

Effectiveness of *Vachadi* Ointment in the management of *Pama Kushta* (Scabies): A Novel Research Protocol Using Science of Ayurveda

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Abstract

Background: Scabies is a common cause of itching is produced by infestation with the mite *Sarcoptes scabiei var hominis*. Poor hygienic condition and overcrowding, permitting close body contact favour the transmission of the disease. Scabies is more prevalent in overcrowded communities with low socioeconomic conditions. The point prevalence in the general population of rural India is about 13%, In Maharashtra 81% of inmates of an orphanage in rural area,^[6] 72% of cases are seen in the age group of School going children's. *Pama Kushta* characterized by many small *Pitikas*, *Srava*, *Kandu*, *Toda* and *Daha* that may be considered as scabies in contemporary science. **Aim:** The present study is aimed at evaluating the effect of *Vachadi* Ointment in the management of *Pama Kushta*. **Material & Methods:** The present study is designed as a Non-randomized controlled clinical study, in which minimum of 30 patients will be enrolled. *Vachadi* Ointment will be administered external application 2-3 times in a day. Assessment will be recorded on 3rd, 5th, 7th and 14th days. **Results:** Changes will be observed in subjective parameters such as *Kandu* (Itching), *Toda* (Pain), *Daha* (Burning) and objective parameters such as *Pitika* (Eruption) and *Srava* (Discharge). **Conclusion:** Suitable conclusion will be drawn post completion of the trial.

Keyword- Poly herbal formulation, *Pama*, *Scabies*, *Vachadi* Ointment, *Kandu*, *Pidika*

Introduction

Skin is largest and most important organ of the body as it protects the internal organs from the harmful environmental influences. Many agents can affect the skin they may be vary in nature - physical (trauma, heat), chemical (strong acids) and biological (variety of organisms). The skin has several inbuilt mechanisms for interacting with the environmental agents and most of the times the skin is able to protect itself from those agents. The protective ability however, may not always

be able to deal with the environmental stimulus and this leads to the production of skin disease.^[1] Skin diseases in *Ayurveda* are described as *Kushta roga*. There are seven *Mahakushta* and eleven number of *Shudra kushta roga* are explained.^[2] All *Kushta Roga* are *Tridoshaja* in nature but according to dominancy of *Dosha* they can be classified according to *Dosha*. *Pama Kushta* is one of the *Shudra Roga* which in *Pitta-Kapha* predominating^[3]. It is contagious and widely spreaded disease throughout the world.

Pama Kushta characterized by many small *Pitikas*, *Srava*, *Kandu*, *Toda* and *Daha* that may be considered as scabies in contemporary science.^[4] Scabies is major public health problem with an estimated prevalence of 130 million cases worldwide. The prevalence varies from 0.35 to 46%.^[5] The highest rates are found in countries with hot, tropical climates, where infestation is endemic. Scabies is more prevalent in overcrowded communities with low socioeconomic conditions. The

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point prevalence in the general population of rural India is about 13%. In Maharashtra 81% of inmates of an orphanage in rural area,^[6] 72% of cases are seen in the age group below 16 year. It may spread in a group of population within a short period of time due to close contact or skin to skin contact and contaminated clothes.^[7] Scabies, a common cause of itching is produced by infestation with the mite *Sarcoptes scabiei var hominis*. Poor hygienic condition and overcrowding, permitting close body contact favor the transmission of the disease. Mites of scabiei colonize the Horny layer of the human epidermis cause dermatitis.^[8] Acharaya Susruta explained Vachadi Ointment in *Chikitsasthan* in the management of *Pama*.^[9]

Methodology

Trial design: Non-Randomized Controlled Clinical Study

Study setting: Diagnosed Patients will be selected from *Kaumarbharitya* OPD & IPD of M.G.A.C.H. and R.C. Wardha.

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Inclusion Criterion:

- Diagnosed cases of *Pama Kushta*, irrespective of caste, religion, sex or socio-economic status.
- Children between the age group of 3 to 15 years.

Exclusion Criterion:

- Patients suffering from any other systemic disorders such as Skin Tuberculosis, Leprosy etc.

- *Kushtha* other than *Pama*/scabies.
- *Pama* associated with immunodeficiency disorder such as HIV.
- Scabies with crust or hyperkeratosis and Secondary infection, Urticarial etc.

Criteria for discontinuing or modifying allocated interventions: Subject will be withdrawal from the study if any untoward incidence, features of drug sensitivity or any other disease or problem arises, the subject will be offered free treatment till the problem subsides

Follow up period after treatment: 14th day after treatment.

Primary Outcomes: Changes in the symptoms of *Gridhrasi* such as *Kandu* (Itching), *Toda* (Pain) and *Daha* (Burning).

Secondary Outcomes: To observe the changes *Pitika* (Eruption) and *Srava* (Discharge)

Statistical analysis: The data will be analysed by using paired t-test & Wilcoxon rank sum test.

Time duration till follow up: The patient will be followed up during treatment 21 days.

Follow up period –3rd, 7th, and 14th

Time schedule of enrolment, interventions: Diagnosed patients of *Pama Kushta* (Scabies) will be enrolled in the present study after fulfilling the inclusion criteria.

Interventions- Table no-01 showing the Posology

Table No-01

Treatment plan	Frequency	Route	Site	Dose	Duration
Vachadi Ointment	Twice a day	Local application	Affected area	Quantity sufficient	7 days

Sample size: 30

Recruitment: Patient will be recruited by single arm study

Implementation: Principal investigator will allocate and enrol the patient.

Data collection methods: Non- Randomized

Assessment criteria:

a) Subjective criteria:

1) *Kandu* (Itching)

2) *Toda* (Pain)

3) *Daha* (Burning)

b) Objective criteria:

1. *Pitika* (Eruption)

2. *Srava* (Discharge)

a) Subjective criteria: Table no-02 showing the subjective criteria

Table No-02

Sr No.	Grade Symptoms	0 Grade	1 Grade	2 Grade	3 Grade
1	Kandu (Itching)	No Itching	Mild / Occasional Itching	Moderate / Frequent (every day) Itching	Severe (disturbed sleep & other routine activities) Itching
2	Toda (Pain)	NO Pain	Occasionally Pain	Frequent (every day) Pain	Always (disturbed sleep & other routine activities) Pain
3	Daha (Burning)	No Burning	Mild / Occasional Burning	Moderate / Frequent (every day) Burning	Severe (disturbed sleep & other routine activities) Burning

b) Objective criteria: Table no-03 showing the objective criteria

Table No-03

Sr No.	Symptoms	Grade-0	Grade-1
1	Pitika (Eruption)	Absent	Present
2	Srava (Discharge)	Absent	Present

Data management: The data entry coding will be done by PI

Ethics and dissemination: Research ethics approval; approval from research ethics committee has taken no-: IEC No: DMIMS/DU/IEC/2017-18/7245

Consent or assent: The written assent will be taken from the patient before starting the study. During the study the confidentiality of each patient will be maintained.

Dissemination policy: The data will be disseminated in future clinical work and also paper publication.

Authorship eligibility guidelines and any intended use of professional writers

Informed consent materials: Model consent form and other related documentation will be given to participants and authorized informants with all the information.

Discussion

In the *Pama* there is predominance of *Pitta* and *Kapha* which leads to discolouration of skin like *Shyava*, *Aruna* and *Shweta Varna Pidika* associated with *Pitta* related symptoms like *Daha*, *Toda* and *Kapha* related like *Kandu*, *Strava*. The *Vachadi* ointment is mainly *Tikta*, *Katu* and *Kashaya rasa* predominant. All the drugs of *Vachadi* ointment are having *Tikta* and *Katu Rasa* which are having *Aampachak*, *Raktaprasadaka*, *Kushtaghna*, *Daha Prashamaka* and *Kaphahara* properties so it is considered to be very much effective in the treatment of *Pama Kushta*. *Laghu*, *Tikshna* and *Ruksha Guna* subsides *Kapha* thereby increases *Agni* which helps in the removing *Agnimadya* and clears tiny *Srotas* by removing *Aam*. *Laghu Guna* of the compound helps in *Lekhana* and *Poshana* which has reduced the *Pidika* of *Pama* mainly. *Tikta Kashya Rasa* and *Laghu Guna* do the *Lekhana Karma* and *Kapha* alleviation too. *Vachadi* ointment by virtue of its natural properties alleviates *Vata* and reduces *Kandu* which is one of the main symptoms of *Pama*. *Vachadi* ointment has three drugs *Vacha*, *Daruharidra* and *Sarshap* which is indicated in *Pama Kushta*.

Expect Result

All the drugs have Antibacterial, Antiviral, Anti-inflammatory, Anti-allergic and Antimicrobial Activities. *Vacha* has wound healing and Anti-

inflammatory properties. *Daruharidra* has properties of quickly healing wounds and has excellent drying quality which relieves moisture. Its paste applied externally can instantly relieve pain and inflammation. *Daruharidra* applied externally can relieve skin diseases and itching.

Conclusion

Pama in Modern parlance has similarity with the skin disease Scabies. *Pama* being *Kshudra Kushta* has *Kapha-Pitta* dominance with its involvement of *Tridosha* which can be evident by observing its signs and symptoms. The drug will be shown evidence to be a safe preparation in paediatric practice. The drug will be well accepted by children due to external application.

Conflict of interest – None

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