A STUDY ON

KALANJAGAPADAI

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CONTENTS

INTRODUCTION

Before entering the study let us know the basic concepts like origin of earth, origin of life in it, origin of medicine in mankind. Knowing these basics concepts reveals us some truths which glorify our great siddhars that they are the pioneers to all modern scientist invariable to the department they belong, and also invariable to the country they belong.For many scientific evolutions even for todays nano concepts our siddhar thoughts are the basics tools for the modern scientist which help them in their researches.

The age of earth still is a made of great debate. Some used Bible to calculate that the earth was created in 4004BC. Later on in the middle of the nineteenth century, the great scientist, Charles Darwin believed that the earth must be extremely old because he rcognised that natural, selection and evolution required vast amounts of time. it was well explained by our beloved siddhars which is quoted in our text THOTRA KIRAMA ARAICHI.

The history of earth describes the most important events and fundamental stages in the development of the planet. Nearly all the branches of Natural science contribute in understanding the Earth's history. Biological and geological changes have been constantly occurring on our planet since the time of its formation. Organisms continuously evolve, taking on new forms or going extinct in response to an ever changing planet. This is quoted by our siddhars as " மாற்றத்தால் ஆயது உலகம்". Life on earth starts as small and microscopic and then into complex multicellular life's and experienced a rapid diversification into the most major phyla and then into chimpanzees to modern humans it was quoted as

புல்லாகி ப் பூடாய்ப் புழுவாய் மரமாகிப்

பல்விருக மாகிப் பறவையாய்ப் பாம்பாகிக்

கல்லாய் மனிதராய்ப் பேயாய்க் கணங்களாய்

வல்லசுரராகி முனிவராய்த் தேவராய்ச்

செல்வா அ நின்ற இத்தபவர சங்கமத்துள்

எல்லரப் பிறப்பும் பிறந்திளைத்தேன்

(திருவாசகம்- சிவ புராணம்-26-31)

As soon as the humans originated in the earth many dramatic changes occurred in the aspects of knowledge of the living things. Sympathy, caring and love all these contribute more to show the difference between the mankind and their primitives. These feelings particularly sympathy on others pay the way for the origin of medicines. Thus sympathy is the basic step to treatment.

Crystallization of knowledge of early humans about plants and minerals helps to invent medicines. As soon as the man moves against the nature the word “disease” invades the mankind. According to who the definition of health is “health is a state of complete physical, mental and social well being” . So any system of medicine which fulfills this definition of health is said to be the best system of medicine. In this way our siddha systems is found to the best system of medicine as it heals the man in all aspects by its many wings like internal medicine, external medicine, varma, yoga. noi illa neri(social and preventive measures by holistic way).

நமது சித்தர்கள் சித்த மருத்துவ பாடல்களை தமிழ் மொழியிலேயே எழுதி உள்ளனர். எவ்வாறு நமது தமிழ்மொழி மற்ற மொழிகளுக்கு முதன்மை மொழியாக உள்ளதோ அதுபோலவே நமது

சித்த மருத்துவமும் மற்ற மருத்துவங்களுக்கு முதன்மை மருத்துவமாக இருக்க வேண்டும் என்பதற்கு இதுவே தக்க சான்று.

நமது சித்த மருத்துவம் பஞ்சபூதத்தின் அடிப்படையிலேயே அமைந்து உள்ளது. பஞ்சபூதத்தின் சேர்க்கையால் சுவைகள் உண்டாகிறது. (சுவைகள் பாட்டு)

மண்ணுடனே புனல்தீக்கால்
டுறையாகச் சேர்ந்திட்டால் வருமே இனிப்பு
திண்ணமிலம் துவர்ப்பிரசம்
சதாகதியோ டார்தீயின் திடமா முறைப்பும்
எண்ணரிய கசப்புமுண்டாந்
தண்ணீரில் கனலிணைப்பா லெழுமா முவர்ப்பு
உண்ணரிய அறுசுவையின்
பிறப்பிதெனும் குருசித்த ருரைத்த மறையே

- மருத்துவத் தனிப் பாடல்கள்

பஞ்சபூதம்

⇩

சுவைகள்

⇩

அவற்றின் மாறுபாடு

⇩

குற்றங்களின் மாறுபாடு

⇩

நோய்கள்

⇩

எக்குற்றம் கேடடைந்தது என்று குறிகுணம்

நாடியால் அறிதல்

⇩

சமனபடுத்தும் சுவை உள்ள மருந்துகள்

⇩

நோய் நீங்கல்

Psoriasis is an unrelieved provocative non contagious skin and joint disease that affects our immune system. The white blood cells (T-cells) become over-stimulated and it commonly causes red crusty dry patches (also called psoriatic plaques or lesions) to emerge on the skin because of the excessive skin production. The skin reacts just the same

with the fungus infection. Researchers believe that inheritance, atmosphere, and the immune system may also play a primary role in psoriasis.

If you have psoriasis it will affects your immune system results an abnormally hasty skin cell cycle and usually itchy and feel sore. The process of having psoriasis begins at the bottom layer of the epidermis, where keratinocytes are completed. Keratinocytes are juvenile skin cells that fabricate keratin, a strong protein that helps the structure of hair, nails and skin.

Generally, skin cells that are produced in the deepest layers of our skin make their way to the outside in just a week or less. They are full-grown, that sloughed off the skin, and replaced with novel skin cells from underneath. Our skin cannot get rid of these cells as much as necessary speed, so they fabricate up and doing, leading to chunky, dry patches, or plaques, silvery, crumbling areas of dead skin.

They usually rise in your elbows, feet, palms, legs, face wrists, lower back and knees but can also affect any area such as our scalp and genitals but overall it can also affects our whole body. In relation with eczema, psoriasis is more prone to be found on the peripheral portion of the joint (psoriatic arthritis). Our fingernails and toenails can also affect with psoriasis (psoriatic nail dystrophy or nail lesions).

Psoriasis is not curable skin disease from time to time improving and worsening especially if you were triggered to scratch them. Some people with psoriasis can rise in the colder winter months while others in the warmer months in increased sunlight exposure. Patients with psoriasis

can explode by changes in climate, stress, infections, a drug-related rash and dry skin and excess in alcohol.

Psoriasis can infected worldwide, whatever your gender and race, either you are baby, teen or an adult but most of the patients can only diagnosed in their early adult years. People with rigorous psoriasis may have collective awkwardness, job strain, expressive anguish and other delicate issues for the reason that the outward show of their skin.

About 25-40% of patients with psoriasis can also develop psoriatic arthritis and still cannot be diagnosed especially if the symptoms are placid. They usually develops between the early 30's to the late 40's; on the other hand, as mentioned on the previous paragraph that it can affect of any age of any gender worldwide and 5.7 to 7.5 millions of people in the United States or 2 to 2.6 percent of the total population suffers psoriasis.

There are different types of psoriasis but regardless of what type you have it usually causes you a discomfort life. And because of psoriasis, most patients can be awake even at night because of the itchy feeling. The pain can be difficult to handle and some even think to finish their life because of discomfort.

Being a patient with psoriasis will be suffers a lifelong treatment and therapy and can losing all your financial investment just for the medications. so for this reason the author had selected a efficient compound herbal drug which is also very cost effective to the patients.

AIM AND OBJECTIVES

Aim:

The aim of this dissertation is to bring out the effectiveness of a compound herbal drug against autoimmune diseases like kalanjaga padai.(Psoriasis) without the side effects from siddha system of medicine.

OBJECTIVES:

Primary objectives:

To evaluate the clinical efficacy of Neeradi muthu vallathy melugu as internal medicine and kalappai kizhangu velipoochu as external medicine For the diseases kalanjaga padai (Psoriasis)

Secondary objectives:

- To study the efficacy of additional therapies like yoga and azanas

  In heeling the disease along with the internal and external medicine.
- To discuss the various literary evidence in both siddha and modern text books for the disease kalanjaga padai.
- To confirm the diagnosis in siddha system with the help of modern parameters

- To know the extent of correlation of features given under kalanjaga padai with the features of psoriasis. And there by enlightening the highness of siddha system.
- To know the chemical and bio chemical analysis of the selected drug.
- To study the Pharmacological analysis of the selected drug.
- To have an idea of an incidence of kalanjaga padai with reference of age, sex, socio- economic status, and family history related to any psychosomatic problems, land where they (Nilam) live and (Paruva Kalam) climatic changes.
- To make an awareness among the patients in order to avoid further recurrence of the disease.

REVIEW OF LITERATURE

A. SIDDHA ASPECTS

காளாஞ்சகப் படை

வேறு பெயர்கள்:

‘செம்பொட்டு தோலழற்சி, செதில் உதிர்வுப் படை, சாம்பல் படை நுண்ணிய தொற்று செதில்படை ”

- அருங்கலைச் சொல் அகர முதலி

‘வெண்பருச் செதில், செதில் உதிர் நோய்”

- சித்த மருத்துவம் சிறப்பு

Definition

According to the textbook “Siddha Maruthuvam Sirappu” Kalanjaga padai is a chronic non - infectious, recurrent, inflammatory disorder of the skin characterized by reddish, slightly elevated patches covered with silvery white scales

In Siddha system, skin disorders are brought under the clinical entity “Kuttam”.

In the text book “Aathma Ratchamirthamennum Vaiththiya Saarasangiragam” the characteristics of Kuttam are mentioned as follows:

White scaly patches will appear in Foot, Hand, Lips, Vertex, Finger and Wrists.

T.V. Sambasivam Pillai has mentioned that in Tamil medicine ‘Kuttam’ means cutaneous affections and so it’s a comprehensive term used for various skin diseases.

In this book, 'Sorikuttam' has been compared to Psoriasis (Sorikuttam - A Kind of leprosy with diffuse papillary eruptions without ulceration on the entire surface of the body marked by intense itching and burning sensation followed by exfoliation of the epidermis or brawny scales – eczematous psoriasis, lepra icthyosis)

Classifications

In the Siddha literature "Yugi Muni Vaidhya Chinthamani" the kuttam has been classified into 18 types:

'முத்தாகும் குட்டந்தானே பதினெட்டுக்கும்
முனியான யூகி நான் சொல்லக் கேளாய்
பத்தாகும் புண்டரிகக் குட்டத்தோடு
பொருகின்ற விற்போடக குட்டமாகும்
பத்தாகும் பாமக்குட்டம், கசசர்மகுட்டம்
பரிவான கர்ணகுட்டம், சிகுரகுட்டம்
கித்தாகும் கிருட்டிணக்குட்டம், அவுதும்பரக்குட்டம்
கெடியான மண்டலகுட்டழு மாமென்னே
குட்டமாம் ஸ்பரிச குட்டமொடு
குடிலமாம் விசர்ச்சிகக் குட்டமாம்
வட்டமாம் விபாதி குட்டமோடு
மருவலா கீடிப குட்ட சர்மதல
திட்டமாந் தேத்திரு குட்டமோடு
சித்துமா குட்டம் சதாரு குட்டம்
துட்டமாரு குட்டந் தன்னோடொக்க
சுயம்பான பதினெட்டு குட்டமாச்சே"

1. புண்டரீகம் - Padar Thamarai
2. விற்போடகம் - Koppula perunoi

3.	பாமம்	- Sirangu perunoi
4.	கஜசர்மம்	- Yaanai thol perunoi
5.	கரணம்	- Kaadhu perunoi
6.	சிகுரம்	- Tholperunoi
7.	கிருட்டிணம்	- Karuperunoi
8.	அவுதும்பரம்	– Athikkai perunoi
9.	மண்டலம்	- Valaya perunoi
10.	அபரிசம்	- Vali perunoi
11.	விசர்ச்சிகம்	- Sori perunoi
12.	விபாதிகம்	- Senkuttam
13.	சர்மதலம்	- Tholvedippu perunoi
14.	கிடிபம்	- Pandrithol perunoi
15.	தத்துரு	- Thadippu perunoi
16.	சித்துமா	- Naa perunoi
17.	சதாரு	- Purai perunoi
18.	சுவேதம்	- Venkuttam

Among the eighteen types of skin diseases (kuttam) described by Yugi, clinical features of Virpodaga kuttam, Sadharu kuttam and Thethru kuttam resemble those of Kalanjaga padai.

தன்வந்திரி வைத்தியரோகம் -18 வகை

1. கபாலம்
2. சார்மேகம்
3. உதும்பரம்
4. கிடிபம்
5. அலசம்
6. சதரீகம்
7. விசர்ச்சிகம்
8. மண்டலம்
9. அகுநோய்

10. விவாதிகம்
11. தேத்துரு
12. புண்டரிகம்
13. விற்போடகம்

14. சர்மதலம்

15. பாமம்

16. ககாநந்தி

17. வெண்

18. சித்துமா

Classification by Anubava Vaithiya Deva Ragasiyam;

Based on Three thodams 18 types of kuttram has been classified as follows:

Vatham	Kabala Kuttam
Pitham	Avuthumbara Kuttam
Kabam	Mandala Kuttam
	Visharchiga Kuttam
Vatha Pitham	Rusiya Jimmiga Kuttam
Pitha Kabam	Saruma Kuttam
	Yega Kuttam
	Kidiba Kuttam
	Sithma Kuttam
	Alasa Kuttam
Kaba Vatham	Vibathiga Kuttam
Thirithodam	Thaththuru Kuttam
	Pundareega Kuttam
	Satharu Kuttam
	Virpodaga Kuttam
	Bama Kuttam
	Sarmathala Kuttam

Kakasa Kuttam

In his dictionary T. V. Sambasivam Pillai has mentioned that, according to Tamil Medical Science kuttam is of 18 types;

1. நீர் - Leprosy with serous exudation
2. வெண் - White Leprosy
3. சொறி - Psoriasis
4. கருங் - Black Leprosy
5. பெரும் - True Leprosy
6. செங் - Macular Leprosy
7. பொறி - Leprosy with Granules
8. வரி - Leprosy with Fissures
9. எரி - Leprosy with burning sensation
10. விரல்குறை - Lepra mutilans
11. சடை - Leprosy with confluent ulcers
12. யானை - Thick skinned Leprosy
13. திமிர் - Anaesthetic Leprosy
14. விரண - Ulcerated Leprosy
15. காய் - Nodular Leprosy
16. சுழி - A form with sloughing ulcers
17. கிருமி - Leprosy with microbes
18. ஆறா - Incurable Leprosy

ஆத்மரட்சாமிர்தம் வைத்திய சாரசங்காரம் -4 வகை

1. வெண்குட்டம்
2. செங்குட்டம்
3. கருங்குட்டம்
4. பெருவியாதி

திரு மூலர் - 18 வகை

கிரந்தி மேகத்தால் வருபவை	- 6
வண்டினால்	- 8
புழுவால்	- 4

Aetiology

In "Yugi Muni Vaidhya Chinthamani" and "Thirumoolar Vaithiyam" we can find out the sources of information on aetiology and clinical features of the above disorders. In "Thirumoolar Vaithiyam", the aetiology is given as follows;

"வியாதியுள் மூவாறு விளங்கிய குட்டங்கேள்

சுயாதிக் கிரந்தி சுழல் மேகத்தா லாறும்

பயாதி மண்ணுளப் பல வண்டினா லெட்டும்

நியாதி புழுநாலாய் நின்றதிக் குட்டமே"

- திருமூலர்

- Six types of skin diseases are caused by venereal disease

  "கிரந்தி சுழன் மேகத்தாலாறும்"

- Eight types of skin diseases are caused by insect bites

  "பயாதி மண்ணுளப் பல வண்டினா லெட்டும்"

- Four types are caused by worms infestation.

  "நியாதி புழுநாலாய் நின்றதிக் குட்டமே"

Guru Naadi Nool describes Aetiology as follows

'கிருமியால் வந்த தோடம் பெருகவுண்டு

கேட்கி லதன் பிரிவுதனை கிரமமாகப்

பொருமி வரும் வாயுவெல்லாம் கிருமியாலே

புழுக்கடி போல் காணுமது கிருமியாலே

செருமி வரும் பவுத்திரங்கள் கிருமியாலே

தேகமதில் சொரிக்குட்டம் கிருமியாலே

துருமி வருஞ் சுரோணிதங் கிருமியாலே

சூட்சமுடன் கிரிசைப்பால் தொழில் செய்வீரே' - ***குருநாடி***

The text book "Siddha Maruthuvam Sirappu" describes the aetiological factors of "Kalanjaga padai" as follows:

- ❖ Unknown Aetiology
- ❖ Genetic Cause

"Agathiyar mentioned that Kanmam (genetic predisposition) is the main cause for kuttam in his Kanma Kandam as follows:

'சேர்ந்த குட்டமொடு குறைநோயகள் வந்த

சேதிகேள் மலராத வரும்ப கொய்தல்

தாரிந்த சீர் செந்து வதைகள் செய்தல்

தாய் தந்தை மனது நொந்து ரோகந்தானே"

'தானென்ற தெய்வவுருத் தனையழித்தல்

சார்வான பெரியோர்கள் தமைப் பழித்தல்

கானென்ற நந்தவனம் பூஞ்செடிகள் வெட்டல்

கருமமடா சரீரத்திற் காசு போலே

யூனென்ற வுடம்பெல்லாம் மொட்டு மொட்டா

யுடன் வெளுத்து குறையோயுதிரஞ் சிந்தும்

வானென்ற கருமங்கள் தீர்ப்பதற்கு

வரையொன்று சொல்வேன் கேள் நந்தவன்மையே"

- o Plucking the unflowered buds
- o Cruelty to animals
- o Destroying statues of god
- o Teasing of elderly people
- o Destroying forests and gardens.

The text "Agathiyar paripoornam - 400" describes the Psycho-social causes (Kanma Varalaru)

"பழவினையால் விஷப்பூச்சி கடித்த தோஷம்

பாதகர்க்கு ஒரு நாளும் தீர்வதில்லை

உளவினையா லுாடாபிக் கொள்ள வந்த

உண்மையது அறியாமல் மூர்க்கஞ் செய்வார்

களவினையுந் தீர்வதில்லை கடினமெத்த

கருணையுள்ள பூரணத்தில் கண்காட்சி

அடவினை நீ காணுமுன்னே அகலச் சொல்லி

அடையாளம் விரல் குறுகு மின்னங்கேளே"

- செய்யுள் 214

விரல் குறுகுங்கால திமிரும் விஷம் போலேறும்

மெய்யழுந்துந் தலை சுழலும் வெளுக்கு மேனி

பரமான தேகமெல்லாந் தடித்து வீங்கும்

பாதமெல்லாம் வெடித்து மிக்கு புண்ணு காணும்

சரசமுடன் சொரி கரப்பான் பணம் போல் தோணும்

சாந்தையாமே விந்தைகெடுத் தடித்து வீங்கும்

பாருலகி லிந்நோய்க்கு மருதீயாதே

நல்லோரைப் பழித்த குட்டங்கன்னமாமே

- செய்யுள் 215

In Agathiar Paripooranam 400 it has been mentioned that diseases which are caused due to sins committed in the previous birth will be cured only if kanmam is expiated.

‘ஆச்சென்ற பதினெட்டு குட்டந்தானும்
அவரவர்கள் செய்கின்ற அதர்மத்தாலாம்
தெச்சென்ற சிவாலயத்திலுச் சிட்டங்கள்
செய்தவர்கள் சிவ நிந்தை பண்ணினார்கள்
மூச்சென்ற பெரியோரை துடித்தோர்கள்
மூர்க்கமாய் அடைக்கலத்தை எடுக்கின்றார்கள்
ஆச்சென்ற திணையளவின் குறைந்த கூலி
கொடுக்கின்றோர் குட்டத்திற் கூடுவானோ’’

- யூகிமுனி-800

Excessive heat and cold, laziness**,** excessive sleep in day time, unbridled sexual indulgence, robbery etc..These habits are supposed to be the factors which lower the immune mechanism of the body (Iyarkkai vanmai) and makes the body liable to disease.

Excessive intake of food items which are hard to digest, imbalanced food, vomiting, frequent intake of food mixed with stone and hair.

Prolonged mental depression, intention to spoil others, greed, abusing God and noble people, neglecting orphans and beggars, cursing the elders and so on. These were the causes mentioned by Yugi.

In Agstiar Kanmakandam,

‘சேர்ந்த குட்டமொடு குறைநோய்கள் வந்த
சேதிகேள் மலராத அரும்பு கொய்தல்

தாரித்த சிவ செந்து வதைகள் செய்தல்

தாய் தந்தை மனது நொந்து ரோகந்தானே''

- அகத்தியர் கன்மகாண்டம்

- Plucking buds
- Domestic violence
- Hurting the parents

In Dhanvandhri Vaithiyarogam he Mentions

'அறிவின்றி வபரீத சேராகாரம் புசிக்கலாலும்

துறையின்றி தொடாத தொன்றை தொட்டவைப் புசிக்காலும்

குறைகொண்ட நிசித்தமான குலமங்கை யடுச்சாலும்

நிறைகொண்ட பெரியோர் தம்மை நிந்தித்துப் பேசலாலும்

நிந்தித்துப் புறத்தியாற் சோம நிலை கெடப் பிரிக்கலாலும்

வந்தித்துப் பூருவா சென்மாந்திர பாவத்தாலுஞ்

சந்திக்கக் கற்புமாதர் தங்களைக் கருதலாலும்

தொந்தித்த குட்டரோகந் தொடுக்கு மென்றுரைத்தார் முன்னோர்''

- தன்வந்திரி வைத்தியரோகம்

- Intake of allergic foods
- Intake of contaminated food
- Thinking of females
- Destiny (Kanma vinai)
- Scolding the elders

In Manmurukiyam, he Mentions,

‘இடம் பொழு துனவு தொழிலோடு பருவம்

எனமிவை வேறுபடுத லாலும்

நஞ்சூறல் நஞ்சு கூடியது பொறும்

பிணியுற லாறும் நிறம் பெயர்தடுமே”

-மான் மறுக்கியம்

- Change of place, food, work, climate and diurnal
  Toxins by animal bites

  In Agasthiyar vaithyam he mentions,

  ‘குயல்வாய் குஷ்டம் சயங்குன்மம் நீரிழிவு சுரக்கிராணி

  நீரடைப்பு பாண்டு மூல வாய்வு

  கயல் வாயு வருங்கண்ணில் குத்தாய் கடிந் தசவாயு

  கணவாக முன் செய்த உயிர் வினைதானே”

  - அகத்தியர் வைத்தியம்

  - Skin diseases
  - Tuberculosis
  - Diabetes
  - Fever
  - Diarrhea

  These diseases occurs due to destiny

Triggering Factors of Kalanjaga Padai are:

a) Tonsilitis (Lasuna thabitham)
b) Respiratory disorders (Puppusa pinigal)
c) Allergic disorders (Ovvamai)
d) Stress and strain
e) Anxiety, Depression
f) Seasonal variations.
g) Certain drugs (eg.) Thambira chendhooram, Chloroquin, Polio Vaccine

Clinical Features

In the text book **"Siddha Maruthuvam Sirappu"** written by **Dr. R. Thiagarajan** the **clinical features** of "Kalanjaga padai" have been given as follows:

- Erythematous slightly elevated patches of different sizes and shapes (commonly coin shaped) covered with white silvery scales appear all over the body. It may also occur in scalp and face
- Pinpoint bleeding appears on scratching the lesions
- In children the lesions may be like water drops

In chronic cases;

- Thickening of skin with fissures appears in both palms and soles
- Excessive scaling and generalized erythema develops all over the body
- Mild oozing will be present if flexures (axilla groin) are involved in females

- In one fourth of the patients, nails are affected (pitting, transverse ridges will be seen)
- In 7% of the patients, joints are affected (Psoriatic arthropathy)

PSORIATIC ARTHROPATHY (Kalanjaga Vatham;):

Kalanjaga padai is often associated with painful joints known as **"Kalanjaga vatham**".It may affect any joint. The most often affected joints are inter-phalangeal joints. The terminal interphalangeal joints are usually involved as opposed to the proximal interphalangeal joints in **"Uthira vatha suronitham"** which is identical with rheumatoid arthritis. In these cases the affected fingers show nail changes. This condition is termed as **"Psoriatic Arthropathica"**

The joints of fingers, ankles, knee and sacroiliac region are selectively affected. Those joints are swollen and painful with psoriatic lesions. Radiological changes are characteristic and consist of osteoporosis followed by increased density, diminished joint space, erosion of joint surfaces followed by eventual destruction of the ends of bones. Ultimately, the joints become deformed.

Yugi muni describes the clinical features of Kalanjaga vatham as follows;

"வாதமாங் கால் கையில் குரங்கிரண்டும்
வருத்து சந்து முறுக்கியே குடைந்து நொந்து
நாதமா நடை தானுந்தான் கொடாமல்
நலிந்துமே முடமாகிக் கரடு கட்டிச்
சேதமாஞ் சடந்தானு மிக வெளுத்துத்
தினவோடு சிரங்குமாய்ச் சேட்பமாகிக்
காதமா யருசியொடு மயக்கமாகும்
கருதிய காளாஞ்சகமாம் வாதமாமே" - *செய்யுள் 259*

‘வாதமாங் கால் கையில் குரங்கிரண்டும்

வருத்து சந்து முறுக்கியே குடைந்து நொந்து’’

The joints of fingers, feet, ankles, knee and sacroiliac are selectively affected and these joints are painful.

‘நாதமா நடை தானுந்தான் கொடாமல்

நலிந்துமே முடமாகிக் கரடு கட்டிச்’’

The deforming erosive arthritis targets fingers and toes. Marked cartilage destruction and bony articulation results in loss of joint space and marked instability.

‘‘சேதமாந் சடந்தானு மிக வெளுத்துத்

தினவோடு சிரங்குமாய்ச் சேட்பமாகிக்

காதமா யருசி யொடு மயக்கமாகும்

கருதியே காளாஞ்சகமாம் வாதமாமே’’

The whole body becomes pale (anaemic). Well-defined erythematous papules which are sharply demarcated appear on the skin. There is also loss of taste and giddiness.

நோய் கணிப்பு விவாதம்

Among the eighteen types of skin diseases (kuttam) described by Yugi, clinical features of Virpodaga kuttam, Sadharu kuttam and Thethru kuttam resemble those of Kalanjaga padai.

The clinical features of Virpodaga kuttam are as follows:

விற்போடகக் குட்டம்:

"புதுமையாய்ச் சரீரமெங்குந் தினவுண்டாகும்
பொருவெடியாய்த் திக்கெனத்தீக் கொழுந்து போல
மெதுமையாய் விட்டெரியும் நல்ல பாம்பின்
விஷப்படம் போலே தடித்து வெளுப்பு மாகும்
சுதுமையாய் மிகச் சொரியுஞ் சிவப்புமாகும்
தூக்கமொடு சஞ்சலமும் மிகவுண்டாகும்
கதுமையாய் தோலெல்லாந் தடிப்புண்டாகும்
கனத்தவிற் போடகமான குட்டந்தானே"

- யூகி முனி பெருநூல் 800

Characterized by elevated skin lesions with erythema and itching. Burning sensation will be present on and off. Usually these entities are associated with anxiety and despair.

சதாரு குட்டம்:

"எத்தான வெரிப்போடு தினவுமாகும்
எளிதான சேட்டுமவாதத் துற்பத்தி
பத்தான கட்டிப் புண்ணுமாகும்
பாம்பு தோல் போற்றிரைந்து பருத்துக் காணும்
வித்தான மூக்கோடு காது கன்னம்
மிகத்துடிப்பாஞ் சதாரு குஷ்டந்தானே"

- யூகி முனி பெருநூல் 800

Characterized by skin lesions covered with silvery white scales, erythema, itching, burning sensation and thickening of ears, cheeks and nose

தேத்துரு குட்டம்:

"சர்மந்தான் சிவப்பாக வட்டணித்துச்
சலவை போல் வெளுக்குமே தினவுண்டாகும்
வர்மந்தான் ரோகமது மிகவுண்டாகும்
மயிரெல்லாஞ் சுருண்டுமே உண்டையாகும்
கர்மந்தான் பித்த சேட்டும மிகுக்கும்
காயந்தான் கதித்துமே திமிருண்டாகும்
தர்மந்தான் சடமெல்லா மூதலாகும்
தாக்கான தேத்திருக் குஷ்டந்தானே"

- யூகி முனி வைத்திய சிந்தாமணி 800

Annular erythematous lesions with whitish appearance, itching, oedema of the body and rolling of hairs like balls are the characteristic clinical features in this entity.

Mukkuttram Verupadugal:

a. Vatham:

In case of kalajaga padai

1. Abanan - habitual Constipation
2. Viyanan - erythematous changes in the affected areas of skin

3. Samanan - due to other vayus, it is affected
4. kirukaran - loss of appetite
5. Devathathan - insomnia like condition

are commonly affected

b. Pitham:

In case of kalanjaga padai

1. Anal pitham - indigestion of food
2. Ranjagam - paleness of the conjunctiva and tongue
3. Sathagam - difficulty to do the routine works properly and sluggishness
4. Pirasagam - dryness and roughness of skin

are commonly affected

c. Kabam:

In case of kalanjaga padai,

1. Kilethagam - loss of appetite
2. Tharpagam - burning sensation of eyes may be present
3. Santhigam - joint pain present in very few cases

are commonly affected

Udal Kattugal

Our body consists of seven udal kattugal. It gives strength and structure to our body.In the case of Kalanjaga padai out of seven udal kattukkal saaram, senneer, oon and enbu are commonly affected.

Saaram : Dryness, roughness, tiredness

Senneer : Erythematous patches present

Oon : Impairment of sense organ.

Kozhupu : Synovial Fluid Secretion affected

Enbu : joint pain present in few cases

UDAL VANMAI (Body Immunity)

The Udal Vanmai is classified into 3 types. They are,

- lyarkai Vanmai
- Seyarkai Vanmai
- Kaala Vanmai

IYARKAI VAN MAI

Natural immunity of the body itself by birth.

SEYARKAI VANMAI

Improving the health by intake of nutritious food materials, activities and medicines.

KAALA VANMAI

Development of immunity according to age and the environment.

When Udalvanmai is affected there may be a possibility of Kalanjaha Padai.

PINIYARI MURAIMAI

(Diagnostic methods adopted in Siddha system of Medicine)

Piniyari muraimai is a method of diagnosing a disease. It is based upon three main principles. They are,

- Poriyalarithal (Inspection)
- Pulanalarithal (Palpation)
- Vinathal (Interrogation)

Physicians 'pori' and 'pulan' are used as tools for examine the 'pori pulan' of the patient. The above principles correspond to the methodology of

1. Inspection,

2. Interrogation

3. Palpation in modern medicine, in arriving a clinical diagnosis of the disease.

1. PORIYALARITHAL

Pori is considered as the five senses of perception namely,

- Nose
- Tongue
- Eye
- Skin
- Ear

'Poriyalarithal' is examining the pori of the patient by the physician for diagnosing.

- Skin is commonly affected in kalanjagapadai.
- Ear lobes are rarely affected in kalanjagapadai.
- So skin and ear is used to diagnose the disease

2. PULANALARITHAL

'Pulan' is five object of senses. They are

- Smell
- Taste
- Vision
- Sensation to touch
- Hearing

Pulanalarithal' means examining the 'pulan' of the patient by the physician for diagnosing purpose.

- Dryness,roughness are elicited by touching the skin

3. VINATHAL

Vinathal is gathering the informations regarding the history of the disease, its clinical features etc., from the patient or his immediate relatives who are taking of him, when the patient is not in a position to speak or the patient is a child.

- Vinathal is use ful to know about the exacerbations based on seasonal variations

ALAVAIGAL (logics)

Alavaigal are used in clinical diagnose of a disease

‘காண்டல் கருதல் உரை அபாவம் பொருள் ஒப்பாறென்பர்

அளவை மேலும் ஒழிபுண்மை மைதிகச் தோடியல் பென நான்

களவை காண்பர் அவையிற்றின் மேலும் அறைவர் அவையெல்லாம்

அளவை காண்டல் கருதல் உரை என்னும் மூன்றிலடங்கிடுமே’’

சிவசித்தியார் அளவை எண் 6

Alavai divided in to ten types. They are,

- Observation - காண்டல்
- Inference - கருதல்
- Authority, Literature - உரை
- Preception - அபாவம்
- Presumption - அருத்தாபத்தி
- Comparison - உபமானம்
- Inference by elimination - பாரிசேஷம்
- Probability - சம்பவம்
- Tradition - ஐதிகம்
- Natural Inference - இயல்பு

The above mentioned "ten alavaigal" are included in three alavaigal.

They are,

- **Kaandal** (**Inspection** by Siddha method)]

Through 'kaandal' the physician can directly see the patient, hear all the complaints and at length concludes a diagnosis.

Karuthal (Through Siddha Investigation)

Through envagai thervu and neerkuri as well as neikuri, we can diagnose a disease by karuthal.

Urai (**Text's evidence** - Siddhar's)

Comparative study of the signs and symptoms of the patient with the reference of books and come to diagnosis**.**

Ubamanam

It is very use ful to differentiate kalanjapadai from other skin diseases

Iyalbu

It explains about the features of kalanjapadai

Ennvagai thervugal (eight diagnostic tools)

Siddhars have developed a unique method of diagnosing the disease by "Enn vagai thervugal'

“நாடி ஸ்பரிசம் நா நிறம் மொழி விழி

மலம் மூத்திரத்தை மருத்துவராயுதம்”

- நோய் நாடல் நோய் முதல் நாடல் (முதல் பாகம்)

“மெய்க்குறி நிறம் தொனி விழி நா இருமலம் கைக்குறி”

- தேரையர்

1. Naadi (Pulse)

In kalanjaga padai the following types of naadi could be felt. They were,

a) Vathapitham
b) Vathakabam
c) Pithakabam

II. Sparism

In case of Kalanjaga padai slightly raised well defined dry erythematous macules or plaques, covered with white silvery scales can be noticed in affected areas.

III. Naa

In case of Kalanjaga padai no abnormality was seen in Naa.

IV. Niram

In case of Kalanjaga padai white patches with silvery scales could be noticed at affected areas.

V. Mozhi

In case of kalanjaga padai, no abnormalities were observed.

VI.Vizhi

In case of Kalanjaga padai, no abnormality was seen in vizhi.

VII.Malam

In case of Kalanjaga padai constipation was reported in some cases.

VIII.Moothiram

Collection of urine for the determination of Neerkkuri and Neikkuri, is an important dignostic method

NEERKKURI AND NEIKURI

“அருந்து மாறிரதமும் அவிரோதமதாய்

அ.ஃகல் அலர்தல் அகாலவூன் தவிர்ந்தழற்

குற்றள வருந்தி உறங்கி வைகறை

ஆடிக் கலசத் தாவியே காதுபெய்

தோரு முகூர்த்தக் கலைகுட் படுநீரின்

நிறக்குறி நெய்க்குறி நிருமித்தல் கடனே”

- சித்த மருத்துவாங்க சுருக்கம்

Prior to the day of urine examination the patient is instructed to take a balanced diet. The patient should have good sleep. After waking up in the morning, the first urine voided is collected in a clear wide mouthed glass container and is subjected to analysis of “Neerkkuri and neikkuri” within one and a half hour

“வந்த நீர்க்குரி யைடை மணம் நுரை எஞ்சலென்

றைந்திய லுளவை யறைகுது முறையே”

- சித்த மருத்துவாங்க சுருக்கம்

1. Niram - Colour
2. Edai - Specific gravity
3. Manam - Smell
4. Nurai - Frothy nature
5. Enjal - Quantity of urine voided

Apart from these the frequency of urination, abnormal constituents such as sugar, protein, presence of blood, pus, renal crystals must also be found out.

In Kalanjaga padai patients straw coloured urine was noticed.

NEIKKURI:

The speciality of neikuri is stated in in the text book 'Siddha Maruthva Noi Naadal Noi Mudal Nadal Thirattu' as follows:

"நிறக்குறிக் குரைத்த நிருமா ணநீரிற்

சிறக்க வெண்ணெய் யோர் சிறுதுளி நடுவிடுத்

தென்றுறத் திறந்தொலி யேகாதமைத்ததி

னின்றதிவலை போம் நெறிவிழியறியவும்

சென்றது புகலுஞ் செய்தியை யுணரே"

The collected specimen as said above is to be analysed by following method. The specimen is kept open in a glass dish or china clay container.It is to be examined under direct sunlight, without any shaking of the vessel.

Then add one drop of gingelly oil through the side of vessel without disturbing the urinary specimen and the neikkuri was noted in direct sunlight, and conclude the diagnosis as follows:

"அரவென நீண்டின.்.தே வாதம்

ஆழிபோற் பரவின் அ.்.தே பித்தம்

முத்தொத்து நிற்கின் மொழிவ தென் கபமே

ஆரவில் ஆழியும் அரவும்

அரவில் முத்தும் ஆழியில் முத்தும்"

-சித்த மருத்துவ நோய் நாடல் நோய் முதனாடல் திரட்டு

In my **Kalanjaha padai** dissertation,

- 60 % cases have Vatha Neer
- 10% cases have pitha Neer
- 30 % cases have Kaba Neer.

Medicine like Pranayamam, Yoga.

LINE OF TREATMENT (பிணிநீக்கம் - பரிகாரம்)

In accordance with the Siddha system of medicine, certain basic principles are developed before starting the specific drug therapy. These procedures are initially followed to balance, the deranged kutrams ie. Vatham, pitham and kabam.They are purgation, vomiting and application of drugs on the eyes to balance the deranged vatham, pitham and kabam respectively. This can be understood by the following verbs,

"விரேசனத்தால் வாதம் தாழும்

வமனத்தால் பித்தம் தாழும்

அஞ்சனத்தால் ஐயம் தாழும்"

In addition to this following medications are practiced in the Siddha system.

- Aga marunthugal (Internal medicines)
- Pura marunthugal (External medicines)
- Restriction regarding food habits and routine day to day life style.
- Sirappu Maruthuvam - a special feature of Siddha medicine like Pranayamam,Yoga.

Internal Medicine:

Neeradimuthu Vallathy Mezhugu 500 - 700mg twice daily

External Medicine:

Kalappaikizhangu Velipoochu

Paththiyam (Dietary Regimen):

SPECIAL NON - DRUG THERAPEUTICS

Several special medicaments of non-drug therapeutics like Yoga, Pranayamam, Asanas, Kalpa medicines are employed in Siddha system. These are employed during diseased state and also for the prevention of diseases during healthy days.

In Kalanjaha padai, patients are also advised to follow Pranayamam, Yoga and Asanas for the early cure, in order to avoid the remissions and exacerbation of this disease.

PRANAYAMAM

It is a form of Kayakalpa method. By practicing this one can prevent any disease. This is explained in the following verse,

செய்முறை:

சுகாசனத்திலிருந்தபடி 2 உதடுகளும் வெளியே கொஞ்சம் நாக்கை மடித்துக் குழல் போல் ஆக்கிக் கொண்டு 'இஸ்'' என்ற ஒளியுடன் வாயால் காற்றை இழுக்கவேண்டும் முடிந்தவரை உள்ளே வைத்திருந்து மூக்கு வழியே மெல்ல விடவேண்டும்.

நேர அளவு

10-30 நிமிடம் வரை பழகலாம்

ஏற்றகாலம்

வெய்யிற்காலத்தில் பழக ஏற்றது

பயன் :

1. உடலின் வெப்பம் தணியும்
2. இரத்தம் சுத்தி பெறும்
3. பசி நன்கு எடுக்கும்
4. நாட்பட்ட தோல் வியாதி
5. அசீரணம்
6. மண்ணீரல் நோய்
7. மூலம் இவற்றை குணமாக்கும்
8. நஞ்சுதன்மையை வெல்லும் வல்லமை இதன் மூலம் பெறப்படுவதால் இதைப் பழகுபவர் பாம்பு,தேள் கடியால் பாதிக்கபடுவதில்லை

YOGA:

Yoga is maintained by the body in a particular posture for a particular period of time. This is totally different from the ordinary exercise. Yoga vitilises, both physical body and the mental set-up unlike exercise which tones only the muscles. The common benefits are,

- It tones the internal organs
- It prevents obesity and disease

- It maintains normal circulation to all the organs of the body.
- It is very safeguard for all the vital organs.
- It avoids laziness, enhances pure mind and cleverness and memory power. There will be no problems like psychomotive disturbances if practised daily.

ASANAS

Regarding skin disease the following Asanas can be adviced

1. பத்மாசனம்
2. சர்வாங்காசனம்
3. பூரண சவசாந்தி ஆசனம்

1. பத்மாசனம்

சமதளத்தில் சம்மணமிட்டு உட்கார்ந்து வலப்பாதத்தை இடத் தொடைமீதும், இடப்பாதத்தை வலது தொடை மீதும் ஏற்றி இரண்டு கைகளையும் முன் புறம் ஒன்றின் பின் ஒன்றாக கோர்த்து மலர்ந்திருக்குமாறு இருத்தல், இதனால் உடல் நலமும் மன மகிழ்ச்சியும் ஏற்படும்.

பயன்:

- செரிமான சக்தி உண்டாக்கும்
- உடல் நலமும் மனமகிழ்ச்சியும் ஏற்படுத்தும்
- முக்குற்றங்களும் தன்னிலைபடும்
- நரம்புகள் வலுவடையும்
- கீல்வாயு தீரும்

2. சர்வாங்காசனம்

மல்லாந்து படுத்து கால்களை மெதுவாக ஒட்டியபடியே மேலே தூக்கிப் பின் புட்ட பாகத்தையும், இடுப்புப் பாகத்தையும் மேலே தூக்கிக் கைகளால் முதுகுப் புறத்தில் தாங்கி நிற்றல்.

பயன்:

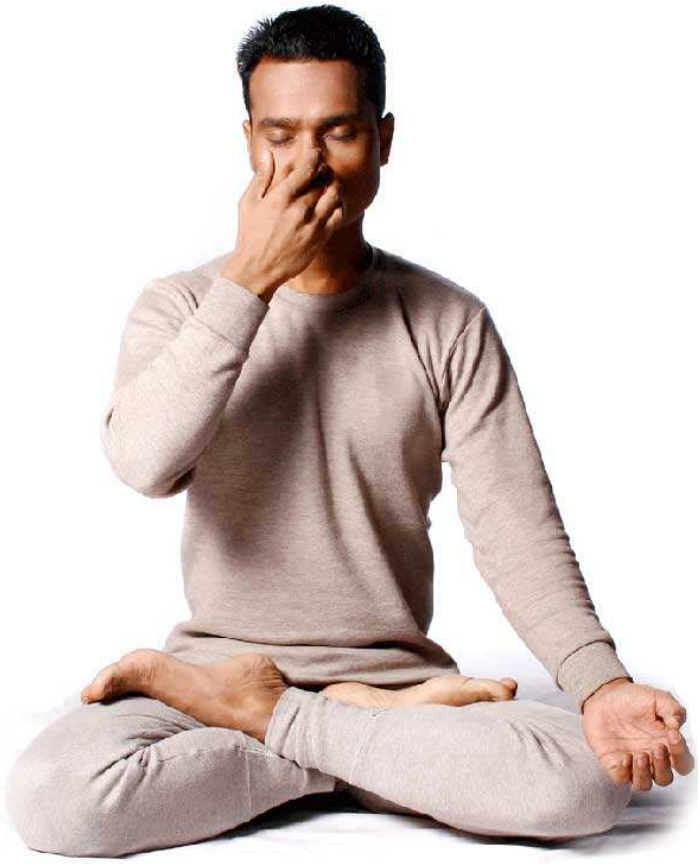
- நரை, திரை, மூப்பை மாற்றி இளமை உண்டாக்கும்
- உடலின் எல்லா உறுப்புகளும் பலப்படும்
- வீதன கோளங்கள் தூண்டப்படும்
- பெரும் நோய் தீரும்
- கருப்பை கோளாறு தீரும்
- மலச்சிக்கல்
- நாடி பலமின்மை
- தலைவலி
- அலித்தன்மை

3. பூரண சவசாந்தி ஆசனம்

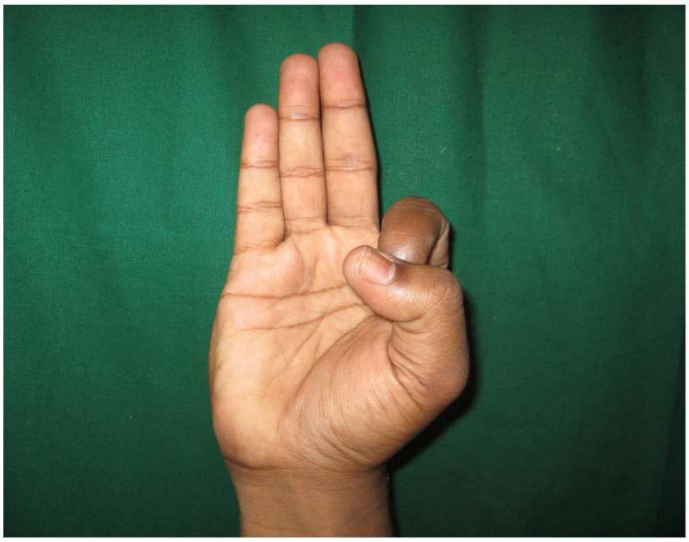
மல்லாந்து படுத்துக் கால்களை நேராகவும், கைகளை உடலோடு பக்கவாட்டிலும் வைத்து நேராகப் படுத்து இருத்தல்.

- இது களைப்பைக் போக்கும்
- புத்துணர்ச்சியை உண்டாக்கும்
- நாடி மண்டலங்கள் உறுதி பெறும்
- மனோசக்தி வளரும்
- தசைகள் தளர்ந்து புத்துணர்ச்சி பெறும்

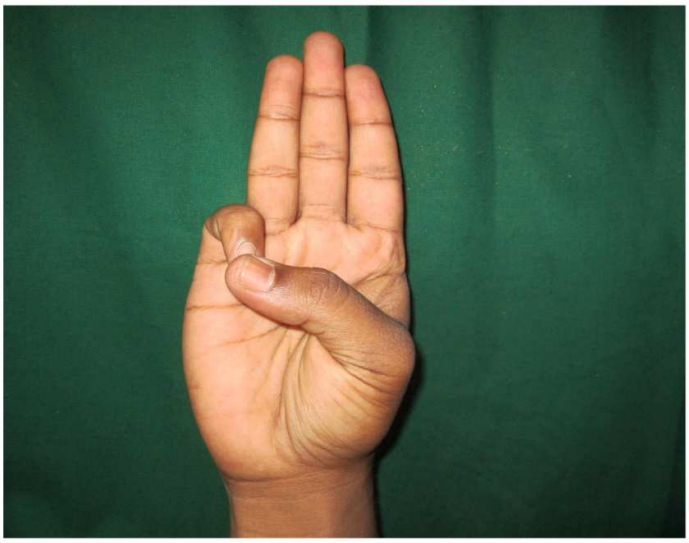
பிராணயாமம்



Vayu Mudra



Varuna Mudra



MODERN ASPECTS

ANATOMY OF THE SKIN

The skin is an ever-changing organ that contains many specialized cells and structures. The skin functions as a protective barrier that interfaces with a sometimes-hostile environment.

It is also very much involved in maintaining the proper temperature for the body to function well. It gathers sensory information from the environment, and plays an active role in the immune system protecting us from disease.

Understanding how the skin can function in these many ways starts with understanding the structure of the 3 layers of skin - the epidermis, dermis, and subcutaneous tissue

EPIDERMIS

The epidermis is the outer layer of skin. The thickness of the epidermis varies in different types of skin. It is the thinnest on the eyelids at 0.05 mm and the thickest on the palms and soles at 1.5 mm.

The epidermis contains 5 layers. From bottom to top the layers are named:

- Stratum Basale
- Stratum Spinosum
- Stratum Granulosum
- Stratum Lucidum
- Stratum Corneum

Stratum Basale

The stratum basale is the bottom layer of keratinocytes in the epidermis and is responsible for constantly renewing epidermal cells. This layer contains just one row of undifferentiated columnar stem cells that divide very frequently. Half of the cells differentiate and move to the next layer to begin the maturation process. The other half stay in the basal layer and divide over and over again to replenish the basal layer.

Stratum Spinosum

Cells that move into the spinosum layer (also called prickle cell layer) change from being columnar to polygonal. In this layer the cells start to synthesize keratin.

Stratum Granulosum

The cells in the stratum granulosum, or granular layer, have lost their nuclei and are characterized by dark clumps of cytoplasmic material. There is a lot of activity in this layer as keratin proteins and water-proofing lipids are being produced and organized.

Stratum Lucidum

The stratum lucidum layer is only present in thick skin where it helps reduce friction and shear forces between the stratum corneum and stratum granulosum.

Stratum Corneum

The cells in the stratum corneum layer are known as corneocytes. The cells have flattened out and are composed mainly of keratin protein which provides strength to the layer but also allows the absorption of water.

Specialized Epidermal Cells

There are three types of specialized cells in the epidermis

- The melanocyte produces pigment (melanin)
- The Langerhans' cell is the frontline defense of the immune system in the skin
- The Merkel's cell's function is not clearly known

Epidermal Appendages

The following glands and structures are found in the epidermis:

Eccrine Glands

These are the sweat glands. They are found in abundance throughout the skin surface, except margins of the lip, labia minora , glans penis and inner aspect of the prepuce. These are also found in highest concentration in the palm, soles and the axillae. They secrete sweat that is a hypotonic solution, which permits evaporative cooling of the body.

Apocrine Glands

These are the scent glands .They are found primarily in the axillae and ano- genital region. Modified apocrine glands are found in the ear canal, eyelids and in the breasts.

Sebaceous Glands

These are found on all parts of the body except the palms and soles. They produce oil that lubricates and protects the skin and hair. This oil is called the sebum

Hair

Hair is found on almost every part of the body surface except on the palms, soles and the dorsal surface of the terminal phalanges. Hair differs in length, thickness and colour. It grows about 1-2 cm per month. The growth of Hair is controlled by endocrine.

Nails

These are semi transparent plate like horny structures, covering the dorsal surfaces of the distal phalanges of the fingers and toes. The proximal edge of the nail is known as the nail root; the visible portion of the nail is called the nail plate. It is semi transparent and looks red due to the abundant vascular supply in the nail bed. The more opaque and rather whitish semi lunar portion of the nail plate near its root is known as the lunula. The surface of the skin on which the nail rests is known as the nail bed.

DERMIS

The dermis varies in thickness depending on the location of the skin. It is 0.3 mm on the eyelid and 3.0 mm on the back. The dermis is composed of three types of tissues

- Collagen
- Elastic tissue
- Reticular fibers

Layers of the Dermis

The two layers of the dermis are the papillary and reticular layers.

- The upper papillary layer contains a thin arrangement of collagen fibers

- The lower reticular layer is thicker and made of thick collagen fibers that are arranged parallel to the surface of the skin

Specialized Dermal Cells

The dermis contains many specialized cells and structures

- The hair follicles are situated here with the Arrector pili muscles that attaches to each follicle
- Sebaceous (oil) glands and apocrine (scent) glands are associated with the follicle.
- This layer also contains eccrine (sweat) glands, but they are not associated with hair follicles
- Blood vessels and nerves course through this layer. The nerves transmit sensations of pain, itch, and temperature
- There are also specialized nerve cells called Meissner's and Vater-Pacini corpuscles that transmit the sensations of touch and pressure

Subcutaneous Tissue

The subcutaneous tissue is a layer of fat and connective tissue that houses larger blood vessels and nerves. This layer is important in regulation of skin temperature and the body.

PHYSIOLOGY

1. Protective Function

It prevents the penetration of harmful substances and bacterial invasions and protects against sunlight by synthesis of melanin pigment.

2. Immunological Function

Langerhans cells play a crucial role in the contact sensitization, immuno surveillance against viral infections and neoplasms

3. Sensory Functions

The skin is richly supplied with nerves and various types of specialized sensory end-organs which provide information regarding environmental changes. By this, the body can adjust its activities accordingly.

4. Secretion and Excretion

The skin possesses various types of glands and the most important of them are Sweat and Sebaceous glands. These glands secrete Sweat and Sebum respectively. The substances excreted in Sweat are Sodium Chloride, Sodium Phosphate, Sodium Bicarbonate, Keratin and a small amount of Urea. The skin can also excrete certain drugs administered to the individual such as Mercury, Arsenic, Iodine etc.

Sebum is composed of Fatty acids, Cholesterol, Alcohol etc. The Sebum acts as a lubricant for the drying effects of atmosphere.

5. Synthesis of Vitamin D

Vitamin D is synthesized in the skin as a result of exposure to ultra violet 'B' (UVB) radiation.

6. Body heat regulation

The skin plays a very important role in regulation of heat loss. It loses heat to the external environment in three ways by Conduction, Radiation and Evaporation. The heat loss through the skin is regulated by various physiological mechanisms.

7. Endocrine function

Hair follicles and Sebaceous glands are the targets for androgenic steroids secreted by the gonads

8. Storage function of skin

Blood is stored in the rich sub papillary plexus of the dermis (approximately 1 litre). The skin is also a good store house of ergosterol which is irradiated by the Ultra Violet light of the sun and converted into Vitamin D

9. Absorption

The skin can absorb substances dissolved in fatty solvents. This is the principle behind the local application and massaging of various ointments and creams dissolved in animal fats.

10. Gaseous exchange through skin

A small amount of gaseous exchange occurs through the skin. In man, the amount of CO2 exchanged through the skin is negligible when compared to the amount exhaled from the lungs

PSORIASIS

General Description:

Psoriasis is an immune mediated genetically determined common dermatological disorder which affects skin, nails, joints and has various systemic associations. There is evidence that the disease is associated with a high impact on the health-related quality of life and considerable cost. Large literature has been published focusing on its varied aspects. There is a no dearth of information available; however, many questions remain that are still unanswered.

Although the disease can develop at any time, 10-15% of all cases are diagnosed in children under 10, and the average age at the onset of symptoms is 28. Psoriasis is most common in fair-skinned people and extremely rare in dark-skinned individuals.

Normal skin cells mature and replace dead skin every 28-30 days. Psoriasis causes skin cells to mature in less than a week. Because the body can't shed old skin as rapidly as new cells are rising to the surface, raised patches of dead skin develop on the arms, back, chest, elbows, legs, nails, folds between the buttocks, and scalp.

Psoriasis is considered mild if it affects less than 5% of the surface of the body; moderate, if 5-30% of the skin is involved, and severe, if the disease affects more than 30% of the body surface.

Definition:

Psoriasis is non contagions, chronic, autoimmune disease commonly characterized by thickened, inflamed patches of skin covered by silver-gray scales, sometimes accompanied by painful joint swelling and stiffness

Etymology:

The term ***psoro*** comes from the Greek word for itch**;** ***psoriasis*** corresponds to the term ***itchy*****.** The term ***psoriasis*** was used as early as 1684 as the Latin term for Mange. [Mange is simply another word for scabies, a very itchy mite infestation]

Prevalence

There is a growing number of population-based studies providing worldwide prevalence estimates of psoriasis. Prevalence of psoriasis varies in different parts of the world. According to published reports, prevalence in different populations varies from 0% to 11.8%. For most of the data given, the range extends from around 0.5% to close to 2.5%. In the USA, the prevalence of psoriasis was estimated to be around 4.6% while in Canada it was 4.7%. Data from Europe show little variation in countries with a range from 1.4% (Norway), 1.55% (Croatia) and 1.6% (UK). In East Africa, the figure was 0.7% and in the Henan district of China only 0.7% were found affected.

Most of the data on prevalence has been derived from hospital-based studies while there are only few well-defined large population based studies done to find the exact prevalence of this dermatoses in the community.

Prevalence studies from India are mostly hospital-based. presents the comparative data from various epidemiological studies on psoriasis from India. Okhandiar *et al*. collected a comprehensive data from various medical colleges located in Dibrugarh, Calcutta, Patna, Darbhanga, Lucknow, New Delhi and Amritsar. They found that the incidence of psoriasis among total skin patients ranged between 0.44 and 2.2%, with

overall incidence of 1.02%. They noted that the incidence in Amritsar (2.2%) was higher as compared to other centers in Eastern India and speculated that it may be related to different environmental conditions (extremes of temperature), dietary habits, and genetic differences. The ratio of male to female (2.46:1) was very high which could not be clearly accounted for. Highest incidence was noted in the age group of 20-39 years and the mean age of onset in males and females was comparable.

In another study from North India, Bedi reported the prevalence of psoriasis to be 0.8% among the skin patients but the sample size of the study was very small. Male to female sex ratio was 2.5:1. In this study, it was observed that females had lower mean age of onset compared to males. In a latter study by Bedi, which included larger number (530) of subjects, prevalence of psoriasis among dermatology outpatients was found to be 2.8% while male to female ratio continued to be the same.

In a study from tertiary health care center from North India, psoriasis patients accounted for 2.3% of the total dermatology outpatients. Of the total psoriasis patients, 67% were men and 33% were women, male to female ratio being 2.03:1. Ages of patients ranged from infancy to eighth decade, mean age being 33.6 years. Children accounted for 4.4% of total psoriasis patients. Women had slightly lower mean age of onset (27.6 years) compared to the men (30.9 years).

So, it can be inferred that in India the prevalence of psoriasis varies from 0.44 to 2.8%, it is twice more common in males compared to females, and most of the patients are in their third or fourth decade at the time of presentation. These studies are limited by the absence of

commonly accepted and validated diagnostic criteria. Furthermore, there is basically no reliable information on time trends of the disease.

Table 1 :Epidemiological studies on psoriasis from India

	Okhandiar *et al.*[10]	Bedi[2]	Kaur *et al.*[1]	Bedi[11]	Kaur *et al.*[12]
Total no of patients	3573	162	782	530	1220
Prevalence (% of total dermatology outpatients)	1.02	0.8	1.4	2.8	2.3
Male:female	2.46:1	2.5:1	2.3:1	2.4:1	2.03:1
Mean age in males and females	Comparable	Lower in females	Lower in females	-	Slightly lower in females
Peak onset of disease	third and fourth decade	third and fourth decade	-	third and fourth decade	-

Genetic and familial incidence:

Psoriasis vulgaris is known to be associated with certain HLA antigens and complement factors but most of the studies published are in Western populations with only little information about Indians. Chablani *et al*. in a study of 67 psoriasis subjects from Western India found association with the A1, B17 and Cw6, but not with B13 antigens. Pitchappan *et al*. reported association of HLA Bw57 and DR7 with psoriasis vulgaris in South India. Rani *et al*. showed that Cw *0602 was the main allele that had high frequency in psoriasis patients in North India.

Genetic predisposition has a significant role in the etiopathogenesis of psoriasis and familial clustering of the cases has been observed. Farber *et al*. reported familial occurrence in 36% of their patients. Familial incidence is greater in childhood psoriasis compared to adult onset psoriasis.

Indian studies report lower familial incidence of the disease. Bedi reported positive family history of psoriasis in 14% of their patients. While Kaur *et al*. reported family history in only 2% of their patients. First degree relatives were affected in 84% of the cases while second degree relatives in 12% cases. There are only few studies which have made record of family history of psoriasis in their patients, so definite statistical data on familial incidence is not available.

Quality of life

- 60 percent of people with psoriasis reported their disease to be a large problem in their everyday life
- Nearly 40 percent with psoriatic arthritis reported their disease to be a large problem in everyday life
- Patients with moderate to severe psoriasis experienced a greater negative impact on their quality of life
- Psoriasis has a greater impact on quality of life in women and younger patients

CAUSES

- The cause of psoriasis is not fully understood. There are two main hypotheses about the process that occurs in the development of the disease. The first considers psoriasis as primarily a disorder of excessive growth and reproduction of skin cells. The problem is

simply seen as a fault of the epidermis and its keratinocytes. The second hypothesis sees the disease as being an immune-mediated disorder in which the excessive reproduction of skin cells is secondary to factors produced by the immune system

Psoriasis - an Autoimmune Disorder

- As part of its defense against foreign invaders, our body's bone marrow and thymus gland collaborate to pump out specialized white blood cell warriors called "T cells." Under normal circumstances, T cells are programmed to identify and coordinate an attack on enemy combatants.
- In psoriasis, T cells mistakenly identify skin cells as "other" and attack them. This attack injures the skin cells, setting off a cascade of responses in immune system and in skin, resulting in skin damage (that is, swelling, reddening and scaling).
- In an effort to heal, skin cells begin reproducing rapidly. Activities that should take a month take place in only days, and abnormally large numbers of new skin cells push their way to the surface of skin. This occurs so quickly that older skin cells and white blood cells aren't shed quickly enough. These discarded cells pile up on the surface of the skin, creating thick, red plaques with silvery scales on their surface: the hallmark of the classic form of plaque psoriasis

Factors that increase the risk of developing psoriasis include:

- family history
- stress
- exposure to cold temperatures

- injury, illness, or infection
- steroids and other medications
- race

Trauma and certain bacteria may trigger psoriatic arthritis in patients with psoriasis.

Clinical Symptoms:

- A sharply delimited, hyperemic patch, covered with a silvery-white layer of scales of variable thickness, is found as typical primary eruption
- With careful scratching, small silvery-white lamellar scales come off, more or less as from a solidified candle strip (**candle grease sign**)
- Phenomenon of the last skin layer: if scratching continued, a thin, glistening epithelial layer is revealed
- **Auspitz sign**: removal of this epithelial layer reveals punctuate bleeding because of a lesion of the capillaries running out into the tips of the papillae.
- **Koebner's phenomenon**: if the skin of a psoriatic patient is irritated (e.g. scratching) in the phase of an acute episode of eruption, a new psoriatic focus is formed on the floor of this epithelial lesion

Types of psoriasis:

Dermatologists distinguish different forms of psoriasis according to what part of the body is affected, how severe symptoms are, how long they last, and the pattern formed by the scales.

PLAQUE PSORIASIS.

Plaque psoriasis (psoriasis vulgaris), the most common form of the disease, is characterized by small, red bumps that enlarge, become inflamed, and form scales. The top scales flake off easily and often, but those beneath the surface of the skin clump together. Removing these scales exposes tender skin, which bleeds and causes the plaques (inflamed patches) to grow.

Plaque psoriasis can develop on any part of the body, but most often occurs on the elbows, knees, scalp, and trunk.

SCALP PSORIASIS.:

At least 50 of every 100 people who have any form of psoriasis have scalp psoriasis. This form of the disease is characterized by scale-capped plaques on the surface of the skull.

NAIL PSORIASIS:

The first sign of nail psoriasis is usually pitting of the fingernails or toenails. Size, shape, and depth of the marks vary, and affected nails may thicken, yellow, or crumble. The skin around an affected nail is sometimes inflamed, and the nail may peel away from the nail bed.

GUTTATE PSORIASIS.:

Named for the Latin word *gutta*, which means "a drop," guttate psoriasis is characterized by small, red, drop-like dots that enlarge rapidly and may be somewhat scaly. Often found on the arms, legs, and trunk and sometimes in the scalp, guttate psoriasis can clear up without treatment or disappear and resurface in the form of plaque psoriasis.

PUSTULAR PSORIASIS.

Pustular psoriasis usually occurs in adults. It is characterized by blister-like lesions filled with non-infectious pus and surrounded by reddened skin. Pustular psoriasis, which can be limited to one part of the body (localized) or can be widespread, may be the first symptom of psoriasis or develop in a patient with chronic plaque psoriasis.

Generalized pustular psoriasis is also known as Von Zumbusch pustular psoriasis. Widespread, acutely painful patches of inflamed skin develop suddenly. Pustules appear within a few hours, then dry and peel within two days.

Generalized pustular psoriasis can make life-threatening demands on the heart and kidneys.

Palomar-plantar pustulosis (PPP) generally appears between the ages of 20 and 60. PPP causes large pustules to form at the base of the thumb or on the sides of the heel. In time, the pustules turn brown and peel. The disease usually becomes much less active for a while after peeling.

Acrodermatitis continua of Hallopeau is a form of PPP characterized by painful, often disabling, lesions on the fingertips or the tips of the toes. The nails may become deformed, and the disease can damage bone in the affected area.

INVERSE PSORIASIS.

Inverse psoriasis occurs in the armpits and groin, under the breasts, and in other areas where skin flexes or folds. This disease is characterized by smooth, inflamed lesions and can be debilitating.

ERYTHRODERMIC PSORIASIS.

Characterized by severe scaling, itching, and pain that affects most of the body, erythrodermic psoriasis disrupts the body's chemical balance and can cause severe illness. This particularly inflammatory form of psoriasis can be the first sign of the disease, but often develops in patients with a history of plaque psoriasis.

PSORIATIC ARTHRITIS.

About 10% of partients with psoriasis develop a complication called psoriatic arthritis. This type of arthritis can be slow to develop and mild, or it can develop rapidly. Symptoms of psoriatic arthritis include:

- Joint discomfort, swelling, stiffness, or throbbing
- Swelling in the toes and ankles
- Pain in the digits, lower back, wrists, knees, and ankles
- Eye inflammation or pink eye (conjunctivitis).

BEFORE AND AFTER TREATMENT

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O.P.No: 75490

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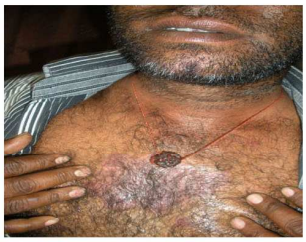

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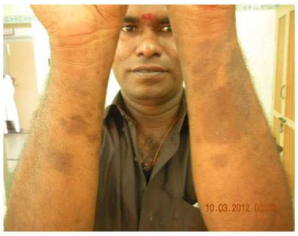
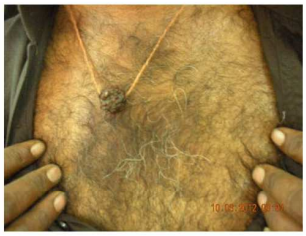
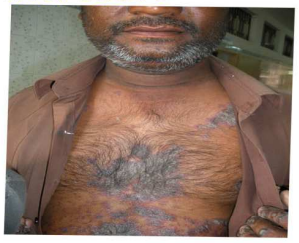


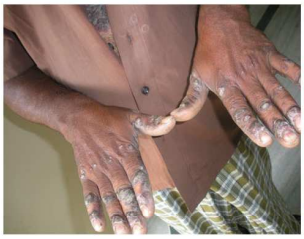


1) Name : Manoharan

O.P.No: 68376

BT





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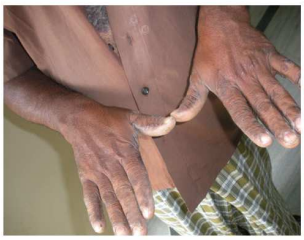

BEFORE AND AFTER TREATMENT

1) Name: GANESAN
I.P No: 66068

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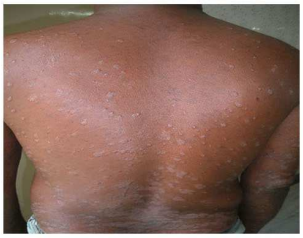

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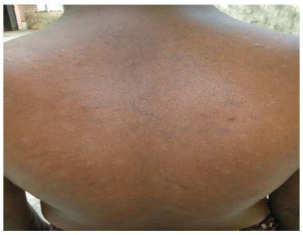
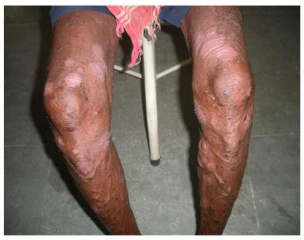


2) Name: KARUPPUSAMY
I.P No: 26842

BT

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PATHOGENESIS

The biochemical basis for the pathogenesis of psoriasis, which is as equally varied as the genetic basis, can be attributed to both overexpression and underexpression of certain proteins in psoriatic lesions. The anomalies in protein expression can be divided into three areas:

A. Abnormal keratinocyte differentiation
B. Hyperproliferation of the keratinocyte
C. Infiltration of inflammatory elements

A. Keratinocyte Differentiation

At least six markers of abnormal keratinocyte differentiation have been found, and all have implications in the pathogenesis of the disease. These include aberrations of

- Keratinocyte Transglutaminase type I (TGase K)
- Skin-derived Antileukoproteinase (SKALP)
- Migration inhibitory factor-related protein-8 (MRP-8)
- Involucrin
- Filaggrin
- Keratin expression

TGase K - The overexpression of this enzyme causes the excessive cornification seen in psoriatic lesions.

SKALP – It is found only in psoriatic skin. This polypeptide is a major elastase inhibitor, which is specific for the degredation of elastin, a protein found in tissues requiring elasticity.

MRP-8 - Its biochemical function is not completely understood. It has been found in psoriasis and other inflammatory diseases but not in normal skin.

Involucrin - A precursor protein that helps to stabilize the CE, is also upregulated in psoriasis vulgaris.

Keratin - Its expression is also disrupted in psoriasis. K6 and K16, markers of abnormal hyperproliferative conditions, are up-regulated in psoriatic epidermis, whereas K1 and K10, markers of terminal differentiation, are down-regulated.

Filaggrin -It is normally found in the granular layer of the skin and is absent in psoriaticlesions.

B. Hyperproliferation

It is the second category of anomalies that contributes to the symptoms of psoriasis vulgaris. Several possible biochemical causes for the overproduction of the keratinocytes have been found in psoriatic skin:

- Epidermal Growth Factor (EGF)
- Bone Morphogenetic Protein-6 (BMP-6)
- Transforming Growth Factor-alpha (TGF-α)
- Ornithine Decarboxylase
- Activating Protein (AP1)
- Mitogen-Activated Protein Kinase (MAPK)

EGF binding capacity is doubled in the upper layers of the epidermis of psoriatic skin. This increase in binding over-stimulates the growth of the keratinoctyes, causing hyperproliferation.

BMP-6, another growth factor, is present in newborns, but normally disappears by adulthood, except in psoriatic patients, which

makes it a prime candidate for a growth factor sponsoring the formation of psoriatic lesions in humans.

TGF-α expression is up-regulated in psoriatic skin.

Ornithine Decarboxylase, an essential enzyme in polyamine biosynthesis, is higher in lesional and nonlesional psoriatic skin.

AP1, a complex of the oncoproteins, stimulates the expression of many genes that are important in cell proliferation and inflammation.

The last indicator, **MAPK**, helps to regulate cellular proliferation. Numerous growth factors and cytokines modulate MAPK's activity, which is higher in psoriatic fibroblasts.

C. Inflammatory Elements

The inflammatory aspect of psoriasis is physically evident by the redness of psoriatic plaques. The biochemical basis for this inflammation stems from several immune modulators including various cytokines released from keratinocytes and other proteins involved in the inflammatory response.

Among the interleukins (ILs), IL-1, IL-6, IL-7 and IL-8 are up regulated in psoriatic skin. In addition, IL-15, which reduces keratinocyte cell apoptosis, is elevated in psoriatic lesions. Pituitary Adenylate Cyclase Activating Polypeptide (PACAP) is an inflammatory mediator that is up regulated in psoriatic lesions.

All of these inflammatory factors exert specific effects on T cells, endothelial cells, macrophages and neutrophils, which in turn spawn the immunogenic inflammatory response seen in psoriasis.

In the last few decades, however, this view has changed and it is now well accepted that psoriasis is in fact an immunologically mediated

disease where activation of T lymphocytes is central to the inflammation in the dermal microenvironment and the epidermal hyper proliferation is secondary to the inflammatory events that follow a Th1 type of immune response.

T Cells

In psoriasis, the activity of T cells is the driving force for induction and maintenance of the skin lesions.

T Cell Activation

Activation of T cells requires three steps

- Binding
- Antigen specific activation, known as signal 1
- Non-antigen specific cell-cell interaction, known as signal 2

Binding

The T cell attaches to the Antigen Presenting Cell [APC] through surface adhesion molecules. In skin the Langerhans cell is the most efficient Antigen Presenting Cell.

Antigen specific activation

Once the T cell-APC binding has occurred through their respective surface adhesion molecules, the antigen is presented to the T cell by the APC. This antigen stimulated activation leads to conversion of the naïve T cell into an antigen specific cell that may further develop into a long lived memory cell that circulates in the body and can recognize the same antigen at a later date, even after several years.

Non antigen specific cell-cell interaction

This is also known as co-stimulation. If co-stimulation by other cell surface molecules does not occur following antigen presentation, the T

cell will not respond to the antigen and will undergo apoptosis or be rendered unresponsive to that antigen in the future (anergy).

Effector functions of activated T cells

Once the T cell is activated the next step is induction of inflammatory responses and tissue changes leading to the clinical picture of psoriasis.

TNF-a is strongly implicated in the pathogenesis of psoriasis and psoriatic arthritis. TNF-a functions in a positive feedback loop by recruiting more inflammatory cells and upgrading receptors on those cells. TNF-a levels are markedly increased in skin lesions, synovium and serum of patients with psoriasis and these correlate with the severity of the disease. Decreased levels are associated with clinical resolution.

DIAGNOSIS OF PSORIASIS

There are no laboratory tests which will positively identify psoriasis. The blood count, Urine analysis, ESR and other hematologic chemical and serologic studies are within normal limits in most cases of psoriasis.

The diagnosis of psoriasis is based upon:

1. The family history of psoriasis
2. The typical distribution of the lesions on the scalp, elbows, knees, the front of the legs, back and nails
3. Well-defined non-indurated dry erythematous areas with silvery layer-upon-layer scaling

4. The candle – grease sign (when a psoriatic lesion is scratched with the point of a dissecting forceps, a candle-grease-like scale can be repeatedly produced even from the non-scaling lesions. This is CG sign)
5. Auspitz sign (Complete removal of a scale produces pin-point bleeding)
6. Koebner's phenomenon (Psoriatic lesions may develop along the scratch lines in the active phase)
7. Little or no itching
8. History of previous attacks and seasonal variations of the disease

MATERIALS AND METHODS

This pilot study to evaluate the efficacy of **NEERADIMUTHU VALLATHY MELUGU** and **KALAPAIKILANGU VELIPOOCHU** (external) in treating kalanjaga padai (psoriasis) was carried out at Post Graduate Department of Sirappu maruthuvam, Government Siddha Medical College and Hospital,Palayamkottai. Under the observation and guidance of the head of the department. In this study totally 40 cases were taken out of which 10 cases were taken from In patient ward and remaining 30 cases from out-patient ward.

Selection of cases:

The patients were selected on the basis of the following inclusive criteria.

- Age 15-60 yrs
- Both male and female
- Willing to give specimen of blood for the investigation whenever required.
- Willing for admission and study in IPD for 48 days or willing to attend OPD
- Patients with silvery white patches, coin shaped lesions, scaling with or without itching.

Diagnosis of the cases:

Diagnosis was made by conducting all the necessary investigation in siddha as well as in Modern medicine methodology.

In siddha system the following aspect were taken into consideration.

1. Poriyal arithal
2. Pulanaal arithal
3. Vinaathal
4. Ennvagai Thervugal
5. Thinaigal
6. Paruva kalangal.

The following investigations were done in Modern medicine aspect.

Lab Investigation

Blood: Total WBC count

Differential count of WBC

Erythrocyte sedimentation Rate

Hemoglobin percentage

Blood Sugar

Blood urea

Serum cholesterol (LDL&HDL)

Urine: Albumin

Sugar

Deposit.

Motion: Ova

Cyst

Skin examination:

Site-

Colour-

Size-

Shape-

Border

Itching

Erythema

Macule

Papule

Auspitz Sign

Koebner's phenomenon

Candle Grease sign-

Skin scrapping test for fungus.

SELECTION OF DRUG:

Selection of drug was made from the elaborate study of various siddha literatures and finally the drugs were selected from ANUBOGA VAITHIYA NAVANEETHAM PART- VIII, GUNAPADAM MOOLIGAI VAGUPPU.

The Trial drugs

i) **NEERADIMUTHU VALLATHY MELUGU** as internal medicine and

ii) **KALAPAIKILANGU VELIPOOCHU** as external medicine.

LINE OF TREATMENT:

The day before the trial started, vellai- ennai 15ml was given in early morning for purgation to correct the deranged vatham to all patients.

From the second day onwards the trial drugs are administrated.

i) **NEERADIMUTHU VALLATHY MELUGU** as Internal medicine

ii) **KALAPAIKILANGU VELIPOOCHU** as external medicine

- This powder was given only for external use on the lesions.

All the patients were advised to strict dietary regimen (or) pathiyam to avoid interaction with drug.

Some complementary therapies like Pranayamam and simple yogasana were advised.

Clinical assessment:

- The drugs were subjected to bio-chemical and pharmacological analysis.
- Required information will be collected from each patient by using the forms mentioned in protocol.
- For I.P patients, the clinical assessments will be made daily and recorded in the appropriate forms.
- For O.P patients in each visit the clinical assessment will be recorded regularly.
- An individual case sheet was maintained for each and every patient.
- The laboratory investigation will be done before and after treatment and recorded in the appropriate from
- All the patients were screened for side effects and adverse effects.
- The outcome is assessed by the reduction of severity of symptoms and the results are observed.
- All the patients were advised for the further follow –up.

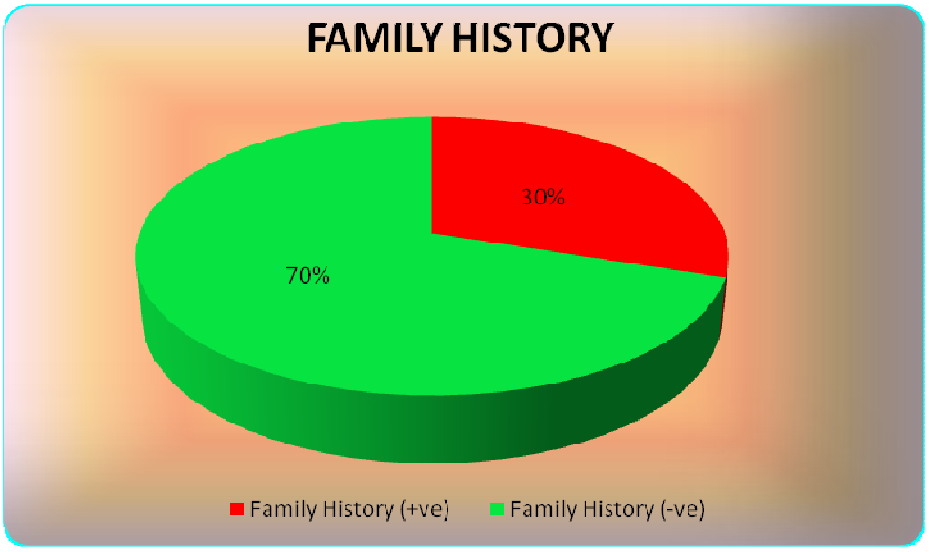
OBSERVATION AND RESULTS

The observation and results were studied and tabulated under the following headings:

1. Family History
2. Sex distribution
3. Age distribution
4. Kaalam distribution
5. Occupational status
6. Diet habit
7. Paruva Kaalam
8. Thinai reference
9. Socio-economic status
10. Triggering factors
11. Clinical features
12. Other general clinical features
13. Distribution of three doshas
14. Udar kattugal reference
15. En vagai thervugal
16. Neerkkuri, Neikkuri reference
17. Assessment of results after Treatment

1. FAMILY HISTORY

Sl. No	Criteria	No of Cases	Percentage
1.	Family History (+ve)	12	30%
2.	Family History (-ve)	28	70%

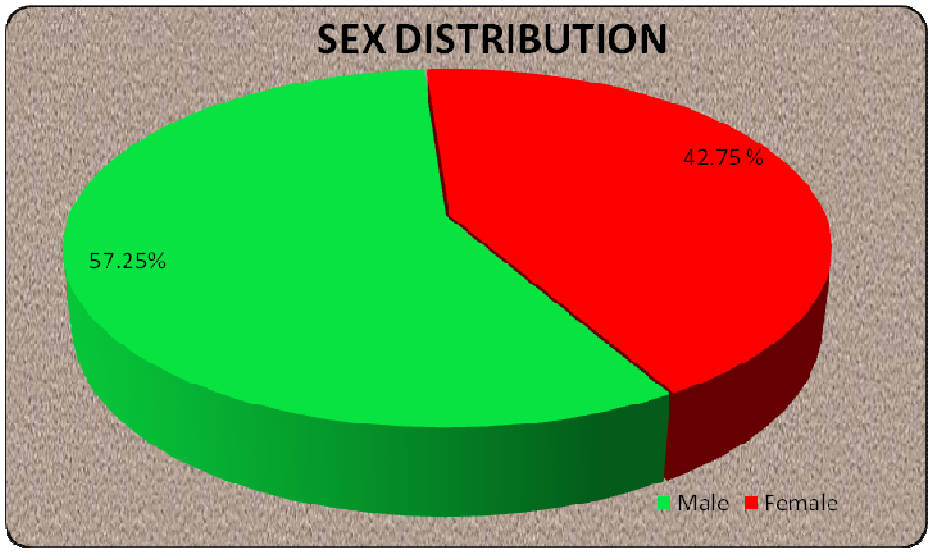


Observation

It is observed that 30% of the patients showed positive family history.

2. SEX DISTRIBUTION

Sl No	Sex	No of Cases	Percentage
1	Male	23	57.25%
2	Female	17	42.75%

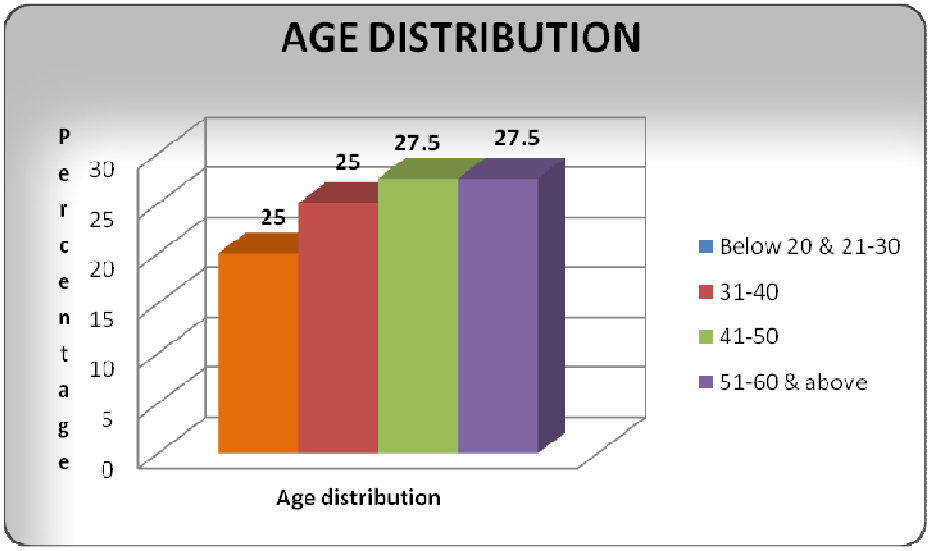


Observation

Among the 40 patients selected for this study, 57.25% were males and 42.75% were females.

3. AGE DISTRIBUTION

Sl. No	Age	No of Cases	Percentage
1	Below 20 and 21-30	8	20%
2	31-40	10	25%
3	41-50	11	27.50%
4	51-60 & above	11	27.50%



Observation

The patients selected were from all age groups as given above and the maximum number of patients was in the age between 41-50 and also in 51-60 & above.

4 . KAALAM DISTRIBUTION

In Siddha literature human life has been divided into three periods as follows

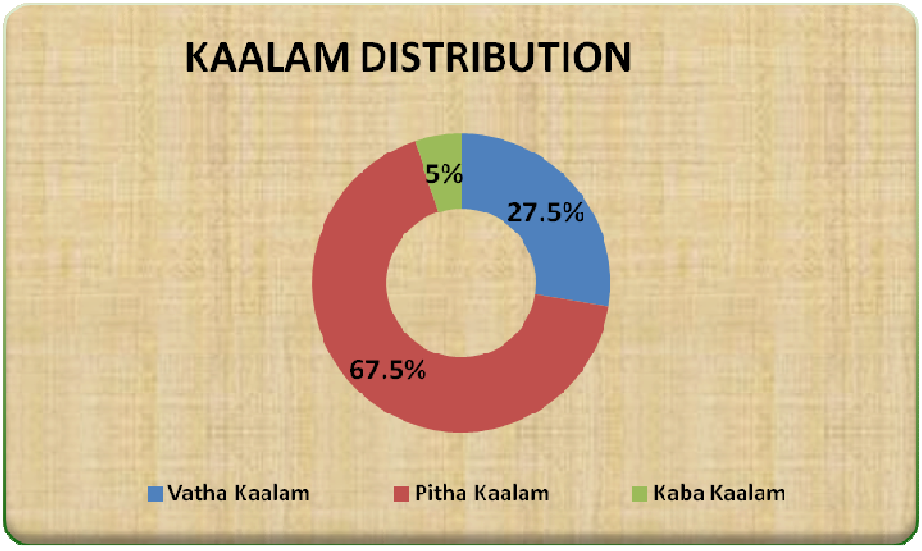
1 Vatham

2 Pitham

3 Kabam

The duration of each period is said to be 33 years

Sl No	Kaalam	No of Cases	Percentage
1	Vatha Kaalam (1-33 Years)	11	27.5%
2	Pitha Kaalam (34-66 years)	27	67.5%
3	Kaba Kaalam (67-100 years)	2	5%

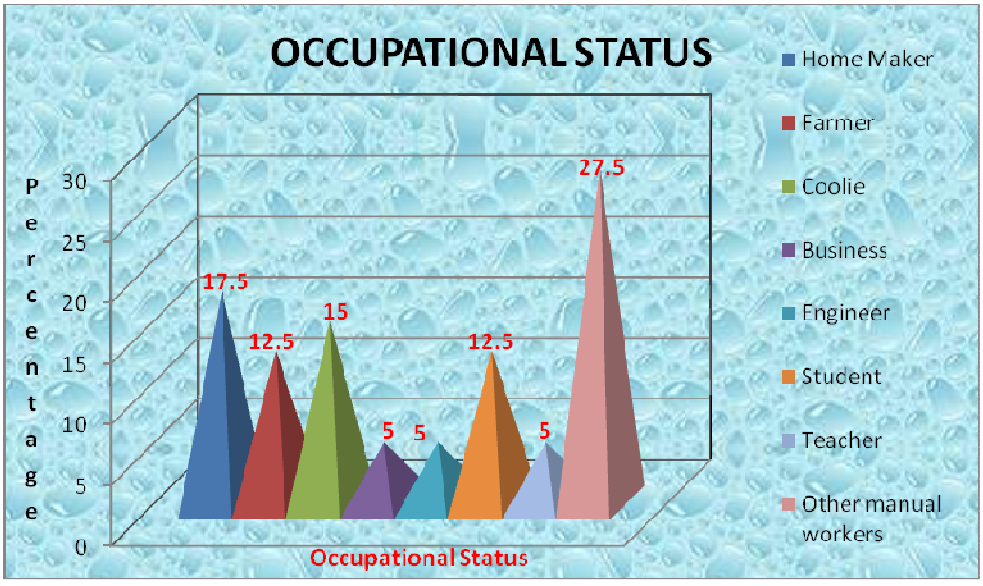


Observation

Out of 40 patients, 27 patients reported were in Pitha kaalam, 11 were in Vatha kaalam and the remaining 2 in kaba kalam.

5. OCCUPATIONAL STATUS

Sl. No	Nature of Work	No. of Cases	Percentage
1	Home Maker	7	17.50%
2	Farmer	5	12.50%
3	Cooli	6	15.00%
4	Business	2	5.00%
5	Engineer	2	5.00%
6	Student	5	12.50%
7	Teacher	2	5.00%
8	Other manual workers	11	27.5%



Observation

The patients selected for the study belongs to various occupational status and no particular association was found.

6. DIETARY HABITS

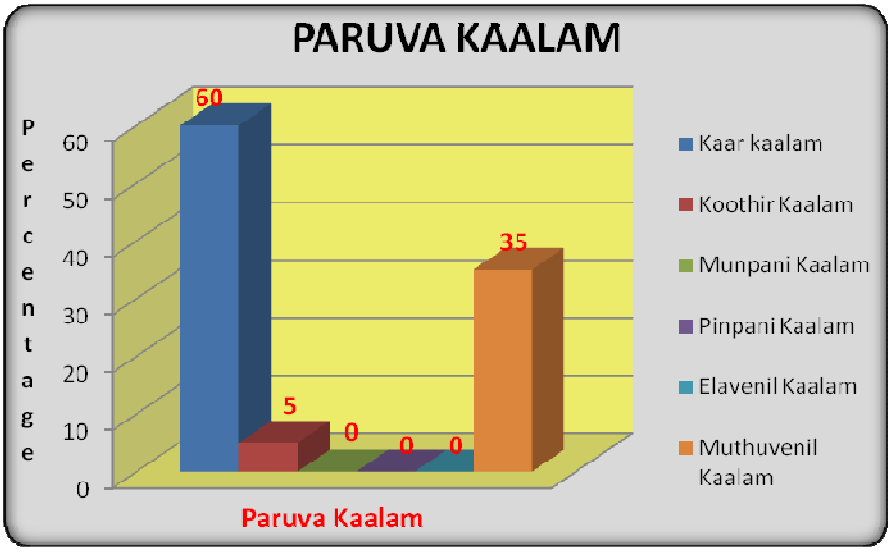
Sl. No	Dietary Habits	No of Cases	Percentage
1	Vegetarian	4	10%
2	Mixed diet	36	90%

Observation

All the cases except four were mixed diet.

7. PARUVA KAALAM

Sl No.	Paruva Kaalam	No. of Cases	Percentage
1	Kaar kaalam (Aavani & Purattasi) (Aug 16 – Oct 15)	24	60%
2	Koothir Kaalam (Aippasi & Kaarthigai) (Oct 16 – Dec 15)	2	5%
3	Munpani Kaalam (Margazhi & Thai) (Dec 16 – Feb15)	0	0.00%
4	Pinpani Kaalam (Maasi & Panguni) (Feb 16 – Apr 15)	0	0.00%
5	Elavenil Kaalam (Chithirai & Vaikasi) (Apr 16 – June 15)	0	0.00%
6	Muthuvenil Kaalam (Aani & Aadi) (June 16 – Aug 15)	14	35%

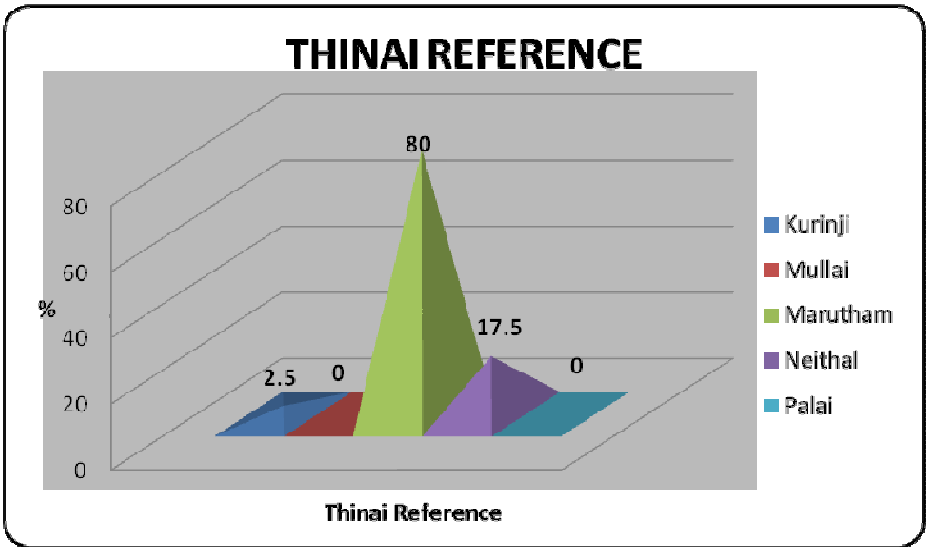


Observation :

Among the 40 patients admitted for this study, 24 patients reported in kaar Kaalam, 2 patients in koothir kaalam and 14 in mudhuvenil kaalam.

8. THINAI REFERENCE

Sl. No	Thinai	No. of Cases	Percentage
1	Kurinji (Hill Area)	1	2.50%
2	Mullai (Forest Area)	0	0.00%
3	Marutham (Fertile Land)	32	80.00%
4	Neithal (Coastal Area)	7	17.50%
5	Paalai (Desert Land)	0	0.00%

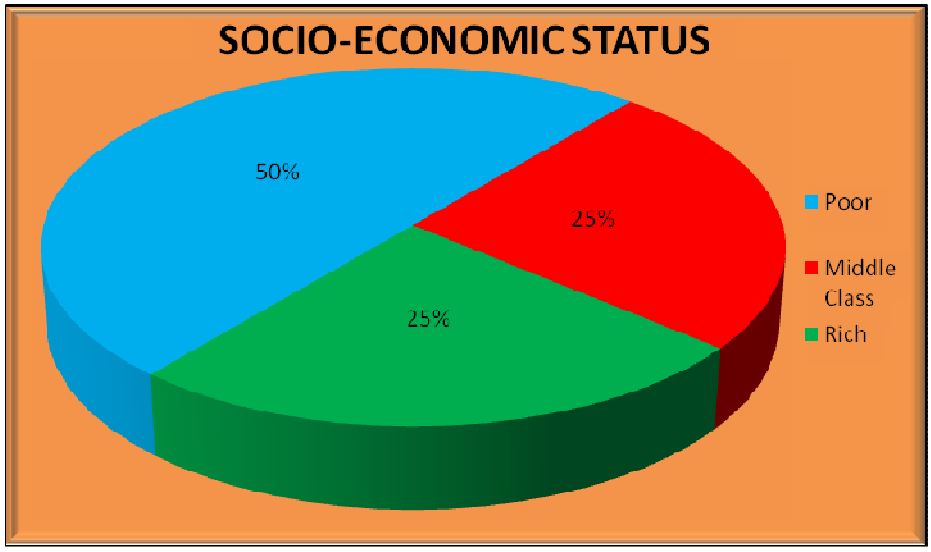


Observation

80% of the patients were from Marutham (Fertile Land) and 17.5% were from Neithal (costal area) and the remaining 2.5% from Kurinji nilam(hill area).

9. SOCIO-ECONOMIC STATUS

Sl. No.	Economic Status	No of Cases	Percentage
1	Poor	20	50%
2	Middle Class	10	25%
3	Rich	10	25%

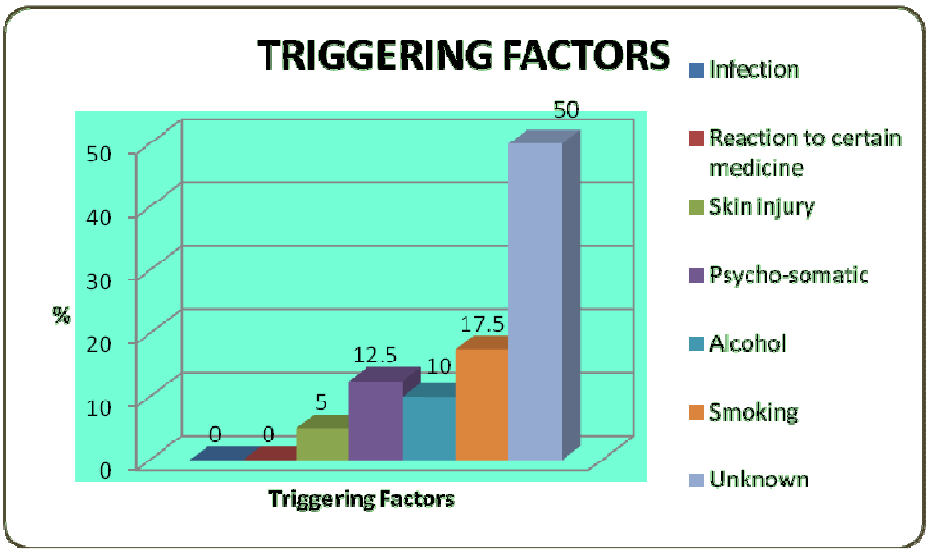


Observation

50% of the patients were poor and 25% of patients were from middle class and the remaining 25% belongs to rich groups.

10.TRIGGERING FACTORS:

Sl. No	Triggering factors	No of Cases	Percentage
1	Infection	0	0%
2	Reaction to certain medicine	0	0%
3	Skin injury	2	5%
4	Psycho-somatic	5	12.5%
5	Alcohol	4	10%
6	Smoking	7	17.5%
7	Unknown	20	50%

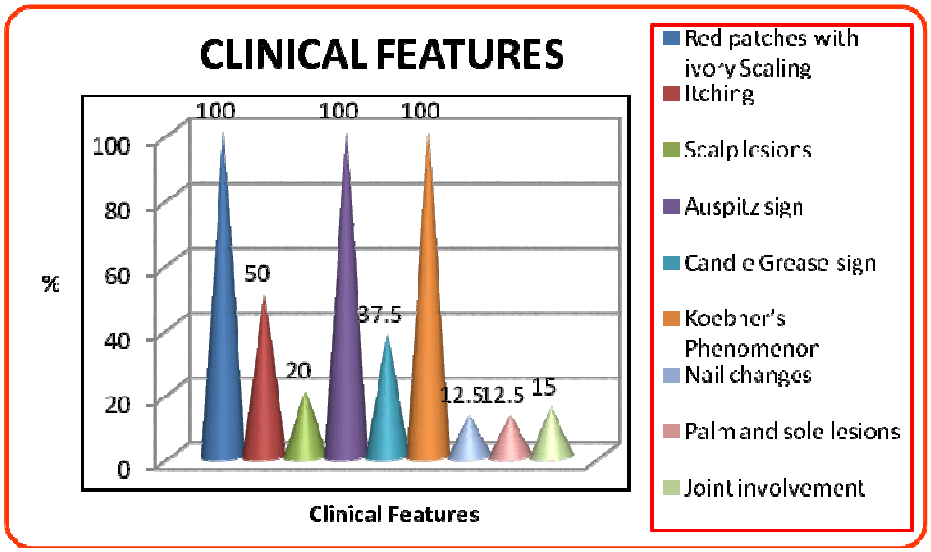


Observation:

Among 40 patients, 50% of them had unknown triggering factor, while 17.5% had smoking as the factor, 12.5% were due to psycho-somatic cause.

11. CLINICAL FEATURES

Sl. No	Clinical Features	No of Cases	Percentage
1	Red patches with ivory Scaling	40	100%
2	Itching	20	50.00%
3	Scalp lesions	8	20.00%
4	Auspitz sign	40	100%
5	Candle Grease sign	15	37.50%
6	Koebner's Phenomenon	40	100%
7	Nail changes	5	12.50%
8	Palm and sole lesions	5	12.50%
9	Joint involvement	6	15.00%



Observation:

All the patients have scaling, Auspitz sign, Koebner's Phenomenon as their predominant symptom.

12. OTHER GENERAL CLINICAL FEATURES:

Sl. No	Clinical features	No. Of cases	Percentage
1.	Constipation	4	10%
2.	Cough	2	5%
3.	Insomnia	2	5%
4.	Loss of appetite	2	5%
5.	Anemia	12	30%

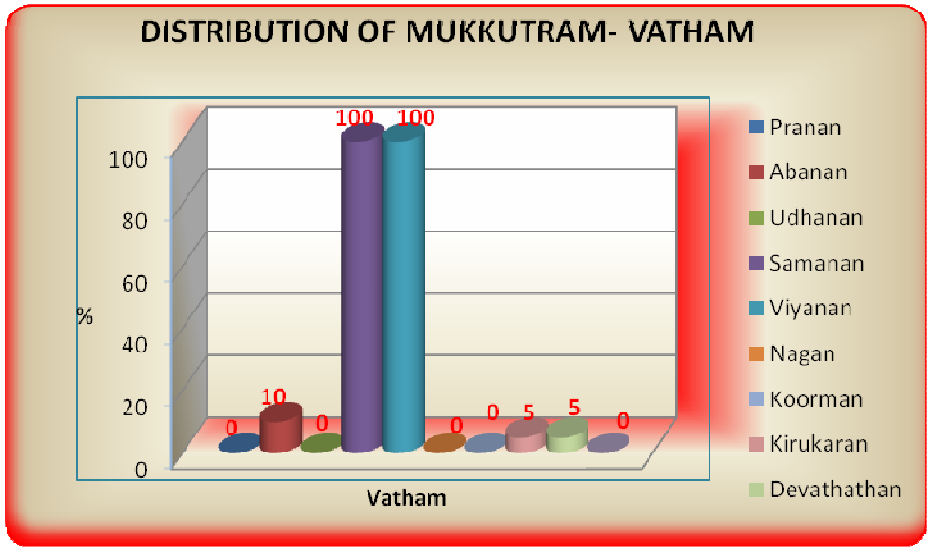
Among 40 patients, 4 had constipation, 2 had cough, 2 had sleep disturbances, 2 had loss of appetite, and 12 were anemic.

13. DISTRIBUTION OF MUKKUTRAM

The derangement of Vatham, Pitham and Kabam in Kalanjaga padai is as follows

VATHAM

Sl. No	Classification of Vatham	No of Cases	Percentage
1	Pranan	0	0.00%
2	Abanan	4	10.00%
3	Udhanan	0	0.00%
4	Samanan	40	100.00%
5	Viyanan	40	100.00%
6	Nagan	0	0.00%
7	Koorman	0	0.00%
8	Kirukaran	2	5.00%
9	Devathathan	2	5.00%
10	Dananjayan	0	0.00%

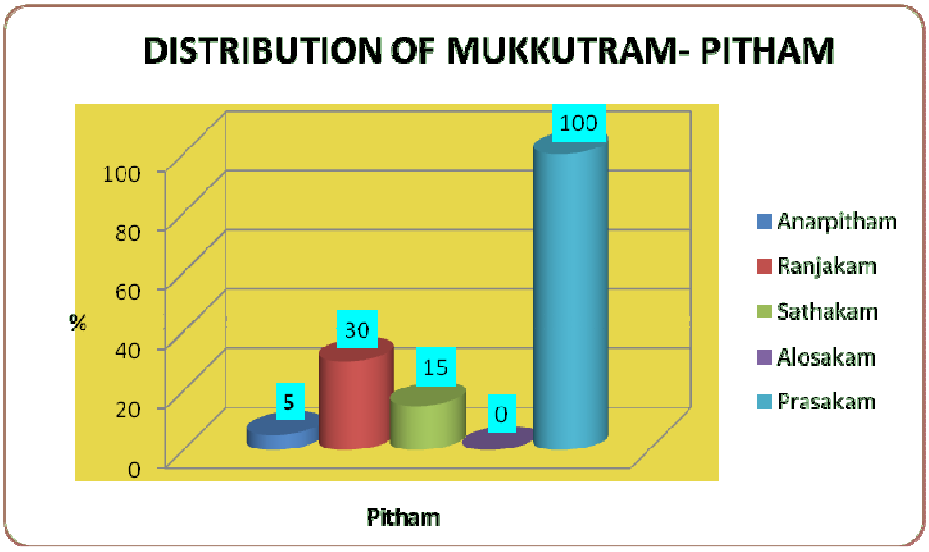


Observation:

Samanan and Viyanan were found to be affected in all the 40 patients. Abanan, Kirukaran and Devathathan were affected in 4, 2 and 2 patients respectively.

PITHAM

Sl. No	Classification of Pitham	No. of Cases	Percentage
1	Anarpitham	2	5.00%
2	Ranjakam	12	30.00%
3	Sathakam	6	15%
4	Alosakam	0	0.00%
5	Prasakam	40	100.00%

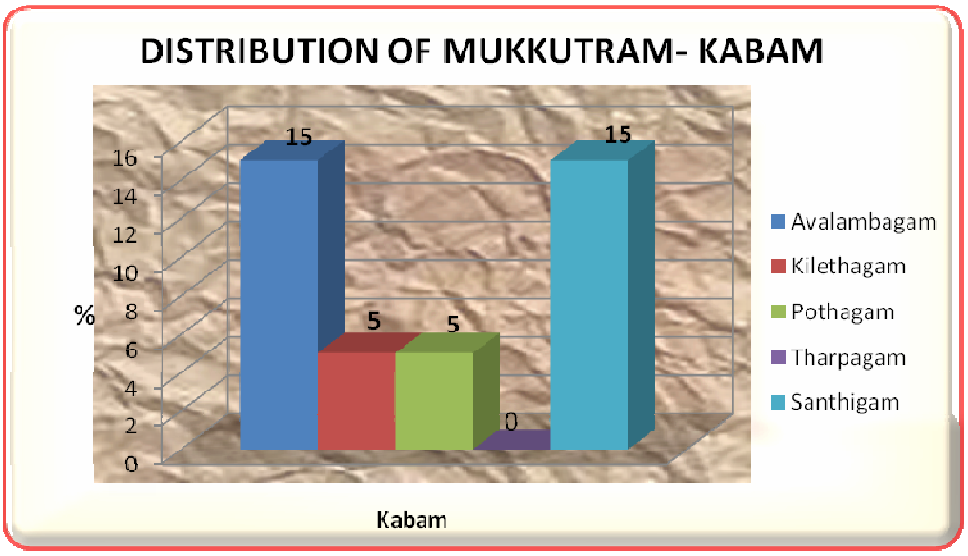


Observation:

Prasakam was affected in all the cases. Sathakam was found affected in 15% of the patients, Ranjakam was affected in 30% of the patients and Anarpitham in 5% of the patients.

KABAM

Sl. No	Classification of Kabam	No of Cases	Percentage
1	Avalambagam	6	15%
2	Kilethagam	2	5.00%
3	Pothagam	2	5.00%
4	Tharpagam	0	0.00%
5	Santhigam	6	15%



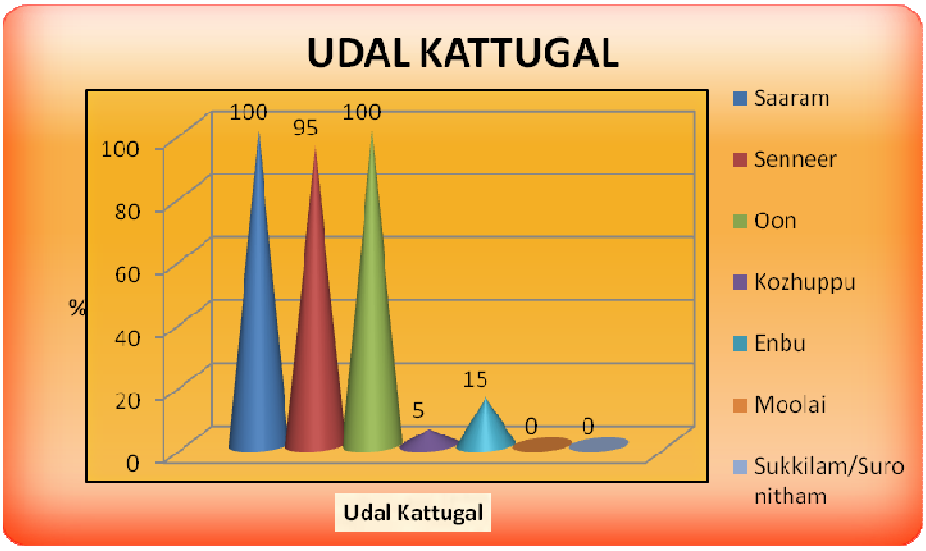
Observation:

Avalambagam and Santhigam were found to be affected in 15% of the patients and then in 5% of the patients Kilethagam and pothagam were found to be affected.

14. UDAL KATTUGAL

Sl. No	Udar Kattugal	No of Cases	Percentage
1	Saaram	40	100%
2	Senneer	38	95%
3	Oon	40	100%
4	Kozhuppu	2	5%
5	Enbu	6	15%
6	Moolai	0	0%
7	Sukkilam/Suronitham	0	0%

]

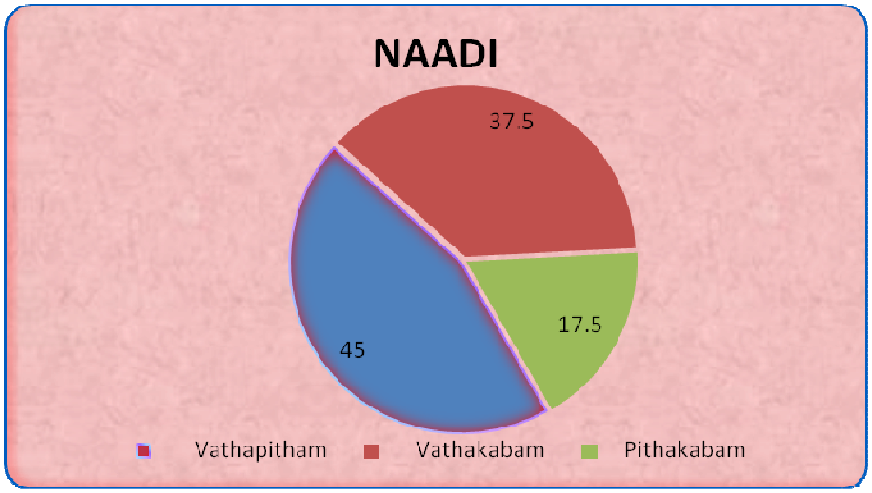


Observation:

Among 40 patients, Saaram and Oon were affected in all the cases and Senneer in 38 patients. Enbu was seen affected in 6 patients and Kozhuppu in 2 patients.

15. EN VAGAI THERVUGAL

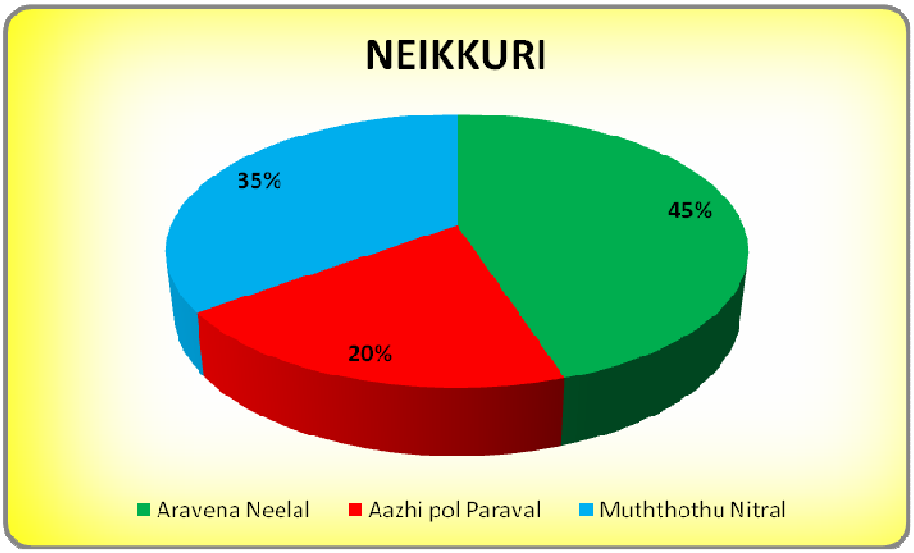
Sl. No	En Vagai Thervugal	No. of Cases	Percentage
1	Naa	0	0%
2	Niram	40	100%
3	Mozhi	0	0%
4	Vizhi	12	30%
5	Sparisam	40	100%
6	Malam	4	10%
7	Moothiram	0	0%
8	Naadi		
	a. Vathapitham	18	45.00%
	b. Vathakabam	15	37.50%
	c. Pithakabam	7	17.50%



In En vagai thervugal, Niram and Sparisam were found affected in all the 40 cases. Vizhi was affected in 30 % of the patients. The Naadi nadai seen in Kalanjaga padai patients were Vathapitham 45 %, Vathakabam 37.50 % and Pithakabam 17.50%.

16. NEERKKURI, NEIKKURI REFERENCE

Sl. No	Type of Test	No. of Cases	Percentage
1	**Neerkkuri**: "Vaikkol Niram" (straw yellow)	40	100%
2	**NEIKKURI**:		
	a) (Vatham) "Aravena Neelal"	18	45.00%
	b) (Pitham) "Aazhi pol Paraval"	8	20.00%
	c) (Kabam) "Muththothu Nitral"	14	35.00%



Observation:

Neerkuri showed vaikkol niram in all the patients. Neikkuri showed vatha kuri among 45% patients, Pitha kuri in 20% patients and kaba kuri in 35% patients.

17. ASSESSMENT OF RESULTS:

CLASSIFICATION OF PSORIASIS BASED ON THE SEVERITY OF SYMPTOMS:

1. **Severe** -Marked plaque elevation, Scaling and / or erythema / affecting more than 10% of the body surface
2. **Moderate** – Moderate plaque elevation, Scaling and / or erythema / affecting 3-10 % of the body surface
3. **Mild** – Slight plaque elevation, scaling and or erythema / affecting less than 3% of the body surface
4. **Clear** - No signs of psoriasis

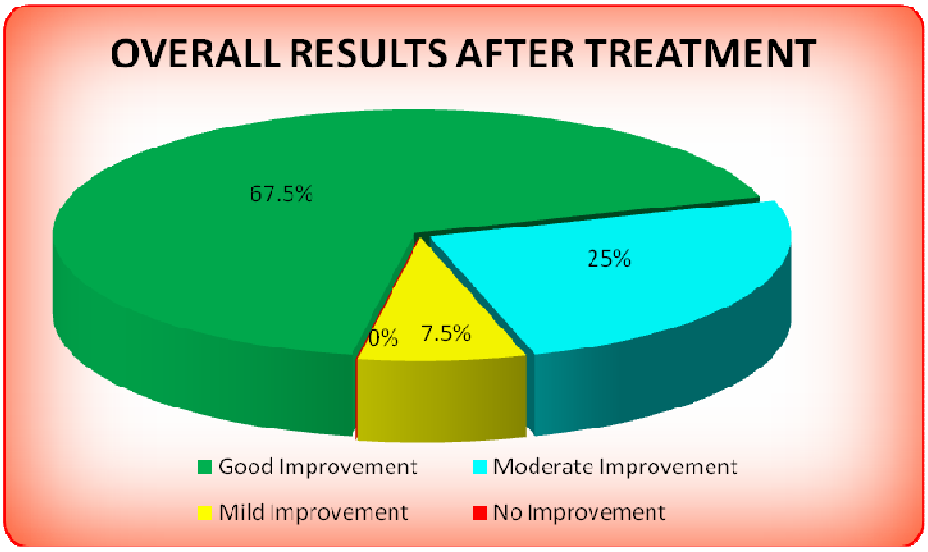
    - F. Alzeni et al., (2011)

F). OVERALL RESULTS AFTER TREATMENT

Based on the outcome, all the 40 patients have been classified into 4 grades. The gradation is as follows,

- Grade I **(Good Improvement)** - No signs of psoriasis (post inflammatory hyper-pigmentation may be present)
- Grade II **(Moderate Improvement)** - Slight plaque elevation, reduction in size of all lesions, mild scaling, itching and/or erythema
- Grade III **(Mild Improvement)** - no new lesions, moderate plaque elevation, scaling, itching and/or erythema
- Grade IV **(No Improvement)** - very marked plaque elevation, scaling, itching and/or erythema with or without new lesions

Sl. No	Effect of therapy	No. of Cases	Percentage
1	Good Improvement	27	67.5
2	Moderate Improvement	10	25
3	Mild Improvement	3	7.5
4	No Improvement	0	0



Observation:

In this study 67.5% of the patients had good improvement, 25% of the patients had moderate improvement, 7.5% of them had mild prognosis.

OP AND IP CASES CLINICAL IMPROVEMENT

Sl. No	OP & IP NO	NAME	AGE	SEX	DOA	DOD	TREATED DAYS	RESULT
1	50111	MANIVASAGAM	20	M	4.7.12	24.8.12	42	GOOD
2	53993	MUTHULAKSHMI	22	F	17.7.12	7.9.12	56	GOOD
3	55922	MARIAMMAL	38	F	24.7.12	17.9.12	56	MODERATE
4	58197	ARUMUGANAINAR	35	M	31.7.12	3.10.12	56	GOOD
5	63057	ASIA BEGAM	43	F	16.8.12	10.1012	35	MODERATE
6	58193	KANDAN	50	M	31.7.12	7.9.12	35	GOOD
7	51871	VENGATACHALA	79	M	10.7.12	25.9.12	56	GOOD
8	63020	SARADHA	45	F	16.8.12	12.11.12	42	GOOD
9	69642	KANDHASAMY	52	M	7.9.12	5.10.12	35	GOOD
10	73033	RAJAM	78	F	7.9.12	2.11.12	35	MODERATE
11	65185	PRABAKAR	19	M	24.8.12	25.9.12	35	GOOD
12	60009	KUTTYDURAI	40	M	6.8.12	20.9.12	42	GOOD
13	65400	MARIAMMAL	55	F	25.8.12	18.9.12	28	MODERATE
14	56915	PERIASAMY	60	M	27.7.12	21.9.12	56	GOOD
15	58983	MOHAMED MAIDEEN	53	M	3.8.12	10.9.12	42	GOOD
16	57078	SUNDAR	43	M	27.7.12	7.9.12	49	MODERATE
17	60008	RATHINAM	40	F	6.8.12	14.9.12	35	GOOD
18	64587	E.SHIVA	20	M	20.8.12	9.10.12	42	GOOD
19	64040	SANTHIYA	10	FC	21.8.12	9.10.12	56	GOOD
20	51986	KRISHNASAMY	46	M	10.7.12	7.9.12	56	GOOD

OP AND IP CASES CLINICAL IMPROVEMENT

Sl. No	OP & IP NO	NAME	AGE	SEX	DOA	DOD	TREATED DAYS	RESULT
21	68376	MAHORAN	39	M	4.9.12	9.10.12	42	GOOD
22	70829	ELANGO	48	M	11.9.12	1.11.12	42	GOOD
23	74837	PAPPURANI	22	F	7.10.12	27.10.12	28	MILD
24	77487	KANAGALAKSHMI	25	F	1.10.12	27.10.12	28	MODERATE
25	66735	LAURENCE	59	F	29.8.12	15.11.12	56	GOOD
26	75490	ARUMUGA NAINAR	50	F	3.9.12	27.10.12	35	MODERATE
27	78957	N.MURUGAN	40	M	4.10.12	27.10.12	28	GOOD
28	70162	LAKSHMI	62	F	8.9.12	17.11.12	36	GOOD
29	78891	SHOBIYA	32	F	4.10.12	29.11.12	56	GOOD
30	66068	GANESAN	45	M	27.8.12	8.10.12	35	GOOD
31	93726	RAJNABANU	15	F	19.11.12		28	MODERATE
32	84230	PECHUMUTHU	53	M	22.10.12	30.11.12	35	GOOD
33	79024	RAMACHANDRAN	32	M	5.10.12	30.11.12	56	GOOD
34	28831	ANNAMMAL	72	F	31.8.12	14.9.12	15	MODERATE
35	26842	KARUPASAMY	47	M	14.8.12	12.9.12	30	GOOD
36	29243	SUBHULAKSHMI	35	F	5.9.12	20.9.12	17	MODERATE
37	26404	SWAMINATHAN	56	M	10.8.12	8.9.12	23	GOOD
38	30885	SANTHANA KUMAR	50	M	17.9.12	28.9.12	12	MILD
39	27436	MARISAMY	66	M	21.8.12	26.9.12	36	GOOD
40	30227	GANESAN	39	M	11.9.12	19.9.12	10	MILD

BLOOD INVESTIGATIONS BEFORE AND AFTER TREATMENT- OP & IP PATIENTS

S. NO	0P. NO	TC		DC								ESR		Bl.Sugar				Bl.Urea		Se. Cr	
				N		L		E		M		BT	AT	F		PP		BT	AT	BT	AT
		BT	AT	BT	AT	BT	AT	BT	AT	BT	AT			BT	AT	BT	AT				
1.	5011	7500	8000	51	50	46	45	3	1	-	-	1/6	¼	68	70	103	100	22	20	0.8	0.8
2.	53993	9200	9500	65	66	30	31	5	4	0	0	1/10	¼	95	93	140	135	18	20	0.8	0.9
3.	55922	8500	8500	60	62	34	34	6	4	-	-	1/7	¼	87	85	105	110	21	20	0.7	0.9
4.	58197	9000	9200	65	66	33	34	1	1	1	1	½	1/1	103	104	109	129	20	20	0.8	0.7
5.	63057	8200	8500	58	57	30	32	10	6	2	1	¼	½	110	105	121	109	24	25	1	0.9
6.	58193	8600	8500	61	62	35	35	4	2	-	-	½	1/1	75	80	131	130	23	22	0.6	0.7
7.	51871	9900	9500	60	61	36	35	4	1	-	-	¼	½	60	62	96	110	21	20	0.7	0.8
8.	63020	7900	7800	65	66	32	33	2	-	1	1	1/10	1/6	89	90	92	114	16	17	0.6	0.6
9.	69642	8000	8500	61	60	31	30	7	2	1	1	1/8	½	98	100	110	130	27	25	0.8	0.8
10.	73033	7500	8000	60	61	29	31	10	4	1	1	¼	½	80	82	110	112	25	26	0.9	1
11.	65185	9000	9200	63	62	33	33	4	1	-	-	1/8	½	91	90	138	110	15	14	0.7	0.7
12.	60009	9000	9100	68	69	28	26	4	1	-	-	1/10	¼	102	103	130	110	18	18	0.6	0.7
13.	65400	8900	9000	64	65	32	33	4	2	-	-	1/16	¼	64	65	124	110	14	15	0.7	0.7
14.	56915	9200	9200	72	72	26	27	2	-	-	-	1/10	¼	65	63	66	66	12	13	0.5	0.6
15.	58983	8700	8800	66	65	30	32	4	1	-	-	1/6	½	105	105	98	98	27	26	0.9	0.8
16.	57078	9200	9200	65	66	32	32	3	1	-	-	1/8	½	182	166	132	132	23	23	0.8	0.8
17.	60008	8700	8600	55	67	30	32	15	6	-	-	½	1/1	129	125	153	150	16	15	0.6	0.7
18.	64587	9000	9100	58	60	28	29	14	5	-	-	1/8	¼	74	78	132	130	17	17	0.8	0.8
19.	64040	7900	8000	67	65	30	28	3	1	-	-	¼	½	86	88	110	125	14	14	0.7	0.8
20.	51986	7900	8000	57	57	40	38	3	1	-	-	¼	½	89	90	83	120	13	14	0.9	1

BLOOD INVESTIGATIONS BEFORE AND AFTER TREATMENT – OP & IP PATIENTS

S. NO	IP. NO	TC		DC								ESR		Bl. Sugar				Bl. Urea		Se. Cr	
				N		L		E		M				F		PP					
		BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT
21.	68376	8000	8500	61	63	31	30	8	2	-	-	1/8	½	98	95	120	115	27	25	0.8	0.9
22.	70829	9500	9500	69	67	27	28	4	2	-	-	½	½	68	80	102	110	20	21	0.6	0.7
23.	74837	7500	8000	65	68	31	31	3	1	1	1	1/8	1/8	80	85	120	115	22	22	0.8	0.8
24.	77487	8000	8500	62	61	34	32	2	1	2	1	½	¼	88	90	80	80	24	25	0.8	0.9
25.	66735	9900	9600	65	68	25	30	8	2	1	1	¼	1/6	94	98	95	120	17	16	0.8	0.8
26.	75490	8,900	9000	65	66	32	32	6	1	-	-	¼	¼	91	96	80	115	21	20	0.7	0.6
27.	78957	7500	8000	61	62	36	36	2	1	1	1	½	1/6	100	96	110	110	22	23	0.9	0.8
28.	70162	9,000	9500	65	65	31	32	4	1	-	-	1/6	½	112	108	125	125	29	30	0.7	0.9
29.	78891	7900	8000	65	68	32	33	3	1	-	-	½	1/1	68	66	80	115	15	16	0.8	0.8
30.	66068	7000	7500	58	60	40	42	2	-	-	-	¼	½	89	92	98	95	16	15	0.8	0.8
31.	93726	8500	9000	65	68	29	32	6	2	-	-	1/6	½	95	100	130	125	22	23	0.9	1
32.	84230	8000	8500	64	65	30	32	6	2	-	-	½	1/1	87	89	112	118	25	26	0.7	0.8
33.	79024	9800	9900	69	68	28	30	3	1	-	-	½	1/1	85	90	140	135	21	22	1	0.8
34.	2883	8000	8500	61	62	33	33	6	2	-	-	1/8	½	111	109	140	135	25	22	0.8	0.9
35.	2684	7500	8000	49	50	49	48	2	1	-	-	1/20	1/86	93	100	80	90	16	17	0.9	0.8
36.	2924	7900	8000	65	66	29	32	6	2	-	-	1/50	1/10	146	140	88	90	17	18	0.7	0.7
37.	2640	7000	7500	67	68	30	33	3	1	-	-	1/6	½	67	70	100	110	20	21	0.8	0.9
38.	3088	6100	6500	61	62	37	36	2	-	-	-	1/8	¼	71	80	115	125	18	19	0.7	0.8
39.	2743	8100	8500	67	68	28	32	5	2	-	-	¼	½	85	90	85	120	21	22	0.9	0.8
40.	3022	8700	9000	66	67	28	30	6	2	-	-	1/22	1/6	69	75	90	130	14	15	0.6	0.7

URINE AND MOTIONS EXAMINATION BEFORE AND AFTER TREATMENT – OP & IP PATIENTS

S. NO	IP NO	URINE								MOTION					
		Before Treatment				After Treatment				Before Treatment			After Treatment		
		Albumin	Sugar	Deposits		Albumin	Sugar	Deposits		Ova	Cyst	Occult blood	Ova	Cyst	Occult blood
				Pus Cells	Epi. cells			Pus cells	Epi. cells						
1.	5011	NIL	NIL	1-2	NIL	NIL	NIL	2-4	1-2	NIL	NIL	NIL	NIL	NIL	NIL
2.	53993	NIL	NIL	NIL	NIL	NIL	NIL	0-1	0-1	NIL	NIL	NIL	NIL	NIL	NIL
3.	55922	NIL	NIL	1-2	1-2	NIL	NIL	1-2	1-5	NIL	NIL	NIL	NIL	NIL	NIL
4.	58197	NIL	NIL	2-4	2-3	NIL	NIL	2-3	1-2	NIL	NIL	NIL	NIL	NIL	NIL
5.	63057	NIL	NIL	1-2	2-3	NIL	NIL	1-2	2-4	NIL	NIL	NIL	NIL	NIL	NIL
6.	58193	NIL	NIL	1-2	1-2	NIL	NIL	1-2	1-2	NIL	NIL	NIL	NIL	NIL	NIL
7.	51871	NIL	NIL	4-5	2-4	NIL	NIL	2-4	2-4	NIL	NIL	NIL	NIL	NIL	NIL
8.	63020	NIL	NIL	1-2	1-2	NIL	NIL	2-3	0-1	NIL	NIL	NIL	NIL	NIL	NIL
9.	69642	NIL	NIL	2-3	2-3	NIL	NIL	0-1	0-2	NIL	NIL	NIL	NIL	NIL	NIL
10.	73033	NIL	NIL	1-2	1-2	NIL	NIL	0-1	0-1	NIL	NIL	NIL	NIL	NIL	NIL
11.	65185	NIL	NIL	NIL	NIL	NIL	NIL	1-2	2-4	NIL	NIL	NIL	NIL	NIL	NIL
12.	60009	NIL	NIL	1-2	1-2	NIL	NIL	1-3	1-5	NIL	NIL	NIL	NIL	NIL	NIL
13.	65400	NIL	NIL	1-2	2-4	NIL	NIL	2-4	2-4	NIL	NIL	NIL	NIL	NIL	NIL
14.	56915	NIL	NIL	2-4	2-3	NIL	NIL	1-5	0-1	NIL	NIL	NIL	NIL	NIL	NIL
15.	58983	NIL	NIL	1-2	1-2	NIL	NIL	1-2	2-4	NIL	NIL	NIL	NIL	NIL	NIL
16.	57078	NIL	NIL	1-2	2-3	NIL	NIL	1-4	1-3	NIL	NIL	NIL	NIL	NIL	NIL
17.	60008	NIL	NIL	NIL	NIL	NIL	NIL	0-1	0-1	NIL	NIL	NIL	NIL	NIL	NIL
18.	64587	NIL	NIL	1-2	1-2	NIL	NIL	1-2	2-4	NIL	NIL	NIL	NIL	NIL	NIL
19.	64040	NIL	NIL	2-4	2-3	NIL	NIL	1-3	1-3	NIL	NIL	NIL	NIL	NIL	NIL
20.	51986	NIL	NIL	1-2	1-2	NIL	NIL	2-4	2-4	NIL	NIL	NIL	NIL	NIL	NIL

URINE AND MOTIONS EXAMINATION BEFORE AND AFTER TREATMENT – OP & IP PATIENTS

S. NO	OP NO	URINE								MOTION					
		Before Treatment				After Treatment				Before Treatment			After Treatment		
		Albumin	Sugar	Deposits		Albumin	Sugar	Deposits		Ova	Cyst	Occult blood	Ova	Cyst	Occult blood
				Pus Cells	Epi. cells			Pus cells	Epi. cells						
21.	68376	NIL	NIL	1-2	1-2	NIL	NIL	1-2	1-2	NIL	NIL	NIL	NIL	NIL	NIL
22.	70829	NIL	NIL	1-2	1-2	NIL	NIL	0-1	0-2	NIL	NIL	NIL	NIL	NIL	NIL
23.	74837	NIL	NIL	NIL	NIL	NIL	NIL	0-2	0-1	NIL	NIL	NIL	NIL	NIL	NIL
24.	77487	NIL	NIL	2-4	1-4	NIL	NIL	1-2	0-4	NIL	NIL	NIL	NIL	NIL	NIL
25.	66735	NIL	NIL	1-5	1-2	NIL	NIL	2-4	2-4	NIL	NIL	NIL	NIL	NIL	NIL
26.	75490	NIL	NIL	1-2	1-2	NIL	NIL	1-4	1-2	NIL	NIL	NIL	NIL	NIL	NIL
27.	78957	NIL	NIL	2-4	2-4	NIL	NIL	1-2	1-2	NIL	NIL	NIL	NIL	NIL	NIL
28.	70162	NIL	NIL	1-2	1-2	NIL	NIL	2-4	2-4	NIL	NIL	NIL	NIL	NIL	NIL
29.	78891	NIL	NIL	4-5	2-4	NIL	NIL	2-5	2-3	NIL	NIL	NIL	NIL	NIL	NIL
30.	66068	NIL	NIL	1-2	1-2	NIL	NIL	1-3	1-2	NIL	NIL	NIL	NIL	NIL	NIL
31.	93726	NIL	NIL	1-2	1-3	NIL	NIL	0-5	0-4	NIL	NIL	NIL	NIL	NIL	NIL
32.	84230	NIL	NIL	2-4	2-4	NIL	NIL	1-2	1-2	NIL	NIL	NIL	NIL	NIL	NIL
33.	79024	NIL	NIL	2-4	1-2	NIL	NIL	1-2	1-2	NIL	NIL	NIL	NIL	NIL	NIL
34.	2883	NIL	NIL	1-2	1-2	NIL	NIL	2-4	2-4	NIL	NIL	NIL	NIL	NIL	NIL
35.	2684	NIL	NIL	NIL	NIL	NIL	NIL	2-3	2-3	NIL	NIL	NIL	NIL	NIL	NIL
36.	2924	NIL	NIL	2-4	2-4	NIL	NIL	2-4	1-2	NIL	NIL	NIL	NIL	NIL	NIL
37.	2640	NIL	NIL	2-4	1-2	NIL	NIL	1-2	1-2	NIL	NIL	NIL	NIL	NIL	NIL
38.	3088	NIL	NIL	1-2	1-3	NIL	NIL	0-1	0-1	NIL	NIL	NIL	NIL	NIL	NIL
39.	2743	NIL	NIL	1-2	1-4	NIL	NIL	0-5	0-4	NIL	NIL	NIL	NIL	NIL	NIL
40.	3022	NIL	NIL	3-5	2-4	NIL	NIL	1-2	1-2	NIL	NIL	NIL	NIL	NIL	NIL

DISCUSSION

Psoriasis is a common, chronic and non-infectious skin disease characterized by well defined slightly raised dry erythematous macules with silvery scales and typical extensor distribution. Physically it is a most uncomfortable disease. Psoriasis patients are humiliated, disgraced and tend to hide their skin from the critical public. The psychological impact of feeling of self consciousness, frustration and shame often leads to severe mental depression. Remissions and relapse of this disease is quite common and there is no specific treatment available in other systems of medicines. With this background the disease psoriasis which is correlated with kalanjaga padai in siddha literature was chosen for the dissertation work.

As an attempt in fulfilling the aim, the internal and external medicines for treating the disease kalanjaga padai were selected.

The trial drugs selected were

i. Neeradi muthu vallathy melugu as the internal medicine

ii) Kalaipai kilangu velipuchu as the external medicine

In order to attain the primary objective of the study the result of the efficacy of trial drugs with observed and tabulated.

The secondary objectives of the study were reached by studying the disease kalanjaga padai under various headings like gender distribution, age distribution, kaalam, thinai etc. The results were observed and documented. All the observations are discussed here under.

Family History

In this study 30% of the patients had strong family history. Many recent studies also shows the coincidence to this fact.

F-Valenzuela et al., (Dec-2011) study results exactly coincides with the results inferred in this study.

Sex distribution

More or less Equal numbers of male and female patients were voluntarily selected for this study. So the inference obtained had no statistically significant data upon sex distribution.

Age distribution:

The maximum number of patients was in the age between 41-50 and also in 51-60 & above.

Kaalam:

The higher incidence was found to be in pitha kaalam (34-66 years).

Occupational status

From the observed result it was clear that there was no association between the occupational status and the psoriasis incidence.

Luigi Naldi, M.D et al., (2007) also documented the same result in his study.

Dietary habits:

36 patients were reported to have mixed diet. So this data had no statistically significant data.

Paruva kaalam:

From the tabulated data, it was shown that 24 patients reported in kaarkaalam, 2 patients in koothir kaalam and 14 in mudhuvenil kalam

Actually the study period started from June and ended in January. So the obtained result may not have a scientific value to influence the disease and a long period study is required to evaluate the seasonal variations.

Thinai Reference:

The inferred result shows that incidence was highest in Marutha nilam.

As this study is a single centered study, the inferred results may not have a significant evaluation of influence of thinai on psoriasis.

Socio- economic status:

Here 50% were reported to be poor and 25% from middle class and 25% were rich. The relation between psoriasis incidence and socio economic status was likely to be complicated. The inferred result was not statistically significant.

Triggering factors:

From the observed results it was proved that the smoking (17.5%) and the psycho-somatic disorder (12.5%) plays a key role as an important Triggering factors.

The result inferred coincides with the previous studies like Danielle Levine. BA et al., (1999) and Michelle Badash MS. et al., (2008).

Clinical features:

All the patients had patches with ivory scaling, Auspitz sign and Koebner's phenomenon as their predominant clinical features.

And some patients had itching and candle grease sign as their second predominant features. Further nail was found affected in 5 patients and 6 cases had joint involvement.

Distribution of three dhosas:

a) Vatham:

Samanan and viyanan were found to be affected in all 40 patients.

b) Pitham:

Prasakam was affected in all the cases.

c) Kabam:

Santhigam (psoriatic arthritis) was found to be affected in 15% of the patients.

En vagai thervugal

Niram and sparisam were found affected in all the 40 cases.

In naadi nadai, vatha pitha nadai (45%) predominates among the other naadi nadai in the psoriatic patients.

Udal Kattugal

Among the seven udal kattugal saaram and Oon were affected in all the cases and enbu (Psoriatic arthritis) were affected in 15% of the cases.

Laboratory investigations were done for all the cases before and after treatment. There were no significant variations in the laboratory investigation except in certain aspects like ESR and HB

The phytochemical analysis of Neeradi muthu vallathy melugu had shown the presence of calcium, sulphate, Iron (ferrous), Starch, unsaturated compounds, reducing sugar and amino acid.

Pharmacological studies of Neeradi muthu vallathy melugu shows significant analgesic and anti-inflammatory properties. And the external medicine kalapai kilangu velipuchu also shows significant acute anti-inflammatory properties.

Treatment:

In siddha system of medicine the line of treatment primarily aimed to retain the deranged doshas and then providing relief from symptom. So before treatment each patient was advised for purgation by giving vellai ennai-15 ml with hot water during morning for first day treatment.

From the second day onwards Internal Medicine- Neeradi muthu vallathy melugu 5 gm in 3 divided doses and External Medicine- kalapai kilangu velipuchu were administrated during treatment, the patients were advised to follow pathiyam (avoid tamarind, tubers etc) and patients were advised to avoid foods which induces itching.

Along the course of the treatment some of the complementary methods which were already planned like pranayama, asana and mudras were instructed to the patients.

The outcome is mainly assessed by reduction in symptoms like itching and scaling.

No adverse effects of both internal and external medicine were noted along the course of the treatment clinically.

SUMMARY

The disease Psoriasis was comparatively studied with the disease Kalanjaga padai. In considering the following three important facts that, Psoriasis has been linked to an increased risk of stroke and atrial fibrillation (ole Ahuhoff et al., 2011), its important complication in many patients is psoriatic arthritis (Gelfand IM et al., 2005) and Long term toxicities are observed with all currently available system treatments (European Medicine agency Journal), it is a need to evaluate the safe and effective drug for the treatment of psoriasis. For this a clinical trial with internal medicine **Neeradi muthu vallathy melugu** and external medicine **kalapai kilangu velipoochu** in meeting the disease psoriasis was conducted.

For this 40 cases were selected. The pre clinical studies of the trial drug were found to be encouraging.

Out of 40 cases 30 were treated in OPD and remaining 10 in IPD of Govt. Siddha Medical College & Hospital Palayamkottai. Some of the complementary therapies were followed along the course of the treatment. Complete proforma was maintained for each and every patient. Daily progress was observed to note the clinical efficacy of the drug. The results obtained were found to be auspicious.

Pre clinical pharmacological analysis of the trial drug had

- Significant anti histamine action.
- Significant acute anti inflammatory actions.
- Moderate chronic anti-inflammatory actions.
- Significant analgesic action

No adverse reactions like nausea, vomiting, diarrhoea, abdominal discomfort, drowsiness were reported during the study period. Hence the trial drug was found to be safe and effective.

CONCLUSION

In this clinical study "**Neeradi muthu vallathy melugu**" and "**kalapai kilangu velipuchu**" were taken as Internal & External drug respectively for treating the disease Kalanjaga padai.

In the pre clinical study Pharmacological evaluation of the trial drugs shows

- Significant anti histamine effects
- Significant acute anti inflammatory effects
- Moderate chronic anti inflammatory effects
- Significant analgesic action

The Overall results of efficacy of the trial drugs along with complementary therapies by reducing the clinical signs and symptoms like Itching, Scaling and erythema in this Clinical study were found to be Good in 67.5% cases, Moderate in 25% cases and Mild in 7.5%.

The costs of the trial medicines are relatively economical. The raw drugs are easily available and the preparation is also convenient. No adverse effects and side effects were found clinically for the trial drugs.

So the study proved conclusively that the clinical effects of the trial drugs were found to be good in treating the disease Psoriasis.

ANNEXURE I

STANDARD OPERATING PROCEDURE FOR PREPARATION OF ”NEERADIMUTHU VALLATHY MELUGU (Internal)” AND ”KALAPAIKILANGU VELIPOOCHU (External) ” :

INTERNAL MEDICINE:

NEERADIMUTHU VALLATHY MELUGU

INGREDIENTS:

Serangottai(seeds of semicarpous anardica)	-3500gms
Neeradimuthu((seeds of hydnocarpous laurifolia)	-350gms
Parangipattai(barks of smilax chinensis)	-350gms
Pirapankilangu(rhizome of calamus rotang)	-70 gms
Karunjeeragam(seeds of Nigella sativa)	-70 gms
Seeragam(seeds of cuminum cyminum)	-70 gms
Pieces of fried vasambu(acorus calamus)	-70 gms
Sivanarvembu(indigofera asplathoides)	-70 gms
Sanganverpattai(root barks of azima tetracantha)	-70 gms
Kollankovai kilangu (rhizome of corollocarpus epigaeus)	-70 gms
Amukkara kilangu(rhizome of withania somenifera)	-70 gms
Vellarugu(enicostema axillare)	-70 gms
Errukanver pattai(root barks of calotrophis gigantea)	-70 gms
Athipattai(barks of ficus racemosa)	-70 gms
Kumilam verpattai(root bark of gmelina arbora)	-70 gms
Sathisaranai kilangu (rhizome of trianthema decandra)	-70 gms
Milagaranai kilangu (rhizomes of toddalia asaitica)	-70 gms
Senthotti pattai(barks of Pavonia odorata)	-70 gms
Veppankottai paruppu(seeds of azhadirecta indica)	-70 gms
Vetpalai arisi (seeds of wrightia tinctoria)	-70 gms
Thurusu(purified copper sulphate)	-17 ½ gms

Paal thutham(purified zinc)	-17 ½ gms
Purified kanthagam(sulphur)	-17 ½ gms
Purified rasam(mercury)	-17 ½ gms
Ellu(seeds of sesamum plants)	-280 gms
Panjaggery	-1400 gms

PREPARATION:

a) 3500 gms of semecarpus anacardium is taken. It is boiled or steamed 7 times in cow dung liquid (cow dung mixed in water) and 1 times each in tamarind leave juice, cow milk, and tender coconut fluid. From this above processed semecarpus anacardium, oil is extracted by pit oil method.

b) 350 gms of neeradi muthu is taken and it is steamed in cow dung fluid and dried. The above process is repeated 5 times and the seeds are dried well and the kernels are separated from the seeds and cleaned.

c) 350 gms of parangipattai is taken and powdered well. 1.3 lits of milk is taken in a vessel and its mouth is covered by a piece of cloth and is tied tightly. The paragipattai powder is then spreaded on the cloth and is covered by another vessel.it is syeamed well. After steaming it is dried under shadow and powdered well.

d) 70 gms of pirappan kilangu, karunjeeragam, seeragam, vasambu, vatakarappan pattai, sivanarvembu, sanganverpattai, kollankovai, amukkara kilangu, vellarugu, erukkan ver, athipattai, kumilaverpattai, sathisaranai kilangu, milagaranai kilangu, sengathiri pattai, senthoti pattai**,** veppan kottai paruppu, vetpalaiarisi are taken and dried under the shadow and powdered by either grinding or stroking and all the powders are mixed well.

e) 17 ½ gms of thurrusu, paal thutham, kanthegam, rasam are taken. First rasam and kanthegam are grinded well upto which the mixture gets black color then other materials are added and grinded, then the powder is collected.

f) 280 gms of ellu and 1400 gms of pan jaggery are taken and disolved well in the water and boiled, when the boiling process begins it is filtered and the fluid is collected. Then the fluid is again collected upto a certain level until it gets it consistency.

all the above powders and the pit oil gbtained from the process a. are mixed well and rubbed well in the kalvam and slowly the fluid obtained from the process f. is added and grinded for upto 1 and 3/4 hrs. then it is collected in a air tight container.

DOSE:

500-700 mg

EXTERNAL MEDICINE:

KALAPAIKILANGU VELIPOOCHU

Ingredients :

Kalappai kizhangu (rhizome of glorisa superb)	- 5 gms
Karbogi (seeds of Psoralia corylifolia)	-5 gms
Karunjeeragam (seeds of Nigella sativa)	-5 gms
Kattujeeragam (seeds of vernonia anthelmentica)	-5 gms

Method of preparation:

Above raw drugs are grinded and mixed well and made into paste form. This paste is applied externally.

PROPERTIES OF TRIAL DRUGS:

INTERNAL MEDICINE:

NEERADI MUTHU VALLATHY MELUGU

1) **சேராங்கொட்டை** (Semecarpus anacardium- Anacardiaceae)

Parts Used : Fruits and seeds

Therapeutical Action: Alterative, Caustic

பொதுக்குணம்:

‘சேங்கொட்டை மெய்த்திமிரைத்தீராக் கடிவிடத்தைப்
பங்கொட்டு மூலத்தைப் பற்றுக்கும் - ஆங்கெட்டிக்
கொல்லுமீவா நத்தினொரு குன்மத்தை யும்மதனை
வெல்லும் அயிற்கண்ணாய் விள்’’

2) **நீரடிமுத்து:**

Botanical Name : Hydnocarpus inobrians/ Laurifolia

Family : Bixaceae

வேறுபெயர்கள் : நீரடிஇ நீரெட்டி முத்து

Vernacular names:

Sanskrit : Garudaphala

Hindi : Chaulmoogra

Telugu : Adi-badam

Classification

Class : Dicotyledons

Subclass : Polypetalae

Series : Thalami florae

Order : Paraitales

Family : Bixaceae

Genera : Hydnocarpus

Species : Laurifolia

Organoleptic Characters

Useful Parts: Oil of seeds

சுவை : கைப்பு, வெகுட்டல்

தன்மை : வெப்பம்

பிரிவு : கார்ப்பு

Therapeutic actions

Alterative

Stimulant

Detergent

Parasiticide

நீரடிமுத்துநெய்:

‘பூசுகுடி வாதகணம் பொங்கு கிரந்தி படை

வீசுகுட்டம் சூலையிவை விட்டேகும் தேசஞ்சச்

சீரடியை யொத்தநடைத் தெய்வ மடமயிலே

நீரடிமுத் தின்னெய்யை நீ “

- அகத்தியர் குணவாகடம்

இந்நெய்யை மேலுக்குப் பூசினாலும் உள்ளுக்குக் கொடுத்தாலும, வளிக்கூட்டம்இ சிரங்குஇ சொறிஇ பெருநோய்இ சூலை முதலியவை நீங்கும்.

ChemicalConstituents

Hydnocarpus seeds have long been used in south India as a remedy for leprosy, chronic skin affections and ophthalmic as a dressing for wounds and ulcers.

3) . **பறங்கிப்பட்டை(Similax chinensis – Liliaceae)**

Parts used: bark

Therapeutic actions: Alterative, Antisyphlitic, Aphrodisac, Depurative.

பொதுகுணம்:

தாகம் பலவாதஞ் தாதுநட்டம் புண்பிளவை

மேகங் கடிகிரந்தி வீழ்மூலந் - தேகமுடன்

குட்டை பகந்தமேற் கொள்வமனம் போம்பறங்கிப்

பட்டையினை யுச்சரித்துப் பார்.

4)பிரப்பங்கிழங்கு(calamus rotang):

Parts used: Rhizome

Therapeutic actions: Expectorant, antivatha

5) **கருஞ்சீரகம்(Nigella sativa - Ranunculaceae)**

Parts used: Seeds

Therapeutic actions: carminative, Diuretic, emmenague,galactogogue, anthelmintic, Stomachic, Parasiticide, Emolient.

6) **நற்சீரகம்(Cuminum cyminum- Umbelliferae)**

Parts used: seeds

Therapeutic actions: Carminative, Stimulant, Stomachic, Astringent.

7) **வசம்பு** (Acorus Calamus- Araceae)

Part used : Rhizome

குணம்

"பாம்பாதி நஞ்சாற் புதப்புண் வலிவிடபாகங் குன்மம்
சூம்பா நிரத்தபித் தம்முக நாற்றம்வன் சூலைசந்தி
வீம்பாம்மை காசம் பிலீகஞ் சிலிபதம் வீறிருமல்
தாம்பாங் கிருமி யிவையெகு மாசிவ சம்பினையே"

- பதார்த்த குணவிளக்கம் (ப 628)

8) **சிவனார் வேம்பு(** Indigofera aspalathoides-fabaceae**)**

Parts used: இலை, பூ, தண்டு, வேர்

Therapeutic actions: stimulant, demulcent.

9) **சங்கன் (Azima tetracantha** – Salvadoraceae)

Part used**:** Root

Therapeutic actions: diuretic, Stimulent, astringent, tonic, Antiperiodic.

10)**கொல்லன் கோவை** (rhizome of corollocarpus epigaeus):

வேறு பெயர்: ஆகாசகருடன்

Parts used: Rhizome

Therapeutic actions : Alterative, tonic

11) **அமுக்கரா - (Withania somnifera-** Solanaceae)

Part used **:** Dried root.

பொதுகுணம்:

‘கொஞ்ந் துவர்ப்பாங் கொடியகயம் சூலையரி

மிஞ்சுகரப் பான்பாண்டு வெப்பதட்பு-விஞ்சி’’.

- அகத்தியர் குணவாடகம்

13) **வெள்ளறுகு (** Enicostemma axillare – Gentianaceae)

Parts used: whole plant

Therapeutic Actions: stomachic, tonic, Alterative, laxative, frebrifuge.

14) **எருக்கு(** Calotropis gigantean)

Part Used: வேர்.

Therapeutic Action:

வேர்ப்பட்டை

உடற்தேற்றி - Alterative

கோழையகற்றி - Expectorant

பொதுக்குணம்

‘மன்னனையுங் கையெடுக்க வைத்தெயிற்றி னேயகற்றி

யுன்னு பிணிப்பணியை யோட்டுதலாற் - சொன்னேன்

எருக்கெனவே பூமி யினிலே விளங்கும்

அருக்க மருக்கனென லாம“

இது ஒரு கற்ப மருந்து.

- தேரன் வெண்பா

15) அத்தி(barks of ficus racemosa):

சுவை: துவர்ப்பு தன்மை : தட்பம் பிரிவு : இனிப்பு

Therapeutic actions: Astringent

16) குமிழம் வேர்ப்பட்டை(root bark of gmelina arbora):

சுவை : கைப்பு தன்மை : வெப்பம் பிரிவு : கார்ப்பு

Therapeutic actions: stimulant, febrifuge.

17)சத்திசாரனை(rhizome of trianthema decandra):

சுவை : கைப்பு; தன்மை : வெப்பம்; பிரிவு : கார்ப்பு;

Therapeutic actions: Expectorant, Laxative, Diruetic

18)மிளகரனை(rhizomes of toddalia asaitica):

சுவை: துவர்ப்பு; தன்மை : தட்பம்; பிரிவு : கார்ப்பு;

Therapeutic actions: stimulant, tonic, carminative, Diaphoretic, Antiperiodic

19)வேப்பங்கொட்டை(Azadirachta indica- Meliaceae)

Useful parts : Seeds

சுவை : கைப்பு; தன்மை : வெப்பம்; பிரிவு : கார்ப்பு;

Therapeutic action: Stimulant, Anthelmintic, Discutient

குணம்

‘கிருமிகுட்ட மாந்தங் கெடுவிடஞ்சு ரங்கள்
பொருமிய சூரிகையின் புண்கள்-ஒருமிக்க
நிம்பத் திலையிருக்க நீடுலகில் நீங்காமல்
கம்பத் திலையிருக்கக் காண்”

- அகத்தியர் குணவாகடம்

வயிற்றுப்புழு, பெருநோய, மாந்தம், நச்சுசுரம், அம்மைப்புண், சொறி, சிரங்கு இவைகளை போக்கும்.

20)வெட்பாலை(seeds of wrightia tinctoria):

சுவை : இனிப்பு; தன்மை : தட்பம்; பிரிவு : இனிப்பு;

Therapeutic actions: tonic

21)துருசு(copper sulphate):

Therapeutic actions: tonic, astringent, emetic, antiseptic, caustic

பொது குணம்:

‘புண்ணாற்றுங் காமியத்தின் புண்ணாற்றுங் கண்ணோயை
விண்ணேற்று முத்தோட வீறடக்குஞ்- சண்ணுகின்ற
வாந்தியொடு பேதிதரும் வாய்நோய் சுரந்தணிக்குங்
காந்நி தருந்துரிசு காண்’’

22)பால்துத்தம்(zinc sulphate):

Therapeutic actions: tonic, astringent, emetic, anti spasmodic.

பொது குணம்:

‘‘முற்றிய குறிப்புண் முறைவிரணஞ் சென்னிதனைப்
பற்றிநின்ற வாதம் படர்கரப்பான்- சுத்தவிழிக்
காசங் கணம்பில்லங் கண்ணோய்குந் தந்தொலையும்
வாசமிகு துத்தத்தால் வாழ்த்து’’

23) கந்தகம் (Rhombic sulphur):

Characters: சுவை: கசப்பு, துவர்ப்பு

TherapeuticAction:Laxative,Cholagogue,Antiseptic,Alterative,Diaphoretic

பொதுக்குணம் :-

‘நெல்லிக்காய்க் கந்திக்கு நீள்பதினென் குட்டமந்தம்
வல்லை கவிசை குன்ம வாயுகண்ணோய் - பொல்லா
விடக்கடிவன் மேகநோய் வீறுசுரம் பேதி
திடக்கிரக ணீகபம்போந் தேர்’’

இது பஞ்சபூதங்களில் தேயுவின் கூறுடையது

24) ரசம்(Mercury):

சுவை:அறுசுவை**;** வீரியம்: வெப்பம் & சீதம்**;** பிரிவு: துனை மருந்துகளின் பிரிவு

Therapeutic actions: Alterative, tonic, Laxative, Antibilous, Deobstruent, sialagogue and diuretic.

பொதுகுணம்:

‘விழிநோய் கிரந்திகுன்மம் மெய்ச்சூலை புண்குட்
டழிகாலில் விந்துவினால் அத்தை - வழியாய்
புரியு விதி யாது புரியினோ யெல்லாம்
இரியுவிதி யாது மில்லை’’

25)**எள் (sesamum indicam-Pedaliaceae)**

Parts used : இலை,காய்,பூ, விதை

Therapeutic actions: Demulcent, Laxative, Nutritive, Emoilient

பொதுகுணம்:

‘புத்தி நயனக் குளிர்ச்சி பூரிப்பு மெய்ப்புளகஞ்
சத்துவங் காந்தி தனியிளமை மெத்தவுண்டாங்
கண்ணோய் செவிநோய் கபால அழல் காசநோய்
புண்ணோய்போ மெண்ணெய்யாற் போற்று’’

26) **பனங்கருப்பட்டி(பனை) - Borassus flabelliformis-**

Parts used: panjaggery

Therapeutic Actions:

Astrigent, Aphrodisiac, Diuretic, Demulcent, Nutrient, Refrigerant Stimulant, Antiphologistic

EXTERNAL MEDICINE:

KALAPAIKILANGU VELIPOOCHU

1)**கலப்பைக்கிழங்கு:**

Botanical name : Gloriosa Superba

Family : Liliaceae

வேறுபெயர்கள் : காந்தட்கிழங்கு, வெண்தோன்றிக்கிழங்கு

Classfication:

Class : Monocotyledons

Series : Coronariae

Family : Liliaceae

Genera : Gloriosa

Species : Superba

Organoleptic Characters

Useful parts : Tubers

சுவை : கைப்பு

தன்மை : வெப்பம்

பிரிவு : கார்ப்பு

Therapeutic actions

Alterative

Antiperiodic (முறைவெப்பகற்றி)

Purgative

குணம்

‘ தேவியுரத் தையுமா தேவபல தையுமோ

ராவியெனக் கட்டியுற வாக்குமே நோவுகளை

யேன்று கொண்டு மாட்முமை யின்மதலை கில்லிடாமஞ்

தோன்றியெனுங் காந்தழடித் தூள்’’.

- தேரன் வெண்பா

இதனால் தோலைப்பற்றியநோய;, தேள்களின்கடிநஞ்சு வெள்ளை, எருவாய்மூளை, வயிற்றுவலி, பெருநோய், வயிற்றுப்புழு இவைகள் நீங்கும் இது பித்தத்தை அதிகரிக்கச் செய்யும், இதை அதிக அளவில் கொள்ள நஞ்சாகும்.

Chemical Constituents

Alkaloids

Cochicine,

Gloriosine

Externally it is used as a local applicant for psoriatic skin diseases.

The tuber extract shows antibiotic activity against staphylococcus aureus.

2) **கார்போகரிசி (**Psoralea corylifolia **-** Fabaceae.):

Part used : The dried fruit

Therapeutic actions: Laxative, Stimulant.

3) **கருஞ்சீரகம்(Nigella sativa - Ranunculaceae):**

Parts used: Seeds

Therapeutic actions: carminative, Diuretic, emmenague,galactogogue, anthelmintic, Stomachic, Parasiticide, Emolient.

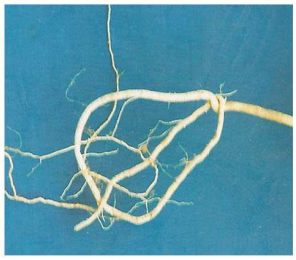
4)**காட்டு சீரகம் (seeds of vernonia anthelmentica):**

Parts used: Seeds

Therapeutic actions: anthelmintic, stomachic, tonic, Diuretic, Antiperiodic, Alterative

நீரடிமுத்து வல்லாதி மெழுகு

எருக்கன்வேர்



சிவனார்வேம்பு

மிளகரனை

நீரடிமுத்து

சேராங்கொட்டை

பறங்கிப்பட்டை

பரப்பன்கிழங்கு

கருஞ்சீரகம்

சீரகம்

வசம்பு

கொல்லன்கோவை

வெள்ளருகு

நீரடிமுத்து வல்லாதி மெழுகு

அமுக்கரா

வெள்ளருகு

அத்திப்பட்டை

குமிழ்

சத்திசாரனை வேர்

செந்தோட்டிபட்டை

வேப்பம்பருப்பு

வெட்பாலை அரிசி

வருத்த துருசு

பாஷாணபேதி

கந்தகம்

ரசம்

நீரடிமுத்து வல்லாதி மெழுகு

எள்ளு

கருப்பட்டி

மெழுகு

கலப்பைகிழங்கு பூச்சு - வெளிப்பிரயோகம்

கலப்பைகிழங்கு

கார்போகி

கருஞ்சீரகம்

காட்டுசீரகம்

பூச்சு

ANNEXURE - II

BIO-CHEMICAL ANALYSIS OF NEERADIMUTHU VALLATHI MELUGU

Preparation of the Extract

5 gram of the drug was weighed accurately and placed in a 250 ml clean beaker, and then 50ml of 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 was diluted to 100ml with distilled water. This fluid was taken for analysis.

S. NO	EXPERIMENT	OBSERVATION	INFERENCE
1.	**TEST FOR CALCIUM** 2ml of the above prepared extract was taken in a clean test tube. To this added 2 ml of 4% Ammonium oxalate solution was added.	A White precipitate is formed.	**Indicates the presence of calcium.**
2.	**TEST FOR SULPHATE:** 2ml of the extract was added to 5% barium chloride solution.	white precipitate is formed.	**Indicates the presence of sulphate**
3.	**TEST FOR CHLORIDE** The extract was treated with silver nitrate solution.	No white precipitate is formed.	Absence of chloride.
4.	**TEST FOR CARBONATE** The extract was treated with concentrated HCL.	No brisk effervescence is formed.	Absence Of Carbonate.

5.	**TEST FOR STARCH** The extract was added with weak iodine solution.	Blue colour is formed.	**Indicates the presence of starch.**
6.	**TEST FOR IRON FERRIC** The extract was treated with concentrated Glacial acetic acid and potassium ferro cyanide.	No blue colour is formed.	Absence of ferric iron.
7.	**TEST FOR IRON FERROUS:** The extract was treated with concentrated Nitric acid and ammonium thio cyanate.	Blood red colour is formed.	Indicates the presence of Ferrous Iron.
8.	**TEST FOR PHOSPHATE** The extract was treated with ammonium Molybdate and concentrated Nitric acid.	No yellow precipitate is formed.	Absence of phosphate.
9.	**TEST FOR ALBUMIN** The extract was treated with Esbach's reagent.	No yellow precipitate is formed.	Absence of Albumin.
10.	**TEST FOR TANNIC ACID** The extract was treated with ferric chloride.	No blue black precipitate is formed.	Absence of Tannic acid.
11.	**TEST FOR UNSATURATION** Potassium permanganate solution was added to the extract.	It gets decolorized.	**Indicates the presence of unsaturated compound.**

12.	**TEST FOR THE REDUCING SUGAR** 5ml of Benedict's qualitative solution was 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.	Colour change occurs	**Indicates the presence of Reducing Sugar.**
13.	**TEST FOR AMINO ACID:** One or two drops of the extract was placed on a filter paper and dried it well. After drying, 1% Ninhydrin was sprayed over the same and dried it well.	No Violet colour is formed	Absence of Amino acid.
14	**TEST FOR ZINC** The extract is treated with potassium ferrocyanide	No white precipitate is formed	Absence of zinc

INFERENCE

- Indicates the presence of Calcium.
- Indicates the presence of Sulphate.
- Indicates the presence of Starch.
- Indicates the presence of ferrous iron.
- Indicates the presence of unsaturated compounds.
- Indicates the presence of reducing sugar.

ANNEXURE - III

PHARMACOLOGICAL ANALYSIS

INTERNAL MEDICINE

ACUTE ANTI-INFLAMMATORY STUDY ON NEERADIMUTHU VALLATHY MELUGU

Aim:

To study the acute anti-inflammatory effect of ***NEERADIMUTHU VALLATHY MELUGU*** *by* Hind- paw method in albino rats.

Procedure:

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

First group was kept as control by giving distilled water orally 2ml/100gm body weight. The second group was given ibuprofen at a dose of 20mg /100gm body weight. The third group received the test drug at a dose of 100mg /100g body weight.

Before administration of drugs, the hind-paw volumes of all rats were measured. This was done by dipping the hind-paw upto the tibio-tarsal junction into a mercury plethysmograph. 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 measurement, the drugs were administered orally. One hour later, a sub-cutaneous injection of 0.1ml of 1% (W/V) carrageenan in water

was made into plantar surface of both hind-paws of each rat. Three hours after carrageenan injection, the hind paw volume was measured once again. The difference between the initial and final volume was calculated and compared. This method is more suitable for studying the anti-inflammatory activity in acute inflammation. The values are tabulated.

Effect of ***NEERADIMUTHU VALLATHY MELUGU***

Group	**Dose / 100gm of body weight**	**Initial reading average**	**Final reading average**	**Mean difference**	**% of inflammation**	**% of inhibition**
Control (water)	2 ml	0.55	0.4	0.85	100	-
Standard (ibuprofen)	20mg	0.55	0.75	0.20	22.2	77.8
Test drug (***Neeradimuthu vallathy melugu***)	100mg	0.7	0.95	0.25	29.4	70.6

Result:

From the above experiment it is concluded that the test drug has good Significant Anti-inflammatory action in acute inflammatory condition.

CHRONIC ANTI-INFLAMMATORY STUDY BY COTTON-PELLETS GRANULOMA METHOD

Drug

NEERADIMUTHU VALLATHY MELUGU

Aim

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

Procedure:

Cotton pellets each weighing 10mg was prepared and sterilized in an autoclave for about one hour under 15 lbs atmosphere pressure. Nine Albino rats weighing between 100-200gm were selected and were divided into 3 groups. Each rat was anaesthetized with ether and cotton pellets were implanted subcutaneously in the groin, two in each side.

First group was kept as control group giving distilled water of 1ml/100gm of body weight. To the second group the standard drug Ibuprofen in a dose of 20mg/100gm body weight was given. The third group of animals was given test drug **Neeradimuthu vallathy melugu** in a dose of 100mg/100gm of body weight

On the eighth day the rats were sacrificed and the pellets were removed and weighed. Then they were put in an incubator at 60ºC-80ºC and then weighed.

The concordant weight was noted for all groups and compared.

The effect of **Neeradimuthu vallathy melugu** in chronic anti inflammatory study.

S.No	**Group**	**Dose/100 gm body weight**	**Pellet Weight**	**Pallet Weight of the Granuloma of drugs**	**Percentage of Inflammation**	**Percentage of Inhibition**
1	Control (water)	2 ml	10mg	250mg	100	-
2	Standard (lbuprofen)	20mg	10mg	55mg	22	78
3	Test drug (*Neeradimuthu vallathy melugu*)	100mg	10mg	120mg	48	52

INTERFERENCE

- The drug shows moderate chronic – anti inflammatory action.

ANTI- HISTAMINE EFFECT OF NEERADIMUTHU VALLATHY MELUGU ON ISOLATED ILEUM OF GUINEA PIG

Preparation of the Drug:

0.1ml *NEERADIMUTHU VALLATHY MELUGU* was dissolved in 100ml of water and decoction was made out of it. This was used for the studies.

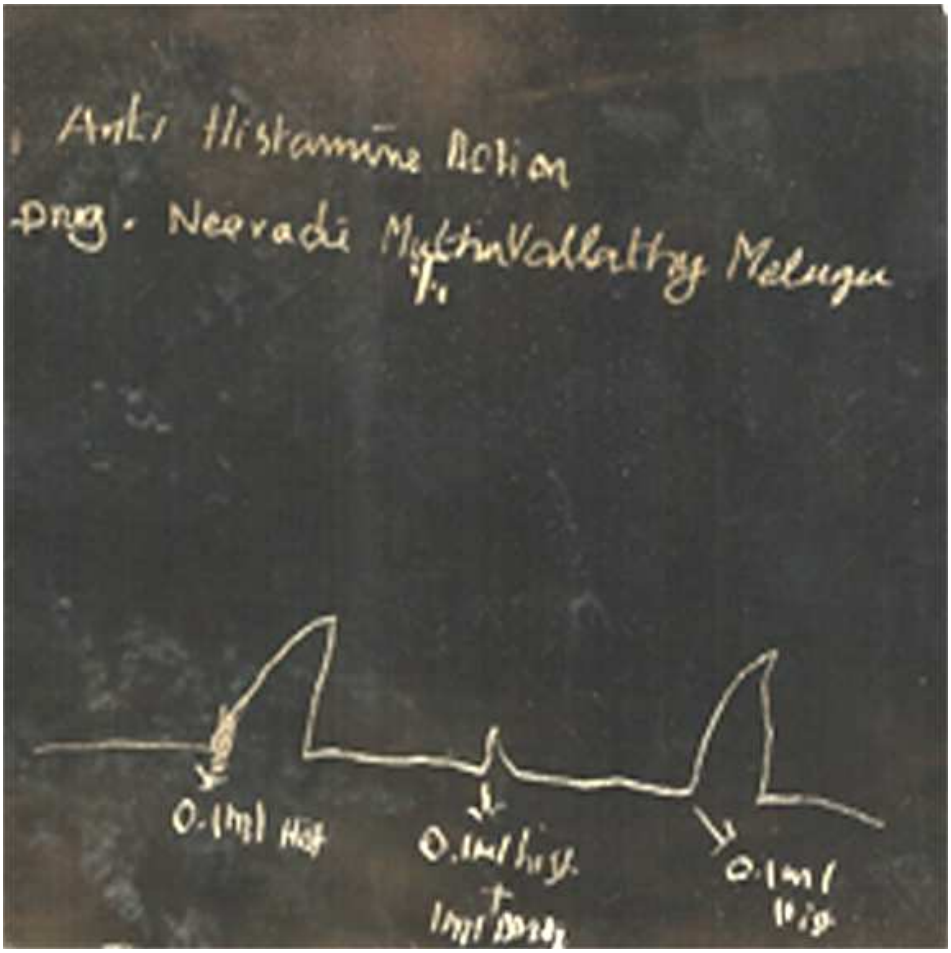
Method:

A guinea pig weighing about 450gms was starved for 48hrs and only water was allowed. It was killed by stunning with a sharp blow 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 batch as a land mark. Then the ileum was removed and placed in a shallow dish containing warm 'Tyrode solution' mixed with Atropine with the help of 25ml pipette, the lumen was gently rinsed out with saline. It was cut in to segments of required length, generally 4cm, in a full relaxed state and the sutures were made with needle and tied at either ends, and the segment is suspended in an isolated organ bath. It was aerated by oxygen tube and immersed in Tyrode solution at 37^0C. Drugs were given to study the inhibitory effect of histamine induced contractions.

INFERENCE

- **Neeradimuthu vallathy melugu** has significant anti histamine action

ANTI HISTAMINE ACTION OF NEERADIMUTHUVALLATHY MELUGU



GOVT SIDDHA MEDICAL COLLEGE- PALAYAMKOTTAI

PHARMACOLOGICAL ANALYSIS

ANALGESIC STUDY OF NEERADIMUTHU VALLATHY MELUGU

Aim:

To study the analgesic effect on albino rats by tail flick method.

Preparation of the test Drug:

1 gram of Neeradi muthu vallathy melugu was suspended in 10ml of Hot

Water as suspending agent. This 1 ml contained 100mg of the test drug.

Procedure:

Nine Male Healthy albino rats (weighing 80-100gms) were used for this study. The animals were allowed, free access to food and water until they brought for the experiment. The animals which showed the positive response to the stimulus (within a given time) were selected for the study. After the selection of animals which were responding to stimulus within 2 seconds, they were divided into three groups, each group consisting of three rats.

The hot water was maintained at 55°C. The tip of the tail was immersed into the water bath and the time was noted when the rat flicked the tail. First group was given 1ml of water and kept as control. Second group was administered with paracetamol at a dose of 20mg/100gm of body weight. Third group as given the dose of 100mg/100gm body weight of the animal .After the drug administration, the reaction time of each rat after half an hour and one

hour were noted in each group (when a rat fails to flick the tail, it should not be continued beyond 8 seconds to avoid injury) and the average was calculated.

The results of control group, standard group and drug treated group were tabulated and compared.

STUDY OF ANALGESIC EFFECT USING THE DRUG

NEERADIMUTHU VALLATHY MELUGU

Name of the Groups	**Dose/ 100 gram body weight**	**Initial reading**	**After drug administration**			**Mean difference**
			½ hr Average	1 hr Average	1 1/2hr Average	
Control (Water)	2 ml	2.0 sec	2.0 sec	2.0 sec	2.0 sec	0.0 sec
Standard (Paracetamol)	20 mg	2.0 sec	2.5 sec	4.5 sec	6.5 sec	6.5 sec
Test drug (NMVM)	100 mg	2.0 sec	2.5 sec	4.5 sec	6.0 sec	6.0 sec

NMVM- Neeradimuthu Vallathy melugu

Inference:

The trial drug had significant **analgesic action**.

EXTERNAL MEDICINE

ACUTE ANTI- INFLAMMATORY STUDY ON

KALAPPAI KILANGU VELIPUCHU (EXTERNAL)

Aim

To study the acute anti-inflammatory effect of *kalappai kilangu velipuchu* (External) by Hind-paw method in albino rats.

Procedure:

Nine albino rats were selected weighing between 100 - 150 grams and divided into three groups each containing three rats. To the first group distilled water was given and kept as control. Before the application of the drug, the hind - paw volume of all rats were measured. This was done by dipping the hind paw upto the tibio - dorsal junction in mercury plethysmography. Subcutaneous injection of 0.1% of carrageenan (W/v) in water was made into plantar surface of both the hind - paw of each rat. To the second group the standard drug Ibuprofen in a dose of 20mg/100gm body weight was given. To the test group **Kalappai kilangu velipuchu** was topically applied frequently over the inflammed surface in a thin layer. To the control group, no drug was applied over the inflammed surface. One and half hours after injection the hind paw volume was measured once again. The difference between the initial and final volumes would show the amount of inflammation. Taking the volume in

the control group as 100% of inflammation, the anti - inflammatory effect of the group is calculated.

Group	**Dose / 100gm of body weight**	**Initial reading average**	**Final reading average**	**Mean difference**	**% of inflam mation**	**% of inhibition**
Control (water)	2 ml	0.55	1.45	0.85	100	-
Standard (ibuprofen)	20mg	0.55	0.75	0.20	22.2	77.8
TD (*Kalappai kilangu velipuchu*)	-	0.87	1.15	0.28	32.9	67.1

TD- Test Drug

INFERENCE

- The drug has SIGNIFICANT acute anti-inflammatory action.

ANNEXURE – IV

ASSESSMENT FORMS

FORM I - SCREENING FORM

FORM II - CONSENT FORM

FORM III - CASE SHEET PROFORMA

FORM IV - LABORATORY INVESTIGATIONS

FORM V - CLINICAL ASSESSMENT

FORM VI - PATIENT WITHDRAWAL FORM

FORM VII - DRUG COMPLIANCE FORM

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FORM I –SCREENING FORM

1. OP/ IP No:	2. BED No:	3. Sl. No:
4. NAME:	5. AGE:	6. GENDER:
7. OCCUPATION:	8. SOCIAL STATUS:	
9. DATE OF ADMISSION:	10. DATE OF DISCHARGE:	
11. POSTAL ADDRESS:		

---

a) INCLUSION CRITERIA:

1. Age: between 14 years and 60 years
2. Sex: Both Male and Female
3. Patients having the symptoms of Kalanjaga padai
4. Psoriatic arthritis
5. Auspitz sign positive
6. Koebner's phenomenon positive
7. Candle grease sign positive
8. Willing to participate in the study
9. Willing to give specimens for the investigations whenever required

b) EXCLUSION CRITERIA:

1. Diabetes Mellitus
2. Hypertension and Cardiac diseases
3. Narcotic addicts
4. Pregnancy and Lactation
5. HIV
6. Leprosy
7. Peptic ulcer
8. Patients with any other serious illness

c) WITHDRAWAL CRITERIA:

1. Development of any adverse reaction (ADR).
2. Occurrence of any other systemic illness.

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Form: II CONSENT FORM

CERTIFICATE BY INVESTIGATOR

I certify that I have disclosed all the details about the study in the terms readily understood by the patient.

Signature…….

Date……

Name……

CONSENT BY PATIENT

I have been informed to my satisfaction, by the attending physician, the purpose of the clinical trial, and the nature of drug treatment and follow-up including the laboratory investigations to be performed to monitor and safeguard my body functions.

I am aware of my right to opt out of the trial at any time during the course of the trial without having to give the reasons for doing so.

I, exercising my free power of choice, hereby give my consent to be included as a subject in the clinical trial of '**neeradimuthu vallathy melugu**' (internal drug)' and '**kalappai kilangu velipuchu**' (External drug)' for the treatment of 'KALANJAGA PADAI' (PSORIASIS)

Signature……

Name……..

Date……..

அரசினர் சித்த மருத்துவக் கல்லூரி மற்றும் மருத்துவமனை ,

பாளையங்கோட்டை

பட்டமேற்படிப்பு சிறப்புமருத்துவத்துறை

‘நீரடிமுத்து வல்லாதி மெழுகு” மற்றும் ‘கலப்பைக்கிழங்கு வெளிப்பூச்சு” இவற்றின் பரிகரிப்புத்திறனைக் கண்டறியும் மருத்துவ ஆய்வு

ஒப்புதல் படிவம்

ஆய்வாளரால் சான்றளிக்கப்பட்டது

நான் இந்த ஆய்வைக் குறித்த அனைத்து விபரங்களையும் நோயாளிக்கு புரியும் வகையில் எடுத்துரைத்தேன் என உறுதியளிக்கிறேன்.

தேதி: கையொப்பம்:

இடம்: பெயர்:

நோயாளியின் ஒப்புதல்

என்னிடம் இந்த மருத்துவ ஆய்வின் காரணத்தையும் மருந்தின் தன்மை மற்றும் மருத்துவ வழிமுறையைப் பற்றியும் தொடர்ந்து எனது உடல் இயக்கத்தை கண்காணிக்கவும், அதனைப் பாதுகாக்கவும் பயன்படும் மருத்துவ ஆய்வுக்கூட பரிசோதனைகள் பற்றியும் திருப்தி அளிக்கும் வகையில் ஆய்வு மருத்துவரால் விளக்கிக் கூறப்பட்டது.

நான் இந்த மருத்துவ ஆய்வின் போது காரணம் எதுவும் கூறாமல் எப்பொழுது வேண்டுமானாலும் இந்த ஆய்விலிருந்து என்னை விடுவித்துக் கொள்ளும் உரிமையை தெரிந்திருக்கின்றேன்.

நான் என்னுடைய சுதந்திரமாகத் தேர்வு செய்யும் உரிமையைக் கொண்டு காளாஞ்சகப்படை என்னும் நோய்க்கான **‘நீரடிமுத்து வல்லாதி மெழுகு” மற்றும் ‘கலப்பைக்கிழங்கு வெளிப்பூச்சு”** ஆகியவற்றின் பரிகரிப்புத் திறனைக் கண்டறியும் மருத்துவ ஆய்விற்கு என்னை உட்படுத்த ஒப்புதல் அளிக்கிறேன்.

தேதி: கையொப்பம்:

இடம்: பெயர்:

தேதி: சாட்சிக்காரர்

கையொப்பம்:

இடம்: பெயர்

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FORM III - CASE PROFORMA

1. OP / IP No ..... 2. Sl.No. .....

3. Name ..... 4. Age _____ 5. Gender _____

6. Marital status 1) Married ☐ 2) Unmarried ☐

7. Occupation .....

8. Postal address

.....

.....

.....

9. Complaints & Duration

.....

.....

.....

.....

.....

10. History of present illness

.....

.....

.....

.....

.....

11. Past history

.....

.....

12. Family history .....

.....

.....

13. Social Status

1) Low Income ☐ 2) Middle Class ☐ 3) Higher ☐ Income

HABITS	**Yes**	**No**
14. Smoker	☐	☐
15. Alcoholic	☐	☐
16. Betalnut Chewer	☐	☐
17. Non – Vegetarian	☐	☐

GENERAL EXAMINATION

18. Body Weight (kg) ☐

19. Body Temperature (°F) ☐

20. Blood Pressure (mmHg) ☐

21. Pulse rate / min ☐

22. Heart rate / min ☐

23. Respiratory rate / min ☐

	Yes	**No**
24. Pallor	☐	☐
25. Jaundice	☐	☐
26. Clubbing	☐	☐
27. Cyanosi	☐	☐
28. Pedal odema	☐	☐
29. Lymphadenopathy	☐	☐
30. Engorged veins	☐	☐

CLINICAL EXAMINATION OF SKIN

	Right	Left
31. Site	. . . . .	. . . . .

. . .

. . . . . .

. .

31. Colour

1. Normal ☐ 2. Reddish ☐ 3. Black ☐ 4. Greyish ☐

33. Shape

1. Irregular ☐ 2. Coin shape ☐ 3. Dispersed ☐

34. Scaling

1. Mild ☐ 2. Moderate ☐ 3. Severe ☐

35. Itching

1. No ☐ 2.Mild ☐ 3.Moderate ☐ 4.Severe ☐

36. Erythema

1. Present ☐ 2.Absent ☐

37 Bleeding

1. Present ☐ 2. Absent ☐

38. Crusting

1. Present ☐ 2. Absent ☐

39. Lichenification

1. Present ☐ 2. Absent ☐

40. Oozing

1. No ☐ 2.Mild ☐ 3.Moderate ☐ 4. Severe ☐

41. Auspitz sign

1. Present ☐ 2. Absent ☐

42. Koebner's phenomenon

1. Present ☐ 2. Absent ☐

43. Candle grease sign

1. Present ☐ 2. Absent ☐

	YES	**NO**
44. Ulceration	☐	☐
45. Macule	☐	☐

46.. Papule ☐ ☐

47. Pustule ☐ ☐

48. Blister ☐ ☐

49. Vésicule ☐ ☐

50. Pigmentation

1. Normal ☐ 2. Hypo ☐ 3.Hyper ☐

EXAMINATION OF NAILS

51. Pitting

1. Present ☐ 2.Absent ☐

52 Thickening

1. Present ☐ 2. Absent ☐

53. Collection of Hyperkeratotic debris

1. Present ☐ 2. Absent ☐

54. Separation of distal portion of nail

1. Present ☐ 2. Absent ☐

EXAMINATION OF JOINTS

YES **NO**

55. Joint Involvement ☐ ☐ If yes:……..

EXAMINATION OF VITAL ORGANS

Normal **Abnormal**

56. CVS ☐ ☐ _____

57. RS ☐ ☐ _____

58. Abdomen ☐ ☐ _____

SIDDHA ASPECTS

59. **NILAM**

1. Kurinji ☐ 2. Mullai ☐ 3. Marutham ☐ 4. Neithal ☐

5. Paalai ☐

60. **KALA IYALBU**

1. Kaarkaalam ☐ 2. Koothirkaalam ☐ 3. Munpanikaalam ☐

4. Pinpanikaalam ☐ 5. Ilavenirkaalam ☐ 6. Mudhuvenirkaalam ☐

61. **UDAL IYALBU**

1. Vatham ☐ 2. Pitham ☐ 3. Kabam ☐

4. Vatha Pitham ☐ 5. Vatha Kabam ☐ 6. Pitha Kabam ☐

7. Pitha Vatham ☐ 8. Kaba Vatham ☐ 9. Kaba Pitham ☐

62. **GUNA IYALBU**

1. Sathuvam ☐ 2.Rasatham ☐ 3.Thamasam ☐

IYMPORIGAL

	Normal	**Affected**	
63. Mei	☐	☐	----------
64 Vaai	☐	☐	----------
65. Kan	☐	☐	----------
66 Mookku	☐	☐	----------
67. Sevi	☐	☐	----------

KANMENDHIRIUM / KANMAVIDAYAM

	Normal	Affected	
68. Kai	☐	☐	----------
69. Kaal	☐	☐	----------
70. Vaai	☐	☐	----------
71. Eruvaai	☐	☐	----------
72. Karuvaai	☐	☐	----------

UYIR THATHUKKAL

VATHAM	**Normal**	**Affected**	
73. Pranan	☐	☐	----------
74. Abanan	☐	☐	----------
75. Uthanan	☐	☐	----------
76. Viyanan	☐	☐	----------
77. Samanan	☐	☐	----------
78. Nagan	☐	☐	----------
79. Koorman	☐	☐	----------
80. Kirukaran	☐	☐	----------
81. Devathathan	☐	☐	----------
82. Dhananjeyan	☐	☐	----------

PITHAM	**Normal**	**Affected**	
83. Anar pittham	☐	☐	----------
84. Ranjagam	☐	☐	----------
85. Sathagam	☐	☐	----------

86. Alosagam ☐ ☐ ----------

87. Prasagam ☐ ☐ ----------

KABAM **Normal** **Affected**

88. Avalambagam ☐ ☐ ----------

89. Kilethagam ☐ ☐ ----------

90. Pothagam ☐ ☐ ----------

91. Tharpagam ☐ ☐ ----------

92. Santhigam ☐ ☐ ----------

UDAL THATHUKKAL

Normal **Affected**

93. Saaram ☐ ☐ ----------

94. Senneer ☐ ☐ ----------

95. Oon ☐ ☐ ----------

96. Kozhuppu ☐ ☐ ----------

97. Enbu ☐ ☐ ----------

98. Moolai ☐ ☐ ----------

99. Sukkilam / Suronitham ☐ ☐ ----------

ENVAGAI THERVUGAL

100. Naadi ----------

Normal **Affected**

101. Sparisam ☐ ☐ ----------

102. Naa ☐ ☐ ----------

103. Niram ☐ ☐ ----------

104. Mozhi ☐ ☐ ----------

105. Vizhi ☐ ☐ ----------

MALAM **Normal** **Affected**

106. Niram ☐ ☐ ----------

Yes **No**

107. Erugal ☐ ☐ ----------

108. Elagal ☐ ☐ ----------

MOOTHIRAM

Neerkkuri **Normal** **Affected**

109. Niram ☐ ☐ ----------

110. Manam ☐ ☐ ----------

111. Edai ☐ ☐ ----------

112. Nurai ☐ ☐ ----------

113. Enjal ☐ ☐ ----------

114. **Neikkuri** 1. Vatha Neer ☐ 2. Pitha Neer ☐ 3. Kaba Neer ☐

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Form IV - LABORATORY INVESTIGATIONS

1. OP/ IP No: 2. BED No: 3. Sl. No:
4. NAME: 5. AGE: 6. GENDER:
7. OCCUPATION: 8. SOCIAL STATUS
9. DATE OF ENROLLMENT: 10. DATE OF DISCHARGE:
11. POSTAL ADDRESS:

Lecturer **HOD**

Date:

I. BLOOD:

1. TC : (Cells/Cumm)
2. DC (%): N L M E
3. ESR (mm) : ½ hr 1 hr
4. Hb:
5. Blood Sugar: a) Fasting b) Post prandial
6. Kidney function tests:

   Blood urea: Serum creatinine:

7.Lipid profile:

HDL: LDL: VLDL:

Total Cholesterol : TGL:

7. Liver Function tests:

SGOT: SGPT: Alk. Phosphatase:

Albumin: Globulin: Total Protein:

Serum Bilirubin: Total Direct

Indirect :

II. **URINE:**

1. Albumin :
2. Sugar :
3. Epithelial cells :
4. Pus cells :
5. Red blood cells :
6. Casts/Crystals :

III. **MOTION:**

1. Ova :
2. Cyst :
3. Occult blood :

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FORM - V ASSESSMENT PROFORMA

1. IP / OP No ..... 2. Sl. No.....

4. Name. . . . . .

5. Date of admission ☐☐☐☐☐☐

6. Date of discharge ☐☐☐☐☐☐

CLINICAL ASSESSMENT:

Sl No:	**Signs and Symptoms**	**15th day**	**30th day**	**48th day**
1	Scaling			
2	Itching			
3	Thickening			
4	Erythema			
5	Pigmentation			
6	Vesicle			
7	Pustules			
8	Oozing			
9	Crusting			
10	Lichenification			

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FORM - VI PATIENT WITHDRAWAL FORM

1. OP / IP No ..... 2. S.No. ..... 3.Date: _____

4. Name ..... 5. Age _____ 6. Gender _____

7. Postal address:

_____

Complaints and Duration:

Irregular Treatment:

Adverse Reactions:

Other causes:

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FORM VII - DRUG COMPLIANCE FORM

Name of the Drug: NEERADI MUTHU VALLATHY MELUGU

Drugs issued: ……(mgs/Grams)

Drugs returned: ……(mgs/Grams)

S.NO	**DATE**	**DRUG TAKEN TIME**		
		MORNING/TIME	AFTERNOON/TIME	NIGHT/TIME
Day 1				
Day 2				
Day 3				
Day 4				
..				
..				
Up to day 48				

Date:

Station:

Signature of the Investigator:

Signature of the Lecturer: **Signature of the HOD**

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