A STUDY ON VIRANAM

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INTRODUCTION

Mother India is not only pride to be the land for tradition and culture but also for its own indigenous system of medicines. Among all other systems, Siddha system of Tamilnadu has its own remarkable value in enrichment of human life. Siddhars, the spiritual scientists of Siddha system had profound knowledge about the universe. They shared their spiritual experience, knowledge and wisdom with the human beings and guided them in achieving salvation which is the ultimate aim of human birth.

According to Siddha system the human body is the replica of the universe so are the food and drugs irrespective of their origin. Siddha system believes that all objects in the universe including human body are composed of five basic primordial elements namely earth, water, fire, air and space.

“அன்பாய் குடியே மகா மாந்து முள்பாள்

மாந்து மகா மாந்து அன்பாய்”

- சாலூரி காளசம்.

The coordination operation of the first matter and energy is said to be the root cause for the formation of the basic five elements; which in turn has created the universe(Macrocosm) and all the objects in it including the human organism(Microcosm). This doctrine theory is called Siddha work as “Anda Pinda thathavam” which deals with the man and his relationship with nature.
The human body is a conglomeration of three humours and seven physical components. The food is considered to be the basic building material of human body, which gets processed into humours, tissues and wastes. The equilibrium of humours, body tissues and wastes are considered as health and its disturbance or imbalance leads to disease.

It is seen that Siddha system has been developed purely by the contribution of siddhars on their own line of thinking and achievements in the field of their research. It is founded on the basic principles of nature and its elements, after careful and thorough study of the human system.

The main aim of the physician was for long and healthy life. They advised to refrain from anger and desire to keep the mind tranquil along with proper diet to keep the body healthy. They attached much importance to the personal hygiene.

In human body, Skin is an extraordinary structure which acts as a barrier separating the potentially harmful environment from the body’s vulnerable interior. Skin problems are not often dramatic but cause considerable discomfort and much disability.

Siddha system deals with the spirit of multidimensional approach in healing simple and chronic ulcers of skin with a very good range of drugs. The common herbs and parts of trees were used mainly as medicines. There was reference of their using the metals and non-metals as medicines.
Among all siddhars, Siddhar Theraiyar is well known for his surgical treatments. Textbook of Siddhar Aruvai maruthuvam quotes from the ancient literatures and epics about the surgical procedures carried out those days.
The basic principles and methods of surgery like incision, excision, separation, anastomosing, suturing, application of bandage, cauterization and amputation were known and practiced by Siddhars. Principles of asepsis were known and antiseptics were made use of. Sirappu maruthuvam is exclusively unique among divine treatments in dealing lot of dermatological problems.

(In this dissertation wherever the words viranam and pungal are used, it denotes the same meaning of skin ulcers.)
AIM AND OBJECTIVES

AIM:

To evaluate the therapeutic efficacy of the Siddha formulation “KUKKIL CHOORNAM” (INTERNAL) and “VIRANA SANJEEVI THYLAM” (EXTERNAL) in “VIRANAM” (SKIN ULCERS). 40 Cases of both sexes and varying age groups were selected for the study in the Post Graduate Department of Sirappu Maruthuvam at Government Siddha Medical College, Palayamkottai.

OBJECTIVES:

➢ To collect and review the ideas mentioned in various ancient Siddha literatures about Viranam and also to know the efficacy of the trial medicine.

➢ To study the clinical course of the disease Viranam with keen observation on definition, etiology, classification, pathogenesis, clinical features, diagnosis, treatment, prognosis, complication and prevention.

➢ To have an idea about the prevalence with reference to age, sex, occupation, socio-economic status, diet and habits.
➢ To expose the clinical diagnostic methods mentioned by Siddhars to know how Viranam alters the normal conditions under the topics of uyir thathukkal, udal thathukkal and envagai thervugal.

➢ To extend the correlation of Viranam in Siddha aspect with skin ulcers in modern science.

➢ To demonstrate the importance of Viranam in Sirappu maruthuvam by exploring the concepts in various Siddha texts.

➢ To evaluate the Biochemical analysis and Pharmacological studies of the trial.

➢ Finally to create awareness among the patients in order to avoid further progression and recurrence of the disease.
REVIEW OF LITERATURES

SIDDHA ASPECT

IYAL:

Viranam is defined as any damage to the epithelial surface of the skin or mucous membrane. It may be an open sore, a sore with or without suppuration and discharges of matter.

CHARACTERS OF VIRANAM:

AETIOLOGY:

According to the aetiology Viranam is due to,

1. Imbalance in the uyir thathukkal
2. Trauma
CLASSIFICATION OF VIRANAM:

There are two types of viranam. They are

1. Thutta viranam
2. Athutta viranam

1. THUTTA VIRANAM:

Thutta viranam is caused by the vitiated uyir thathukkal like vatham, pitham and kabam. It is divided into sixteen types according to the separation or combination of deranged uyir thathukkal.

2. ATHUTTA VIRANAM:

Athutta viranam is caused by the trauma which can be either mechanical, physical or chemical.

THUTTA VIRANAM:

These are classified into 15 types. They are,

1. Vali pun:

Scanty discharge with foul smell. There will be pricking pain, dryness in these ulcers.

2. Azhal pun:

Yellow in colour, rapid spreading in nature. The discharge is clear, with pain, burning sensation and reddness.
3. Iyya pun:

Itching, pale in colour. The discharge is copious and sticky in nature.

4. Vali pitha pun:

Clear and Scanty discharge with foul smelling, yellow in colour. Pricking pain, redness, dryness, burning sensation are seen.

5. Vali iyya pun:

Itching, pricking pain, burning sensation, dryness are found. The discharge is scanty and sticky in nature.

6. Pitha iyya pun:

Rapid spreading ulcer, pale in colour. Itching, pain, burning sensation are found. Discharge is sticky in nature.

7. Mukkuttra pun:

Mixture of vali, Azhal and Iyya pun features.

8. Kurudhi pun:

Red in colour coral like. It has the characters of thutta varanam.

9. Kurudhi pitha pun:

Ulcer is red and yellow in colour. Discharge is clear with blood stain. Burning sensation is present.

10. Kurudhi vali pun:

Ulcer is red in colour. Discharge is blood stained. Pricking pain, vomit is found.
11. **Kurudhi iyya pun:**

   It is red in colour. Swelling, vomiting are present. Serous discharge is found.

12. **Kurudhi vali pitha pun:**

   Mixture of both features of kurudhi vali, kurudhi pitha pun.

13. **Kurudhi vali iyya pun:**

   Mixture of both features of kurudhi vali, kurudhi iyya pun.

14. **Kurudhi pitha iyya pun:**

   Mixture of both features of kurudhi pitha, kurudhi iyya pun.

15. **Kurudhi mukkuttra pun:**

   Mixture of all the three features of kurudhi pun.

16. **Velutha pun:**

   It is pale in colour, floor elevated and there will be no discharge seen.

**TYPES OF PUNGAL:**

The skin ulcers are classified into twenty two types in T.V.Sambasivam pillai dictionary. They are as follows,

1. Neruppu pun - Burns
2. Mega pun - Venereal ulcers
3. Vellai pun - Gonorrheal ulcers
4. Aara pun - Chronic ulcers
5. Kiranthy pun - Syphilitic ulcers
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<thead>
<tr>
<th>No.</th>
<th>Pun</th>
<th>Description</th>
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<tr>
<td>6.</td>
<td>Ottu pun</td>
<td>Contagious ulcers</td>
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<td>7.</td>
<td>Kuzhi pun</td>
<td>Perforating ulcers</td>
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<td>8.</td>
<td>Oduvu pun</td>
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<td>9.</td>
<td>Raaja pun</td>
<td>Diabetic carbuncle</td>
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<td>10.</td>
<td>Karappan pun</td>
<td>Eczema</td>
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<td>11.</td>
<td>Parangi pun</td>
<td>Syphilitic ulcers</td>
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<td>12.</td>
<td>Vetu pun</td>
<td>Incised wound</td>
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<td>13.</td>
<td>Kaaya pun</td>
<td>Traumatic ulcers</td>
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<td>14.</td>
<td>Azhi pun</td>
<td>Sloughing ulcers</td>
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<td>15.</td>
<td>Korukku pun</td>
<td>Chancre</td>
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<td>16.</td>
<td>Veditha pun</td>
<td>Fissured ulcers</td>
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<td>17.</td>
<td>Azhar pun</td>
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<td>Rasavekkatu pun</td>
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<td>21.</td>
<td>Thulai pun</td>
<td>Sinus</td>
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<td>22.</td>
<td>Ari pun</td>
<td>Rodent ulcers</td>
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**CLASSIFICATION OF ATHUTTA VIRANAM:**

Athutta viranam is classified into forty five types in “Siddhar Aruvai Maruthuvam”. It is classified into forty nine types in “Anupava vaidhya deva ragasiyam”. The pathological state of uyir
thathukkal affects the seven udal thathukkal (Body tissues) which leads to viranam of several types according to the combination of the imbalanced uyir thathukkal(mukkuttram).

Sathio viranam:

It is one of the types of Athutta viranam due to trauma. It is of eight types.

1. Krishta viranam:

Trauma due to thorn, log, horn produce abrasions, ulcer and it is non-healing in nature.

2. Avakartha viranam:

It is perforating and deep-seated.

3. Vichinna viranam:

It seems to be incised ulcer in appearance.

4. Piravilambi viranam:

The base of the ulcer rests on the bone which is exposed.

5. Nibathiga viranam:

The bone is found in the centre of the ulcer surrounded by necrosed tissue.

6. Vitha viranam:

Traumatic ulcer caused by stones.
7. Pinna viranam:

Traumatic ulcer caused by sword, knife and sharp instruments used as arms and weapons in wars.

8. Vidhalidha viranam:

Pressing the bleeding ulcer further produce this type of ulcer.

Stages of pathogenesis:

Three basic physiological forces vatham, pitham, kabam are named then uyir thathukkal. These three life humours when present in balanced state, it maintain and retain normal bodily functions and when imbalanced lead to pathogenesis of diseases. The process of pathogenesis has a definite sequential pattern distributed over a period of time. These periods have been classified as six stages of pathogenesis. They are,

- **STAGE 1** - Skin is red with soft underlying tissue.
- **STAGE 2** - The redness of skin, swelling and loss of outer skin layers
- **STAGE 3** - Necrosis occurs through the deep layers of skin
- **STAGE 4** - Necrosis of the muscle
- **STAGE 5** - Necrosis with fat tissue and muscle exposed
- **STAGE 6** - Spreads to bone and joints
CONCEPTS OF ULCER HEALING:

Each of aforesaid uyir thathukkal has certain functions to execute in its normal and abnormal states and this aspect is reflected in the post-traumatic state when each one of these thathu show alternate dominant and subsidiary roles as per the need of the stage of the healing process. This can be summarized in three stages.

1. STAGE OF TISSUE ORGANISATION

The tissue that is injured break down into debris and is removed by phagocytosis. The remaining viable tissue constituents are converted into primordial thathu forms. From this primordial thathu pool, new tissue complexes are to be organized. At this stage, the action of vatham is more, pitham is normal, kabam shows reduced action.
2. STAGE OF INCREASED LOCAL ENZYMATIC ACTIVITY AND APPEARANCE OF GRANULATION TISSUES

“பிற்று முற்பொருள் காண்க”

At this stage, the breakdown products of the ulcer area are cleared. The thathu syncytium is remobilized into differentiation of all forms. The general metabolism is speeded up due to vigorous local enzymatic activity at cellular or molecular level. As a result granulation tissue appear. Its systematic response is reflected as general malaise and fever. At this stage, action of pitham is more, vadham is less and kabam is normal.

3. STAGE OF PROPER HEALING AND ANABOLIC ACTIVITIES

“தியல் செய்பாற்று செய்யவும்”

After appearance of granulation tissue in this differentiation and organization of cellular complexes and tissue structure. At this stage, the action of kabam is more predominant, pitham is decreased and vatham is normal.

CLINICAL FEATURES OF VIRANAM:

The clinical features of viranam depends upon the predominance of the imbalanced uyir thathukkal called as mukkuttram and also the udal thathukkal which are affected.
MUUKUTTRAM                      SYMPTOMS

Vatham                    -      Pain and Swelling
Pitham                    -      Heat and Burning sensation
Kabam                    -      Discharge, slough and pus

NOI KANIPPU (DIAGNOSIS):

PORIYAL ARITHAL:

Porigal(sense organs) are instruments with receptors which perceive the five senses with the help of Gnanenthiriyams, the organs of perception. They also give protection to the body.

1. MEI (skin)              -      With air it perceives sensation    -      Affected
2. VAAI (Tongue)          -      With appu it perceives taste       -      Normal
3. KANN (Eye)              -      With theyu it perceives vision    -      Normal
4. MOOKU (Nose)            -      With prithvi it perceives smell    -      Normal
5. SEVI (Ear)              -      With aagayam it perceives hearing- Normal

PULANAL ARITHAL:

Pulangal are the faculties by which human beings perceive stimuli originating from outside or inside the body.

1. SUVAI (Taste)           -      Normal
2. OLI (Vision)            -      Normal
3. OORU (Sensation)        -      Affected
The skin is affected in which there will be symptoms like pain, burning sensation, itching, numbness, discharge. The pain may be pricking, cutting or piercing in nature according to the type of ulcer. The colour of the ulcer may be red, yellow or white. The discharge may be serous, bloody, white or purulent if it is infected. The shape and size of the ulcer varies according to the type of ulcer and injury. There may be foul smelling in the discharge due to necrosis of the tissue.

4. OSAI (Hearing) - Normal
5. NAATTRAM (Smell) - Normal

UYIR THATHUKKAL:

VAATHAM:

1. PRAANAN - Controls respiratory organs - Normal
2. ABAANAN - Helps in excretion and ejaculation - Normal
3. VYAANAN - Perceives sensation through skin - Affected
4. UDHAANAN - Resides in navel, neck and nose - Normal
5. SAMAANAN - Controls all the other vaayus - Affected
6. NAAGAN - Responsible for blinking - Normal
7. KOORMAN - Yawning and closing of mouth - Normal
8. KIRUGARAN - Salivary and nasal secretion - Normal
9. DEVATHATHAN - Produce laziness, tiredness - Normal
10. DHANANJEYAN - Expels third day from skull after death -
PITHAM:

1. ANAL PITHAM (Aakkanal) - Helps in digestion - Normal
2. RANJAKA PITHAM (Vanna eri) - Increase blood volume - Normal
3. SAATHAKA PITHAM (Aatralangi) - Executes desired function - Normal
4. PRAASAKAM (Olloli thee) - Located in the skin - Affected
5. ALOSAKAM (Nokkazhal) - Located in the eyes - Normal

KABAM:

1. AVALAMBAKAM (Ali iyam) - Located in the lungs - Normal
2. KILETHAKAM (Neerpi iyam) - Located in the stomach - Normal
3. BOTHAKAM (Suvaikaan iyam) - Located in the tongue - Normal
4. THARPAKAM (Niraivu iyam) - Located in the head - Normal
5. SANTHIKAM (Ondri iyam) - Located in the joints - Normal

UDAL THATHUKKAL:

The tissues of the body are called as Udal thathukkal. They are seven in number.

1. SAARAM Strengthens body and mind - Affected
2. SEEENEER Stabilises knowledge, power, strength - Affected
3. OON Provides shape and growth to body - Affected
4. KOZHUPPU Gives lubrication to organs - Affected
5. ENBU Protects internal organs - Affected
6. MOOLAI  
Strengthens bone tissue  - Normal

7. SUKKILAM/  
Involves in reproduction  - Normal

SURONITHAM

ENVAGAI THERVUGAL:

Noi kanippu (Diagnosis) in Siddha system is mainly based on the following eight methods. These eight diagnostic stools are unique methods in Siddha system of medicine.

‘தாரப்பாறை தினங்கள் விளகுதியம்

மூழ் விளகுதியையும் பாதுகாப்பட்டு”

- வாழ் விளகுதி, வசதிகுதி

கால், வெப்பமை, தன், பிற்பு, வசதியும், விளகுதி, வசதியும் ஹிளை அவசரமிட ஊடைக்கு விளகுதி ஆண்டு.

1. Naadi (Pulse):

Pulse reading is very important in Siddha diagnosis and an excellent method also. The pathological change in the body is diagnosed by the alteration in the normal ratio of Vatham, Pitham and Kabam as 1:1/2:1/4 respectively.
2. Sparisam (Sensation):

Any abnormal change in the skin pertaining to temperature, colour, texture, discharge, appearance, sweating, abnormal growth, pain, tenderness should be examined.

In Viranam there will be abnormal change in the aforesaid features of the skin.
3. Naa (Tongue):
   Colour, appearance, taste, speech, deviation, wasting are to be examined.

4. Niram (Colour):
   Colour of the skin is noted.

5. Mozhi (Speech):
   Speech should be examined.

6. Vizhi (Eyes):
   Colour, lacrimation, Pupillary reflex, Acuity of vision should be noted.

7. Malam (Faeces):
   Colour, texture, quantity, any bleeding and mucous are seen.

8. Moothiram (Urine):
   Urine is collected for the Neerkuri and Neikkuri examination.

NEERKKURI

திரிப்பு பார்வத்கமை:

‘நோய்க் மிக்கற்க தன் முடிய முக்கியமான கணினிப் பொருளை வாக்கிட்டு பதில்’

- ராஜா திரிக்குர் பார்வத்கமை

Niram - Colour
Edai - Specific Gravity
Manam - Smell
Nurai - Froth
Enjal - Quantity of urine voided

In Viranam straw colour urine is found in most of the patients and pale colour in some patients.

**NEIKKURI**

Neikkuri is known for its significance in assessing the uyir thathukkal which is affected. The patient’s urine is collected early morning and viewed before 11/2 hrs in direct sunlight. A gingelly oil drop is placed in the urine. The spreading nature and shape of the oil drop is noted.

- (Translation)

The text above is a translation of the mentioned content from Tamil into English. It describes the use of Neikkuri in assessing the significance of urinary tract issues. The method involves collecting urine early in the morning, adding a drop of gingelly oil, and observing the spread and shape of the oil drop to assess the condition of the urinary tract. This practice is known for its effectiveness in determining the presence of certain medical conditions.
1. If it spreads like a snake, it is vatha disease.

2. If it spreads like a ring, it is pitha disease.

3. If it spreads like a pearl, it is kaba disease.

Snake in ring, Snake in pearl, ring in pearl are found in thontha disease.

PROGNOSIS:

There are certain factors which plays an important role in the prognosis of ulcers.

- It depends upon the constitution of the uyir thathukkal and udal thathukkal in the body.

- Age of the patient is important.

- Ulcers in front of legs along long bones, medial aspect of thigh, axilla, heel, eye, breast, joints heals later when compared to other ulcers.

- Ulcers in Diabetes, Tuberculosis, Leprosy shows poor tendency to heal.

- Foreign bodies present in the ulcer shows poor prognosis unless it is removed.
LINE OF TREATMENT:

First the patient should be kept in the favourable environment for ulcer healing. He/ She is asked to avoid any physical activity. Proper hygiene should be maintained.

15 inpatients were given the first day with vellai ennai - 15ml at early morning with hot water. From the second day the trial drugs kukkil choornam and virana sanjeevi thylam were given.

Treatment for Acute ulcers:

- Sterilization of the ulcer with clean cotton swab.
- Anti-microbial wash is used to prevent infection with Vengaara neer.
- Prevention of bleeding in case of fresh ulcers.
- Internal drugs for ulcer healing is used.
- External drug is applied over the ulcer.

Treatment for Chronic ulcers:

- Sterilization of the ulcer with clean cotton swab.
- Anti-microbial wash is used with Vengaara neer.
- Debridement is done if there is any slough, foreign body, pus and necrosed tissue.
- Internal drugs for ulcer healing is used.
- External drug is applied over the ulcer.
**Dressing with Aloe vera:**

Aloe vera gel is separated from the skin and cleaned with water. It is then placed in the sterilized dressing cloth and kept over the ulcer.

The following drugs can also be used for sterilization.

- Thiriphala decoction
- Neem bark decoction
- Padikaara neer
- Arasampattai kudineer
- Aalampattai kudineer

Bleeding can be arrested by surgical suturing in case of severe bleeding. Internal drugs like Imbural, Adadhodai, vetchi can be given. Anti-microbial drugs like Vembu, Pungu, Manjal, Arugampul, Vallarai, Kuppaimeni can be used.

Analgesics like Amukkara, Oomathai, Jatamanjil, Sivanarvembu can be used. Externally Mathan thylam, Sivanarvembu kuzhi thylam, Pungu thylam, vanga vennai, vanga virana kalimbu can be used.

Skin and mind are related to each other in all aspects. The psychological expression of the mind is reflected through the skin. Likewise skin problems may affect psychological well being. Hence both should be maintained in a proper way. The patients were asked to be free from emotional variance, unwanted thoughts and worries. They were advised to practise pranayamam and some simple exercises.
Apart from these, there are lot of drugs are described in various literatures for ulcers. Among them “KUKKIL CHOORNAM” and “VIRANA SANJEEVI THYLAM” are taken as trial medicines to prove their efficacy in healing acute and chronic ulcers.
MODERN ASPECT

DEFINITION:

Skin ulcer is a break in the continuity of the covering epithelium, either skin or mucous membrane due to molecular death following sloughing of inflamed tissue. Skin ulcer or chronic wound can result in complete loss of the epidermis and often portions of the dermis and even subcutaneous.

ETIOLOGY:

The main causes of skin ulcers are as follows

- Trauma
- Infections like fungal, bacterial and viral infections
- Vascular disorders
- Metabolic disorders
- Immobilisation
- Nutritional disturbances like vitamin deficiencies
- Nervous disorders
- Cancer

CLASSIFICATION:

1. CLINICAL CLASSIFICATION:

Ulcers are classified into three types
(a) Spreading ulcer:

In this type the edge of the ulcer is found to be inflammed and oedematous.

(b) Healing ulcer:

In this type the edge is sloping with the floor containing healthy pink or red granulation tissue and serous discharge in it.

(c) Callous ulcer:

Floor contains pale unhealthy granulation tissue with indurated edge or base. Ulcer has no tendency to heal. It lasts for many months to years.

2. PATHOLOGICAL CLASSIFICATION:

The pathological classification includes the following type of ulcers

Specific ulcers:

1. Tuberculous ulcer
2. Syphilitic ulcer
3. Actinomycosis
4. Meleney’s ulcer

Malignant ulcers:

1. Carcinomatous ulcer
2. Rodent ulcer
3. Melanotic ulcer
Non specific ulcers:

1. Traumatic ulcer
2. Arterial ulcer
3. Venous ulcer
4. Neurogenic ulcer
5. Tropical ulcer
6. Diabetic ulcer
7. Ulcers may be associated with certain other diseases like Gout, Anaemia, Avitaminosis, Rheumatoid arthritis, Leukemia, Polycythemia etc.,

Other ulcers:

1. Ulcers due to chillblains and frostbite(Cryopathic ulcer)
2. Martorell’s or Hypertensive ulcer
3. Bazin’s ulcer

GENERAL SYMPTOMS OF SKIN ULCER

Skin ulcer is found to be in various size and shapes often round with layers of skin erosion. The surrounding skin of the ulcer may be red or pink, swollen and tender at times. Discharge in the ulcer may be bloody, serous or purulent if it is infected.
Ulcers that heal within three months are considered to be acute ulcers and above the period are chronic ulcers. Patients with chronic ulcer suffer from constant pain at night. Symptoms include increasing pain, unhealthy granulation tissue, foul smell and purulent discharge in the ulcer. Symptoms tend to worsen once the ulcer has become infected.

**COURSE OF AN ULCER**

1. **Initiation of an ulcer:**

   Often the patient or the clinician may identify an initiating event for an ulcer. Eg: Breast abscess, Varicose veins, TAO in Pipe smoking.

2. **Extension:**

   During the stage of extension, the floor is covered with exudates and sloughs while the base is indurated. The discharge is purulent and even blood stained.

3. **Progression:**

   The ulcer may insidiously increase in size (Tuberculous ulcer) or it may rapidly (Malignant ulcer or Inflammatory ulcer) increase.

4. **Transition:**

   This stage prepares for healing. The floor becomes clean, the slough separate, induration of the base diminishes and the discharge becomes more serous. Small reddish areas of granulation tissue appear on the floor.
5. Repair and Healing:

The stage of repair consists of the transformation of the granulation tissue to fibrous tissue, which gradually contracts to form a scar. The epithelium gradually extends from the shelving edge to cover the floor (at a rate of 1mm/day). This healing edge consists of three zones, the outer epithelium which appears white, middle one is blue and the inner red zone is covered by a single layer of epithelial cells.

PROCESS OF ULCER HEALING

The process of healing of an ulcer is intricate in which the skin repairs itself after injury. In normal skin, the epidermis (outermost layer) and dermis (inner or deeper layer) exists in steady-state equilibrium, forming a protective barrier against the external environment. Once the protective barrier is broken, the normal physiologic process of ulcer healing is immediately set in motion.

The phases of ulcer healing are as follows:

- Removal of dead cells
- Proliferation of parenchymal and connective tissue
- Angiogenesis
- Synthesis of collagen
- Tissue remodelling
- Wound contraction
Upon injury to the skin, a set of complex biochemical events takes place in a closely orchestrated cascade to repair the damage. Within the minutes of post-injury, platelets aggregate at the injury site to form a fibrin clot. This clot acts to control active bleeding. In the inflammatory phase, bacteria and debris are phagocytosed and removed. The factors released cause the migration and division of cells involved in the proliferative phase. The proliferative phase is characterized by angiogenesis, collagen deposition, granulation tissue formation, epithelialization and ulcer contraction.

In angiogenesis, new blood vessels are formed by vascular endothelial cells.

In granulation tissue formation, fibroblasts grow and form a new provisional extracellular matrix (ECM) by excreting collagen and fibronectin. Concurrently, re-epithelialization of the epidermis occurs, in which epithelial cells proliferate.

In contraction, the ulcer is made smaller by the action of myofibroblasts, which establish a grip on the ulcer edges and contract themselves.

In the maturation and remodeling phase, collagen is remodeled and realigned and cells that are no longer needed are removed by apoptosis.
However, this process is not only complex but fragile and susceptible to interruption or failure leading to the formation of chronic non-healing ulcers.

**FACTORS AFFECTING ULCER HEALING**

**Age:**

Older patients are at higher risk of poor ulcer healing due to the cellular changes in old age. Healing is influenced by the skin elasticity and collagen replacement. Immune system also plays an important role in the process of healing. In old age people immune system declines in its functions making them susceptible to infection. Chronic diseases in older people affects the blood circulation and oxygenation to the ulcer.

**Environment:**

Environment plays a major role in healing. Unhygienic and polluted atmosphere delays the healing process and it makes the ulcer susceptible to infection.

**Dehydration:**

This leads to an electrolyte imbalance and impaired cellular function. It is one of the major problem in patients with burns.
Hygiene:

Effective hand washing greatly reduces the risk of transferring pathogenic organisms from one patient to another by direct contact or by contamination of inanimate objects that are shared.

Infection:

Infection delays healing by

- Prolonging the inflammatory phase
- Disrupting the normal clotting mechanisms
- Promoting disordered leukocyte function and ultimately preventing the development of new blood vessels and formation of granulation tissue. So infection is a major factor in the failure of ulcer to heal.

Blood supply:

Ulcers in the face and hands heal well because of an excellent blood supply. Ulcers below the knees over the shin and calf notably in the elderly heal badly because of a relatively poor blood supply.

Rest:

Granulation tissue has a delicate blood supply that is easily damaged by movement and shearing forces.
**Nutrition:**

- Protein is required for all the phases of ulcer healing, particularly important for collagen synthesis.
- Glucose balance is essential for ulcer healing.
- Iron is required for transport of oxygen.
- Minerals, Zinc, Copper are important for enzyme systems and immune systems. Zinc deficiency contributes to disruption in granulation tissue formation.
- Vitamins A, B complex and C are responsible for supporting epithelialization and collagen formation. It is also important for the inflammatory phase of ulcer healing.
- Carbohydrates and fats provide the energy required for cell function. Fatty acids are essential for ulcer healing.
- Patient should avoid too much of fat, sugar or salt.

**Medication:**

Anti-inflammatory, cytotoxic, immunosuppressive and anticoagulant drugs all reduce healing rates by interrupting cell division or the clotting process.
TYPES OF ULCER

Traumatic ulcer:

These are often seen after road traffic accidents where there is loss of skin or poor healing of ulcer. Traumatic ulcer can be mechanical, physical and chemical. This ulcer heals quickly unless supervised by infection or ischaemia, which may turn this ulcer to chronicity.

Ischaemic or arterial ulcer:

Complete or partial arterial blockage may lead to tissue necrosis and ulceration. These are seen in patients with peripheral arterial disease. Arterial ulcers are due to peripheral vascular disease (Atherosclerosis is the commonest followed by Buerger’s disease and Raynaud’s disease) and poor peripheral circulation.

This condition is more often seen in older people. When it occurs secondary to Buerger’s disease, younger between 20 to 40 years of age are affected. In this case patches of dry gangrene may be present along with arterial ulcer. Such ulcers tend to occur on the anterior and outer aspects of the leg, dorsum of the foot, on the toes or the heel.

Pain is the main complaint of arterial ulcers. Intermittent claudication and rest pain are seen in this ulcer. Ulcers are found below the medial maleolus. They are punched out with the floor exposing tendons, bone
and joints. Peripheral arterial pulses should always be felt. Pulse of Dorsalis pedis artery is almost always either feeble or absent. Presence of ischaemic changes can be detected in the foot such as pallor, dry skin, loss of hair, fissuring of the nails etc.

**Venous ulcers:**

Venous ulcers are the most common type of ulcer affecting the lower extremities. These ulcers are seen in patients with chronic venous congestion due to deep vein thrombosis and varicose veins. These ulcers are typically situated on the medial aspect of the lower third of the lower limb. These ulcers are caused by the abnormal venous hypertension in the lower third of the leg. The main pathway of the venous drainage of the ankle skin in the erect posture is via the ankle perforating veins. When the valves of this are damaged there will be local venous hypertension. This condition is aggravated by obstructed deep veins. Venous hypertension around the ankle causes Hemosederin deposition in the sub-cutaneous plane from lysed red blood cells which leads to Dermatitis, Lipodermatosclerosis, Fibrosis, Anoxia and Ulceration. The presence of large number of perforators which transmit the pressure changes directly into superficial system. This area is called as Gaiter’s zone. It can also be on both malleoli.
Ulcer is often large, non-healing tender, recurrent with secondary infection. Vertical group of inguinal lymph nodes are usually enlarged and tender.

Often it leads to scarring, ankylosis, Marjolin’s ulcer formation. Slough from the ulcer bed may give way causing venous haemorrhage.

**Neurogenic ulcers:**

These ulcers have punched-out edge with slough in the floor thus resembling a gummatous ulcer. Bed-sore and perforating ulcers are typical examples of trophic ulcers. These ulcers develop as the result of repeated trauma to the insensitive part of the body. So some neurological disturbances in the form of loss of sensation is the cause behind this ulcer formation. These ulcers are commonly seen on the heel and the ball of the foot when the patient is ambulatory and on the buttock and on the back of the heel when the patient is non-ambulatory. These ulcers start with callosity under which suppuration takes place, the pus comes out and the central hole forms the ulcer which gradually burrows through the muscles and the tendons to the bone resulting in callous ulcer with punched out corny edge. Floor is covered with slough and the base is slightly indurated.
**Tropical ulcers:**

Tropical ulcer is caused by a variety of microorganisms, including mycobacteria. It is common in tropical climates. There is no single agreed causative organism for tropical ulcer, although early lesions may be colonized or infected by Bacillus fusiformis (Vincent’s organism), anaerobes and spirochaetes.

The causative organism enters the skin of the feet and legs through abrasions. A bulla develops containing sero-sanguineous material which then ruptures producing dirty slough, destruction of the skin and superficial tissues. Pain is important at this stage with acute lymphadenitis. The bullae burst in two or three days forming ulcers whose edges are undermined and raised. The ulcer refuses to heal for months and even years.

**Diabetic ulcers:**

Diabetics are prone to foot ulcerations due to both neurologic and vascular complications.

The three factors play to produce diabetic ulcers are as follows:

- Diabetic neuropathy
- Ischaemia
- Tissue vulnerable to infection and thus ulcer is formed.
When the ulcer is due to neuropathy a trophic ulcer results. When the ulcer is due to ischaemia, an ischaemic ulcer results. Blood sugar estimation and urine examination should be performed.

**Tuberculous ulcers:**

Tuberculosis of the skin manifests itself in several clinical forms. It starts as a nodule which breaks down to form an ulcer. Caseous discharge is seen from the cold abscess of bone and joint tuberculosis. The ulcer is seen in the neck, axilla and groin. Most characteristic feature of this ulcer is its edge is reddish blue and undermined. There is pale granulation tissue with scanty sero-sanguineous discharge in the floor and slight induration at the base. Blood examination, Mantoux test, microscopic and guinea pig inoculation test of the discharge, chest x-ray are the investigations to diagnose ulcer.

**Syphilitic ulcers:**

Syphilitic ulcers are called as Gummatous ulcers which occur in the tertiary stage of Syphilis. These are the result of obliteratorative endarteritis, necrosis and fibrosis. Ulcers are seen over the subcutaneous bones like tibia, sternum, ulna and skull. The most characteristic feature is punched out indolent edge and wash-leather slough in the floor. No pain and tenderness are found. W.R and Khan tests are positive in these cases.
Leprotic ulcers:

Leprotic ulcers are characterized by spontaneous in nature, painless character, slow healing and quick recurrence of ulcers. Neuropathic and leprous ulcers are the types. Of these types neuropathic ulcers are more common. These ulcers occur in the sole of the foot due to repeated usage of the denervated foot. Leprous ulcer occur in the dorsum of fingers and toes.

Decubitus ulcer:

It is generally seen in patients who are old, immobilized, chronic ill patients. These ulcers occur over a contact area causes cutaneous ischaemia with necrosis of skin and fat and the deeper bone is laid bare. The gangrenous skin eventually separates exposing necrotic substances tissue fat and even bone. These skin ulcers are commonly found where the bones are close to the skin, such as the heels, ankles, hip and back.

Martorell’s ulcer (Hypertensive ulcer):

These ulcers are found in old age people and associated with atherosclerosis. A local patch of skin on the back or outer side of the calf suddenly necroses and sloughs away leading a punched out ulcer extending down to the deep fascia. Patient experiences severe pain and it is the most prominent symptom. Peripheral pulses are usually present. It may take months to heal.
**Infective ulcers:**

Staphylococcus aureus ulcers occur at any age in the form of multiple, red, scabbed sores on the leg or ankle. This ulcer is due to reinfection as a result of unhygienic habits. Anaemia and poor nutritional status are the predisposing factors. If it is not treated properly, the ulcers become chronic and adherent to the bone.

**Marjolin’s ulcers:**

This is a squamous cell carcinoma arising from a long standing benign ulcer. The commonest ulcer to become malignant is a long standing venous ulcer. The edge is raised and everted. The base of the ulcer becomes hard. Biopsy should always be taken to confirm malignancy.

Apart from these ulcers there are various types of ulcers are seen.

**COMPLICATIONS OF AN ULCER**

1. Septicaemia
2. Gangrene
3. Cellulitis
4. Osteomyelitis
5. Septic arthritis
6. Carcinoma
7. Amputation
8. Amyloidosis
GENERAL EXAMINATION

1. If the ulcer appears to be tuberculous, all the lymph nodes in the body should be examined.

2. If the ulcer seems to be due to ischaemia, the whole body must be examined for the presence of atherosclerosis or its complications anywhere in the body.

3. When the ulcer is a trophic one general examination must be made to know the type of nervous disease present with this condition.

LOCAL EXAMINATION

INSPECTION:

1. Size:

   The size of an ulcer is important to know the time which will be required for healing. A bigger ulcer will definitely take a longer time to heal.

2. Shape:

   Tuberculous ulcers - Oval
   Varicose ulcers - Vertically oval
   Syphilitic ulcers - Round
   Carcinomatous ulcers - Irregular
3. Number:

Varicose, Tuberculous and Syphilitic ulcers may be more than one in number.

4. Location:

An ulcer on medial malleolus of the lower limb which shows varicose veins is obviously a varicose ulcer. Tuberculous ulcer is seen on the neck, axilla or groin. Syphilitic ulcers are seen over subcutaneous bones. Perforating or trophic ulcers are seen on the heel of foot or ball of the foot. Malignant ulcer may occur anywhere in the body.

5. Edge:

Edge is the connecting part of floor of the ulcer to the margin. There are different types of edges are seen. They are as follows

- Sloping edge is seen in healing ulcer. Its inner part is red due to healthy granulation tissue. Its middle part is white due to fibrous tissue. Its outer part blue is due to epithelial proliferation.
- Undermined edge is seen in tuberculous ulcer.
- Punched out edge is seen in granulamatous ulcer and trophic ulcer.
- Raised and beaded ulcer is seen in rodent ulcer.
- Everted edge is seen in carcinomatous ulcer due to spill of the proliferating malignant tissues over the normal skin.

- In spreading ulcer edge is inflammed.

- In healing ulcer red granulation tissue in the centre, blue zone in the middle due to growing epithelium and white in the outer due to fibrosis of the scar.

6. Floor:

The tissue visible on the surface of the ulcer is called the floor. When floor is covered with red granulation tissue, ulcer seems to be healthy. Pale and smooth granulation tissue on the floor indicates a slowly healing ulcer. Wash leather slough on the floor of an ulcer is pathognomonic of gummatous ulcer. A trophic ulcer penetrates down even to the bone, which forms floor in this case. A black mass at the floor suggests malignant melanoma.

7. Discharge:

Character of the discharge, its amount and smell should be noted. Different types of discharges are as follows,

- Serous in healing ulcer.

- Purulent ulcer in infected ulcer.

- Bloody in malignant ulcer, healing ulcer

- Sero-sanguinous in tropical ulcer
8. Surrounding area:

<table>
<thead>
<tr>
<th>Ulcer Type</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varicose ulcer</td>
<td>- Eczematous and pigmented</td>
</tr>
<tr>
<td>Tuberculous ulcer</td>
<td>- Scar or wrinkled</td>
</tr>
<tr>
<td>Acute ulcer</td>
<td>- Red and oedematous</td>
</tr>
</tbody>
</table>

**PALPATION**

1. **Tenderness:**

   An acutely inflamed ulcer is always exquisitely tender. Chronic ulcer such as tuberculous and syphilitic ulcers are slightly tender. Varicose ulcers may or may not be tender. Neoplastic ulcers are never tender.

2. **Edge:**

   Edge is the area between the margin and the floor of the ulcer. In palpation marked induration is the characteristic feature of carcinoma. A certain degree of induration is expected in gummatous or trophic ulcer.

3. **Margin:**

   Margin is the junction between normal epithelium and the ulcer. It may be regular or irregular, rounded or oval in shape.
4. Base:

Base is the one where ulcer rests. It is better felt than seen. Slight induration of the base is expected in any chronic ulcer but marked induration of the base is seen in squamous cell carcinoma.

5. Depth:

Depth of the ulcer should be measured in millimeters. Trophic ulcers may be as deep as to reach even the bone.

6. Bleeding:

Bleeding is the common feature of malignant ulcer.

6. Relation with deeper structures:

Gummatous ulcer is often fixed to the subcutaneous bones. Malignant ulcer will obviously be fixed to the deeper structure by infiltration.

EXAMINATION OF LYMPH NODES

Regional lymph nodes are enlarged in acute ulcer. Lymph nodes are enlarged, matted are slightly tender. Nodes are stony hard in malignant ulcer.
EXAMINATION FOR VARICOSE VEINS

When the ulcer is situated on the lower part of the leg, one should search for varicose veins and examine the condition of the arteries proximal to the ulcer.

EXAMINATION FOR NERVE LESION

Trophic ulcers develop as a result of repeated trauma to an insensitive part of the patient’s body. This is mostly seen in the sole. It may lead to ulcer formation. So presence of trophic ulcer indicates some neurological disturbance.

INVESTIGATION

1. Routine examination of the blood
   - Total count
   - WBC
   - Hb
   - ESR
   - Blood sugar
   - Albumin

2. Examination of the urine for sugar estimation

3. Bacterial examination of the discharge of ulcer
4. Skin test:
   
   - Mantoux test is more important to diagnose tuberculous ulcer.

5. Biopsy:
   
   - It should be done in case of malignant ulcer. It is generally taken from the edge of the ulcer.

6. Chest X-ray:
   
   - This is done to exclude any metastatic deposit in lungs.

7. Contrast radiography:
   
   - Arteriography may helpful to diagnose arterial or ischaemic ulcer.
   
   Phlebography is helpful to diagnose deep vein thrombosis.

**MANAGEMENT OF ULCERS:**

Treatment aims to reverse the factors that have caused the ulcer.

Venous leg ulcers, in the absence of arterial disease, are usually treated with exercise, elevation at rest and compression. Compression must not be used if there is significant arterial disease, as it will aggravate inadequate blood supply. Surgery, ultrasound guided sclerotherapy or endovascular laser treatment of superficial and perforator leg veins may also help, particularly if the deep venous system is intact.
Debridement:

The removal of surface contamination and dead tissue is known as Debridement. Proper cleaning and skin care is important. Surgical debridement or medical debridement using wet and dry dressings, ointments are used. Maggots and larval therapy are occasionally recommended. Debridement converts the chronic ulcer into an acute ulcer so that it can progress through the normal stages of healing.

Treating Infectious ulcer:

Antibiotics are not necessary unless there is tissue infection. This is likely if the ulcer becomes more painful and/or the surrounding skin becomes red, hot or swollen (cellulitis). Cellulitis may also result in fever and sickness. It should be treated with oral antibiotics. Topical antibiotics are best avoided because their use may result in increased antibiotic resistance and allergy.

Dressings of an ulcer:

There is a whole range of specialized dressings available to assist with the various stages of ulcer healing. These are classified as non-absorbent, absorbent, debriding and self-adhering. Dressings are usually occlusive as ulcers heal better in a moist environment. If the ulcer is clean and dry, occlusive dressings are usually changed weekly; more frequent changes are avoided as dressing changes, remove healthy cells as well as
debris. Contaminated or weeping ulcers may require more frequent dressing changes, sometimes every few hours.

**Surgical management of ulcer:**

Surgery may be considered if the ulcer fails to heal with conservative measures, particularly if it is very large or painful. First, the state of the venous and arterial systems should be assessed; infection eliminated and underlying associated diseases such as Diabetes, Thrombophilia or malnutrition should be controlled. Chronic ulcers may be treated by various types of skin graft.

**ASSESSMENT OF THE PATIENT WITH AN ULCER:**

Assessment is the starting point of ulcer treatment and should include the entire patient and not just the ulcer. Note the size, depth, necrotic and granular tissue present. Reassess at least weekly or sooner if deterioration of the ulcer is noted. Monitor the overall medical condition of the patient and watch for other complication like arthritis, Squamous cell carcinoma in the ulcer, Systemic complication of topical treatment.

**Nutritional assessment and management:**

Perform a nutritional assessment at least every month. Vitamin and mineral supplements may be necessary. Positive nitrogen balance and
protein intake are important as well. Usually ulcers do not heal well with a serum albumin below 3gm percent and Haemoglobin below 10gm percent.

**Pain assessment:**

The goal is to eliminate the cause of the pain, to provide analgesia, or both. Cover the ulcer, adjust support surface, reposition and give analgesics.

**Psychosocial assessment:**

The goal is to create an environment conducive to patient adherence to the ulcer treatment plan.

**TREATMENT**

- Growth factors and Cytokines
- Hyperbaric oxygen
- Skin graft substitutes and flap
- Connective tissue matrix
- Expanded epidermis
- Epidermal stem cells

**Compression Therapy**

This is important in case of venous leg ulcers and chronic swelling of the lower leg. The external pressure on the leg helps to heal the ulcer by increasing the calf muscle pump action and reduce swelling in the leg.
PREVENTION OF ULCER:

Prevention of ulcer is more important. The following measures can be followed in preventing leg ulcers,

Venous ulcers and arterial ulcers:

- Walking regularly to keep the calf muscle pump working properly
- Ask to quit smoking
- Ask to lose weight in obese individuals
- Avoid sitting with legs crossed
- Look for any color change in limbs

Diabetic ulcers:

- Check the toes and feet regularly for any sores, cracks.
- Care should be taken in preventing toes from injury
- Avoid exposure to extreme temperatures
- Wear comfortable and fitting shoes and socks
- Remove if there is any callus found
- Clean the feet daily before going to bed
MATERIALS AND METHODS

The clinical study on Viranam (Skin ulcer) was carried out in the Post Graduate department of Sirappu Maruthuvam, Government Siddha Medical College, Palayamkottai. In this study twenty five patients were treated as Outpatients and Fifteen patients were treated as Inpatients. After discharge of the Inpatients, all of them were followed as Outpatients in the OP Department.

Selection of the Patients:

For this clinical study, 40 cases were selected from both sexes of varying age groups. All cases were carefully examined before admission and ruled out if there is any other co-existing illness.

Study of Siddha clinical diagnosis:

The author prepared a case sheet on the basis of Siddha diagnostic procedures poriyal aridhal, pulanal aridhal, vinadhal, envagai thervugal and modern methods to diagnosis the disease. The individual case sheet was maintained for each and every patient.

Evaluation of clinical parameters:

During admission the detailed clinical history was taken from the patients. Ulcers present in any parts of the body, with or without symptoms
of pain, swelling, tenderness and discharge were taken as criteria for the Pungal cases. A detailed clinical history was taken by regarding the history of present and past illness, family history, aggravating factors, occupation, socio-economic status, dietary and personal habits and associated history of any other systemic diseases.

**Clinical Investigations:**

The following modern diagnostic investigations were done in all selected patients in the laboratory of Government Siddha Medical College, Palayamkottai.

**Blood tests:**

- Total WBC count
- Differential count
- ESR
- HB
- Estimation of sugar
- Estimation of urea
- Estimation of serum cholesterol

**Urine:**

- Albumin
- Sugar
- Deposits
Pharmacological analysis of the trial drug was carried out in the Department of Pharmacology, Government Siddha Medical College, Palayamkottai.

**Treatment:**

All the patients were treated with the following medicines.

- **Kukkil choornam – 1.5 gm 2 times a day with Honey or Cow’s ghee.**
- **Virana sanjeevi thylam – Required amount of oil is applied externally over the affected areas.**
OBSERVATION AND RESULTS

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

1. Sex distribution
2. Age distribution
3. Socio-economic status
4. Occupation
5. Mode of onset
6. Aetiology
7. Duration of illness
8. Clinical features
9. Types of pun (Siddha concept)
10. Types of ulcer (Modern concept)
11. Mukkuttram
12. Udal thathukkal
13. Envagai thervugal
14. Neerkuri neikkuri reference
15. Results after treatment with both Internal and External medicines
16. Results after treatment with External medicine only
17. Overall Results
### 1. SEX DISTRIBUTION

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Sex</th>
<th>No of Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Male</td>
<td>38</td>
<td>95</td>
</tr>
<tr>
<td>2</td>
<td>Female</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

**Observation:**

Among the 40 patients selected for this study, 95% were males and 5% females.
2. AGE DISTRIBUTION

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Age</th>
<th>No of Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Below 30</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>31-40</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>41-50</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>4</td>
<td>51-60</td>
<td>29</td>
<td>72.5</td>
</tr>
</tbody>
</table>

Observation:

The patients selected were from all age groups as given above and the maximum number of patients was in the age between 51 and 60.
3. SOCIO-ECONOMIC STATUS

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Economic Status</th>
<th>No of Cases</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>1</td>
<td>Lower</td>
<td>28</td>
<td>70</td>
</tr>
<tr>
<td>2</td>
<td>Middle Class</td>
<td>9</td>
<td>22.5</td>
</tr>
<tr>
<td>3</td>
<td>High</td>
<td>3</td>
<td>7.5</td>
</tr>
</tbody>
</table>

Observation:

22.5% of the patients were from Middle class and 70% of patients were Poor.
4. OCCUPATION:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Occupation</th>
<th>No. of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Hotel workers</td>
<td>7</td>
<td>17.5</td>
</tr>
<tr>
<td>2.</td>
<td>Watchman</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>3.</td>
<td>House wives</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>5.</td>
<td>Drivers</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>6.</td>
<td>Agriculture</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>7.</td>
<td>Tailor</td>
<td>1</td>
<td>2.5</td>
</tr>
</tbody>
</table>
5. MODE OF ONSET

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Mode of onset</th>
<th>No. of cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Acute</td>
<td>21</td>
<td>52.5</td>
</tr>
<tr>
<td>2.</td>
<td>Sub acute</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>3.</td>
<td>Chronic</td>
<td>15</td>
<td>37.5</td>
</tr>
</tbody>
</table>

**Observation:**

Out of 40 cases of clinical trials 37.5% were found chronic sufferers.
6. ETIOLOGY

<table>
<thead>
<tr>
<th>S.NO</th>
<th>ETIOLOGY</th>
<th>NO. OF CASES</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Trauma</td>
<td>16</td>
<td>40</td>
</tr>
<tr>
<td>2</td>
<td>Systemic disease</td>
<td>21</td>
<td>52.5</td>
</tr>
<tr>
<td>4</td>
<td>Infection</td>
<td>3</td>
<td>7.5</td>
</tr>
</tbody>
</table>

**Observation:**

Out of 40 cases, 40% of cases had traumatic history, 52.5% cases had systemic disease history.
### 7. DURATION OF ILLNESS

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Duration of Illness</th>
<th>No of Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Below 3 months</td>
<td>21</td>
<td>52.5</td>
</tr>
<tr>
<td>2</td>
<td>4-6 months</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>3</td>
<td>7-12 Months</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>4</td>
<td>Above 1 year</td>
<td>15</td>
<td>37.5</td>
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</table>

DURATION OF ILLNESS

![Duration of Illness Chart](image-url)
8. CLINICAL FEATURES

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Clinical Features</th>
<th>No of Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pain</td>
<td>18</td>
<td>45</td>
</tr>
<tr>
<td>2</td>
<td>Bleeding</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>3</td>
<td>Serous discharge</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>Purulent discharge</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>5</td>
<td>Redness</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>6</td>
<td>Swelling</td>
<td>7</td>
<td>17.5</td>
</tr>
<tr>
<td>7</td>
<td>Itching</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>8</td>
<td>Foul smell</td>
<td>3</td>
<td>7.5</td>
</tr>
</tbody>
</table>

![Bar chart showing clinical features and their respective percentages.]
9. TYPES OF PUN (Siddha aspect)

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Pun</th>
<th>No of Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Iyya pun</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>2.</td>
<td>Vali pitha pun</td>
<td>14</td>
<td>35</td>
</tr>
<tr>
<td>3.</td>
<td>Kurudhi Pitha pun</td>
<td>4</td>
<td>10</td>
</tr>
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![Bar chart showing the percentage of different types of pun](chart.png)
### Types of Ulcers (Modern Aspect)

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Ulcer Types</th>
<th>No. of Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Traumatic</td>
<td>17</td>
<td>42.5</td>
</tr>
<tr>
<td>2</td>
<td>Diabetic</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>3</td>
<td>Varicose ulcers</td>
<td>14</td>
<td>35</td>
</tr>
<tr>
<td>4</td>
<td>Neurogenic</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>Vascular ulcers</td>
<td>4</td>
<td>10</td>
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</tbody>
</table>

![Graph showing percentage of different types of ulcers]

**ULCER TYPES**
11. MUKKUTTRAM

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Mukkuttram</th>
<th>No. of Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vaadham</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vyanan, Samanan</td>
<td>35</td>
<td>87.5</td>
</tr>
<tr>
<td></td>
<td>Vyanan, Samanan, Abanan</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>2</td>
<td>Pitham</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prasagam</td>
<td>26</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>Ranjagam, Prasagam</td>
<td>14</td>
<td>35</td>
</tr>
<tr>
<td>3</td>
<td>Kabam</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Avalambagam</td>
<td>3</td>
<td>7.5</td>
</tr>
</tbody>
</table>

**Observation:**

In vatham viyanan and samanan are mostly affected and in pitham prasagam is mostly affected.
12. UDAL THATHUKKAL

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Udal thathukkal</th>
<th>No. of Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Saaram</td>
<td>40</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Senneer</td>
<td>40</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>Oon</td>
<td>40</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>Kozhuppu</td>
<td>40</td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>Enbu</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Moolai</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>Sukkilam</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Observation:**

Out of 40 patients, Saaram, Senneer, Oon, Kozhuppu were affected in all the cases.
13. EN VAGAI THERVUGAL

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>En Vagai Thervugal</th>
<th>No. of Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Naa</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>Niram</td>
<td>40</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>Mozhi</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Vizhi</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>Sparisam</td>
<td>40</td>
<td>100</td>
</tr>
<tr>
<td>6</td>
<td>Malam</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>7</td>
<td>Moothiram</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>Naadi</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Vathapitham</td>
<td>16</td>
<td>40</td>
</tr>
<tr>
<td>b.</td>
<td>Vathakabam</td>
<td>19</td>
<td>47.5</td>
</tr>
<tr>
<td>c.</td>
<td>Pithakabam</td>
<td>5</td>
<td>12.5</td>
</tr>
</tbody>
</table>

**Observation:**

In En vagai thervugal, Niram and Sparisam were found affected in all the 40 cases. The Naadi nadai seen in patients were Vathapitham 40 %, Vathakabam 47.5 % and Pithakabam 12.5%.
### 14. NEERKKURI, NEIKKURI REFERENCE

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Type of Test</th>
<th>No. of Cases</th>
<th>Percentage</th>
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<tr>
<td>1</td>
<td>Neerkuri:</td>
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<tr>
<td></td>
<td>Vaikkol Niram</td>
<td>35</td>
<td>87.5</td>
</tr>
<tr>
<td>2</td>
<td>Venmai Niram</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>3</td>
<td>Neikkuri:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spreads like snake</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Spreads like ring</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Spreads like pearl</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Snake in ring</td>
<td>19</td>
<td>47.5</td>
</tr>
<tr>
<td></td>
<td>Snake in pearl</td>
<td>12</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>salladaikkann</td>
<td>6</td>
<td>15</td>
</tr>
</tbody>
</table>

![Bar chart showing percentages of Neerkuri and Neikkuri tests]
15. RESULTS AFTER TREATMENT

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

- Grade I (Complete healing with no recurrence for 3 months)
- Grade II (Complete healing with recurrence)
- Grade III (Partial healing)
- Grade IV (No healing)

TREATMENT WITH BOTH INTERNAL AND EXTERNAL MEDICINE

<table>
<thead>
<tr>
<th>S.No</th>
<th>Results</th>
<th>No. of Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
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<td>12</td>
<td>40</td>
</tr>
<tr>
<td>2.</td>
<td>Grade II</td>
<td>13</td>
<td>43</td>
</tr>
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<td>3.</td>
<td>Grade III</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>4.</td>
<td>Grade IV</td>
<td>1</td>
<td>5</td>
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</tbody>
</table>

RESULTS AFTER TREATMENT WITH INTERNAL AND EXTERNAL MEDICINE
### 16. RESULTS AFTER TREATMENT WITH EXTERNAL MEDICINE ALONE

<table>
<thead>
<tr>
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<th>Results</th>
<th>No. of Cases</th>
<th>Percentage</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Grade I</td>
<td>5</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>Grade II</td>
<td>1</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Grade III</td>
<td>2</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>Grade IV</td>
<td>2</td>
<td></td>
<td>20</td>
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</tbody>
</table>
17. OVERALL RESULTS AFTER TREATMENT

<table>
<thead>
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<th>S.No</th>
<th>Results</th>
<th>No. of Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Grade I</td>
<td>17</td>
<td>42.5%</td>
</tr>
<tr>
<td>2.</td>
<td>Grade II</td>
<td>14</td>
<td>35%</td>
</tr>
<tr>
<td>3.</td>
<td>Grade III</td>
<td>6</td>
<td>15%</td>
</tr>
<tr>
<td>4.</td>
<td>Grade IV</td>
<td>3</td>
<td>7.5%</td>
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</tbody>
</table>

![Graph of Overall Results](image)
<table>
<thead>
<tr>
<th>Sl. No</th>
<th>OP &amp; IP NO</th>
<th>NAME</th>
<th>AGE</th>
<th>SEX</th>
<th>DOA</th>
<th>DOD</th>
<th>TREATED DAYS</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>48390</td>
<td>ARUMUGAM</td>
<td>35</td>
<td>M</td>
<td>28.6.12</td>
<td>16.7.12</td>
<td>20</td>
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</tr>
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<td>2</td>
<td>62086</td>
<td>PAZHANI</td>
<td>55</td>
<td>M</td>
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<td>3.9.12</td>
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</tr>
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<td>3</td>
<td>49651</td>
<td>PAKIANATHAN</td>
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<td>M</td>
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<td>20.7.12</td>
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<td>58</td>
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<td>GRADE I</td>
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<td>60</td>
<td>M</td>
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<td>36</td>
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<td>27.9.12</td>
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<td>PANDIRAJ</td>
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<td>3.9.12</td>
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<td>M</td>
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<td>DEVASAGAYAM</td>
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<td>F</td>
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<td>24.10.12</td>
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<td>GRADE I</td>
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<td>81411</td>
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<td>55</td>
<td>F</td>
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<td>5.11.12</td>
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<td>79762</td>
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<td>47</td>
<td>F</td>
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<td>75265</td>
<td>GABRIEN</td>
<td>53</td>
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</tr>
<tr>
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<td>79822</td>
<td>SELVAM</td>
<td>54</td>
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<td>4.11.12</td>
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<td>15.10.12</td>
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<td>80008</td>
<td>AMALA</td>
<td>24</td>
<td>M</td>
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<td>22.10.12</td>
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<td>F</td>
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<td>20.12.12</td>
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<td>GRADE I</td>
</tr>
<tr>
<td>Sl. No</td>
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<td>NAME</td>
<td>AGE</td>
<td>SEX</td>
<td>DOA</td>
<td>DOD</td>
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<td>RESULT</td>
</tr>
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<tr>
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<td>MADASAMY</td>
<td>60</td>
<td>M</td>
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<td>13.9.12</td>
<td>18</td>
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</tr>
<tr>
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<td>84465</td>
<td>SYED ALI</td>
<td>37</td>
<td>M</td>
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<td>28.11.12</td>
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<tr>
<td>24</td>
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<td>33</td>
<td>M</td>
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<td>M</td>
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# URINE AND MOTIONS EXAMINATION BEFORE AND AFTER TREATMENT – OP & IP PATIENTS

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I.P.No: 2682  
Age / Sex: 52 /M

BEFORE TREATMENT

AFTER TREATMENT

Name: Sudalaimuthu  
I.P.No: 2596  
Age / Sex: 56 /M

BEFORE TREATMENT

AFTER TREATMENT
Name: Balakrishnan  
I.P.No: 2347  
Age / Sex: 60 / M

BEFORE TREATMENT

AFTER TREATMENT

Name: Sornam  
I.P.No: 80380  
Age / Sex: 36 / F

BEFORE TREATMENT

AFTER TREATMENT
ALOEVERA GEL DRESSING
DISCUSSION

The clinical features of VIRANAM described in Siddha system can be compared with SKIN ULCERS in modern medicine. Forty patients were selected and the diagnosis was made with the help of Siddha diagnostic tools along with modern parameters and all of them were treated with the trial drugs. The observations are discussed under the following topics.

SEX DISTRIBUTION

Male sex was predominantly affected about 95%. Female sex was affected about 5%. Males are vulnerable to ulcers when compared to female victims because of their environmental exposure.

AGE DISTRIBUTION

The prevalence of Viranam was common in the age group mainly above 50 years due to their immunological variance.

SOCIOECONOMIC STATUS

Out of 40 patients, 70% belonged to poor socio economic status which reveals their poor health status.

MODE OF ONSET

Out of 40 patients, 52.5% were acute ulcers and 37.5% were chronic ulcers.
ETIOLOGY

Out of 40 cases, 40% of ulcers were due to trauma and 52.5% due to systemic illness.

DURATION OF ILLNESS

Out of 40 patients, 37.5% were found to have ulcers for more than a year.

CLINICAL FEATURES

Most of the patients were suffered from pain, discharge, itching, foul smell in the ulcers.

TYPES OF ULCER(SIDDHA CONCEPT)

Out of 40 cases, Iyya pun were 15%, vali pitha pun 35% and kurudhi pitha pun 10%.

TYPES OF ULCER(MODERN CONCEPT)

Out of 40 cases, 42.5% ulcers were traumatic, 35% were varicose, 7.5% were diabetic ulcers.

OCCUPATION

Out of 40 cases, 32.5% were manual workers. 20% were watchman and 17.5% were hotel and tea-stall workers.
MUUKUTTRAM:

Out of 40 cases, Vyanan, Samanan affected in 87.5% and Vyanan, Samanan and Abanan affected in 12.5% cases.

Out of 40 cases, Prasagam affected in 65% and both Ranjagam and Prasagam affected in 35%.

Out of 40 cases, Avalambagam affected in 7.5% cases.

UDAL THATHUKKAL:

Among the sevan udal thathukkal Saaram, Senneer, Oon, Kozhuppu were affected in all the cases.

ENN VAGAI THERVUGAL:

Niram and Sparisam (changes in skin) were affected in all 40 cases.

Vadha kabam and Vadha pitham naadi had the higher incidence in most of the cases.

NEERKURI AND NEIKKURI:

In Neerkuri, 87.5% of patients had vaikkol niram and 12.5% had venmai niram.

In Neikkuri, majority of the cases had thontha neikkuri, 15% of cases had salladai kann, 7.5% had pearl appearance.
INVESTIGATION:

Along with Siddha diagnostic procedures, modern parameters were also used. Routine examination of blood, urine and other investigation procedures were carried out.

TREATMENT

All the patients were treated with

- Kukkil choornam – 1.5 gm 2 times a day with Honey or Cow’s ghee
- Virana sanjeevi thylam – Required amount of oil is applied over the affected areas.

The trial drugs were administered to the patients from the time of admission and continued till the symptoms get reduced. The treatments aimed at providing relief from symptoms.

Diet restrictions and personal hygiene were instructed during the course of the treatment.

During discharge the patient was advised to follow the above said instruction and to have periodic check-up.

RESULTS AFTER TREATMENT

Based on the outcome all the 40 patients have been classified into 4 grades.
Treatment with both Internal and External medicines

- **Grade I** (Complete healing with no recurrence for 3 months) – 40%
- **Grade II** (Complete healing with recurrence) – 43%
- **Grade III** (Partial healing) – 13%
- **Grade IV** (No healing) – 4%

Treatment with External medicine alone

- **Grade I** (Complete healing with no recurrence for 3 months) – 50%
- **Grade II** (Complete healing with recurrence) – 10%
- **Grade III** (Partial healing) – 20%
- **Grade IV** (No healing) – 20%

**OVERALL RESULTS**

- **Grade I** (Complete healing with no recurrence for 3 months) – 42.5%
- **Grade II** (Complete healing with recurrence) – 35%
- **Grade III** (Partial healing) – 15%
- **Grade IV** (No healing) – 7.5%
SUMMARY

Viranam is compared with the skin ulcers of modern science with reference to its definition, aetiology, classification, pathogenesis, diagnosis and treatment.

Forty patients were selected from different age and sexes from Post Graduate department of Sirappu Maruthuvam for study purposes. Among them 25 cases were treated as Out patients and 15 cases were treated as In patients.

- Detail history of the patients was collected from them before starting the treatment.
- Various Siddha diagnostic tools like uyir thathukkal, udal thathukkal and enn vagai thervugal were used and the data obtained from the methods were recorded in the proforma.
- The diagnosis was endorsed by modern techniques.
- The trial drugs are KUKKIL CHOORNAM as Internal medicine and VIRANA SANJEEVI THYLAM as External medicine.
- Along with medication, the patients were advised over their dietary habits and personal hygiene.
- The efficacy of the drugs was studied by pharmacological analysis and Biochemical analysis. The pharmacological studies revealed
that the trial drugs had significant wound healing effect and anti-inflammatory action.

- Daily progress of all the patients was noted.
- No side effects were reported during and after the course of the treatment.
- The observations made during the clinical study shows that the drugs Kukkil choornam and Virana sanjeevi thylam were clinically effective.
CONCLUSION

People from all over the world are looking today for safer and effective traditional treatment for diseased conditions with minimum negative offshoots. With the foundation laid by our siddhars simple and chronic ulcers are treated with Internal medicine “KUKKIL CHOORNAM” and External medicine “VIRANA SANJEEVI THYLAM”.

Results shows 42.5% of patients had complete healing effect with no recurrence of Viranam, 35% had recurrence of Viranam and only 7.5% had no healing effect.

Treating skin ulcers with the above said medicines are found to be efficient in healing ulcers without any side effects and improved the general health of the patients.
இலையே வெள்ளியம்

அனைத்து குறைவில் மட்டும்

92
KUKKIL CHOORANAM - INTERNAL MEDICINE

[Images of various medicinal plants and seeds]
KUKKIL CHOORANAM - INTERNAL MEDICINE

VIRANA SANJEEVI THYLAM – EXTERNAL MEDICINE
ANNEXURE- I

STANDARD OPERATING PROCEDURE FOR PREPARATION OF
KUKKIL CHOORNAM(Internal) AND VIRANA SANJEEVI

THYLAM(External)

KUKKIL CHOORNAM – INTERNAL MEDICINE

Ref: Agathiyar erandayiram

KUKKIL CHOORNAM:

INGREDIENTS:

Purified Kukkil (Commiphora mukkul) - 140 gm
Purified Parangipattai (Smilax china) - 140 gm
Purified Gandhagam (Sulphur) - 140 gm
Milagu (Piper nigrum) - 70 gm
Kurosaniomam (Hyocyamus niger) - 70 gm
Jadhikkai (Myristica fragrans) - 70 gm
Sittrarathai (Alpinia officinarum) - 70 gm
Nellimulli (Phyllanthus emblica) - 70 gm
Thippili (Piper longum) - 70 gm
Jadhipathiri (Myristica fragrans) - 70 gm
Thandrithol (Terminalia bellerica) - 70 gm
Seeragam (Cuminum cyminum) - 70 gm

**PURIFICATION OF DRUGS**

**KUKKIL**

Fermented with neembark decoction for three days and washed with cool water. Same procedure is repeated with a mixture of buttermilk, vinegar and lime juice. Then it is boiled with milk and fried with ghee.

**PARANGIPATTAI**

Steamed with milk.

**GANDHAGAM**

It is melted along with cow’s butter and poured into cow’s milk for thirty times.

Other drugs are cleaned, fried slightly and taken.
METHOD OF PREPARATION

The ingredients are fried, powdered, filtered in a cloth (vasthrakayam) and taken.

**Dose**: 1.5 gms

**Adjuvant**: Honey/Ghee

**Indication**: Megam, Soolai, Pun, Kiranthi

VIRANA SANJEEVI THYLAM – EXTERNAL MEDICINE

Ref: Theran thaila varka churukkam

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- *Viraña Sanjeevi Thylam* – *External Medicine*

Ref: Theran thaila varka churukkam
VIRANA SANJEEVI THYLAM

INGREDIENTS:

- Purified serangottai (Semecarpus anacardium) - 20
- Purified Thalagam (Arsenic Trisulphide) - 25 gm
- NalEnnai (Gingelly oil) - 700 gm

PURIFICATION OF DRUGS

SERANGOTTAI:

Beak of the fruits are removed and soaked in cow dung water. It is then burnt along with the cow dung water.
THALAGAM:

Drug is placed in a cloth and tied slightly. A pot full of cow’s urine and lime stone is mixed and placed under fire. The cloth is allowed to lie above the base of the vessel. It continues till the content gets dried. It is then washed and taken.

METHOD OF PREPARATION:

Pour gingelly oil in a vessel. Sprinkle powdered thalagam into the vessel. Cut each serangottai into two pieces and put into the oil. Apply heat gently until the extract gets mixed with the oil. Then pour the oil into the mixture of equal amount of rice water and water. Keep the vessel without any disturbance. Next day collect the oil floating on the surface and apply heat. Filter the oil and it is ready for use.

Indication: Viranam

VENGAARA NEER (For External wash)

Ingredients:
Vengaaram(Borax) - Required amount
Water - Required amount

Purification:

Vengaaaram is powdered and fried.

Preparation:

Purified vengaaram is mixed with water and used for external wash
PROPERTIES OF TRIAL DRUGS

INTERNAL MEDICINE

KUKKIL CHOORANAM:

**Botanical Name**: Commiphora Mukkul
**Family**: Burseraceae
**Parts used**: Resin

**Constituents**: Resin Gum, Volatile Oil, Bitter principle

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2. **Smilax china**

**Botanical name**: Smilax china
**Family**: Liliaceae
**Parts used**: Root
Constituents:

Taxifolin – 3 – 0 – glycoside, Oxyresveratrol, Saponins, Smilaxin, Prosapogenin A, Gracillin, Mehygracilin.

3. குறுக்கு

Chemical Name : Sulphur

வழக்கம் : செலைப்பா, செள்ளைப்பா

சமவெளி : பிற்பருவப்பாதை, புன்மோக்க பா, செல்லுயில், குரூப்பக்க பா, செல்லுமுன்வா, செல்லுமுன்வா, செல்லுமுன்வா, செல்லுமுன்வா. செல்லுமுன்வா முன்வா.
குறிப்பிடத்தல்: காண்டூர் கான் திரும்புக் குளம்பிலிடத்தில் குறிப்பிட்ச்சு பாதுகாப்பாளர் பின் வழங்கப் பணமை என்று சான்றகம். திரும்புக் குளம்பிலிடத்தில் வண்ணம் வளர்ந்து காண்டூர் குறிப்பிட்ச்சு.

பாரதங்கள்:

'நெல்லைக்காப்பை குறிப்பிட்சு சிறந்த விளையாட்டில் காட்சிகளும்'

மனவை நிலைக்கும் வாப்பாலிட்டுகள் - ஆர்கோ

விளையாட்டில் தமிழில் விளையாட்டில் விளையாட்டில்

நிலைக்குக் குறிப்பிட்சு விளையாட்டில்

திரும்பு குளம்பி கால்நடுக் குளம்பான், மல்லா, கொடும்பு, சிற்றா, பாறாப்புற, கலை மல்லா, குருவையுருவான், தம்ப்பா சிற்றா நம்பான், தம்ப்பா குருவையுருவான், மல்லா குருவையுருவான், மல்லா பாறாப்புறான்.

4. மிகுந்த:

Botanical Name : Piper Nigrum
Family : Piperaceae
Parts used : Fruit

கடை : காப்பு, காப்பு

அரசா : ஆரியாம்பாடுகள், பாள்ளியாம்பாடுகள், தம்ப்பாடு<vector> கள், பாள்ளியாடுகள் குருவையுருவான், மல்லா குருவையுருவான், மல்லா பாறாப்புறான்.
Constituents:

Piperine, Pipercide, Carvone, Carvacrol.

5. குருதியால் ஆடம்

Botanical Name : Hyoscyamus Niger

Family : Solanaceae

Parts used : Seeds

கலை : காம்பு, கும்பகம்பு

பாதகம்: சட்டக்குழாத்த குழாத்த குழாத்த,
சிறிகள், சிறிகள்,
சிறுத்தாய்ப்பாடை

விப்பவியல்:

'என்றும் தீயவாய் பிரித்து பயிட்டு
தாம் விரு புரியாது விளங்கி - மிகப்பள்ளி
இல்லாத பலகையிலும் விருப்ப இணையிலும்
சார்ந்த மலச்சு மேல்”
Constituents:

Tropane alkaloids, Hyoscyamine, Scopolamine

6. 

Botanical Name: Myristica fragrans.
Family: Myristicaceae
Parts used: Fruit

Constituents:

Myristine, Myristic acid, Essential oil
7. கொம்பளக்கு

Botanical Name : Alpinia Officinarum

Family : Zingiberaceae

Parts used : Rhizome

கல்வி : கட்டி

பொறித்து : கோழலம்பகுதி, கோழல்ம்பகுதி,

போட்டார்த்தது

புராநிகள்:

‘விமானணையும் உணவியும் குற்று கருத்திட்டம்

பாலணை குற்று பருகுவதியும் - காலவை சமி

பொது கருப்பாலை மாகையும் பருகுவதியும்

புராநிகள் உணவுக்கு காற்று’

துரைந்து நீராக்கிகளை, கல்வி, உடலை, தாம்பர் செய்ய காலவை, கருப்பாலை, மாகளை குற்று, பங்குகை குற்று, மாகாலை கருத்தி, குற்று காற்று

பொது கார்த்த ஈடுக

Constituents:

Alpinin, Galangol, Galangin, Methyl Cinnamate.

8. பைக்குர்க்கு

Botanical Name : Phyllanthus emblica

Family : Euphorbiaceae

Parts used : Fruit
Constituents:

Emblicanin A, Emblicanin B, Tannin, Ellagic acid, Vit –C

9. முப்புற

Botanical Name : Piper longum
Family : Piperaceae
Parts used : Fruit

கலம் : புளிப்பு, தோய்ப்பு, தொட்டி

காப்பு : தொண்டைக்குளுக்கு, சிற்றினிப்புக்கு, மல்லிக்குத்து. 
Constituents:

Cubebin, Cubebinone, Cubebinin, Cubebin, Piperenone.

10. Botanical Name

Botanical Name : Myristica fragrans
Family : Myristicaceae
Parts used : Aril

பொருள்

கலை : காற்று, துளைப்பு

விளையாட்டு : கருப்புக் கொள்கல், அருமைப்புச்சை

முக்குடியாரிக், உடல்பத்தியாரிக்.

பார்வதீஸ்வரம்:

“சுப்பிரமணியர் பூவியாளர் நம் கருத்தில்

கும்பலை பிள்ளா தொழில்வீர் - காலையில்

பொருட்டள உணவகியப்பு இன்னும் குறித்தும்

பொருட்டள குறித்து பக்தா”

தில்லியா காலையில், வேளையில், பசுகையில் பாகம்.
11. கூலிப்பந்தம்

**Botanical Name**: Terminalia bellirica

**Family**: Combretaceae

**Parts used**: Fruit

**காலம்**: தேதிப்படி

**நோய்க்கல்**: தேதிப்படி, தேதியருக்குமிடு, மலர்த்தக்கிற, குருவக்கிற

**பரந்தளவியல்**:

‘கூலிப்பந்தல் கனப்பந்தால் கூலிப்பந்தயாள்

நோய்க்கல்லால் பொன்றுள்ள தீயால தெய்வித்தலில்

அண்ணளவால் செம்பருந்தில் நீர்வைத்து

அண்ணல்லால் தொன்ஷைக்குள் குளை’

திருச்சிராதை சிவப்புமலர்கள், யானைகளமலர்கள், மலர்கள், நீர்கள் அமுக்கு

குருவான், வேல்ச்சூட்டகால் அறும் ரோம்பால் தீர்த்த.

**Constituents:**

β – sistosterol, Gallic acid, Ellagic acid, Mannitol.

12. குமினம்

**Botanical Name**: Cuminum cyminum

**Family**: Umbelliferae

**Parts used**: seeds

**காலம்**: தேதிப்படி, திடிப்படி
காரணிகள்: அசுரிகும்பைகுரி, தம்பற்பூட்டகு பிரிவுப் போல், குழுப்பைகள், நீல்பூட்டக், தோற்றங்கள்.

செயல்பாடுகள்:

"சுமீசோயில் தானியாக விளக்கும் பிள்ளையார் பிள்ளையார் பிள்ளையார்
சுமீசோயில் தானியாக விளக்கும் பிள்ளையார் - பிள்ளையார்
தானியா விளக்கும் தானியா பிள்ளையார்
தானியா விளக்கும் தானியா".

தற்போது ஆரம், மொழியிடும், மொழியிடும், மொழியிடும், மொழியிடும், மொழியிடும், மொழியிடும்
சுமீசோயில், தானியாக, தானியா, தானியா, தானியா, தானியா, தானியா.

Constituents:

Cuminoside A, Cuminoside B, Sesquiterpenoid glucosides.
EXTERNAL MEDICINE
VIRANA SANJEEVI THYLAM

1. Sriyakamamal

Botanical Name : Semecarpus anacardium
Family : Anacardiaceae
Parts used : Fruit

2. Botanical Name : Semecarpus anacardium
Family : Anacardiaceae
Parts used : Fruit

Constituents:

Bhilawanol, Biflavanone, Semecarpetin, Semecarpol, Anacardic acid.
Name : Gingelly oil
Botanical name : Sesamum indicum
Family : Pedaliaceae
Parts used : Oil from seeds

Constituents:
Sesamin, Sesamolin, Phytosterol, vit – E, Plant sterol.
ANNEXURE - II
GOVT SIDDHA MEDICAL COLLEGE- PALAYAMKOTTAI
BIOCHEMICAL ANALYSIS OF KUKKIL CHOORNAM

PREPARATION OF THE EXTRACT: 5gms of the drug was weighed accurately and placed in a 250ml clean beaker. Then 50ml of distilled water added to it and dissolved well. Then it was boiled well for about 10 minutes. It was cooled and filtered in a 100ml volumetric flask and then it is made up to 100ml with distilled water. This fluid was taken for analysis.

Qualitative Analysis

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Experiment</th>
<th>Observation</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Test for calcium</td>
<td>A white precipitate is formed.</td>
<td>Indicates the presence of calcium.</td>
</tr>
<tr>
<td></td>
<td>2ml of the above prepared extract is taken in a clean test tube. To this add 2 ml of 4% ammonium oxalate solution.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Test for sulphate:</td>
<td>No white precipitate is formed.</td>
<td>Indicates the Absence of sulphate.</td>
</tr>
<tr>
<td></td>
<td>2ml of the extract is added to 5% barium chloride solution.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Test for chloride</td>
<td>No white precipitate is formed.</td>
<td>Indicates the absence of chloride.</td>
</tr>
<tr>
<td></td>
<td>The extract is treated with silver nitrate solution.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Test</td>
<td>Description</td>
<td>Result</td>
</tr>
<tr>
<td>-----</td>
<td>-----------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>4.</td>
<td><strong>Test for carbonate</strong></td>
<td>The substance is treated with concentrated HCl.</td>
<td>No brisk effervescence is formed.</td>
</tr>
<tr>
<td>5.</td>
<td><strong>Test for Starch</strong></td>
<td>The extract is added with potassium ferro cyanide.</td>
<td>Blue colour is formed</td>
</tr>
<tr>
<td>6.</td>
<td><strong>Test for iron Ferric</strong></td>
<td>The extract is treated with concentrated glacial acetic acid and potassium ferro cyanide.</td>
<td>No blue colour is formed.</td>
</tr>
<tr>
<td>7.</td>
<td><strong>Test for iron Ferrous:</strong></td>
<td>The extract is treated with concentrated nitric acid and ammonium thio cyanate.</td>
<td>Blood red colour is formed.</td>
</tr>
<tr>
<td>8.</td>
<td><strong>Test for phosphate</strong></td>
<td>The extract is treated with ammonium molybdate and concentrated nitric acid.</td>
<td>No Yellow precipitate is formed.</td>
</tr>
<tr>
<td>9.</td>
<td><strong>Test for albumin</strong></td>
<td>The extract is treated with Esbach’s reagent.</td>
<td>No yellow precipitate is formed.</td>
</tr>
<tr>
<td>10.</td>
<td><strong>Test for Tannic acid</strong></td>
<td>The extract is treated with ferric chloride reagent.</td>
<td>No Blue black precipitate is formed</td>
</tr>
<tr>
<td>11.</td>
<td><strong>Test for unsaturation</strong></td>
<td>Potassium permanganate solution is added to the extract.</td>
<td>It gets decolorized.</td>
</tr>
</tbody>
</table>
12. **Test for the reducing sugar**
5ml of benedict’s qualitative solution is taken in a test tube and allowed to boil for 2 mts and added 8-10 drops of the extract and again boil it for 2 mts.

| No Colour change occurs. | Indicate the absence of reducing sugar |

13. **Test for amino acid:**
One or two drops of the extract are placed on a filter paper and dried it well. After drying, 1% ninhydrin is sprayed over the same and dried it well.

| No Violet colour is formed. | Indicates the absence of Amino acid. |

14. **Test for zinc:**
The extract is treated with potassium ferrocyanide

| No white precipitated | Absence of zinc |

**Result:**

The trial drug **KUKKIL CHOORNAM contains**

- *Calcium*
- *Starch*
- *Ferrous iron*
- *Unsaturated compound*
PHARMACOLOGICAL ANALYSIS

WOUND HEALING EFFECT OF VIRANA SANJEEVI THYLAM

Aim:

To study the wound healing effect of Virana sanjeevi thylam on Albino Rats.

Procedure:

The experiment was conducted on 6 albino rats (both sex) weighing 200-300 g. The animals were caged individually in a controlled environment (temperature 30°C). Food and water were available to the rats. For carrying out the experiment, Institutional Animal Ethics Committee permission was taken.

Prior to creating excisional wounds the rats were anesthetized and then the animals were shaved on the back and the skin was disinfected using cotton and alcohol wipes. Using sterile surgical instruments round full thickness skin wounds measuring 500 mm² were created in the paravertebral area, 1.5 mm from midline on the back of rats. 0.1ml of Staphylococcus aureus organism from the peptone water medium maintained at 37°C is injected into the subcutaneous area of the excision wounds created in the albino rats.

All the 6 rats were then randomly allocated to three groups, each group containing two rats each, namely control (Group A), standard (Group B) and treatment (Group C). For the treatment Virana sanjeevi thylam was
applied over the wound surface of Group C rats twice daily. For the standard Neomycin was applied over the wound surface of Group B rats twice daily. Control Group A received no drug treatment. The applications continued for 14 days from the start of the experiment.

To measure the contracture of the wound, a transparent plastic paper was placed on the location of wound and its shape was drawn on the same paper with a marker and then matched with the graph paper for finding the area of the wound (expressed in mm$^2$).

Wound healing was measured on Days 2, 4, 6, 8, 10, 12 and 14 of the experiment. Percentage of wound healing was calculated according to the Walker formula.

The total number of days required for complete epithelization of the wound was noted in each rat in both the groups (e.g. fall of scab without any raw area)

Results are tabulated below,

<table>
<thead>
<tr>
<th>Groups</th>
<th>Initial</th>
<th>Day2</th>
<th>Day 4</th>
<th>Day 6</th>
<th>Day 8</th>
<th>Day 10</th>
<th>Day 12</th>
<th>Day 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A</td>
<td>500</td>
<td>476</td>
<td>402</td>
<td>350</td>
<td>285</td>
<td>198</td>
<td>132</td>
<td>109</td>
</tr>
<tr>
<td>Group B</td>
<td>500</td>
<td>395</td>
<td>356</td>
<td>290</td>
<td>200</td>
<td>113</td>
<td>34</td>
<td>0</td>
</tr>
<tr>
<td>Group C</td>
<td>500</td>
<td>400</td>
<td>386</td>
<td>300</td>
<td>215</td>
<td>136</td>
<td>45</td>
<td>0</td>
</tr>
</tbody>
</table>

Percentage of wound area = Wound area on day X/ Wound area on day 1 x 100

Percentage of wound healing = 100-Percentage of wound area
X- Axis refers to the size of the wound created in the rats

Y- Axis refers to the days treated

<table>
<thead>
<tr>
<th>Percentage of wound healing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups</td>
</tr>
<tr>
<td>Group A</td>
</tr>
<tr>
<td>Group B</td>
</tr>
<tr>
<td>Group C</td>
</tr>
</tbody>
</table>

**Inference:**

Hence our trial drug Virana sanjeevi thylam has significant wound healing action equal to that of the modern drug Neomycin comparison showed in the graph plotted above.
ACUTE ANTI - INFLAMMATORY STUDY ON VIRANA
SANJEEVI THYLAM(EXTERNAL USE)
BY HIND-PAW METHOD IN ALBINO RATS

Aim:

To study the acute anti-inflammatory activity of the test drug VIRANA SANJEEVI THYLAM

Preparation of the test drug:

The Virana Sanjeevi Thylam was prepared as per the preparation given in Theran thila varka churukkam.

Procedure:

Nine healthy albino rats weighing 100-150gm were taken and divided into three groups, each consisting of 3 rats.

First group was kept as control by giving distilled water of 2ml/100gm of body weight. The second group was kept as test group. The third group was given the standard drug.

Before application of the test drug the Hind-paw volume of all the rats were measured. This was done by dipping the Hind-paw up to the tibio-femoral 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.
One hour later, a sub-cutaneous injection of 0.1ml of 1%( w/r) Carrageenan water made into plantar surface of both Hind-paw of each rat. To the second (last) group *Virana Sanjeevi thylam* was topically applied for three times over the inflammed surface in a thin layer for every 15mts for an hour. To the contol group no drug was applied over the inflammed surface. To the standard group the standard drug Ibuprofen in a dose of 20mg/100gm body weight was given.

Three hour after injection the Hind-paw volume was measured once again. The difference between the initial and final volume would show the amount of inflammation. Taking the volume in the control group as 100% of inflammation, anti – inflammatory effect of the test group is calculated.
EFFECT OF VIRANA SANJEEVI THYLAM

<table>
<thead>
<tr>
<th>Group</th>
<th>Drugs</th>
<th>Dose 100 gm of body weight</th>
<th>Initial value</th>
<th>Final value</th>
<th>Difference</th>
<th>Percentage Inflammation</th>
<th>Percentage Inhibition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>Water</td>
<td>2ml</td>
<td>0.55</td>
<td>1.4</td>
<td>0.85</td>
<td>100</td>
<td>-</td>
</tr>
<tr>
<td>Standard</td>
<td>Ibuprofen</td>
<td>20mg</td>
<td>0.55</td>
<td>0.75</td>
<td>0.20</td>
<td>23.5</td>
<td>76.5</td>
</tr>
<tr>
<td>Test drug</td>
<td>Virana sanjeevi thylam</td>
<td>Ext</td>
<td>0.65</td>
<td>1.0</td>
<td>0.35</td>
<td>41.1</td>
<td>58.9</td>
</tr>
</tbody>
</table>

**Inference:**

The test drug has **SIGNIFICANT** anti-inflammatory action externally.
ANNEXURE – 4

ASSESSMENT FORM

FORM I    -    SCREENING & SELECTION PROFORMA
FORM II   -    CLINICAL ASSESSMENT ON
               ENROLLMENT
FORM II A -    CLINICAL ASSESSMENT DURING &
               AFTER TRIAL
FORM III  -    LABORATORY INVESTIGATION ON
               ENROLLMENT & CONCLUSION OF TRIAL
FORM IV   -    CONSENT FORM
FORM IV A -    WITHDRAWAL FORM
FORM IV B -    DRUG COMPLIANCE FORM
GOVERNMENT SIDDHA MEDICAL COLLEGE & HOSPITAL
POST GRADUATE DEPARTMENT
PALAYAMKOTTAI. TIRUNELVELI – 627 002

Branch – III Sirappu Maruthuvam

A PILOT STUDY TO EVALUATE THE THERAPEUTIC EFFICACY OF SIDDHA FORMULATION KUKKIL CHOORNAM (INTERNAL) AND VIRANA SANJEEVI THYLAM (EXTERNAL) IN VIRANAM (SKIN ULCERS).

FORM I - SCREENING & SELECTION PROFORMA

1. OP/IP NO: ---------------
2. NAME: ---------------------
3. RELIGION: H / C / M / O
4. AGE/GENDER: -------
5. OCCUPATION: ---------------------
6. INCOME: ---------------
7. CONTACT NUM: ---------------
8. INCLUSION CRITERIA
   • Age :15-60 yrs
   • Sex : Both male and female
   • Willing to give specimen of blood for the investigation whenever required.
• Willing for admission and study in IPD for 40 days or willing to
  attend OPD

• Acute and chronic ulcers

9. EXCLUSION CRITERIA:

• Age below 15 and above 60

• Pregnant and lactating women

• Severe renal, hepatic, cardiac diseases

• Malignant ulcers

• Uncontrolled diabetes

• Syphilitic ulcers

• Ischaemic ulcers

ADMITTED TO TRAIL:

YES                       NO

If Yes Serial NO:

Date:
Station:
Signature of the Investigator:
Signature of the Lecturer:  Signature of the HOD
GOVERNMENT SIDDHA MEDICAL COLLEGE & HOSPITAL
POST GRADUATE DEPARTMENT
PALAYAMKOTTAI. TIRUNELVELI – 627 002

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FORM II AND II-A CLINICAL ASSESSMENT ON ENROLLMENT AND ON VISITS

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:
12. COMPLAINTS & DURATION:

13. HISTORY OF PRESENT ILLNESS:

14. PAST HISTORY:

15. FAMILY HISTORY:

16. MENSTRUAL HISTORY (If applicable):

17. HABITS:

   1. Smoker
   2. Alcoholic
   3. tobbaco chewer
   4. betel nut chewer
   5. Non-Vegetarian
   6. Drug addiction

18. GENERAL EXAMINATION:

   1. Body weight [Kg]
   2. Height [cm]
   3. Body Temperature [F]
   4. Blood Pressure (mmHg)
   5. Pulse Rate /min.
   6. Heart Rate /min.
   7. Respiratory Rate /min.
   8. Pallor
9. Jaundice
10. Clubbing
11. Cyanosis
12. Pedal Oedema
13. Lymphadenopathy
14. Jugular venous pulsation

19. CLINICAL EXAMINATION:

I. INSPECTION:

- Size
- Shape
- Number
- Position
- Edge
- Floor
- Discharge
- Surrounding area

II. PALPATION

- Tenderness
- Depth
- Edge and margin
- Base
• Bleeding
  • Relation with deeper structures

III. EXAMINATION OF LYMPH NODES

IV. EXAMINATION FOR VARICOSE VEINS

V. EXAMINATION FOR NERVE LESION

VI. CLINICAL ASSESSMENT:
  • History of ulcer
  • Anatomical site
  • Appearance of lesion
  • Surrounding skin

20. EXAMINATION OF OTHER SYSTEMS:
  • CVS
  • RS
  • CNS
  • ABDOMEN
  • GENITO-URINARY

EXAMINATION - SIDDHA ASPECTS

1. NILAM:
2. KAALAM:


3. YAAKKAI:


4. GUNAM:

   1. Sathuvam    2. Rasatham    3. Thamasam

5. KANMENDHIRIUM / KANMAVIDAYAM

   1. Kai
   2. Kaal
   3. Vaai
   4. Eruvaai
   5. Karuvaai

6. UYIR THATHUKKAL:

1. VATHAM:

    1. Piraanan
    2. Abaan
    3. Viyaanan
    4. Uthaanan
5. Samaanan
6. Naagan
7. Koorman
8. Kirukaran
9. Devathathan
10. Dhananjeyan

II. PITHAM:
1. Analam
2. Ranjagam
3. Saathagam
4. Aalosagam
5. Praasagam

III. KABAM:
1. Avalambagam
2. Kilethagam
3. Pothagam
4. Tharpagam
5. Santhigam

7. UDAL THAATHUkkAL:
1. Saaram
2. Senneer
3. Oon
4. Kozhuppu
5. Enbu
6. Moolai
7. Sukkilam / Suronitham

8. ENVAGAI THERVUGAL:

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

Niram: Thanmai: Irugal: Ilagal:

8. Moothiram:

I. NEERKURI:

a. Niram
b. Manam
c. Edai
d. Nurai
e. Enjal
II. NEIKURI:

Vatha Neer        Pitha Neer        Kaba Neer

Date:

Station:

Signature of the Investigator:

Signature of the Lecturer:                     Signature of the HOD
GOVERNMENT SIDDHA MEDICAL COLLEGE & HOSPITAL
POST GRADUATE DEPARTMENT
PALAYAMKOTTAI. TIRUNELVELI – 627 002
Branch – III Sirappu Maruthuvam

A PILOT STUDY TO EVALUATE THE THERAPEUTIC EFFICACY OF
SIDDHA FORMULATION  KUKKIL CHOORNAM  (INTERNAL)
AND  VIRANA SANJEEVI THYLAM  (EXTERNAL) IN  VIRANAM
(SKIN ULCERS).

FORM III - LABORATORY INVESTIGATION

INVESTIGATION:

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. Total RBC Count

7. Serum Cholesterol

8. Blood Urea

9. Serum Creatinine
2. URINE

- Albumin
- Sugar
- Deposits

II. SPECIFIC INVESTIGATIONS

1. Bacteriological examination of the discharge of the ulcer.

2. Skin test:

   Mantoux test

3. Biopsy:

III. Chest X-Ray:

1. X-Ray of bone and joint:

2. Contrast radiography:

   - Arteriography
   - Phlebography

Date:                    Station:
Signature of the Investigator:
Signature of the Lecturer:    Signature of the HOD
GOVERNMENT SIDDHA MEDICAL COLLEGE & HOSPITAL
POST GRADUATE DEPARTMENT
PALAYAMKOTTAI. TIRUNELVELI – 627 002
Branch – III Sirappu Maruthuvam

FORM IV A - 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 ‘KUKKIL CHOORNAM (Internal drug)’ and ‘VIRANA SANJEEVI THYLAM (External drug)’ for the treatment of “VIRANAM(SKIN ULCERS)”.

Place: Signature
Date: Name

Witness
உள்ளிட்டு நிகழ்த்தும் கண்ணாடி வருமாறு வாழ்வுச் செய்முறை

பல்வேற்றுப் பின்புறச்செய்முறை

காக்கியில் குறுக்கு வருத்து உக்தியில் "காக்கிய் குறுக்கு குறுக்கு" எனும் பொருளில் காக்கியைச் சொல்லும் வகையில் ஆண்ட பரப்புடனுடைய

புதுவையிலும் தற்போன்று சட்டங்களிக்கான

தன்னால் விழா அர்றங்கள் வழிக் கொண்டு அன்றைய ஒருவர்களின் பெரும்பகுதியில் பின்னராக வடமாகின்ற புதுவை அர்றங்களை வகையில் வருமாறு.

துறை: காப்பட்டம்:

முறை:

நூற்றாண்டிலிருந்து வந்ததை அம்மன் கருவாக்கியதம் மத்தியின்

தவளையற்ற மத்தியில் அருத்தனைத்தில் புதுவையை செய்யக்கூட உள்ள

மற்றும் கண்காண்டுக் கூறுகளம், அதன்போது பதிவுக்காண்டும் புதுவை அம்மன் பதிவுக்காண்டு புதுவையில் விழிப்பு அர்றிகள்

பெருமானுக்கு அம்மன் பதிவுக் கூறு கூறுகளை குறிப்பிட்டு

தவளையற்ற மத்தியில் வந்ததை அம்மன் கருவாக்கியதம் காப்பான்

புதுவையிலும் தற்போன்று சட்டங்களிக்கான திரு அம்மனின்கூறு நூற்றாண்டு விழிப்பு கூறுகளில் வருமாறு சட்டங்களிக்கான.
தொண்டு வெளியூட்டும் குறிப்பிட்டுள்ளது இடுப்பாக விளக்கத்துக்கு
தொண்டு வெளியூட்டும் விளக்கத்துக்கு குறிப்பிட்டுள்ளது “நூறு
ஏற்றின் வரலாறு” அகழ்வரியில் பார்வையிற்கு விளக்கத்துக்குக் குறிப்பிட்டு மீண்டும்
அளிக்கும் வாயுவன் காட்சிகள் குறிப்பிட்டு அலகிகும்.

விளக்கம்:

எடுக்கப்பட்டது:

பட்டை:

சாத்திகரர் குறிப்பிட்டு:

பட்டை:
A PILOT STUDY TO EVALUATE THE THERAPEUTIC EFFICACY OF SIDDHA FORMULATION KUKKIL CHOORNAM (INTERNAL) AND VIRANA SANJEEVI THYLAM (EXTERNAL) IN VIRANAM (SKIN ULCERS).

FORM IV B - WITHDRAWAL FORM

1. SI NO: ------
2. OP/IP NO: ----------
3. NAME: -----------------
4. RELIGION : H / C / M / O
5. AGE/GENDER: -------
6. OCCUPATION: -----------------
7. SOCIAL STATUS: -------
8. CONTACT NUM: -----------------
9. DATE OF TRIAL COMMENCEMENT: -----------------
10. DATE OF WITHDRAWAL FROM TRIAL: -----------------
11. REASONS FOR WITHDRAWAL:
   • Long absence at reporting : Yes/ No
   • Irregular treatment: Yes/ No
   • Shift of locality : Yes/ No
   • Increase in severity of symptoms: Yes/ No
   • Development of severe adverse drug reactions: Yes/ No

Date:
Station:
Signature of the Investigator:
Signature of the Lecturer: Signature of the HOD
A PILOT STUDY TO EVALUATE THE THERAPEUTIC EFFICACY OF SIDDHA FORMULATION KUKKIL CHOORNAM (INTERNAL) AND VIRANA SANJEEVI THYLAM (EXTERNAL) IN VIRANAM (SKIN ULCERS).

FORM IV C - DRUG COMPLIANCE FORM

Name of the Drug: KUKKIL CHOORNAM

Drugs issued : (Mgs/Grams)

Drugs returned : (Mgs/Grams)

<table>
<thead>
<tr>
<th>S.NO</th>
<th>DATE</th>
<th>DRUG TAKEN TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>MORNING/TIME</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EVENING/TIME</td>
</tr>
<tr>
<td>Day 1</td>
<td></td>
<td></td>
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<tr>
<td>Day 2</td>
<td></td>
<td></td>
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<tr>
<td>Day 3</td>
<td></td>
<td></td>
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<tr>
<td>Day 4</td>
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<tr>
<td>Day 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upto 40 Days</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Date: 
Station: 
Signature of the Investigator: 
Signature of the Lecturer: 

Signature of the HOD
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➤ T.V. Sambasivampillai agarathy

➤ Theran thaila varkka churukkam

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➤ Agathiyar virana vaithyam

➤ Sarabenthira vaithya muraigal

➤ Viranam karappan roga chikitchai

➤ Aruvai maruthuvam – Dr. K.S Utthamarayan H.P.I.M

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➤ Theran Neerkuri Neikkuri

➤ Anubhava Vaidhya Navaneedham

➤ Gunapadam Mooligai vaguppu – Dr. Murugesu mudhaliyar

➤ Gunapadam Thathu Jeeva vaguppu

➤ Materia Medica – Nadkarni

➤ Taxonomy of Angiosperms

➤ Concept of viranam in Ayurvedha

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