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Case Study

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# MANAGEMENT OF DERMATOPHYTOSIS OR *PADARTHAMARAI* IN SIDDHA SYSTEM - A CASE STUDY

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# **ABSTRACT**

**Background:** Siddha System of Medicine illustrates the pathological conditions that flare-up on the skin as *Thol Noigal* which is under the special system of medicine requiring special therapeutic measures. The major portion of *Thol Noigal* is compiled under '*Kutta Rogam*' and '*Karappan*'. There are 18 types of *Kuttam* wherein the clinical features of '*Pundareega Kuttam*' somewhat resembles that of Dermatophytosis – *Padarthamarai*. **Objectives**: The aim of the study is to exemplify the efficacy of Siddha formulations in the management of

Dermatophytosis. **Materials and Methods**: This Case study illustrates the assessment of lesion by using the clinical features such as Erythema, Itching, Induration, Eruption and Dryness and the treatment according to the fundamental principles in Siddha system and documented the prognosis by assessing the grade of lesion. **Results & Discussion**: The intake of *Parangipattai Chooranam* with *Palagarai Parpam* and *Sivanar Amirtham* with suitable adjuvant — milk as mentioned in the literature can effectively reduce the clinical manifestation of *Padarthamarai noi*, if the dietary and lifestyle modification is also being followed by the subjects. **Conclusion**: It reveals that the line of treatment in Siddha, dietary and life style modification plays an important role in the management of Dermatophytosis - *Padarthamarai*.

**KEYWORDS**: *Thol Noigal, Pundareega Kuttam, Karappan, Padarthamarai* and Dermatophytosis.

# 1. INTRODUCTION

Skin disease plays an important role in Siddha system of medicine. It is being considered under special system of medicine requiring dietary and lifestyle modification. Skin diseases

can affect an individual at any age. Common psychological problems associated with skin disease include feelings of stress, anxiety, anger, depression, shame, social isolation, low self-esteem and embarrassment.<sup>[1]</sup>

Siddha classical text explains certain types of skin diseases as *Kuttam*. There are 18 types of *Kuttam* revealed, of which the clinical manifestation of *Padarthamarai* is being described as *Pundareega Kuttam*. The Tamil Verse regarding *Pundareega Kuttam* explains that the appearance of skin lesion seems like the Sepals of Lotus flower; it also reveals redness / hyper-pigmentation, itching and oozing from the lesion in the body which resembles that of Dermatophytosis. [2]

*Padarthamarai* is a fungal skin infection that can infect the skin, nails, and hair. It is also known as "tinea" or "dermatophytosis" caused by dermatophytes - a group of fungi that invade and grow in dead keratin.<sup>[3]</sup> Infection is limited to the dead layers of skin but encouraged by a damp and warm local environment. The infection can be transmitted to humans by anthropophilic (between people), geophilic (from soil) and zoophilic (from animals) spread.<sup>[4]</sup>

The clinical features are red, inflamed patch of skin; the outer edge is more inflamed and scaly than the paler centre. So, it often looks like a ring that becomes gradually larger - hence the name ringworm. The rash may be mildly irritating, but sometimes it is very itchy and inflamed. The rash may vary depending on which type of fungus causes the infection. This study deals with ringworm – fungal infection of the corporeal skin as Tinea corporis & Tinea cruris of a single case.

#### 2. CASE STUDY

43 years old Female visited the Out Patient Department of Siddha Regional Research Institute, Thiruvananthapuram with the complaints of itchy eruption in flexor aspect of elbow and left forearm, Knee fold and genitalia. The lesion is found red & inflamed; the outer edge is more inflamed and scaly than the paler centre. The history of present illness reveals that the itching and eruption had appeared in the left forearm six months earlier.

On examination the erythematous lesion with prominent border, crusts and papulo squamous changes found in the flexor aspect of Knee, elbow and left forearm. The hyper-pigmented

lesion with severe itching and crusts was noted in genitalia. The patient never had the history of Diabetes, Tuberculosis, genetic disorders and immune deficiency disorders.

Based on the clinical appearance of the lesions, a diagnosis of *Padarthamari* was made and was treated with well known Siddha formulation internally and externally for the period of 3 months and the prognosis was documented.

#### 3. MATERIALS AND METHODS

The history taking the General examination and systemic examination of the Patient, assessment of the skin lesions was done on first visit after getting the consent from the subject. The patient follow up was done weekly once. The assessment parameters for the consecutive 4<sup>th</sup>, 8<sup>th</sup> and 12<sup>th</sup> visits are framed; the line of treatment in Siddha system, dietary and lifestyle modifications and prognosis are explained.

# 3.1. Pathogenesis in Siddha

As per Siddha concept, the occurrence of *Pundareega Kuttam* or *Padarthamarai* is due to the derangement of *Iyya* humour followed by the imbalance in *Vali* and *azhal* humours, that gradually smash up the *Udal thadhukkal* namely *Saaram, Chenneer, Oon* and *Kozhuppu*, express as the eruptive lesion on the skin. The pathogenesis of *Padarthamarai* reveals the impairment in *Apanan* and *Viyanan Uyir thadhukkal*. The treatment is to balance the vitiated humours and maintain the *Udal* and *Uiyir thadhukkal* appropriately.

#### 3.2. Clinical Assessment

#### 3.2.1. General Assessment

- General examination reveals the normality in vital signs.
- The natural forces *Apanan* and *Vyanan* gets affected.
- *Envagai thaervu* reveals the manifestation of *IyyaAzhal Nadi*; expression of the hyper-pigmentary lesion in the body.
- The *Udal thadhukkal* namely *Saaram*, *Chenneer*, *Oon* and *Kozhuppu* gets affected in the subject.

#### 3.2.2. Assessment of lesion

The Assessment parameters with their grading are

a) Erythema: 0 - Absent; 1 - Mild; 2 - Moderate and 3 - Deep brown

**b) Itching:** 0 - Absent; 1 - Mild; 2 – Moderate and 3 – Severe

- c) Dryness: 0 Absent; 1 Mild; 2 Moderate and 3 Severe
- **d)** Eruption: 0 Absent; 1 1 to 3 eruption; 2 4 to 7 eruption; 3 above 7 eruption
- e) Indurations: 0 Absent; 1 Mild; 2 Moderate; 3 Severe.

The prognosis in the subject is being assessed in one month of treatment, 2<sup>nd</sup> month and 3<sup>rd</sup> month.

#### 3.3. Treatment

The treatment initiated with laxative followed by the intake of Siddha drugs in combination with the suitable adjuvant.

**Table (1): Drug schedule of the Patient.** 

Sl. No	Medicine	Dose	Anupanam (Adjuvant)	Route
1.	Nilavagai Chooranam	5 gms at bed time For 5 days	Hot water	Oral
2.	Parangipattai Chooranam Palagarai Parpam Sivanar Amirtham	1 gm 200mg 100mg	Milk	Oral
3.	Thripala Chooranam	Required quantity	-	For external wash
4.	Arugan thylam (or) Karappan thylam	Required quantity	-	External application

The follow-up of treatment is being assessed in the weekly consultation in SRRI Tvpm OPD. After one month of treatment, the complaints of itching reduced and *Karappan thylam* was applied thereafter instead of *Arugan Thylam*.

### 3.4. Dietary and lifestyle modifications

The Subject is advised to avoid incompatible food items. The dietary restrictions like avoiding of Mango, Brinjal, Tomato, Non-Vegetarian foods, Jackfruit, Pineapple, fast-food, sour food items, etc are being advised and followed by the subject.

The Subject is suggested to maintain personal hygiene. As the infection can spread from person to person by touching and from animals such as dogs, cats, guinea pigs and cattle to human being and also from soil to animal or human proper cleansing procedures and preventive measures are mandatory. Hence the subject is advised to keep the affected area clean and dry; do not share towels, Soap, etc; Wash towels, sheets and clothes frequently;

Clean the shower or bath well after use. The usage of Soaps for bathing was also limited and the gram powder was applied.<sup>[5]</sup>

Advices to do not scratch the rash, as this may spread the fungus to other areas of body are made. Moreover in order to avoid trapping moisture close to the skin, the subject was advised to wear loose-fitting clothing made of natural fibres.

# 4. RESULTS

The assessment of lesion shows gradual reduction in Score of 12 to the Score of 4 in the duration of treatment period. These are the Table and Graph illustrating the prognosis in the subject of study.

Table	2):	Illustrates	the	prognosis	of lesion.

Assessment	Prognosis					
Parameters	First Visit	Fourth Visit	<b>Eighth Visit</b>	Twelfth Visit		
Erythema	Deep brown	Moderate	Mild	Absent		
Itching	Severe	Mild	Mild	Mild		
Dryness	Moderate	Moderate	Mild	Mild		
Eruption	Severe	Severe	Moderate	Mild		
Indurations	Mild	Mild	Mild	Mild		
Score	12	9	6	4		

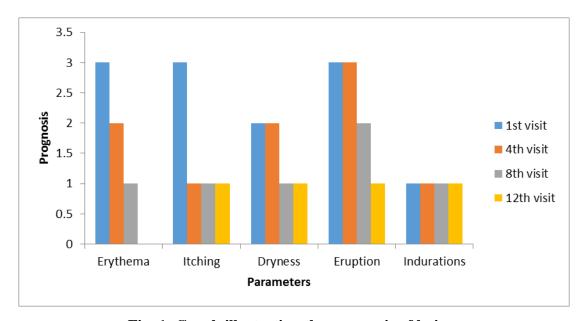


Fig. 1: Graph illustrating the prognosis of lesion.

These are the figures illustrating the appearance of lesion before treatment, during and after treatment.

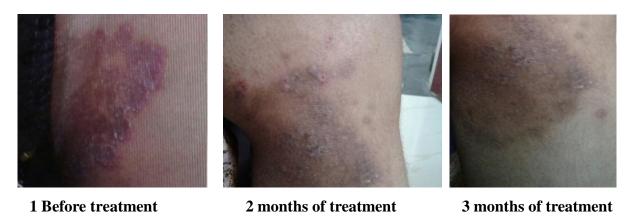


Fig. (2): Images illustrating the prognosis of lesion - Lesion in Popliteal region

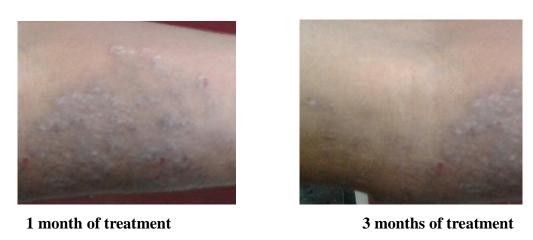


Fig. (2.1): Images illustrating the prognosis of lesion - Lesion in Forearm.

The signs and symptoms gradually reduced and there was healing of lesion from the medial side. In three months of treatment the eruptive lesion gets healed off and the induration still persists. The final assessment reveals the significant healing of lesion.

#### 5. DISCUSSION

As per the Siddha concept, purgative or laxative drugs should be prescribed initially according to the health condition of the subject. In this study the laxative drug *Nilavaagai Chooranam* is prescribed initially for the balancing of vitiated humour and for the removal of metabolic end products from the body.

The drug *Parangipattai Chooranam* in Siddha literature is indicated for *Meganoigal*, *Kuttam*. <sup>[6]</sup> *Parangipattai Chooranam* is the better one for any kind of skin diseases, but it should be prescribed as per the humour and other body condition of the subjects. Basically the drug *Parangipattai* is of *Veppa veeriyam*<sup>[7]</sup> and hence it might have normalized the vitiated *Iyam* in the subject.

The screening of various Siddha drugs for their antifungal activity against various strains of Candida albicans reveals that *Parangipattai Chooranam* possessed significant antifungal activity against various strains of Candida albicans.<sup>[8]</sup> Moreover it contains phytochemicals that can act better with the adjuvant of milk and proved to be effective for dermal lesions.

*Palagarai Parpam* is indicated for skin diseases, it has wound-healing activity, antibacterial activity and antihistaminic activity. <sup>[9]</sup> It is the best antidote also. The drug *Sivanar Amirtham* also possess Antihistaminic and anti-inflammatory activity.

Thripala chooranam which is being used for wash is an astringent and disinfectant and hence it is useful for the healing of skin lesion. The oil of external application Arugan thylam is also the disinfectant and supported to get relieve from dryness and itching in the initial period of treatment. Later on Karappan thylam is being applied to subside the allergic reaction on the dermis and for the attainment of complexion of skin.

#### 6. CONCLUSION

This case study concludes that the intake of *Parangipattai Chooranam* with *Palagarai Parpam* and *Sivanar Amirtham* with suitable adjuvant – milk as mentioned in the literature can effectively reduce the clinical manifestation of *Padarthamarai noi*, if the dietary and lifestyle modification is also being followed by the subjects. Moreover it can be concluded that the external application of *Arugan thylam* reduced the itching effectively; *Karappan thylam* may support well for the attainment of complexion of skin gradually.

#### 7. ACKNOWLEDGEMENT

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