itching: 0
2. Mild/occasional itching: 1
3. Moderate (tolerable): 2
4. Severe itching: 3
5. Very severe itching, disturbing sleep & other activities: 4

Over-All Effect of Therapies:

No change.	Less than 25% changes in the sign and symptoms
Mild improvement	26-50% changes in the signs and symptoms
Moderate improvement.	51-75% changes in the signs and symptoms
Marked improvement.	76-99% changes in the signs and symptoms
Complete remission.	100% changes in the signs and symptoms

Observation:

The observations of the study are presented in Figure 3 & 7. A total of 10 subjects were registered in the present study and completed the trial. In this study, Maximum number of patients' i.e.60% belonged to 18-30 year age group. Ayurvedic texts mentioned *Dadru* as *Kapha Pradhana Pittaja Vyadhi*. This is evident from above data as *Dadru* is more prevalent in age group which was *Kaphapradhana Pittaja Vyadhi*⁸. In the present study 70% patients were male. Male especially doing Labour work spends most of the hours in hot environment which indeed becomes a known cause. So, it can be said that due heavy exertional work, males have negligence towards hygiene due to their work, irregular pattern of food and sleep making them susceptible for the disease Tenia. Majority of patients were Labour, educated up to secondary, from rural Hindu community. It only shows the dominance of Hindu people in particular area; otherwise, there may be no role religion in this disease. The present study shows that maximum number of patients was from middle class. Even then no

relation can be fixed with disease tinea in the economic status however good health and hygiene required for to prevent tinea in some extent. In *Dadru Kandu*, *Daha*, *Mandalakruti*, and *Twak Vaivarnyata* is mentioned as a symptom⁹. Looking to the sign and symptoms, maximum, i.e. 100% patients were having *Twak Vaivarnyata*. 97% of patients having *Kandu* and *Mandalakruti* and 60% patients were having *Twak Snigdghata* and *Daha*.

Result And Discussion:

Dadru disorder is well described in *Ayurvedic* literature, and according to modern literature, it's is a clinical condition similar to fungal skin infection (Ringworm). Although symptomatic treatment measures to relieve itching are advocated in the modern medical system, no drug has yet been claimed to cure this skin disease completely and prevent its recurrence. In the treatment of *Dadru*, ancient *Ayurvedic* scholars mentioned many oral medications as well as local formulations. *Ayurvedic* scholars were well aware that recurrence of this disease could be avoided.

Figure 1: Age wise distribution of 10 patients of Dadru

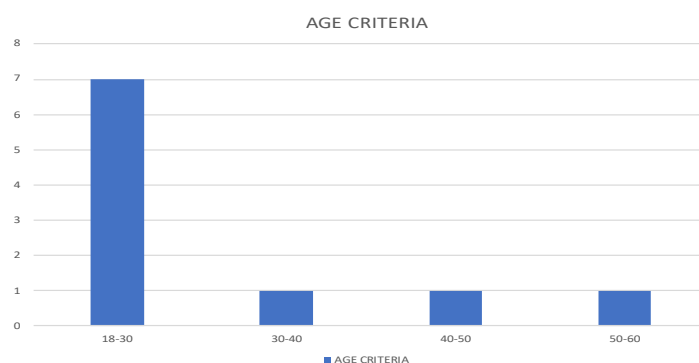


Table No 4: showing Gender wise distribution of patients of Dadru

Sr.No.	Gender	No of Patient	Total patient
1	Male	7	7
2	Female	3	3
3	Total Patient	10	10

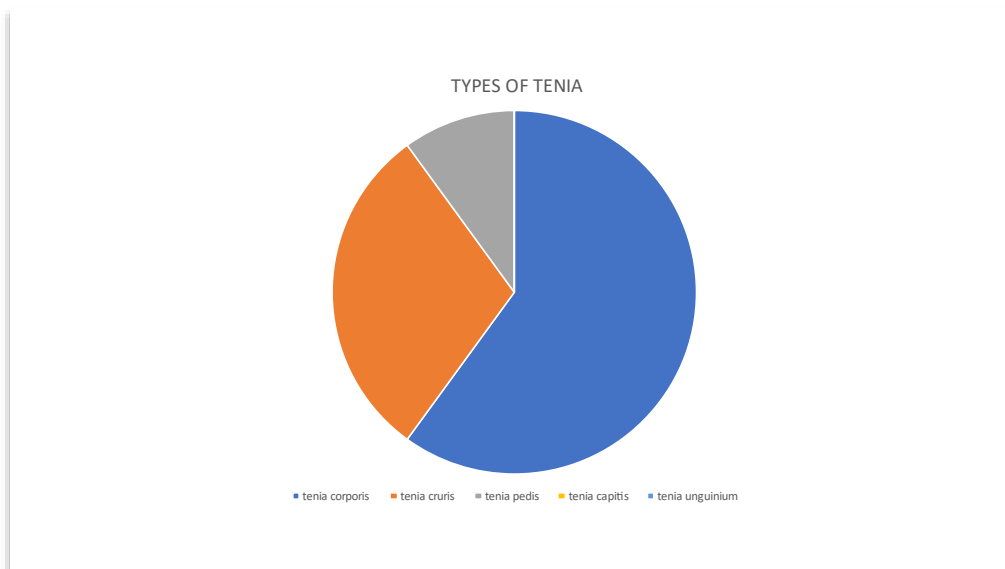


Figure 2: Types of Tinea infection

Tinea infection can affect any part of the body. Tinea infections of the feet, nails, and genital area are not often called ringworm. In the study we found maximum case of tinea corporis which is more than 50 %. Then tinea pedis and tinea cruris 20 and 10%.

Figure 3: Chief complaints wise distribution of 10 patients of Dadru.

Based on scoring pattern there is more effectively effect of drug in itching and it gives relief in short time and also give long lasting effect.it also give good effect on *Raga* and on patch and *Pidika* it gives less effect than itching.

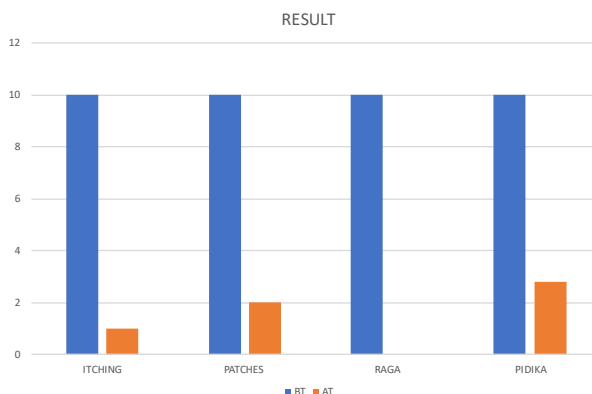
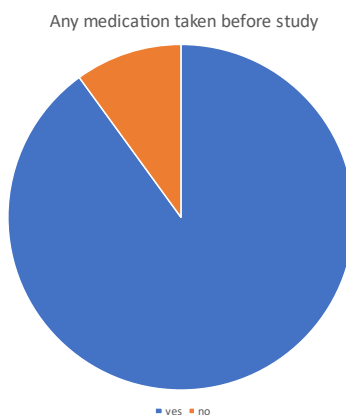


Figure 4-Any medication taken before study



In this study 20% patients are diagnosed accidentally and other patient have recurrence of tenia and taken further medication for tenia before.

Review on drug of *Vidangadi Yoga and Lepa*

Sr.No.	Drug name	Chemical constituents	Properties
1	<i>Vidanga</i> ¹⁰	Embelin (2,5- dihydroxy-3- undecyl-2,5- cyclohexadiene-1,4- dione), Embelinol, Embeliaribyl ester, Embeliol (N-(3- carboxylpropyl)-5- amino-2- hydroxy-3- tridecyl-1,4 benzoquinone	antiinflammatory,antioxidant, anthelmintic, antidiabetic, anticonvulsant, anticancer, anti-hyper lipidemic, wound healing and molluscidal activity antibacterial, antifertility, antiprotozoal, abdominal dosorders, lungdiseases, Constipation,Indigestion,Fungalinfections, analgesic,
2	<i>Triphala</i> ¹¹	Quercetin and Gallic acid Chebulinic acid, chebulagic acid, 3 Ethylgallic acid, Tainternilignan, thannilignan	Appetite stimulation, reduction of hyperacidity, antioxidant, antiinflammatory, immunomodulating, antibacterial, antimutagenic, adaptogenic, hypoglycemic, antineoplastic, chemoprotective, and radioprotective effects, and prevention of dental caries, laxative.
3	<i>Pippali</i>	piperine, chavicine, piperidine, and piperetine	CNS depressant, antipyretic, analgesic, anti-inflammatory , antioxidant , and hepatoprotective activities
4	<i>Kustha</i> ¹²	monoterpenes, sesquiterpenoids, flavonoids, lignans, triterpenes, steroids, glycosides	anti-inflammatory, anticancer, anti-ulcer, and antimicrobial
5	<i>Chakramarda Beej</i> ¹³	chrysophenol and crysophanic acid- 9- anthrone emodine, physcion	Antioxidant Activity, Antifungal Activity Hypolipidemic Activity, Antihelminthic Activity, Antibacterial Effect

6	Haridra ¹⁴	Curcumin, Curcumenone, Curcone, Curdione ukonan, A, B & D, β-sitosterol, eugenol, camphene, camphor, borneol	anti-diabetic, anti-bacterial activity, anti-inflammatory, Hypolipidaemic activity, anti-oxidant, anti-allergic, anti-septic
7	Sarshapa ¹⁵	caffeic acid Sinapic acid Sinapine	antioxidant, immunomodulatory, antimicrobial, antiaging, and anti-inflammatory

- 1) **Vidanga**– Acharya Charak include *Vidanga* in *Krimighna*, *Sirovirechanopaga*, *Kusthghna Gana*. Acharya Sushruta include it in *Pippalyadi* and *Surasadi Gana*. Bhavprakasha Nighantu include it in *Haritakyadi Gana*.
- 2) **Triphala**- Acharya Charaka has mentioned *Triphala* in *Kushtaghna*, *Jwarahara*, *Virechanopaga Mahakashaya*. Acharya Sushruta has mentioned it in *Amalakyadi* and *Triphala Gana*. Bhavaprakasha Nighantu has mentioned it in *Haritakyadi Gana*
- 3) **Pippali** – Acharya Charaka mentioned it in *Sirovirechanopaga*, *Asthapana*, *Dipaniya* and *Sulprashaman Varga*. Acharya Sushruta mentioned it in *Pippalyadigana*. Bhavprakasha Nighantu mentioned it in *Haritkyadi Varga*.
- 4) **Kustha**- Acharya Charak included it in *Lekhaniya*, *Asthapanopaggana Mahakashaya*. Acharya Sushruta include it in *Eladi Gana*. Bhavprakasha Nighantu include it in *Haritakyadigana*.
- 5) **Chakramarda** - Acharya Charak include *Chakramarda* in *Sukavarga*. Acharya Sushrut include it in *Urdhvabhagahara*. Bhavprakash Nighantu include it in *Haritakyadigana*.
- 6) **Haridra**- Acharya charaka has included haridra ini *Kusthaghna*, *Lekhaniya Mahakasahaya*. Acharya Sushruta has included it in *Haridradi* and *Mustadiigana*. Bhavprakash Nighantu include it in *Haritakyadigana*.
- 7) **Sarshapa**-Acharya Charaka has included Sarshapa in *Kandughna*, *Asthapanopaga*, *Sirovirechano- paggana Mahakashaya*. Acharya Sushruta has included it in *Pippalyadigana*. Acharya Bhavprakasha included it in *Dhanya Varga*.

Vidangadi Churna and *Dadruhara Lepa* is herbal combination of ayurveda drug which is mentioned in *Yogaratanakara Uttarsthana Kustha Chikitsa* was taken as *Vidangadi Vati* and *Vidangadi ointment* to improve its potency and its availability. *Vdngadi Vati* has *Vidang*, *Triphala*, *Pippali* mentioned in *Yogratnakar Uttarsthan Kustha Chikitsa*. *Vidangadi lepa* has *Vidanga Sarsapa*, *Kustha*, *Chakramarda Beej*, *Haridra*, *Saindhava Lavana* in *Yogratnakra Kustha Chikitsa*.

Considering all the properties of the medicines used in *Vidangadi Yoga* as well as ointment, it has been observed that they all having antibacterial, antifungal, immune modulator properties which are helpful to treat the chronic skin infections like tinea in children.

Conclusion

Majority of the ingredient are having *Krimighna* and *Dadrihna* property. *Hardira*, *Kustha* and *Sarsahapa* are having anti-microbial properties. *Triphala* and *Pippali* having mild purgative nature which helps in purifying the *Kostha* and act as anti-microbial agent. Addition of *Vidangadi ointment* and *yoga* has reduced the time of recurrence and symptoms of tinea infection. However, this formulation needs further investigated to provide more information on effective and safe herbal treatment for better outcomes to treatment of tinea infection. So, this combination is useful in *Dadru* and giving satisfactory effect.

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