A STUDY ON
VARAL KARAPPAN

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INTRODUCTION

The Siddha System is a branch of Indian System of medicine, is holistic in its approach. The word Siddha comes from the word “Siddhi” which means an object to be attained or perfection or heavenly bliss.

The World Health Organization (WHO) defines “HEALTH” is a state of complete physical, mental and social well being and not merely the absence of disease.

According to Siddha Medical Science, the Universe Originally consists of atoms which contributed to the five basic elements viz., Earth, water, Fire, Air and Ether which synchronize with five senses of the human body, and they were the fundamentals of all the corporal things in the world. A close relationship is found existing between the external world and the internal system of human being. This is mentioned in Siddha literature as,

"அன்ற குறிப்பிட்டு விளக்கம்
இன்ற குறிப்பிட்டு அலந்து
அன்ற விளக்கம் குறிப்பிட்டு
அன்றிக்க குற்ற பரக்கத்தியில்

- சல்புசாதி குராணம்
Any change in the elementary condition of the external world has its corresponding reflection in the human.

The treatment in Siddha System is based on Vatha, Pitha and Kapha which are the three supports of the body as they are the three fundamental principles in the composition of human body.

Siddha System of medicine not only deals with prevention and treatment but also to prolong the longevity of human life and also quality of life. Nowadays we says “Today’s child is the Tomorrow’s King”. But long long ago Siddhars had the same vision and gave more importance to child’s health even from its embryo. Kuzhandhai Maruthuvam is a specialized branch in Siddha medicine which deals with the treatment of the disease of children upto 12 years.

The author has selected the clinical entity VARAL KARAPPAN for the present study. Varal Karappan is one of the commonly occurring dermatological disease. It is very common among the school children and a seizable number of cases are always registered in the Pediatric practice. Inspite of an increasing awareness of personal hygiene in recent years the incidence of the disease has not declined, the reason is attributed to over crowding.
In a country like India with exploding population growth, this may cause a significant problem. This work attempts to find an effective and economic drug therapy for the disease **Varal Karappan** through clinical and pharmacological trials.

**The author has selected the drugs,**

1. **KODIVELI CHOORANAM – INTERNAL MEDICINE**

2. **MARUTHAMPATTAI THYLAM - EXTERNAL MEDICINE**

3. **KUPPAIMENI PODI – DUSTING POWDER**

   The author has made an earnest effort to study the disease through clinical trials and drug efficacy through pharmacological studies with appropriate study of Modern and Siddha aspects.
AIM AND OBJECTIVES

Varal Karappan is a skin problem among children. It affects children in their active period of life and cause severe embarrassment both physically and mentally.

Varal Karappan is highly adhered by polluted environmentals, allergic food edibles and lack of personal hygiene which are the main causative factors for developing this. So when the disease has once occurred remission and relapse happens subsequently throughout the life of the patient.

The frequency of relapse will be as per the individual immune power and his following of instructions to prevent the disease. So the author has selected this disease for the dissertation work and to evolve a better treatment for getting rid of this disease for all.

➢ To study the clinical course of the disease Varal Karappan.

➢ To know the extent correlation of aetiology, signs and symptoms of Varal Karappan in siddha aspect with Scabies of Modern aspect.

➢ To find out remedy that could be given to patient with cheap and easily available Siddha drugs.
➢ To have an idea of the incidence of this disease in relation with age, sex, Socio economic status, habits, occupation, family history and paruvakalangal.

➢ To know how the disease alters Mukkutram and Udalthathukkal.

➢ To evaluate the Biochemical and Pharmacological reports on dissertation medicines Kodiveli chooranam, Maruthampattai Thylam and Kuppaimeni Podi.

➢ To observe the efficacy of Medicines clinically.

  ✤ KODIVELI CHOORANAM : 250 mg – 1 gm. Thrice daily with honey, after food.

  ✤ MARUTHAMPATTAI THYLAM : For topical application

  ✤ KUPPAIMENI PODI : Dusting Powder
VARAL KARAPPAN is one of the Eighteen types of Karappan which affects the children.

Definition:

VARAL KARAPPAN is one of the Eighteen types of Karappan which affects the children.

Etiology:

VARAL KARAPPAN is one of the Eighteen types of Karappan which affects the children.
“நீர்த்தேவிகள் கூண்டுகள் நிலைநுட்பம்
சிகிச்சானாலோர் குடும்பங்களுடன் உயர்ந்து நீர்த்தேவிகள்
சுருக்குகோள் ஒழுங்கமோர் தொழில் போட்டி
தினவரை நீர்த்தேவிகள் ஒழுங்கமோர் போட்டியிலே
குற்றங்கள் குறுக்குரோட்டக்கள் பதிவுக்குறிப்பு
அதிகாரிகள் கிளையார்விகள் திறக்குறிப்புக்கள்
சுருக்குகோள் ஒழுங்கமோர் மட்டும்
சுருக்குகோள் நிலைநுட்பளுக்கு செறிப்பட்டோர்”

சின்னநாயகம் சின்னநாயகம் பாகம் - 1

பகுதி - 333

ஹிளோஜ்பாரசோ, திரும்பு தேவ, கருத்தில் மற்ற திறந்துகோள் காணத்தக்கள்
தூத்து தெம்பாய்கள். துள்ள தேவமண்டலம், தேவமண்டலம்
நீர்த்தேவிகள் பாரதி தேவமண்டலம் பாரதி தேவமண்டலம் தேவமண்டலம்
தூத்து, திரும்பு முன்மாரிகளின் வாழ்நாள்வரம்.

It has been mentioned that the conditions of the father also affects
the child.

“சுருக்குகோள் நிலைநுட்பளுக்கு செறிப்பட்டோர்
செறிப்பட்டோர் குறுக்குரோட்டக்கள்
சுருக்குகோள் ஏற்றாட்டம் குறுக்குரோட்டக்கள்
சுருக்குகோள் ஏற்றாட்டம் குறுக்குரோட்டக்கள்
அதிகாரிகள் முன்மாரிகள் மாராதை தீதம்
அதிகாரிகள் முன்மாரிகள் மாராதை தீதம்
சுருக்குகோள் ஏற்றாட்டம் தேவமண்டலக்
சுருக்குகோள் ஏற்றாட்டம் தேவமண்டலக்”.

- பாரம்பரிகம் பகுதி 5
Development of immunity of a child starts in the intrauterine life itself. Therefore the drugs taken by the pregnant woman every month have to be dealt with.

**In Yugi Vaidhya chinthamani:**

"தாயனா கர்பாப்பிள்ளி செய்பது கோயில்
குருக்கை படிப்பாக புதிதமாகும்
அழகன் கையன் கிளை பாலூ கையாக
நறுவன் கிளை மூழ்காக்கு பாலூமை"

- பௌத்தத்திய வியாழார்

In take of fish, mutton, rhizomes, tubers of some plants taken by the Mother produces Karappan in the child due to breast feeding.

**In Pararasa sekaram**

"சிறுகூத்துக்கள் பல்கைமீட்டுக்கள்
பாருநிகளா விளை பரிசூட்டுகள்
தயத்திய தோன்ற கிளைக்கும்பன்
விப்பா வாணு வாறுநல் மூழ்காக்கு களூம்
காடும் பலியில் தாயனா கையாக
சாழ்பவ வாணு மீட்டு மூழ்கு தீந்து
துவு சுனநிதியா தாவுசிகள்
மாணாகன் கர்பாப்பிள்ளி வாலூமை"

- பாமுங்கரோ

- Excessive intake of jaggery, fish, mangoes.
- Airborn infection.
- Poisonous bites may cause the disease.
In Balavagadam: Karappan is classified into 18 types,

"தற்காலத்தில் காற்று முதிக்கிறது மய்யாளர் பார்க்கிறான காற்றை குறிப்பிட்டு காட்டும் தொற்று கொண்டது குறிப்பிட்டு மய்யாளர் வருவாறு பிரித்து வருவாய் நிற்கக்கூட கரப்பால் நீர்த்து குறிப்பிட்டு பார்க்கிறான குறிப்பிட்டது கவர்ந்து பார்க்கிறான் “

"தற்காலத்தில் காற்று முதிக்கிறது மய்யாளர் பார்க்கிறான காற்றை குறிப்பிட்டு காட்டும் தொற்று கொண்டது கூறின் பார்க்கி காற்றை குறிப்பிட்டு குறிப்பிட்டு பார்க்கிறான வருவாறு பிரித்து வருவாய் நிற்கக்கூட கரப்பால் நீர்த்து குறிப்பிட்டு பார்க்கிறான குறிப்பிட்டது கவர்ந்து பார்க்கிறான் “.

1. Vatha karappan  (மார் கரப்பால்)
2. Pitha karappan  (பிள்ள கரப்பால்)
3. Sethuma karappan  (செய்மு கரப்பால்)
4. Ari karappan  (அரி கரப்பால்)
5. Oothu karappan  (அது கரப்பால்)
6. Soolai karappan  (சுலை கரப்பால்)
7. Vedi karappan  (வெடி கரப்பால்)
8. Mandai karupan  (மண்டை கரப்பால்)
9. Pori karupan (போரிக் கருப்பன்)
10. Sattai karappan (சட்டாற் கருப்பன்)
11. Odu karappan (ஓடு கருப்பன்)
12. karung karappan (கருணா கருப்பன்)
13. Senk karappan (சென்கு கருப்பன்)
14. Kolli karappan (கோளிக் கருப்பன்)
15. Thoda karappan (தொடா கருப்பன்)
16. Valai karappan (வலைக் கருப்பன்)
17. Varal karappan (வரால் கருப்பன்)
18. Veengu karappan (வெங்குத் கருப்பன்)

In Gurunaadi Sasthiram:
Karappan is classified into 85 types.

In Agasthiyar 2000:
Karappan is classified into 66 in numbers.

In Agasthiyar Rananool:
Karappan is classified into 80 types.

In Yugi Vaidyachintamani:
Karappan is classified into 7 types.

In Agasthier 2000 part III
Karappan is classified into 6 types.
GENERAL SIGNS AND SYMPTOMS OF VARAL KARAPPAN ACCORDING TO BALAVAGADAM

“வர்ல் கார்பன் கிளிப்பு காணப்படும்
துண்டு கிளிப்பின் உண்ணல் காலம் - நிற்கும்
பொதுமகு சிறு தட்டு தட்டு காணப்படும்
நிற்கல் கிளிப்பு காட்டும் காலம்”

- பாலவாகாதம் பக்கம் 250

• Itching, Oozing, Papules in the body.
• Insomnia.
• Bullae present in the whole body.

ACCORDING TO AGASTHIYAR 2000 (Part – III)

“அக்காணியர் கைலாமானியார் காணப்படும் கிளிப்பின் காலம்
சிறு கிளிப்பின் உண்ணல் நிற்கும்
துண்டு சிறு தட்டு கிளிப்பு காணப்படும்
பொதுமகு சிறு தட்டு காணப்படும் காலம்”

- அக்காசியர் 2000 பக்கம் 56

• Papules present in the head, lower limbs and all over the body.
• Itching.
DETAILS ABOUT THE OTHER TYPES OF KARAPPAN

- Dryness of mouth, fever.
- Itching and pain all over the body.
- Vesicles, oozing, bullae, papules, Bleeding in the lesion.

Vomiting, headache, fever.
Itching, oliguria.
constipation.
• Ulcers in the mouth.

• Chest pain.

• Ulcers in the trunk.

• Ulcers in the genital organs.

• Itching and oozing in the inner aspect of the thigh.

• Emaciation.
கார்பாலன்:

"இல்லாத கரைகள் கூடிய நிலையை அறியாதே கலசம் தோன்றியதோ
நிலையில் கர்க்க விளையாட்டு கிண்ணத்து - கர்க்க விளையாட்டு
நிலையில் பிந்தையினார் புங்காச்சன் தவறுறில்லாமல்
அன்று கர்ப் பலரிசையான சோனா".

- Fever with rigor.
- Tumours in the body.
- Itching and ulcers in the nose.
- Generalised oedema.

துளியால் கார்பாலன்:

"விஜயநாத பாதமாருடன் வழிவகுத்து விளையாட்டும் நிலையில்
சந்தனம் பார்க்கும் தவறுறில்லாமல் - பிணைக்கும்போது
மேலும் பிணையான கர்ப் பலரிசையான சோனா
கார்பாலன் தவறுறில்லாமல்
கர்க்க விளையாட்டைச் சான்றை பொருைப்படுத்தியதாய்
அன்றையலேயும் கர்ப் பலரிசையான").

- Ulcers and pain in the body.
- Difficulty in moving both knee and elbow joints.
- General debility.
• Swelling in the body.
• Pain and swelling all over the joints.
• Itching, headache.
• Fever.

• Itching in the scalp.
• Ear discharge.
• Headache, fever.
• Loss of weight.
• Pain in the throat.
Papules in the body.

Dryness of mouth.

Altered sensorium.

Pain in all the joints.

Yellowish discolouration of the skin.

Itching and oozing in the lesion.

Constipation, headache.

Fever.
Pain and swelling in all the joints.

Constipation.

Itching, swelling in the body.

Discolouration of the skin.

Crying, fever.

Oedema in the face and lower limbs.
• Itching in the body.
• Macules and papules are present.
• Blackish discolouration of the face.

**Clinical Features:**

"It is a unique clinical presentation of a disorder characterized by a peculiar form of skin coloration. The disease is characterized by the presence of macules and papules, which are localized to the face, neck, and upper extremities. The skin coloration is characterized by a blackish discoloration, which is a hallmark of the disease. The disease is characterized by a multistate presentation, which includes abdominal swelling, dyspnoea, constipation, hiccough, fever with rigor, papules and nodules in the body, and generalised oedema."

• Abdominal swelling.
• Dyspnoea, constipation.
• Hiccough.

**Clinical Features:**

"It is a unique clinical presentation of a disorder characterized by a peculiar form of skin coloration. The disease is characterized by the presence of macules and papules, which are localized to the face, neck, and upper extremities. The skin coloration is characterized by a blackish discoloration, which is a hallmark of the disease. The disease is characterized by a multistate presentation, which includes abdominal swelling, dyspnoea, constipation, hiccough, fever with rigor, papules and nodules in the body, and generalised oedema."

• Fever with rigor.
• Papules and nodules in the body.
• Generalised oedema.
• Swelling in various parts of the body.
• Burning sensation in the site of the lesion.
• Itching and oozing.

Pain in the lower extremities.
• Appearance of vesicles, oozing, bullae, papules.
• Foul smelling discharge in the ulcers.

**Prognosis of Karappan (கரப்பன் - கரப்பன்)**

நோய்கரம் கரப்பன் - அந்தாரியம்

சரியான கரப்பன் - அந்தாரியம்

சரியானம் - மாதம் 17 மாதமான.

மேற்கரம்பான் - கரப்பன்
THRIDHOSHA THEORY

In Siddha System, the manifestations of all diseases are the result of derangement of three dhoshas i.e. VAATHA, PITHTHA and KABHA. According to Noi Nadal and Noi Muthal Nadal Thirattu and Siddha Maruthuvam texts, the prime factor, which involves in skin diseases is vaatham.

“வாத்தும் வீழ்த்தியால் வீழ்ந்து வீழ்ந்து” - சோமபாபா.

Vitiation of Vatha due to food and activities etc., leads to vitiation of saaram, and senneer of udal kattugal. This initially affects the colour of the skin. In due course, in addition of Vaatha, derangement of Piththa and Kabha also occurs and the disease progresses. Finally the Kabha predominantly increased.

According to the theory of siddhars, the human body is composed of 96 THATHUS including Panchapoothams and Thridhosha. The siddha system of medicine is based on the Thridhosha theory. This includes the three humors, they are Vaatha, Piththa and Kabha. This three humors are primarily and essential constitutional factors of the human body. These factors exist in 1: 1/2 : 1/4 ratio respectively in the normal body. This normal existence is responsible for the proper functioning of the body. Any alteration in the above ratio can cause disease in the body like Vaatha disease, Piththa disease and Kabha disease.
VAATHA: (VAYU)

Vayu is classified into ten types according to its origin and function.

1. PRAANAN:

   This is located in heart and lungs to nose. Its functions are controls mind and five objects of sense, useful for breathing, expectoration, coughing and sneezing.

2. ABAANAN:

   It is located in lower abdomen and extremities. Its functions are responsible for passing urine, stools, sperm, menstrual flow and fetus. And also responsible for the proper mobilization of digestive extracts. In Varal Karappan, Abaanan is affected. Constipation present.

3. SAMAANAN:

   It is located in the stomach. It is responsible for proper digestion, and distributes the digestive extract to all parts of the body. In Varal Karappan, Samaanam is affected.

4. VIYAANAN:

   It is located mainly in the heart. Its functions are responsible for movements of all parts of the body. In Varal Karappan, Viyaanan is affected. Papules present in all over the body. Itching and oozing also present.
5. UTHAANAN:

It is located in the chest. Its functions are responsible for speech and also for complexion, mental strength and hard work.

6. NAAGAN:

It is located in the eyes. It is responsible for opening and closing of the eyes.

7. KOORMAN:

It is located in heart and eyes. It is responsible for vision and yawning and also for lacrimation.

8. KIRUKARAN:

It is located in the tongue. It is responsible for salivation, nasal secretion, appetite and also for sneezing and cough. Kirukaran is affected in Varal Karappan. Loss of appetite is present.

9. THEVATHATHAN:

It is located in rectum and genitalia. It is responsible for laziness, sleep and anger.

10. THANANJEEYAN:

It is located in nose. It is responsible for swelling of the body, makes noise in the ear, separate the suture of the skull after death.
PITHTHA:

Piththa represents “Theyu”. It is classified into 5 types.

1. ANALAM:

This gives appetite and responsible for the change of liquid state into solid state of food substances and for proper digestion.

2. RANJAGAM:

Converts the food extracts into blood and gives red colour to blood. It is also stimulate the synthesis of blood.

3. SAATHAGAM:

It is situated in the heart and determines its work according to mind knowledge and devotion.

4. AALOSAGAM:

This is responsible for vision and brightens the eyes.

5. PIRASAGAM:

Gives complexion and brightness to the skin. In Varal Karappan Pirasagam is affected due to papules present in all over the body. Itching and oozing also present.

KABHA:

Kabha is divided into 5 types.

1. AVALAMBAGAM:

It is located in the lungs. It is named “Avalambagam”, because it is being the co-ordination of other four types of kabha.
2. KILETHAM:

It is located in the tongue and makes the food moist and soft.

3. POTHAGAM:

It is located in the tongue and responsible for the sensation of taste.

4. THARPAGAM:

Situated in the head and responsible for the coolness of eyes.

5. SANTHIGAM:

Situated in the joints and responsible for the lubrication and free movements of the joints.

**Combination of five elements in Thridhosha:**

<table>
<thead>
<tr>
<th>Element</th>
<th>Combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaatha</td>
<td>Vali + Vinn</td>
</tr>
<tr>
<td>Piththa</td>
<td>Thee + Thee</td>
</tr>
<tr>
<td>Kabha</td>
<td>Mann + Neer</td>
</tr>
</tbody>
</table>

**TASTE**

Taste involved in the development of disease, and also in treatment.

**The five elemental combinations of tastes:**

<table>
<thead>
<tr>
<th>Taste</th>
<th>Combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweet</td>
<td>Mann + Neer</td>
</tr>
<tr>
<td>Sour</td>
<td>Mann + Thee</td>
</tr>
<tr>
<td>Salt</td>
<td>Neer + Thee</td>
</tr>
<tr>
<td>Bitter</td>
<td>Vali + Veli</td>
</tr>
<tr>
<td>Pungent</td>
<td>Vali + Thee</td>
</tr>
<tr>
<td>Astringent</td>
<td>Mann + Vali</td>
</tr>
</tbody>
</table>
UDAL KATTUGAL:

Our body consists of seven Udal Kattugal. They are,

1. SAARAM:

   It is the final product of the digestive process, which strengthens the body and mind and nourishes the blood.

2. SENNEER:

   The saaram after absorption is converted into senneer. It is responsible for knowledge, strength, boldness and healthy complexion. Imparts colour to body and nourishes the muscles.

3. OON:

   The musculature will give structure and shape of the body. The well built or thin built is due to the muscle formations.

4. KOZHUPPU:

   Lubricates the organs and thus facilitates their functions and maintains oily matter of the body.

5. ENBU:

   Forms the basic skeletal structure of the body. Responsible for locomotion and protection of vital organs.

6. MOOLAI:

   Present inside the bones which strengthens and maintain the normal conditions of the bone.
7. SUCKILAM (OR) SURONITHAM:

Responsible for the propagation of species.

PARUVAKAALAM (Season)

The whole year is constructed by 6 seasons as perumpozhuthu. They are known as.

2. Koothirkaalam - Iyppasi and Karthigai - October and November.
5. Elavenilkaalam - Chithirai and Vaigasi - April and May.
6. Mudhuvenil Kaalam - Aani and Aadi - June and July.

The Sirupozhuthu, the minor classifications of time of a day has been divided into Vaikarai, Kalai, Munpagal, Pinpagal, Maalai, Iravu and Yaamam.

The disease were triggered in a specific time period of a season and of a day. The siddhars have been anticipated the seasonal changes and advised certain measures in the name of “Kaala Ozhukam” to avoid the onset of such ailments.
PINIYARI MURAIMAI (OR) ENVAGAI THERVUGAL (Diagnosis)

Piniyari muraimai is the method of diagnosing the disease. It is based upon the following principles. They are,

1. Poriyaalarithal.
2. Pulanalarithal.
3. Vinaadhal.

1. Poriyaalarithal:

Pori is the five organs of Perception. They are nose, tongue, eyes, ears and skin. Poriyaalarithal is examining the pori of the patient by the Physician.

2. Pulanaalarithal:

Pulan is the five object of sense namely smell, taste, sight, sensation and sound. Pulanalarithal is the examination of the pulan of the patient by the physician.

3. Vinaadhal:

By Interrogation the physician knows about the patients name, age occupation, native place, socio-economic status, family history, diet habits, prone for any allergens, period of illness, history of previous episode, frequency of attacks by change of season, relevant history of treatment and habits etc.
Envagai Thervugal (OR) Piniyari Muraimai.

Envagai Thervugal is the siddhars diagnostic methods. This is described as,

“"தருமப்பிறவ நகரிய நைரத்திணி
வேண் முத்திரில்லையையாள்ளுமதும்"

- சென்னாயக்கண் சென்னவமாண்டாள் கிழவ - பகுதி I

"தருமவானக வியப்பிட்டு கட்டிடங்கள் மந்தமகுத்துறு நகரிய நைரத்திணியாக
சுருக்கமிக்கக் குறுக்க வசாதாம் காஷ்டீடுகை
 flowed வரிசையில் மூன்று முன்னண்டம் நகரிய
பிரிவுகள் விழுக்கியான விளக்கம் நோல்வா
பஞ்சமார் காற்று பகுதிகள் இந்திய மசாநினல்லிடிப்
புஷ்பநிதிய பரம்பரங்கள் மட்டும் வியாப்பான்
போது புரோமியஸ் மந்தமான திரவம் நைரமிடை”

- சொல்லத்தல் மொழி

In Agasthiyar Vaidhya Vallathi – 600, Envagi Thervugal has been mentioned as “Attavitha Paritchai”,

"நேக்கத்ருச்சர ஆம்சைய பார்ஷ்வ நூற்கள்
சுருக்கமிக்க மலர்முதிருத் திரவியம்சர்
பத்தக்கால நூற்களுக்கு புனிஃபாய்க்
பக்தியாம் பார்ஷ்வக்குடியாய்வாக நூற்கள்முப்பார்
பத்தாற்கால விசாரமைத்து குந்துபோன்றாக
பார்ஷ்வ கருங்கன் குருட்கருமையாக
சாத்தால் மாற்றமான கோண்டுபோன் மொழி
கருங்க சிப்பு குறுக்க பார்ஷ்வ இந்திய மசாநினல்லிடிப்

- மேல்கீழா சமூகத்தில் மூன்றாண்டு 600
Envagai thervugal are,

1. Naa
2. Niram
3. Mozhi
4. Vizhi
5. Sparisam
6. Malam
7. Moothiram
8. Naadi

1. Naa(Tongue)

The tongue is the organ of taste and speech. We perceive taste, through the tongue when it is wet. Dry tongue cannot perceive taste. The tongue is also the vital organ of speech, used to convey in words, the thoughts, concepts, ideas and feelings. Examination of this important organ reveals the totality of what is happening in the body.

Look the patients tongue, observe the size, shape, surface, margins and colour.

2. Niram(Colour of the skin)

Colour indicating Vaatha, Piththa, Kabha and Tridhosas, yellow or pallor or black or redness of the skin, any bluish discolouration of the face, conjunctiva and nail beds.
In Varal Karrappan blackish discolouration present in the affected area.

3. Mozhi(Voice)

Clarity of speech (or) any disturbances, loud voice, slurring, crying, talk induced by hallucination, breathlessness can be made out. Different respiratory sound and abnormal sounds are also observed.

4. Vizhi(Eye)

Eyes that are small and blink frequently show a predominance of Vaatha in the body. Excessive blink shows deep-seated nervousness and anxiety or fear. A drooping upper eyelid indicates a deranged Vaatha.

Any abnormal change of colour, shape of eye, size of the pupil, lacrimation, bleeding, eyelashes and eyebrows must be noted.

5. Sparisam

Dryness of the body, temperature state of the body, sweating, oozing, enlargement of viscera, malnutrition, any palpable mass, tenderness, touch sensation, fissured skin, thickening of hair, loss of hair, chillness of palm, sole, nose, ear, abdomen, roughness of the skin, thickening, patches, pigmentation, itch, vesicles, ulcer, emaciation and oedema are noted.

In Varal Karappan ,the skin is rough, oozing, thickening are found.
6. Malam (Faeces)

Quantity, colour, odour, froth, consistency including indigestion, blood stained, mucus content, frequency, constipation etc.

7. Moothiram

Quantity, colour, froth, frequency, retention, deposit, heaviness, presence of abnormal constituents like albumin, sugar and deposits etc.

8. Naadi

The examination of Naadi is used in diagnosis and prognosis of the disease. Any have in general, the changes in thridhosha is best diagnosed by feeling the Naadi. The power of Naadi manifests in the body the three vital forces namely Vaatha, Piththa and Kabha, these three Uyirthathukkal which organise, regularise, and integrate the life activities in each and every live being.

Kabha Naadi generally affected in skin diseases, including Varal karappan.

This is quoted as follows,

"துக்கான குடும்பங்களுக்கு துருக்கிய விளக்கம்
எனவும் துறவை விளக்கம் விளக்கம்
சேருந்து வளர்வு விளக்கம் விளக்கம்
பிற்கு விளக்கம் குழுக்கள் விளக்கம்"
It is also stated that if vitiated Vaatha is mixed with raised ushnam, it indicates the skin disease, Varal karappan. This is known as,

"கிருப்பர் வாத்துக்கு குணப்புக்கல் கல்புகோன்
சிக்குகிள் ஔருண்டு பூச்சொத்
வகுப்புத்து வாக்கின் அகிலத் தோன்ற
நான்கு நகர்கள் பிள்ளை போரியவுல்
பிரிப்பில் மத்தியிரு கருப்பு துறுத
பிள்ளையார் நூற்றை முற்றி விளக்கனே
அகுப்பால் வாழு விளக்கு விளக்கம்
இந்தப் பிரிப்பில் மன்னர் குறளிடுவாண்"

- குளிரால்

NEERKURI AND NEIKURI

Based upon the clinical features of a disease and Naadi, the diagnosis is further confirmed by the support of Neerkuri and Neikuri

"அறுப்பிள்ளை சிச்சும் அணிகுறுஞ்சு
அர்வ அனந்தம் அகலமகள் குறிப்பிடுத்து
சுருக்கக்குறிக் காண்கள் கூறுத்து
சுலப்பட்டை கும்பிய நான் நம்பும்
நாயக மகக்கு கும்பிய துற்று நோக்கின்
திருக்குறி நோக்கிக் குறுஞ்சு கூறு

- கிளையார் மகக்குறுஞ்சு குறுஞ்சு
The patient must take well-cooked food in the previous day. The intake must be proportionate to the degree of his appetite. Food intake should be taken, at appropriate time. He must have sound sleep on the previous night. The urine is collected on the dawn of the next day in a glass container and closed immediately to prevent from the contact of external atmosphere. This specimen must be examined within 1 1/2 hours. This procedure should be followed strictly in order to get accurate reading of Neerkuri and Neikuri.

**NEIKURI:**

The diagnosis and prognosis of dhoṣha, derangement of the diseases are studied on the basis of the behaviour by drop of gingely oil on the surface of the urine kept in a wide vessel in the sunlight.

Methods for the determination of three dhoṣha’s derangement by adding a drop of oil in the urine as follows.

"இன்றைய கணக்கு விளக்க திகதி

முன்னால் நன்னூர்க்களைத் தொடர்கள் திண்மறை

நிலவும் இருந்துரையூர் வடம் வரலாறு

நீக்க விலைவிற்கு நிறுவுக்கூற்றும்

சற்று பதிவு நீக்கிக்காக பாதையே".

- கைதிதம் கைதிதமாகவும் - பக்தம் 1
The process of oil indication:

The urine specimen is collected and analysed as follows.

The specimen is kept in a glass dish, well exposed to sunlight. It should not be disturbed by the wind. Then add one drop of gingely oil by a glass rod. Observe keenly about the position and spreading of the oil drop.

"அரியவர் தோன்றப்:தம் போக்கு”

"ஆணிப்பர் பாசி அம்:தற் போக்கு”

"வெளிப்புறம் விலைகள் பள்ளிகளின் கூடு”

If a drop of oil spreads like a snake it indicates the Vaatha disease, it spreads like a ring it indicates Piththa disease, and it spreads like a pearl it indicates Kabha disease.

In Varal Karappan, the oil spreads like a pearl indicates Kabha neer.
பாறைப்பு

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காரணம்

காரணம்

காரணம்

பாறைப்பு

பாறைப்பு

பாறைப்பு

பாறைப்பு

குறிப்பிட்டு, ஓழிவிட்டு வைக்கும்

குறிப்பிட்டு, ஓழிவிட்டு வைக்கும்

செல்லார்கள் வைக்க வேண்டும்

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செற்றுச் செல்லும்
மருத்துவ மருத்துவப்படிப்பான வசதிகள் கையெழுத்து. அத்துடன் நிகழ்த்தும் விளக்கத்தை வழங்கும் வசதிகள் வசதிகள், அதிக முக்கிய வசதிகள் வசதிகள்.

மாணவு ஏற்றுக்கொள்வதற்கு 10முதல் முதல் ஆண்டு அமைய வணங்கவும், கருப்பு, கருட்டு அவசிக்கும் பார்க்கப்படும் வசதிகள் வசதிகள், அவர்களுக்கு வழங்கும் வசதிகள் வசதிகள் வசதிகள் வசதிகள்.

சாதாரண பார்க்கப்படும் வசதிகள், இந்தியாவின் பெரும் வசதிகளால் வசதிகள் வசதிகள்.

பிறக்கும் பார்க்கப்படும், இந்தியா வசதிகள் வசதிகள். அதற்கு நேரங்களுடன், நேரங்களுடன், நேரங்களுடன், நேரங்களுடன், நேரங்களுடன் அவள் பார்க்கப்படும் வசதிகள் வசதிகள், அவர்களுக்கு வழங்கும் வசதிகள் வசதிகள்.

அதிகம் பார்க்கப்படும் வசதிகள், வரலாறு வசதிகள் பார்க்கப்படும் வசதிகள்.

ஏன் என்று அவள் சாதாரண பார்க்கப்படும் வசதிகள், சாதாரண வசதிகள் வசதிகள், அதற்கு ஏன் பார்க்கப்படும் வசதிகள், அதற்கு ஏன் பார்க்கப்படும் வசதிகள்.

விவசாரியா பார்க்கப்படும், விவசாரியா வசதிகள் வசதிகள், அதற்கு ஏன் பார்க்கப்படும் வசதிகள்.

தோன்றாது பார்க்கப்படும், தோன்றாது வசதிகள் வசதிகள், குறுகிய வசதிகள் வசதிகள், பார்க்கப்படும் பார்க்கப்படும் வசதிகள்.
தான் கால்வதியால், செயல் குறுக்குதல் ஆராத்தியதால் தென்னியாக்க கால்வாட்டு.

மூன்று கால்வதியால் காலியாளிப் போன்ற வெள்ளியியல், போம்பை, மோசாவூ, பெட்ரல், தேசிய நிறைந்த கால்வாட்டு.

மூன்று கால்வதியால் காலியாளிப் போன்ற வெள்ளியியல், அப்பாலையிட் வெள்ளை கால்வாட்டை மூன்று கால்வாட்டு.

சுருக்கிய கால்வதியால், காலியாளிப் போன்ற வெள்ளியியல் கால்வாட்டை, குற்றான அமைப்பில் இரு புத்தாகச் செயல் தேர்வு கால்வதியால் கால்வாட்டு.

உணவு-கால்வதியால் இருக்கும் கால்வாட்டுப்பட்டாுத. இருந்து செயலியில் நோக்குவது மிகவும் கால்வாட்டை காலியாளிப் போன்ற தேசிய நிறைந்த கால்வாட்டு.

சுருக்கிய கால்வதியால் கால்வாட்டை தேதிய மாதிரியாகக் காலியாளிப் போன்ற தேசிய, வேளியும், கால்வாட்டு செயல்பாடு பாதுகாப்பில் இருக்கலாம்.

துணை மாதிரியாளர் பாதுகாப்பு, இருக்கும் தேசியமும், வேளியும் குறுக்குதல் இருக்கும் கால்வாட்டு.
NOI KANIPPU VIVAATHAM (Differential diagnosis)

Varal Karrappan must be differentiated from Ari Karappan and Vaalai Karappan.

ARI KARAPPAN:

This is described in “PATHINEN SIDDHAR BALA VAGADA THIRATTU”. It also occurs in Children.

The initial lesions like Varal Karappan occur over the penis or the vulva.

Ari Karappan then ulcerates further and eventually erodes the adjoining tissues. This then becomes like a puttru. The whole body becomes wasted out. These features totally absent in Varal Karappan. The verses for Ari Karappam is as follows.

"அரிய அரை கரப்பன் கூறிலின் குச்சிகுப்பமாக
இருந்து பஞ்சா புல்லிலின் முதலில் புருங்கலமின்
உருகிய புல்லிலின் குச்சிகுப்பம்
மது சிகார்த்திகள் வழங்கியபோறு.

- பாரம்பரியம் பக்கம் 247

VAALAI KARAPPAN:

According to PATHINEN SIDDHAR BALAVAGADA THIRATTU describes symptoms of Vaalai Karappan are that there is Varal Karappan like lesions first on the neck and joints and then spreads all over the body. The lesions then become ulcers and oozing of fluid
from these lesions along with bleed, the body becomes emaciated and
tremors occur. There is no itching in Vaalai Karappan. The verses as
follows.

"அகத்து கற்று குன்று கலன்பு நீய்களிப்பு பண்டையகம்
நூற்று கலன்பு விளை தின்கர் விளை பயம் வருந்து
சின்னையில் வந்திரு நீதியாறு வினங்கிலும் மசிக்கிற
அதிநோ தூக்கல் வந்து கரூப்பாக வியம்பு தருமான்."

- பாணமாரம் பக்தியம் 255
LINE OF TREATMENT

It Consists of

1. Administration of Internal Medicine

2. Application of External Medicine

3. Pathiyam or diet restriction to normalize the vitiated dhosas and to maintain good drug action.

4. Advice personal hygiene.

Prior to the main treatment, the above principles will be followed to regulate the affected kutram. In Varal Karappan, Vatha affected mainly then Piththa and Kabha.

"வாற்கார்ப்பண் வரல் கர்ப்பான்"  செய்வாய்

"நீர் கர்ப்பான் வரல் கர்ப்பான்"  செய்வாய்

"சேர்த்து நீர் கர்ப்பான் வரல் கர்ப்பான்"  செய்வாய்

………………………………………………

செய்வாய் நீர் கர்ப்பான் வரல் கர்ப்பான்

செய்வாய் நீர் கர்ப்பான் வரல் கர்ப்பான்"  செய்வாய்

- செய்வாய் நீர் கர்ப்பான்
  வரல் கர்ப்பான் பற்றி 1

In this case, the Siddha text has specified an anthelmintic along with laxative to be given before the starting of the main drug. Nilavakai chooranam was prescribed as a laxative.
Administration of Internal Medicine:

All the 20 In-Patients & 55 out patients were given with Kodiveli Chooranam thrice a day with honey and the prognosis was noted.

Dose:

The dose of the medicine was adjusted according to the age and weight of the children and severity of the disease.

<table>
<thead>
<tr>
<th>Age</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 3 Years</td>
<td>250-300 mg</td>
</tr>
<tr>
<td>3 – 6 Years</td>
<td>300-500mg</td>
</tr>
<tr>
<td>6-12 Years</td>
<td>500-1gm</td>
</tr>
</tbody>
</table>

Anupanam in Siddha System:

"அனுபானம் உள்ள பொருள் பெரும்
திருத்தல் சக்தி காண்பெறும் கொறிகுடி - விஜயகிருஷ்ணம்
கூரையை மரு மென்பெரும் கூரையை கூரையை கூரையை கூரையை கூரையை கூரையை கூரையை
அஞ்சிய மருந்து நோய் பெறுவது"  

- என்று நம்புகோம்.

Siddha system considers anupanum is an important adjuvant of the drug than the medicine itself. In this work, author used honey as anupanum for Kodiveli Chooranam. Due to its sweet taste administration of medicine to children was easy.
Application of External medicine:

All the twenty inpatients were treated with Maruthampattai Thylam externally and Kuppaimeni Podi is used as dusting powder. It was applied twice a day.

Pathiyam:

Diet restrictions are important for good drug action and also to normalize the vitiated dhosas. For Varal Karappan the patients were strictly advised to avoid the following items.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agathi Keerai</td>
<td>Leaves of sesbania grandiflora</td>
</tr>
<tr>
<td>Pagalkai</td>
<td>Bitter gourd</td>
</tr>
<tr>
<td>Poosanikai</td>
<td>Great Pumpkin</td>
</tr>
<tr>
<td>Perum Payara</td>
<td>Cow – Grain</td>
</tr>
<tr>
<td>Kaanam</td>
<td>Horse gram</td>
</tr>
<tr>
<td>Motchai</td>
<td>Flac bean</td>
</tr>
<tr>
<td>Palapazham</td>
<td>Jackfruit</td>
</tr>
<tr>
<td>Cholam</td>
<td>Maize</td>
</tr>
<tr>
<td>Kambu</td>
<td>Pear Millet</td>
</tr>
</tbody>
</table>

Gingely oil

Dried fish and some types of fish.
**Advising personal hygiene:**

The following measures are strictly advised to follow for the early cure and to avoid recurrences.

- The patients were advised to avoid over crowding.
- They were advised to take bath at least once a day in luke warm water.
- They were advised to use nalungu maa, pasi payaru maa or kadalai purappu maa instead of soap.
- They were advised to avoid bathing in public tank.
- They were advised to change clothes daily.
- School going children were advised to take leave to prevent spread of the disease to other children.
- All the family members affected by this disease were advised to take medicines at the same period.
- All the patients were advised to have rich diet containing green vegetables to normalize the deranged dhosas.
MODERN ASPECT

SKIN ANATOMY

Embryology:

Origin of the skin:

The skin arises by the just a position of two major embryological elements. Epidermis which originate from a surface area of the early gastrula and the prospective mesoderm which is brought in to contact with the inner surface of the epidermis during gastrulation. The neural crest also makes an important contribution to the skin, namely the pigment cells.

Epidermis begin to develop in the third week of foetal life. Sebaceous glands are at first solid, hemispherical protuberances on the posterior surface of the hair pegs. Nails begin to develop in the third month. Melanocytes begin to develop in the third month. Melanocytes begin in before 4-6 months of gestation, from the neural crest.

The skin is composed of a superficial epithelial layer – Epidermis and underlying connective tissue layer – Dermis (or) corium. Beneath the corium is another connective tissue layer - Hypodermis (or) subcutaneous layer.
EPIDERMIS:

The epidermis is formed by non-vascular stratified epithelium. It’s usual thickness is between 0.07 mm and 0.12mm. The epidermis is mainly two divisible, they are keratinizing (or) Malphigian system (Keratinocytes) which forms the bulk and the pigmentation system (Melanocytes) which produces the pigment.

Seven layers are present in the epidermis. They are,

1. Stratum Germinatum (or) Stratum Basale:

This is the deepest portion of the epidermis and is composed of columnar cells placed perpendicular to the skin surface. The whole of the epidermis germinates from the stratum, hence the name stratum Germinatum.

2. Stratum Malpigtui (or) The prickle cell layer:

It is superficial to the basal cell layer, and is composed of several layers of polyhedral cells connected to each other by intercellular bridges.

3. Stratum Granulosum:

It is composed of flat, fusiform cells which are one to three layers thick. It is superficial to the stratum Malpigtui. These cells contain pores, regular granules of keratohyalin.
4. **Stratum Lucidum:**

   It is pale and waxy looking layer, present superficial to the stratum granulosum.

5. **Stratum corneum:**

   This is most superficial layer, the outer surface which is exposed to the atmosphere. It consists of many layers of non nucleated, flattened cornfied cells.

6. **Dendritic cells of Epidermis:**

   These are melanocytes, Langerhan’s cells and indeterminate cells. The melanocytes are the pigment producing cells. The cells of langerhan are found about the middle of epidermis.

7. **Basal Lamina (Basement Membrane)**

   Dermal side of the basal lamina contains few scattered collagen fibres.

**DERMIS:**

The dermis which is bounded distally by its junction with the epidermis and proximately by the subcutaneous fat. The basis of the dermis is a supporting matrix (or) ground substance which are polysaccharides. The matrix contain two kinds of protein. They are,

a) **Collagen** - Which has great tensile strength

b) **Elastin** - Which has considerable elasticity
Hair follicles, various types of sebaceous and sweat glands, plain muscle fibres like and adipose tissue are seen in the microscopic section of the dermis.

The dermis contains few cells, which are fibroblasts or mast cells, histocytes (or) macrophages, lymphocytes (or) other leucocytes and melanocytes. In the deeper layer of dermis, then in arteriovenous anastomosis surrounded by sphincter the group of smooth muscles under autonomic control.

**SEBACEOUS GLANDS:**

They are situated in the upper half of corium. The sebaceous glands are derived from the epithelial cells of the hair follicle and are present every where in the skin except on the palms and soles.

They are multilobulated and covered by a connective tissue capsule which is in a layer of small epithelial cells. As these cells mature towards the centre of the lobules they enlarge, their cytoplasm becoming arranged in a delicate network surrounding globular of fat (sebum). Towards the duct the whole cell disintegrates, lobulating its fat, the glands therefore being classified as a nodocrine glands.

**SWEAT GLANDS:**

These are found in all areas of the skin. The sweat glands originate as downgrowths from the epidermis. These consist of a single unbranched tube which terminates in the form of a coil in the mid –
corium. The coil is the secretary segment and is lined by a single layer of epithelial cells. The duct runs straight upwards from it to the epidermis, which it transverses in a corkscrew manner to open on the surface at the pore. The latter is converted by a loose meshwork of horn cells.

**APOCRINE GLANDS:**

They occur in the axillae, areola and nipples of breasts, umbilicus around the anus and the genitalia. The myo-epithelial cells are highly developed and more abundant in these glands. They are specified sweat glands and their secretion is odoriferous with a secondary sexual significance.

**HAIR:**

Hair is found on almost every part of the body surface except on the palms and the soles, the dorsal surface of the terminal phalanges, the inner surface of the labia, the inner surface of the prepuce and the glands penis. Hair growth and development is under endocrine control.

**NAILS:**

These are semi transparent plate like structures, covering the dorsal surfaces of the distal phalanges of the fingers and toes. The nails are composed of many layers of flattened keratinized cells fused into a homogenous mass. They arise from epidermis lining an invagination of skin at the base of the nail. This specialised epidermis known as the nail matrix. The invagination of skin at the base of the nail is called the nail fold.
BLOOD VESSELS:

The blood supply of the skin originates from a large number of arteriess forming anastomosis in the deepest part of the cortex. From here single vessels ran upwards and forming second network in the upper cortex. Finally terminal arterioles ascend into the pupillae end in capillary loops, which drain into connecting venules.

NERVE SUPPLY:

The nerve supply of the skin consists of a motor sympathetic portion derived from the sympathetic ganglia and sensory spinal portion arising from the dorsal root ganglia.

PHYSIOLOGY:

1. Protective function
2. Immunological function
3. Sensory functions
4. Secretion and excretion
5. Synthesis of vitamin ‘D’
6. Body heat Regulation
7. Endocrine functions
8. Storage function of skin
9. Absorption
10. Gaseous exchange through skin.
SCABIES

The signs and symptoms of Varal Karappan may be correlated with the clinical features of Scabies. The Modern aspect of Scabies is discussed here.

Definition:

It is a form of itching dermatosis characterized by epidermal burrows, pruritic inflammatory papules and nodules caused by female sarcoptes scabiei or its products.

PARASITOLOGY:

Sarcoptes scabiei Var hominis has an ovoid body, flattened dorsoventrally. The adult female measures approximately 0.4mm long by 0.3mm broad, and the smaller male 0.2mm long by 0.15mm broad. The body is creamy white and it is marked by transverse corrugations and on its dorsal surface by bristles and spines (denticles). There are four pairs of short legs the anterior two pairs end in elongated peduncles tipped with small suckers. In the female the near two pairs of legs end in long bristles (setae) where as in the male bristles are present on the third pair and elongated peduncles on the fourth.

Copulation occurs in a small burrow excavated by the female. After copulation, the fertilized female enlarges the burrow and lays eggs. The burrow is not confined to the stratum corneum, but is inclined downwards in to the epidermis. Gradual penetration appears to occur as a
result of the production of a lytic secretion by the mite, which then propels itself forward as the host tissue is dissolved. The burrow is lengthened by approximately 2-3mm daily. Eggs and mite faeces are deposited behind the female in the burrow. Six-legged larvae emerge from the eggs after 3 days and escape from the burrow by cutting cay through its roof. The larvae then dig short burrows (Moulding Pockets) in which they transform into lymphs. After further moults adult males and females develop.

The mites show a preference for certain sites in which to burrow, and appear to avoid areas with a high density of pilosebaceous follicles. The average number of adult female mites on an individual suffering from the common form of scabies is about 12. Only in crusted (Norwegian) Scabies are large numbers of mites are present.

**INCIDENCE AND EPIDEMIOLOGY**

Scabies affects all races and social classes world-wide. It is most common in children and young adults, but may occur at any age. The overall sex incidence is probably equal, whereas all racial groups are susceptible.

There are some differences in incidence. These are probably related to customs and social factors rather than inherent susceptibility.

Overcrowding which is common in the underdeveloped countries and is almost invariably associated with poverty and poor hygiene,
encourages the spread of scabies. Scabies is usually transmitted by close physical contact, such as prolonged hand-holding or the sharing of a bed. Indirect spread by clothing or even by sexual contact. Fertilized female mites are responsible for transmission, although there is no firm evidence, and it seems unlikely in view of their relatively small numbers and inclination to remain within their burrows.

**IMMUNOLOGY:**

Allergic sensitivity to the mite or its products appears to play an important role in determining the development of lesions other than burrows and producing pruritis.

Evidence suggests that both immediate and delayed hypersensitivity involved some patients show high levels of IgE. Involvement of delayed-type hypersensitivity in the production of inflammatory papules and nodules is suggested by the histological changes and predominance of T-Lymphocytes in the cutaneous infiltrate.

Other immunological findings include high serum IgG and IgM, and low IgA with levels returning to normal after treatment. IgM and C₃ deposits have been demonstrated at the dermoepidermal function in the region of burrows and circulating immune complexes have been found in the serum after treatment of scabies.
PATHOGENESIS:

Scanning electron microscope reveals the keratinocytes around the burrow to be compacted, indicating that the mite physically forces its way in between the keratinocytes, rather than chewing a passage. The burrow is essentially a tunnel within the stratum corneum, formed as the mite burrows down to the live stratum granulosum for nourishment.

HISTO PATHOLOGY:

Histologic examination of a specimen containing a burrow reveals that the burrow in almost its entire length is located within the horny layer. Only the extreme blind end of the burrow, where the female mite is situated, extends 400 µm in length.

Spongiosis is present in the stratum malphigtui near the mite to such extent the formation of a vesicle is often the result. Even if no mite is found in the sections the presence of eggs containing larvae, egg shells, or fecal deposits within the horny layer is indicative of scabies. The dermal infiltrate in sections containing mites shows varying numbers of eosinophils. Papular lesions not containing mites show a non-specific picture in which eosinophils generally are absent.

In persistent nodular scabies is a dense, chronic inflammatory infiltrate in which eosinophils may be present. The blood vessels may have thickened walls and there may even be vasculitis with fibrinoid deposits and inflammatory cells within the vessel walls. Atypical
mononuclear cells may be found, and in some instances, the nodules show. A histologic picture resembling lymphoma. Mites are hardly ever found in the nodules.

**CLINICAL FEATURES:**

**ITCHING:**

Itching is usually the most obvious manifestation of scabies. It is generally worse at night and when the patient is warm. The onset occurs 3-4 weeks after the infection is acquired, and coincides with a widespread eruption of inflammatory papules. Re-infection of a previously cured individual, however provokes immediate symptoms, which suggests that the generalized eruption is a true sensitization phenomenon.

**BURROWS:**

The pathognomonic lesions of scabies are burrows, which appear as slightly raised, brownish, tortuous lesions. The point of entry of the mite, the most superficial part of the burrow, has a slightly scaly appearance, and at the distal end there may be tiny vesicle, adjacent to which is the female mite. There may be few or many burrows and in patients with high standards of hygiene they may be difficult to find. They may occur on the wrists, the borders of hands, the sides of fingers, and the finger web spaces, the feet, particularly the instep and, in the male the genitalia. They are often present on the palms and soles of young
children and may occur on the palms in women, though uncommonly in men. Burrows on the trunk are uncommon in adults, but may be found in the elderly and are not unusual in infants. They may be seen on the head and neck in babies but not normally in adults. The scalp was however, involved in an adult who was applying a topical steroid for seborrhoeic dermatitis.

The reason for this pattern of distribution is not understood, but the mites appear to prefer non-hairy skin and area of low sebum production.

**PRURITIC PAPULES:**

The pruritic papules which accompany the development of hypersensitivity occur predominantly around the axillae, in the peri-areolar regions, on the abdomen, particularly the periumbilical region, and on the buttocks and thighs. Indurated, inflammatory nodules sometimes occur, particularly on the axillae, groins, scrotum and penis. They are intensely itchy, and often persist for weeks or months after the scabies has been effectively treated.

**INFLAMMATORY PAPULES OR NODULES:**

Inflammatory papules or nodules, sometimes surrounded by burrows, on the male genitalia are characteristic of scabies.

**SCABIES IN INFANTS:**

The clinical features of scabies in infants differ in certain respects from those in older children and adults. In addition to the more extensive
distribution of burrows mentioned above vesicular and vesiculo pustular lesions on the hands and the feet are not uncommon and bullous lesions have been described. Extensive eczematisation is frequently present, and there may be multiple crusted nodules on the trunk and limbs.

**DIAGNOSIS:**

The typical history of pruritis with nocturnal exacerbations, and the distribution of the eruption of inflammatory papules should suggest the diagnosis.

The female mite can be brought out from the burrow and can be seen with the help of hand lens.

Absolute confirmation can only be made by the discovery of burrows and microscopical examination. A burrow is gently scraped off the skin with a blunt scalpel, and the material placed in a drop of 10% potassium hydroxide or mineral oil on a microscope slide. The presence of mites, eggs or fragments of egg shells confirms the diagnosis.
CRITERIA FOR DIAGNOSIS OF SCABIES:

Major diagnostic Criteria (Presence of one criteria):

- Identifiable typical burrow particularly associated with an itching and rashes.
- Skin scrapping shows eggs or mites.

Minor Criteria (two needed for a diagnosis)

- Typical rash that itches more at night.
- Sudden onset of an unexplainable itching and rash with characteristic distribution.
- Contact with a Scabetic patient.

CRUSTED SCABIES: (NORWEGIAN SCABIES)

Crusted scabies is an infestation with sarcoptes scabiei var. hominis in which the mite population is enormous, and may number millions. The grossly thickened horny layer is honey combed with cavities which contain large numbers of mites, and these are shed into the environment of the patient. An undiagnosed case of crusted scabies may cause large out-breaks of common scabies.

CLINICAL FEATURES:

Large warty crusts form on the hands and feet and the palms and soles may be irregularly thickened and fissured. Masses of horny debris accumulate beneath thickened and discoloured nails. Erythema and scaling occur on the face, neck, scalp and trunk and may generalize. The
extent of erythroderma and the warty plaques varies greatly, and either may predominate. It has been suggested that staphylococcus aureus colonizing burrows might play a part in initiating the erythroderma. Itching is often absent or slight, but may occasionally be severe. Generalized lymphadenopathy is present in some cases, and blood eosinophilia is common.

Crusted scabies may masquerade as hyperkeratotic eczema, psoriasis, Darier’s disease and contact dermatitis.

**COMPLICATION:**

1. Eczematization.

2. Impetiginization.

3. Acute glomerulonephritis.

1. **Eczematization:**

   It is one of the rare complication of scabies. Scabetic areas may get sensitized. This sensitization results in eczematization and well defined circular or oval patch of eczema consisting of erythema, oozing and crusting is formed. If there are severe patches the intervening skin is completely clear.

2. **Impetiginization:**

   It is a rare complication of scabies. This is usually due to diminished local resistance. It starts as a superficial bullae containing seropurulent matter the contents coagulate to form a tick stuck on honey
coloured crust. Crust is the most important feature of impetiginization. The lesions are usually multiple, the intervening skin is completely normal. Usually there is no pain or itch.

3. Acute glomerulonephritis:

Acute glomerulonephritis follows infection by streptococci on the scabetic areas. The onset is usually rapid, with puffiness around the eyes and edema over the feet. Urine colour is characteristically smoky brown, because of formation of acid hematin. The degree of oliguria usually correlates with the severity of the disease. Hypertension is usually present. Atypical presentation may also be present which include, convulsions due to hypertensive encephalopathy the urine may grossly normal and edema absent. Left ventricular failure and pulmonary edema due to very high blood pressure, hypovolemia and acute renal failure.
MATERIALS AND METHODS

The clinical study on Varal Karappan was done in the post graduate department of Kuzhandhai Maruthuvam in Government Siddha Medical College at Palayamkottai. Selection of cases for the clinical study was on the basis of,

1. Itching
2. Burrows
3. Inflammatory papules
4. Pruritic papules
5. Vesicles
6. Pustules

The patients were treated either in OP or IP according to the severity. 20 cases were treated in IP and 55 cases were treated as OP cases.

Complete history was taken for all cases. Details about the precipitating factor, family history, socio economic pattern and occupation were also obtained.

The diagnosis was made by poriyalarithal, pulanalarithal, vinavuthal and Envagai thervugal.
Drug Regimen

1.) Kodiveli Chooranam (Internal Medicine)

<table>
<thead>
<tr>
<th>Age</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3 Years</td>
<td>250-300mg Tds with honey</td>
</tr>
<tr>
<td>3-6 Years</td>
<td>300-500mg Tds with honey</td>
</tr>
<tr>
<td>6-12 Years</td>
<td>500-1gm Tds with honey</td>
</tr>
</tbody>
</table>

2.) Maruthampattai Thylam (External Medicine)

3.) Kuppaimeni Podi (Dusting Powder)

In all cases, the following routine laboratory investigations available at Government Siddha Medical College, Palayamkottai were carried out.

Investigations:

In Siddha aspect the diagnosis was made under the following criteria.

- Mukkutra Nilai
- Envagai Thervu
- Udal Kattukal
- Kaalam
- Nilam
- Neerkuri
- Neikuri
Blood

- Total WBC count
- Differential count
- Erythrocyte Sedimentation rate

Urine

- Albumin
- Sugar
- Deposit

Motion

- Ova
- Cyst

Skin Tests

- Skin Scrapping
- Skin Clipping
- Skin biopsy

Biochemical analysis of the test drug was carried out in the Department of the Bio chemistry, Government Siddha Medical College, Palayamkottai.

Pharmacological analysis of the test drug was carried out in the Department of Pharmacology, Government Siddha Medical College, Palayamkottai.
PREPARATION AND PROPERTIES OF THE TRIAL DRUGS

The trial drugs are prepared by mixing the following ingredients:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>nhbNtyp</td>
<td>25 g</td>
</tr>
<tr>
<td>NkUk; ruf;Ffs;</td>
<td>25 g</td>
</tr>
<tr>
<td>nhbNtyp Nth;</td>
<td>25 g</td>
</tr>
<tr>
<td>3000 fpuhk; ghfk;</td>
<td>25 g</td>
</tr>
<tr>
<td>gfhk; 428</td>
<td>25 g</td>
</tr>
</tbody>
</table>

The quantities are listed in grams (g).
செயல்பாடு

சத்ராக்கித சுருக்கக்கால மைத்த அவதி நடத்து மேற்கோள்கள். பின்னர் அமைப்பு சரியாகத் தோற்றத்துக்கு அதிகாரர் அனுப்பித்த பாதுகாப்பு பின்னர் குறைந்துகோள்கள் பின்னர் செயல்பாடு நடத்தும்.

அளவு : 250 மிலியன்.நாட்கள் - 1 நாட்கள் மட்டும்
(ஒன்று மாதம், முழுமை மாதம்
 அடர்ந்துகோள் பின்னர்.

அதிகாரர் : குறைந்து

சொந்தமிருந்து : மரநாற்பார்வார்

அரசாடுமனம் : முழுமை மாதம்
குரளம்: 735

- கணவன் விளையாட்டின் மதிப்பு: 500
பல்புறநூல்

கல்லறை நூற்றாண்டு காலத்தில் குடிபூங்கா விளையாடப் போராடி 8 மாதத்
குள்ளம் தொடர்ச்சியில் 4 முதல் 1 மாதக்கால முடிவு கொண்டு குடிபூங்கா விளையாடப்
்போராடிய பரிந்துரையில் வேதியிய தகடா விளையாடுவதற்கு

<table>
<thead>
<tr>
<th>பிரிவின் வகுப்பு</th>
<th>தமிழில் பிரிவின் வகுப்பு</th>
</tr>
</thead>
<tbody>
<tr>
<td>குழந்தை விளக்கம்</td>
<td>குழந்தை விளக்கம்</td>
</tr>
<tr>
<td>அம்பு கலந்து வழிகாட்டு</td>
<td>1 ஆண்டு</td>
</tr>
</tbody>
</table>

பல்புறநூலின் வருடாக்கம்

கல்லறை நூற்றாண்டு காலத்தில் குடிபூங்கா விளையாடப் போராடும் கோட்பாட்டை

c. பிரிவின் வகுப்பு (தமிழில் வகுப்பின் கோட்பாடு)
<table>
<thead>
<tr>
<th>குழந்தை விளக்கம்</th>
<th>குழந்தை விளக்கம் (தமிழில் வகுப்பின் கோட்பாடு)</th>
</tr>
</thead>
<tbody>
<tr>
<td>குழந்தை விளக்கம்</td>
<td>குழந்தை விளக்கம்</td>
</tr>
<tr>
<td>அம்பு கலந்து வழிகாட்டு</td>
<td>3 மாதம்</td>
</tr>
</tbody>
</table>

- குழந்தை விளக்கம் வகுப்பின் வருடாக்கம் 361.
PROPERTIES OF TRIAL MEDICINE

Botanical Name : Terminalia arjuna(Roxb)
Family : Combretaceae

Tonic
Cardiac Stimulant
Astringent

உருகக்கி
தூற்றுபூண்டுப்பருந்துகாள்வியியியிக்கியிட்டு
நெல்கள்

நீர்கை குரியதான பெருந்து புரெய்யன்
கொள்கல் விரும்பு காண்பாறைக் கொட்டு - விளை
ப்பாது விளைந்து வேகம் குறிக்கு
துணைவுறுத்து போறு கால்தா
Constituents: The bark contains tannin. Arjunine and Arjunetin are alkaloids.

**Botanical Name**: Lippia nodiflora (Linn)

**Family**: Verbinaceae
<table>
<thead>
<tr>
<th>Properties</th>
<th>English Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demulcent</td>
<td></td>
</tr>
<tr>
<td>Deobstruent</td>
<td></td>
</tr>
<tr>
<td>Diuretic</td>
<td></td>
</tr>
<tr>
<td>Astringent</td>
<td></td>
</tr>
<tr>
<td>Expectorant</td>
<td></td>
</tr>
<tr>
<td>Tonic</td>
<td></td>
</tr>
<tr>
<td>Stimulant</td>
<td></td>
</tr>
<tr>
<td>Stomachic</td>
<td></td>
</tr>
<tr>
<td>Antiperiodic</td>
<td></td>
</tr>
<tr>
<td>Carminative</td>
<td></td>
</tr>
<tr>
<td>Emetic</td>
<td></td>
</tr>
</tbody>
</table>

**Botanical Name**: Acorus Calamus (Linn)

**Family**: Araceae

**Plant Part**: (Rhizome)
Constituents:

A volatile oil, acorin and calamine. Acorin – a glucoside is a honey like liquid very bitter and aromatic, soluble in alcohol chloroform and ether.

Calamine is a crystalline alkaloid soluble in alcohol and chloroform.
Constituents:

An Alkaloid, acalyphine.

Botanical Name : Plumbago auriculata (Linn)
Family : Plumbaginaceae

Stimulant

"டுத்துக்காண்டு விருது குறுக்கு அழகமாப்பது
கொண்டெடை விளக்கம் கூறியும் - மாளுருடுது
கொி தருக்குந்து குற்று நீண்டமுள்ளது
அறுதிதிலையே பாது".
Constituents: Dihydroflavonol, Plumlaginol, plumbagin.

Botanical Name: Indigofera aspalothoides (Vahioe)
Family: Fabaceae

- Constituents:
  - Dihydroflavonol
  - Plumlaginol
  - Plumbagin

- Stimulant: Indigofera aspalothoides
- Demulcent: Indigofera aspalothoides
Botanical Name : Piper nigrum (linn)

Family : Piperaceae

Botanical Name : कपुर, कुक्कुल, केंद्रमगु, मालबरगु

Family : गेजु

Botanical Name : 2-πवरक Assertion

Family : केंद्रपंज

Botanical Name : 2-πवरक Assertion

Family : केंद्रपंज

Botanical Name : केंद्रपंज

Constituents:

Volatile alkaloid, piperine, chavicin, amides, deoresin.
Botanical Name : Cynodon dactylon (Linn)
Family : Poaceae

Botanical Name : Aristolochia indica (Linn)
Family : Aristolochiaceae

Properties:
- Emollient
- Astringent
- Diuretic
- styptic
Constituents:

12 Nanocosinoic acid, aristolochic acid, alkaloid t-curine, β-sitosterol, P-Coumari acid.

Botanical Name : Gymnema Sylvestre (Retz)
Family : Asclepiadaceae
Astringent
Tonic
Refrigerant
**Constituents:**

Triterpenoid, saponins, Gymnemasins A-D and gymnemanol, gymnamine, glynemic acid, saponins.

---

**Botanical Name** : Murraya Koenigii(Linn)

**Family** : Rutaceae

---

**Constituents:**

Volatile essential oil, glucoside named koenigin, koenimbine, koengicine, mabanimbine.

---

**Botanical Name** : Holarrhena antidysentrica

**Family** : Apocynaceae

---
Constituents:

Concessine, Conesimine, kurchine, kurchimine, conimine, holarrhemine.

Botanical Name: Capparis sepiaria
Family: Capparaceae

Constituents:

Betulin – 2 acetate, α amyrin, β-amyrin, β Sitosterol

Also useful in skin disorders.
Botanical Name : Sesamum indicum
Family : Pedaliaceae

Constituents:

Alterative
Tonic
Laxative

Phytochemicals include:
- Sesamin
- Phytosterol
OBSERVATION AND RESULTS

Results were observed with respect to the following criteria.

1. Sex reference
2. Age Reference
3. Religion Reference
4. Economic status of the patient reference
5. Diet Reference
6. Etiology
7. Paruva kaalam
8. Distribution of Lands
9. Clinical features of varal karappan
10. Prevalence of affection
11. Tridhosh
12. Ezhu udarkattugal Reference
13. Envagai Thervugal Reference
14. Neikuri Reference
15. Results after treatment Reference
16. IP Case Report
17. OP Case Report
18. Investigation Chart

The observations recorded with the above said criteria were given in the tabular column form.
Table 1: Sex Reference

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Sex</th>
<th>No of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Male children</td>
<td>7</td>
<td>35%</td>
</tr>
<tr>
<td>2.</td>
<td>Female Children</td>
<td>13</td>
<td>65%</td>
</tr>
</tbody>
</table>

Out of the 20 patients, 7 were male children and 13 were female children.

Sex Reference
Table 2: Age Reference

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Age</th>
<th>No of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0-1 year (Kappu, Chenkeerai)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2.</td>
<td>1-3 year (Varugai, Thalattu, Sappani, Muthum)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3.</td>
<td>3-6 years (Ambuli, Chitril, Chiruparai, Chiruther, Paethai – Female), (Pillai – Male)</td>
<td>6</td>
<td>30%</td>
</tr>
<tr>
<td>4.</td>
<td>6-12 years (Paethumbai – Female), (Chiruparuvam – Male)</td>
<td>14</td>
<td>70%</td>
</tr>
</tbody>
</table>

The percentage was highest in the age group of 6-12 years, the percentage was 70%, between the age group 3-6 years the percentage was 30%.

Age Reference
Table 3: Religion Reference

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Religion</th>
<th>No of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hindu</td>
<td>16</td>
<td>80%</td>
</tr>
<tr>
<td>2.</td>
<td>Christian</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>3.</td>
<td>Muslim</td>
<td>2</td>
<td>10%</td>
</tr>
</tbody>
</table>

Out of 20 cases 80% were Hindus, 10% were Christians and 10% were Muslims.

Table 4: Socio- Economic status of the patient

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Socio-Economic Status</th>
<th>No of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Poor</td>
<td>14</td>
<td>70%</td>
</tr>
<tr>
<td>2.</td>
<td>Middle</td>
<td>6</td>
<td>30%</td>
</tr>
<tr>
<td>3.</td>
<td>Rich</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Out of the 20 patients, 14 were in poor socio-economic status.

Table 5: Diet Reference

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Diet Habit</th>
<th>No of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vegetarian</td>
<td>6</td>
<td>30%</td>
</tr>
<tr>
<td>2.</td>
<td>Mixed diet</td>
<td>14</td>
<td>70%</td>
</tr>
</tbody>
</table>

Out of the 20 patients, 70% were Mixed diet, 30% were Vegetarians.
**Table 6: Etiology**

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Aetiological Factors</th>
<th>No of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Poor Hygiene</td>
<td>15</td>
<td>75%</td>
</tr>
<tr>
<td>2.</td>
<td>Contact</td>
<td>8</td>
<td>40%</td>
</tr>
<tr>
<td>3.</td>
<td>Over crowding</td>
<td>8</td>
<td>40%</td>
</tr>
<tr>
<td>4.</td>
<td>Poverty</td>
<td>14</td>
<td>70%</td>
</tr>
</tbody>
</table>

Among the Twenty cases 75% of the cases developed disease due to poor hygiene, 40% of the cases developed disease due to contact, 40% of the cases developed disease due to over crowding and 70% of the cases developed disease due to poverty.
Table 7: Paruva kaalam

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Paruva kaalam</th>
<th>No of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Kaar kaalam (Aavani &amp; Purattasi)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2.</td>
<td>Koothir kaalam (Iyppasi &amp; Karthigai)</td>
<td>4</td>
<td>20%</td>
</tr>
<tr>
<td>3.</td>
<td>Munpani kaalam (Markazhi &amp; Thai)</td>
<td>4</td>
<td>20%</td>
</tr>
<tr>
<td>4.</td>
<td>Pinpani kaalam (Maasai &amp; Panguni)</td>
<td>4</td>
<td>20%</td>
</tr>
<tr>
<td>5.</td>
<td>Elavenil kaalam (Chithirai &amp; Vaikasi)</td>
<td>8</td>
<td>40%</td>
</tr>
<tr>
<td>6.</td>
<td>Muthuvenil kaalam (Aani &amp; Aadi)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Under Paruvakalam, the highest incidence was noted in Elavenil Kaalam (40%).

Table 8: Distribution of Lands

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Thinai</th>
<th>No of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kurunji (Hill)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Mullai (Forest)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Marutham (Fertile)</td>
<td>17</td>
<td>85%</td>
</tr>
<tr>
<td>4</td>
<td>Neithal (Coastal)</td>
<td>3</td>
<td>15%</td>
</tr>
<tr>
<td>5</td>
<td>Paalai (Desert)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

In 17 cases belonged to Marutham and 3 cases belonged to Neithal.
Table 9: Clinical features of Varal Karappan during admission

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Clinical features</th>
<th>No of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Itching</td>
<td>20</td>
<td>100%</td>
</tr>
<tr>
<td>2.</td>
<td>Pruritic papules</td>
<td>20</td>
<td>100%</td>
</tr>
<tr>
<td>3.</td>
<td>Oozing</td>
<td>15</td>
<td>75%</td>
</tr>
<tr>
<td>4.</td>
<td>Inflammatory papules</td>
<td>12</td>
<td>60%</td>
</tr>
<tr>
<td>5.</td>
<td>Burrows</td>
<td>15</td>
<td>75%</td>
</tr>
<tr>
<td>6.</td>
<td>Pustules</td>
<td>5</td>
<td>25%</td>
</tr>
</tbody>
</table>

Among the 20 cases, 100% of the cases had itching and pruritic papules. 75% of the cases had oozing and burrows. 60% of the cases had inflammatory papules and 25% of the cases had pustules.

Clinical features

![Clinical features chart](chart.png)
Table 10: Showing Prevalence of affection

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Affected Areas</th>
<th>No of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Webs of fingers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) Upper limb</td>
<td>20</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>b) Lower limb</td>
<td>10</td>
<td>50%</td>
</tr>
<tr>
<td>2</td>
<td>Buttocks</td>
<td>15</td>
<td>75%</td>
</tr>
<tr>
<td>3</td>
<td>Groin</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td>4</td>
<td>Around axillae</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>Thigh</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>6</td>
<td>Periumblical region</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 11: Tridosha

Table showing the derangement of vaatha

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Classification of Vaatha</th>
<th>No of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pranan</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Abaanan</td>
<td>3</td>
<td>15%</td>
</tr>
<tr>
<td>3</td>
<td>Viyaanan</td>
<td>20</td>
<td>100%</td>
</tr>
<tr>
<td>4</td>
<td>Uthaanan</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>Samaanan</td>
<td>20</td>
<td>100%</td>
</tr>
<tr>
<td>6</td>
<td>Naagan</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>Koorman</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>Kirukaran</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td>Devathathan</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td>Thananjeyan</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
According to the derangement in the types of Vatha, in 100% of the cases Viyaanan and Samaanan were affected. Abaanan was affected in 30% of the cases.

Table showing the derangement of Piththa

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Classification of Piththa</th>
<th>No of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Anilam</td>
<td>5</td>
<td>25%</td>
</tr>
<tr>
<td>2.</td>
<td>Ranjagam</td>
<td>10</td>
<td>50%</td>
</tr>
<tr>
<td>3.</td>
<td>Sathagam</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4.</td>
<td>Prasagam</td>
<td>20</td>
<td>100%</td>
</tr>
<tr>
<td>5.</td>
<td>Alosagam</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Among the cases studied Anilam was affected in 25% of the cases, Ranjagam was affected in 50% of the cases and Prasagam was affected in 100% of the cases.

Table showing the derangement of Kabha

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Classification of Kabha</th>
<th>No of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Avalambagam</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2.</td>
<td>Kilethagam</td>
<td>5</td>
<td>25%</td>
</tr>
<tr>
<td>3.</td>
<td>Pothagam</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4.</td>
<td>Tharpavam</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5.</td>
<td>Santhigam</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Among the twenty cases, Kilethagam was affected in 25% of the cases.
Table 12: Ezhu udarkattugal Reference

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Udarkattugal</th>
<th>No of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Saaram</td>
<td>20</td>
<td>100%</td>
</tr>
<tr>
<td>2.</td>
<td>Senneer</td>
<td>15</td>
<td>75%</td>
</tr>
<tr>
<td>3.</td>
<td>Oon</td>
<td>10</td>
<td>50%</td>
</tr>
<tr>
<td>4.</td>
<td>Kozhuppu</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5.</td>
<td>Enbu</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6.</td>
<td>Moolai</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7.</td>
<td>Sukkilam/Suronitham</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Saram was affected in 20 patients and Senneer was affected in 15 patients due to the derangement of Vaatha and Piththa.

Table 13: Envagai Thervugal Reference

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Envagai Thervugal</th>
<th>No.of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Naa</td>
<td>5</td>
<td>25%</td>
</tr>
<tr>
<td>2.</td>
<td>Niram</td>
<td>15</td>
<td>75%</td>
</tr>
<tr>
<td>3.</td>
<td>Mozhi</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4.</td>
<td>Vizhi</td>
<td>10</td>
<td>50%</td>
</tr>
<tr>
<td>5.</td>
<td>Malam</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6.</td>
<td>Moothiram</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7.</td>
<td>Naadi</td>
<td>15</td>
<td>75%</td>
</tr>
<tr>
<td>8.</td>
<td>Sparisam</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Naa, Niram, Vizhi were affected due to the deficiency of senneer. Naa was affected in 25% of the cases. In 75% cases Niram was affected. In 50% of the cases Vizhi was affected. In 75% of the cases Naadi was affected.

Table 14: Neikuri Reference

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Neikuri Reference</th>
<th>Characters of Urine</th>
<th>No of Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Vatha Neer</td>
<td>Spreads like snake</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td>2.</td>
<td>Pitha Neer</td>
<td>Spreads like ring</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td>3.</td>
<td>Kaba Neer</td>
<td>Spreads like pearl</td>
<td>18</td>
<td>90%</td>
</tr>
</tbody>
</table>

In Neikuri 90% of the cases was Kabha neer, 5% of the cases was Pitha neer and 5% of the cases was Vatha neer.

Neikuri Reference

![Neikuri Reference Chart](image-url)
Table 15: Results after treatment Reference

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Results</th>
<th>No of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Good</td>
<td>13</td>
<td>65%</td>
</tr>
<tr>
<td>2.</td>
<td>Fair</td>
<td>7</td>
<td>35%</td>
</tr>
<tr>
<td>3.</td>
<td>Poor</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

65% cases showed significant improvement. Because the signs and symptoms were reduced markedly. They were come under good response group. Remaining 35% cases showed moderate improvement. They were come under fair response group.
DISCUSSION

Varal Karappan, one of the commonest, clinical entity encountered in Kuzhandhai Maruthuvam practice resembles in its clinical features with Scabies in modern medicine caused by sarcoptes scabiei. In siddha literatures itching, papules present in all over the body, oozing are described as the main clinical features. These features are clearly coincide with scabies.

Various aspects of dermatological disorders are described in many siddha literatures. Author collected these mainly from Pathinen Siddhar Balavagada Thirattu.

Twenty cases were selected for admission according to the clinical features mentioned in Pathinen Siddhar Balavagada Thirattu. Siddha method of diagnosis was carried out for all the patients. Modern investigations were also done.

Out of the twenty cases studied, 35% of cases were male children and rest of 65% cases were female children. The incidence of the disease was highest in 6-12 years paethumbai (in female) and chiruparuvam (in male) paruvams. Most of these patients belonged to poor socio economic group, living in crowded areas.
The drugs selected for clinical study were:

1. **Kodiveli Chooranam** – 250mg to 1gm thrice daily with honey after food.

2. **Maruthampattai Thylam** – For topical application

3. **Kuppaimeni Podi** – Dusting powder.

The procedure for the preparation of these drugs were taken from Agasthiyar 2000 (Part.III), Gunapadam – Mooligai Vaguppu respectively.

All the patients were advised to follow pathiyam and they were advised to maintain good personal hygiene and to prevent over crowding and close physical contact. They were advised to take hot water bath daily.

Itching was completely arrested with in 3 days of treatment. All other symptoms disappeared within 5 -10 days of treatment.

According to the severity in the clinical presentation, cases were divided in to mild, moderate and severe. In mild cases, all the symptoms disappeared within 5-7 days of treatment. In moderate cases all the signs and symptoms disappeared within 6-10 days of treatment. In severe cases the signs and symptoms disappeared with in 10-15 days of treatment.

Pharmacological studies were carried out in the department of pharmacology, Government Siddha Medical College, Palayamkootai.
<table>
<thead>
<tr>
<th>Action</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Kodiveli Chooranam</td>
<td></td>
</tr>
<tr>
<td>Anti histamine</td>
<td>Significant action</td>
</tr>
<tr>
<td>Acute anti inflammatory</td>
<td>Significant action</td>
</tr>
<tr>
<td>Chronic anti inflammatory</td>
<td>Significant action</td>
</tr>
<tr>
<td>2. Maruthampattai Thylam</td>
<td></td>
</tr>
<tr>
<td>Acute anti inflammatory</td>
<td>Significant action</td>
</tr>
</tbody>
</table>

Bio Chemical analysis of the drug was also done in the Department of Bio- Chemistry, Government Siddha Medical College, Palayamkottai. Toxicological studies could not be done due to lack of facilities in the college. All the drugs were put to therapeutic use only after careful purification processes laid down for them individually.

Twenty cases were treated as In-patients in post graduate Kuzhandhai Maruthuvam ward. Among the twenty cases 65% showed good response and 35% showed fair response. After the treatment patient was advised to attend the out-patient post graduate Kuzhandhai Maruthuvam Department for further follow up. Fifty five cases were also treated as out patients in post graduate O.P Kuzhandhai Maruthuvam ward. Among the fifty five cases 29 were male children (53%) and 26 were female children (47%). Among the fifty five causes 76% showed good response, 18% showed fair response and 6% showed poor response.
SUMMARY

- The aetiology, clinical features, classification, prognosis of the disease were collected in both Siddha system as well as Modern system of medicine.

- The efficacies of the drugs, Kodiveli Chooranum as internal medicine, Maruthampattai Thylam as external medicine and Kuppaimeni Podi as dusting powder were observed during this study.

- Twenty children of different age group were treated in the In-Patient ward and fifty five cases were treated in the out-patient ward of post graduate Kuzhandhai Marathuvam Department.

- The In-patients were treated for three to ten days depending upon the severity of illness. They were also advised to attend the Out patient department for further follow up.

- Routine laboratory investigations available in the college were done and the prognosis of the patients was noted daily.

- In this clinical study with 20 In-patients, 13 had good response (65%) and 7 had fair response (35%). In out-patients 76% showed good response, 18% showed fair response and 6% showed poor response.
Clinically the drugs were free from adverse effect. The drugs were also studied by Biochemical analysis and pharmacological studies.

The internal medicine **Kodiveli Chooranam** had significant Acute anti inflammatory, significant chronic Anti inflammatory, significant Anti – histaminic action and significant anti microbial activity against Group-A Streptococcus.

The external medicine, **Maruthampattai Thylam** and **Kuppaimeni Podi** had significant acute anti inflammatory action.

This ensures the efficacies of the drugs, which were also proved clinically.
CONCLUSION

- In this clinical study results were found to be satisfactory.
- 65% of cases showed good response and 35% of cases showed fair response in In-patients ward. 76% of cases showed good response 18% of cases showed fair response and 6% of cases showed poor response in outpatients ward in post graduate Kuzhandhai Maruthuvam Department.
- The trial drugs were very effective to the patients and there was no recurrence of symptoms.
- Clinically the drugs are free from adverse effects and so they are useful for long term therapy for pediatric age group.
- The drugs are also very cheap and easily available.
- So it is concluded that VARAL KARAPPAN controllable and curable disease with Kodiveli Chooranam, Maruthampattai Thylam and Kuppaimei Podi along with good personal hygiene.
5gms of Kodivel Chooranam powder was weighed accurately and placed in a 250ml clean beaker. Then 50ml distilled water was added and dissolved well. Then it was boiled well for about 10 minutes. It was cooled and filtered in a 100ml volumetric flask and then it is made up to 100ml with distilled water. This fluid was taken for analysis.

**QUALITATIVE ANALYSIS**

<table>
<thead>
<tr>
<th>S.NO</th>
<th>EXPERIMENT</th>
<th>OBSERVATION</th>
<th>INFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>TEST FOR CALCIUM</td>
<td>No white precipitate is formed.</td>
<td>Absence of calcium.</td>
</tr>
<tr>
<td></td>
<td>2ml of the above prepared extract is taken in a clean test tube. 2 ml of 4% Ammonium oxalate solution is added to it.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>TEST FOR SULPHATE:</td>
<td>No white precipitate is formed.</td>
<td>Absence of sulphate.</td>
</tr>
<tr>
<td></td>
<td>2ml of the extract is added to 5% barium chloride solution.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

98
<table>
<thead>
<tr>
<th></th>
<th><strong>TEST FOR CHLORIDE</strong></th>
<th>No white precipitate is formed.</th>
<th>Absence of chloride.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>The extract is treated with silver nitrate solution.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>TEST FOR CARBONATE</strong></td>
<td>No brisk effervescence is formed.</td>
<td>Absence Of Carbonate</td>
</tr>
<tr>
<td>4</td>
<td>The substance is treated with concentrated HCL.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>TEST FOR STARCH</strong></td>
<td>Blue colour is formed.</td>
<td>Indicates the presence of starch.</td>
</tr>
<tr>
<td>5</td>
<td>The extract is added with weak iodine solution.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>TEST FOR IRON- FERRIC</strong></td>
<td>No blue colour is formed.</td>
<td>Absence of ferric iron.</td>
</tr>
<tr>
<td>6</td>
<td>The extract is treated with concentrated Glacial acetic acid and potassium ferro cyanide.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>TEST OF IRON FERROUS:</strong></td>
<td>No blood red colour is formed.</td>
<td>Absence of ferrous iron.</td>
</tr>
<tr>
<td>7</td>
<td>The extract is treated with concentrated Nitric acid and ammonium thio cyanate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>TEST FOR PHOSPHATE</strong></td>
<td>No yellow precipitate is formed.</td>
<td>Absence of Phosphate.</td>
</tr>
<tr>
<td>---</td>
<td>------------------------</td>
<td>----------------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td></td>
<td>The extract is treated with ammonium Molybdate and concentrated nitric acid.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th><strong>TEST FOR TANNIC ACID</strong></th>
<th>Blue black precipitate is formed.</th>
<th>Indicates the presence of tannic acid.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The extract is treated with ferric chloride.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th><strong>TEST FOR ALBUMIN</strong></th>
<th>No Yellow precipitate is formed.</th>
<th>Absence of albumin.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The extract is treated with Esbach’s reagent.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th><strong>TEST FOR UNSATURATION</strong></th>
<th>It gets decolourised.</th>
<th>Presence of unsaturated compound.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Potassium permanganate solution is added to the extract.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 12. TEST FOR THE REDUCING SUGAR

5ml of Benedict’s qualitative solution is taken in a test tube and allowed to boil for 2 mts and added 8-10 drops of the extract and again boil it for 2 mts.

<table>
<thead>
<tr>
<th>Colour change occurs.</th>
<th>Presence of Reducing sugar.</th>
</tr>
</thead>
</table>

### 13. TEST FOR AMINO ACID:

One or two drops of the extract is placed on a filter paper and dried it well. After drying, 1% Ninhydrin is sprayed over the same and dried it well.

<table>
<thead>
<tr>
<th>Violet colour is formed.</th>
<th>Indicates the presence of Amino acid.</th>
</tr>
</thead>
</table>

**Inference:**

The above analysis indicates the presences of starch, tannic Acid, unsaturated compounds, amino acid and reducing sugar in Kodiveli chooranam.
ANTI HISTAMINIC EFFECT OF
KODIVELI CHOORANAM ON ISOLATED ILEUM OF
GUINEA PIG

Aim:
To study the anti histaminic effect of “Kodiveli Chooranam.”

Preparation of Drug:
I gm of Kodiveli Chooranam was dissolved in 10 ml of water. The filter is used for the experiment.

Solutions required:
Histamine (1 in 100000 strength).

Procedure:
A guinea pig weighing about 450 gms was starved for 48 hrs and only water was allowed. It was killed by stunning with a sharp below on the head and cutting its throat to bleed it, to death. The abdomen was quickly opened and the viscera inspected and loops of intestine identified. Using the patch as a landmark the ileum was removed and placed in a shallow dish containing warm “Tyrode Solution”. The lumen of the ileum was gently rinsed out with saline. It was cut into segments of required length, generally 4cm, in the fully relaxed state and the sutures were made with needle and tied at either ends and segment is suspended in an isolated organ bath. It was aerated by an oxygen tube and immersed in
Tyrode solution at 37 C°. Drugs were given to study the inhibitory effect of histamine induced contractions.

**Inference:**

The test drug has significant anti histaminic activity.
ACUTE ANTI – INFLAMMATORY STUDY ON
KODIVELI CHOORANAM BY HIND – PAW METHOD
IN ALBINO RATS

Aim:
To study the acute Anti inflammatory effect of Kodiveli Chooranam.

Preparation of the test drug:
500 mg Kodiveli Chooranam was dissolved in 5 ml of honey and 5ml of water a dose of 2ml was given to each rat. This 2 ml contains 100 mg of the test drug.

Procedure
6 healthy albino rats weighing 100-150 gm were taken and divided into three groups, each consist of 2 rats.

First group was kept as control by giving distilled water of 1ml/100gm of body weight. The second group was given Ibuprofen at dose of 10mg/100gm of body weight. The third group received the test drug Kodiveli Chooranam of 200mg/100gm of body weight.

Before administration of test drug, the hind – paw volume of all rats was measured. This was done by dipping the hind – paw (up to tibio – tarsal junction) in to a mercury plethysmography. While dipping the hind – paw by pulling the syringe piston, the level of mercury in the
centre small tube was made to coincide with red marking and reading was noted from the plethysmograph.

Soon after the measurement the drugs were administered orally. One hour later a subcutaneous injection of 0.1ml of 1% (w/v) carrageenin in water was made into plantar surface of both hind-paw volume of each rat. Three hours after carrageenin injection, the hind-paw volume was measured once again. The difference between the initial and final volume was calculated and compared.

The method is more suitable for studying the anti-inflammatory activity in acute inflammation. The values are given in the table.

<table>
<thead>
<tr>
<th>Group</th>
<th>Drugs</th>
<th>Dose/100gm of body weight</th>
<th>Initial value</th>
<th>Final Value</th>
<th>Difference</th>
<th>%inflammation</th>
<th>%Inhibition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>Water</td>
<td>2ml</td>
<td>1.1</td>
<td>1.85</td>
<td>0.85</td>
<td>100</td>
<td>NIL</td>
</tr>
<tr>
<td>Standard</td>
<td>Ibuprofen</td>
<td>20mg</td>
<td>1.3</td>
<td>1.35</td>
<td>0.05</td>
<td>6.6</td>
<td>93.4</td>
</tr>
<tr>
<td>Test</td>
<td>Kodiveli Chooranam</td>
<td>200mg</td>
<td>1.0</td>
<td>1.2</td>
<td>0.2</td>
<td>26.6</td>
<td>73.4</td>
</tr>
</tbody>
</table>

**Inference:**

The test drug has significant acute anti inflammatory action.
CHRONIC ANTI-INFLAMMATORY ACTIVITY OF KODIVELI CHOORANAM BY COTTON PELLETS GRANULOMA METHOD

Aim

To study the chronic anti-inflammatory activity of the drug Kodiveli Chooranam in the rats by cotton pellets implantation (granuloma) methods.

Preparation of the test drug

I gm of Kodiveli Chooranam was mixed with 5 ml of honey and dissolved in 10ml of distilled water. A dose 2 ml was given to each rat. This 1 ml contains 200mg of test drug.

Procedure:

Cotton pellets each weighing 10 mg prepared and sterilized in the autoclave for about one hour under 15 Hg atmospheric pressure. 6 rats weighing between 100 -200gms were selected and divided into 3 groups each containing 2 rats. Each rat was anaesthetized with ether and cotton pellets were implanted subcutaneously in the given two on each side.

From the day of implantation a group of animals received Kodiveli Chooranam in a dose of 200mg/100gm of body weight. The control group of animals received distilled water 1ml/100gm of body weight. The standard group of animals received Ibuprofen in a dose of 20mg/100gm of body weight.
On the eighth day the rats were sacrificed and the pellets were removed and weighed. They were put in an incubator at 60° - 80°C and then they were weighed.

The weight of the granulation tissue formed in the difference between the weight and dry weight. The results of the control standards and test group were compared and the results were calculated.

**EFFECT OF KODIVELI CHOORANAM**

<table>
<thead>
<tr>
<th>Group</th>
<th>Name of Drugs</th>
<th>Dose/100 gm body weight</th>
<th>Pellet Weight</th>
<th>Pellet Weight of the Granuloma of drugs</th>
<th>Percentage of inflammation</th>
<th>Percentage of inhibition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>Water</td>
<td>1ml</td>
<td>10 mg</td>
<td>205 mg</td>
<td>100</td>
<td>NIL</td>
</tr>
<tr>
<td>Standard</td>
<td>Ibuprofen</td>
<td>20 mg</td>
<td>10 mg</td>
<td>55 mg</td>
<td>22</td>
<td>78</td>
</tr>
<tr>
<td>Test Drug</td>
<td>Kodiveli Chooranam</td>
<td>200 mg</td>
<td>10 mg</td>
<td>125 mg</td>
<td>50</td>
<td>50</td>
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</tbody>
</table>

**Inference:**

The test drug has significant anti inflammatory effect in chronic conditions.
ACUTE ANTI – INFLAMMATORY STUDY ON MARUTHAMPATTAI THYLAM (EXTERNAL USE) BY HIND – PAW METHOD IN ALBINO RATS

Aim:

To study the acute anti – inflammatory activities of the test drug Maruthampattai Thylam.

Procedure:

6 healthy albino rats weighing 100-150gm were taken and divided into three groups each consisting of 2 rats.

First group was kept as control by giving distilled water of 1ml/100gm of body weight. The second group was given Ibuprofen at dose of 20mg/100gm of weight. The third group was kept as test group.

Before application of test drug, the hind paw volume of all rats was measured. This was done by dipping the hind – paw (up to mercury) plethysmography. While dipping the hind – paw by pulling the syringe piston, the level of mercury in the centre small tube was made to coincide with red marking and reading was noted from the plethysmograph.

Soon after the measurement, the drugs were administered to the first and second orally. One hour later a sub cutaneous injection of 0.1 ml of 1% (w/v) carrageenin in water made in to plantar surface of both hind – paw of each rat. To the third test group “Marutham Pattai Thylam” was topically applied for three times over the inflammed surface in a thin
layer with in 15 mts gap. To the other groups no drug was applied over the inflammed surface.

One and half hour after injection the hind – paw volume was measured once again. The difference between the initial and final volume would show the amount of inflammation. Taking the volume in the control group as 100% of inflammation, anti – inflammatory effect of test group is calculated.

<table>
<thead>
<tr>
<th>Group</th>
<th>Drugs</th>
<th>Dose /100gm of body weight</th>
<th>Initial Value</th>
<th>Final value</th>
<th>Difference</th>
<th>%inflammation</th>
<th>Inhibition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>Water</td>
<td>2ml</td>
<td>1.1</td>
<td>1.85</td>
<td>0.85</td>
<td>100</td>
<td>NIL</td>
</tr>
<tr>
<td>Standard</td>
<td>Ibuprofen</td>
<td>20mg</td>
<td>1.3</td>
<td>1.35</td>
<td>0.05</td>
<td>6.6</td>
<td>93.4</td>
</tr>
<tr>
<td>Test</td>
<td>Marutham</td>
<td>Externally applied</td>
<td>1.0</td>
<td>1.25</td>
<td>0.25</td>
<td>33.3</td>
<td>66.7</td>
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<tr>
<td>drug</td>
<td>Pattai</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Thylam</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Inference:**

The test drug has significant acute anti inflammatory action.
ANTI-MICROBIAL (BACTERIAL) ACTIVITY OF KODIVELI

CHOORANAM

Aim:

To identify the anti-microbial (Bacterial) activity of Kodiveli Chooranam against Streptococcus, Staphylococcus, proteus, Psuedomonas.

Medium : Muller Hinton agar

Components of Medium:

- Beef extract : 300gms /lit
- Agar : 17gms /lit
- Starch : 1.50gms /lit
- Casein Hydroxylate : 17.50gms /lit
- Distilled Water : 1000 ml
- pH : 7.6

Procedure:

The media was prepared from the above components and poured and dried on a Petri dish. The organism was streaked on the medium and the test drug (1 gm drug in 10 ml of Water) was placed on the medium. This is incubated at 37°C for one over night and observed for the susceptibility shown up clearance around the drug.

Result:

The test drug Kodiveli Chooranam was sensitive against Group-A Streptococcus.
CASE SHEET PROFORMA – VARAL KARAPPAN

GOVERNMENT SIDDHA MEDICAL COLLEGE AND HOSPITAL

Post Graduate Research Centre

Branch IV – Kuzhandai Maruthuvam

Palayamkottai – 627 002.

Name of the Medical unit: Nationality : :

I.P.No. : Religion : :

Bed.No. : Date of Admission : :

Name : Date of Discharge : :

Age/ Sex : Duration of treatment : :

Occupation (Parents) : Diagnosis : :

Income (parents) : M.O. : :

Informant :

Address:Temporary :

Permanent :

Complaints and duration :

History of present illness :
History of past illness:

Antenatal History:

Birth and Neonatal History:

Dietetic and Nutritional History:

Developmental History:

Family History:

Social History:

Immunization History:

Contact History:
General Examination
1. Consciousness : 
2. Decubitus : 
3. Anaemia : 
4. Jaundice : 
5. Cyanosis : 
6. Clubbing : 
7. Pedal oedema : 
8. Lymphadenopathy : 
9. Nourishment : 
10. Skin changes : 

Vital signs
1. Pulse
   - Rate : 
   - Rhythm : 
   - Volume : 
   - Character : 
2. B.P. : 
3. R.R. : 
4. Temperature : 

Anthropometry
1. Wt – Weight : 
2. Ht – Height : 
3. Mid arm circumference : 
4. Head circumference : 
5. Chest : 
6. Skin fold thickness : 
Siddha System - Clinical Examination:

**poripulangal**

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Mei</td>
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</tr>
<tr>
<td>Vai</td>
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</tr>
<tr>
<td>Khan</td>
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<tr>
<td>Mookku</td>
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**Kanmendriyam – Kanmavidayam**

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<tr>
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<td>Vaai</td>
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<td>Karuvaai</td>
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**Gunam**

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<td>Sathuvam</td>
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<td>Rajo</td>
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**Nilam**

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<tr>
<td>Kurinchi</td>
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<td>Mullai</td>
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<td>Marutham</td>
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**Paruva kaalam**

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<tr>
<td>Kar</td>
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<tr>
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<td>Munpani</td>
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<td>Pinpani</td>
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<td>Elavenil</td>
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<tr>
<td>Muthuvenil</td>
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</table>
Uthayam – Athakayam

Puyam : 
Chayam :
Kaal :
Paatham :

Pira uruppugalin nilai

Moolai :
Iruthayam :
Puppusam :
Kalleeral :
Manneeral :
Kudal :
Siruneeragam :
Kuri :

Mummalam

Viyarvai :
Malam :
Moothiram :

Mukkutra udal

Vaatha thegi :
Piththa thegi :
Kabha thegi :
Kalappu thegi :

Udal Kattugal

Saaram :
Senneer :
Oon :
Kozhuppu :
Enbu :

115
Moolai : 
Sukkilam/Suronitham : 

Envagai Thervugal

Naadi : 
Sparisam : 
Naa : 
Niram : 
Mozhi : 
Vizhi : 
Malam : 
Moothiram :

Vaatham

Piranan : 
Abaanan : 
Uthaanan : 
Viyaanan : 
Samaanan : 
Naagan : 
Koorman : 
Kirugaran : 
Devathathan : 
Dhananjeyan :

Pitham

Anilam :
Ranjagam :
Sathagam :
Alosagam :
Pirasagam :
Kabam
Avalambagam :
Kiletham :
Pothagam :
Tharpagam :
Santhigam :

Neerkuri
Niram :
Manam :
Nurai :
Edai :
Enjel :

Neikuri :

Malakuri
Niram :
Nurai :
Elagal :
Erugal :

Clinical Examination of Skin
Site of the lesion :
Size :
Shape :
General colour of the skin :
Colour of lesion :
Pruritis :
Erythema :
Scaling :
Oozing :
Crusting
Lichenified
Hair follicular involvement
Exudation
Excioriation
Ulceration
Bleeding
Macule
Papule
Pustule
Nodule
  - wheal
  - Scar

Blister
Vesicle
Bullae
Scald like
Haemorrhage

Examination of other systems
CNS
CVS
RS
Abdomen

Lab Investigations
1. Blood
TC
DC
Hb
ESR
HIV : 
VDRL : 
Sugar : 
Urea : 
Cholesterol : 
IgE : 

2. Urine
Albumin : 
Sugar : 
Deposits : 

3. Motion
Ova : 
Cyst : 
RBC : 
Pus Cells : 

4. Skin Scraping :
5. Skin clipping :
6. Skin biopsy :
7. Culture and sensitivity :

DIFFERENTIAL DIAGNOSIS :
PROGNOSIS :
MARUTHUVAMURAI :
DAILY PROGRESS :
ADVICE :
Name of the medical unit: Nationality : 
I.P.NO : Religion : 
Bed No : Informant : 
Name : Date of admission : 
Age/Sex : Date of Discharge : 
Occupation (parents) : No.of days treated : 
Income (Parents) : Diagnosis : 

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Clinical Features</th>
<th>During admission</th>
<th>During discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Itching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Burrows</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Pruritic papules</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Inflammatory papules</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Oozing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Pustules</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Vesicles</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Place : 

date : Signature of the Medical officer,
BIBLIOGRAPHY

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## INPATIENTS CASE REPORT

<table>
<thead>
<tr>
<th>S.NO</th>
<th>IP NO</th>
<th>Name of the patient</th>
<th>Age /Sex</th>
<th>Duration of illness</th>
<th>Clinical Features</th>
<th>Admission Date</th>
<th>Discharge Date</th>
<th>No of days treated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2820</td>
<td>Gnanasundari</td>
<td>8/F</td>
<td>10days</td>
<td>Itching, burrows, pruritic papules, inflammatory papules present in the webs of the fingers, buttocks, groin area.</td>
<td>16.11.07</td>
<td>20.11.07</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>2826</td>
<td>Sudarmathi</td>
<td>11/F</td>
<td>15days</td>
<td>Itching, burrows, pruritic papules, oozing present in the webs of the fingers and both the lower limbs.</td>
<td>16.11.07</td>
<td>20.11.07</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>2822</td>
<td>Pattammal</td>
<td>10/F</td>
<td>7days</td>
<td>Vesicles, itching, oozing present in the upper and lower limbs.</td>
<td>16.11.07</td>
<td>20.11.07</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>2824</td>
<td>Priya</td>
<td>10/F</td>
<td>7days</td>
<td>Vesicles, pustules, itching, oozing present in the trunk, lower limbs and thigh.</td>
<td>16.11.07</td>
<td>20.11.07</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>3097</td>
<td>Mariappan</td>
<td>11/M</td>
<td>2weeks</td>
<td>Itching, burrows, inflammatory papules, oozing present in the webs of the fingers and trunk.</td>
<td>24.12.07</td>
<td>29.12.07</td>
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<tr>
<td>6</td>
<td>43</td>
<td>Manimegalai</td>
<td>7/F</td>
<td>20days</td>
<td>Pruritic papules, burrows, itching present in the webs of the fingers and buttocks. Insomnia since two days.</td>
<td>7.1.08</td>
<td>11.1.08</td>
<td>5</td>
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<tr>
<td>7</td>
<td>39</td>
<td>Palaniappan</td>
<td>9/M</td>
<td>2weeks</td>
<td>Burrows, inflammatory papules, itching present in the buttocks and lower limbs.</td>
<td>7.1.08</td>
<td>11.1.08</td>
<td>5</td>
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<tr>
<td>8</td>
<td>37</td>
<td>Prasanthkumar</td>
<td>10/M</td>
<td>10days</td>
<td>Vesicles, itching, oozing, present in the webs of the fingers and trunk.</td>
<td>7.1.08</td>
<td>11.1.08</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>328</td>
<td>Rajaram</td>
<td>5/M</td>
<td>1week</td>
<td>Pruritic papules, oozing, itching present in the buttocks.</td>
<td>4.2.08</td>
<td>7.2.08</td>
<td>4</td>
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<tr>
<td>10</td>
<td>329</td>
<td>Anitha</td>
<td>8/F</td>
<td>1week</td>
<td>Itching, burrows, pruritic papules, inflammatory papules present in the thigh and trunk.</td>
<td>4.2.08</td>
<td>7.2.08</td>
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</tr>
<tr>
<td>S.NO</td>
<td>IP NO</td>
<td>Name of the patient</td>
<td>Age /Sex</td>
<td>Duration of illness</td>
<td>Clinical Features</td>
<td>Admission Date</td>
<td>Discharge Date</td>
<td>No of days treated</td>
</tr>
<tr>
<td>------</td>
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<tr>
<td>11</td>
<td>756</td>
<td>Lakshmidevi</td>
<td>12/F</td>
<td>10days</td>
<td>Itching, burrows, pruritic papules, present in the webs of the fingers.</td>
<td>22.3.08</td>
<td>26.3.08</td>
<td>5</td>
</tr>
<tr>
<td>12</td>
<td>758</td>
<td>Haj</td>
<td>11/F</td>
<td>7days</td>
<td>Vesicles, pustules, itching, oozing present in the webs of the fingers.</td>
<td>22.3.08</td>
<td>26.3.08</td>
<td>5</td>
</tr>
<tr>
<td>13</td>
<td>830</td>
<td>Nisha</td>
<td>10/F</td>
<td>15 days</td>
<td>Itching, burrous, inflammatory papules, oozing present in the buttocks and lower limbs. Insomnia since four days.</td>
<td>31.3.08</td>
<td>7.4.08</td>
<td>8</td>
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<td>14</td>
<td>838</td>
<td>Dhanalakshmi</td>
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<td>1week</td>
<td>Pruritic papules, burrows, itching present in the webs of the fingers.</td>
<td>31.3.08</td>
<td>4.4.08</td>
<td>8</td>
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<tr>
<td>15</td>
<td>890</td>
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<td>10days</td>
<td>Burrows, pruritic papules, itching present in the webs of the fingers.</td>
<td>8.4.08</td>
<td>11.4.08</td>
<td>4</td>
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<td>16</td>
<td>1031</td>
<td>Devi</td>
<td>3/F</td>
<td>1week</td>
<td>Burrows, pruritic papules, inflammatory papules, itching present in the webs of the fingers and buttocks.</td>
<td>22.4.08</td>
<td>24.4.08</td>
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<td>17</td>
<td>1036</td>
<td>Ariyamuthupattan</td>
<td>3/M</td>
<td>2weeks</td>
<td>Itching, burrows, pruritic papules, oozing present in the webs of the fingers and both the lower limbs.</td>
<td>22.4.08</td>
<td>27.4.08</td>
<td>6</td>
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<td>18</td>
<td>1055</td>
<td>Thangaraj</td>
<td>5/M</td>
<td>15days</td>
<td>Pruritic papules, burrows, itching present in the webs of the fingers.</td>
<td>25.4.08</td>
<td>1.5.08</td>
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<td>19</td>
<td>889</td>
<td>Sangeetha</td>
<td>3/F</td>
<td>1week</td>
<td>Burrows, pruritic papules, itching present in the webs of the fingers.</td>
<td>8.4.08</td>
<td>11.4.08</td>
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<td>20</td>
<td>1164</td>
<td>Vinothkumar</td>
<td>6/M</td>
<td>20days</td>
<td>Pruritic papules, burrows, itching present in the webs of the fingers and buttocks. Insomnia since two days.</td>
<td>8.5.08</td>
<td>12.5.08</td>
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<td>DC%</td>
<td>ESR mm</td>
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