A CLINICAL STUDY ON SIDDHA HERBAL FORMULATION "KUKKILATHY CHOORANAM" IN "RATHA MOOLAM" (BLEEDING PILES)

The Dissertation Submitted by

Dr.A.AISHWARYA

PG Scholar

Under the Supervision of

PROF.Dr.K.MANICKAVASAKAM.M.D(S),

Head of the Department of Maruthuvam & Former Director

National Institute of Siddha

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DECLARATION BY THE CANDIDATE

I hereby declare that this dissertation entitled "A Clinical Study On Siddha Herbal Formulation **"Kukkilathy Chooranam"** in "**Ratha Moolam**" (**BleedingPiles**). Guidance of **Dr. T. Lakshmi Kantham M.D(s)**, Department of Maruthuvam, National Institute of Siddha, Chennai -47, and the dissertation work has not formed the basis for the award of any Degree, Diploma, Fellowship or other similar title.

Date:

Place: Chennai -47

Signature of the candidate

(Dr. A.AISHWARYA)

BONAFIDE CERTIFICATE

Certified that I have gone through the dissertation submitted by **Dr.A.AISHWARYA,** (Reg No: 321511201) a student of Final year MD(S), Branch I, Department of Maruthuvam, National Institute of Siddha, Tambaram Sanatorium, Chennai-47 and the dissertation work has been carried out by the individual only. This dissertation does not represent or reproduced the dissertation submitted and approved earlier.

Date :

Place : Chennai-47

Name of the Signature of the Guide	Name of the Signature of the HOD
Dr.T.LAKSHMI KANTHAM,M.D(S)	Dr.K.MANICKAVASAKAM,M.D(S)
Lecturer/ Guide	Head of the Department
Department of Maruthuvam	Department of Maruthuvam
National Institute of Siddha.	National Institute of Siddha.

Forwarded by the Head of the Institute

Prof. Dr.V.BANUMATHI, M.D (S), Director

National Institute of Siddha

Tambaram Santorium, Chennai-600 047.

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INDEX

INTRODUCTION

Every system of medicine can help us to live a healthy, natural life by preventing diseases. It is well known that all the eyes of the world are turning to the natural medicine, especially indigenous system of medicine to find out a more acceptable drug for incurable diseases.Siddha system is one of the traditional systems of medicine well practiced in Tamil Nadu. Medicine is an ever-changing science. As new research and clinical experience broaden our knowledge, changes in treatment and drug therapy are required.

According to Siddha system of medicine five elements of nature, such as Earth, Water, Fire, Air, and Space combined with each other in an appropriate ratio constitutes three vital humors.

As per siddha science the physical functions of the body are mediated and maintained by three vital humors (Uyir thathukkal) Vali, Azal and Iyam. In normal state they are called Muthathu that sustain and nourish the body. In a diseased state the three vital humors are vitiated and become Mukkutram.

Siddha's fundamental principles never differentiated man from the universe. Siddha treats man as a 'whole' - a combination of body, mind and soul. Therefore, it is a truly holistic and integral medical system.

"உணவே மருந்து, மருந்தே உணவு"

Food habits,daily activities and mental status of an individual play a major role in causing diseases.

The diagnosis of disease in siddha system of medicine relies on eight diagnostic tools called Envagai Thervu such as Naadi, Sparisam, Naa, Niram, Mozhi, Vizhi, Malam, and Moothiram which are evaluated in terms of the three humors. Saint Agasthiyar identified 4448 diseases and one among them is Eruvai Mulai noi(Moolam).Any derangements in humors results in development of 4448 diseases. This disease is mainly due to aggravated vatha pitha humors which are evident from the quote mentioned below.

அனில பித்த தொந்தமலாது **மூலம்** வராது

\- தேரையர்

In Moola noi, increased keelvaikanal stimulates vatha humor which in turn stimulates pitha humor resulting in Moolam.So the symptoms like Constipation, bleeding during defecation, Pain in umbilical region,Pallor of the body, Headache,Giddiness are

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developed. In treatment aspect in order to suppress vatha humor and Pitha humor, prescribe cooling agents to suppress keelvaikanal.

As per siddha, siddhars notify moolatharam is a seat of kundalini sakthi (Energy point).Any irregular practice of yoga,food and lifestyle modification may disturb the moolatharam there by kundalini and results in disease called Moolam. As per saint Yugi "**Ratha Moolam**" is one among the 21 types pf moolam.The signs and symptoms are closely correlated with that of "**Internal haemorrhoids-Bleeding piles"** in modern scientific system of medicine.

In India approximately 40,723,288 people are reported to have hemorrhoids. 1 million new cases are reported annually, it is estimated that 50-85% of people around the world have hemorrhoids and in India 75% of the population is estimated. Current statistics suggest that almost half of people in their fifties have piles.

In the text of Anoboga vaithya navaeedham drug KUKKILATHY CHOORANAM, a Siddha formulation has been specifically indicated for Ratha MoolamThe main ingredients of the above said formulation are Kukkil (Shorea robusta), Purified Parangipattai (Smilax china), Purified Gandhagam (Sulfur), Arisithippili (Fruit of Piper longam), Kandathippili (Root of Piper longam), Vetpalaiarisi (Wrightiatinctoria),Vaividangam (Embelia ribes)is well known for its anti- Vatha and anti-Pitha properties, astringent (*Thuvarpi*), Anti inflammatory (*Veekamurukki),* Anthelmitic (*Puzhukolli),* Laxative activities (*Malam ilakki*) and Styptic (*Kuruthi Pokkadakki*) actions as per Siddha literature.

In National Institute of Siddha considerable number of cases of Ratha Moolam reported daily. With this background I have chosen "Ratha Moolam" for my clinical study. The above said drug KUKKILATHY CHOORANAM had been evaluate for its safety earlier,the clinical study on Ratha moolam has get to be evaluate. The mode of preparation seems to be simple and cost effective. Hence, I have selected this Siddha formulation KUKKILATHY CHOORANAM for clinical evaluation in Ratha Moolam.

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AIM AND OBJECTIVE

Aim:

To document and evaluate the efficacy of the siddha formulation KUKKILATHY CHOORANAM (Internal medicine) in the treatment of Ratha Moolam.

Objective:

Primary Objective:

To evaluate the therapeutic efficacy of Siddha formulation KUKKILATHY CHOORANAM in the treatment of Ratha moolam.

Secondary Objective:

- To authenticate and prepare the trialdrug as per standard operating procedure.
- To analyze the prevalence of Ratha moolam in the society in respect of age, sex, occupation, place and dietary influence etc.,
- To study the physico chemical analysis of the trial Drug.

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REVIEW OF LITERATURE – RATHA MOOLAM

Siddhar Agasthiyar classified diseases into 4, 448 and described each one separately and elaborately. They classified the diseases on the basis of **TRIDHOSHIC THEORY**.

MOOLA NOIGAL

"*Anila pitha thondhamalathu moolam varaathu*" (*Anilam-**Vaatham***, *Pitha-**Pitham***)As per saint theraiyar derangement of *vatham* and *pitha* humor due to lifestyle changes diet and deeds resulting moolam. The main vatha humor and pitha humor get affected cause in *moola noi* (Haemorrhoids). Moola noigal are diseases that occur in and around the Moolatharam. They include a wide varity of ano rectal diseases. Moolatharam area has been given maximum importance in Siddha system as it is the energy center of the body, the Kundalini. Although there are other Moolatharam areas in the body this area is the foremost energy centre, this is explained as follows,

"பாங்கான குண்டலிகுள் மூலமொன்று
பாரப்பா கண்டத்தில் மூலமொன்று
போங்கான புருவமைய மூலமொன்று
புகழான விந்துவிலே மூலமொன்று
வாங்கான சக்தியிலே மூலமொன்று
மருவிநின்ற பராபரத்தில் மூலமொன்று
தேங்காம லிதையாருங் கண்டஞானி
சேர்ந்து நின்ற மும்மூல யோகியாமே"

- **சட்டமுனிஞானம்**

This verse stands as an evidence to mark the importance of Moolatharam, among other Aathaarams namely, Swathittanam, Manippuragam. Anagatham, Vishuthi and Aagkini.

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Hemorrhoids

It is characterized by presence of muscular mass like tuber in anal region. A disease of the lower part of the rectum near the anus. There are three rings in the rectum at a distance of two or three inches above the anal orifice called as **Pravagini, Visarchini and Sambavani** when the three humors are vitiated causing fleshy excrescences to grow from the above three rings, known as piles which may be internal or external. When the growth projects outside, it is called external piles. But if it is inside it is called internal piles. Constipation of the bowels, difficulty in defecation, discharge of blood from the fleshy growths due to hard stools and pressure exerted are the general symptoms bleeding may also occur while passing urine due to pressure.

- **T.V Sambasivam pillai agarathi**

NOI VARUM VAZHI (ETIOLOGY)

Saint Yugi elaborately describes the various causes for all Moola noigal. Although the text does not mention about the causes separately for each type, it deals collectively within two verses the psychological aspects, Karmas, intrinsic and extrinsic factors of aetiology for all moola noigal. With this and other Siddha texts we can lay down the causes of the disease as,

- Karmas and psychological causes
- Due to inappropriate diets and acts
- Due to maintaining wrong postures in Yogasanam

According to Yugi vaithiya chinthamani

‘‘முனையாக மூத்தோரை வைதலாலும்
மோசங்கள் பண்ணியே கற்பழித்தும்
நினையாக நினைவிலொன்றும் வாக்கிலொன்றும்
நேர்ந்தபடி சொல்லுகின்ற நிட்டு ரர்க்கும்
புனையாக பரதேசி பந்துவானோர்
பசித்திருக்க உண்டதோர் பாதகர்க்கும்
தனையாகச் சமாதானந் தவிக்கின்றோர்க்கும்
சண்டாள மூலம் வந்து சனிக்குந்தானே’’

- **யூகி வைத்திய சிந்தாமணி**

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- Scolding elders
- Doing harm to others
- Indulging in rape
- Pretending good with sweet words harboring grudge at the back of the mind.
- Leading an extravagant life while neighbors' and the relatives are pining with hunger.
- Always quarrelling with others.

"தத்தையா மதிகமாங் குளிரினாலும்
தரியாத தழச்சியாற் கிரந்தி யாலும்
புத்தையாம் பொருந்தாத உஷ்ணத்தாலும்
புணர்ச்சியாய்க் கோபத்தாற் சலிப்பினாலும்
கத்தையாம் வெகுகாமம் வேண்டாலும்
கடினமா முப்பாலுங் காரத்தாலும்
மொத்தையாம் வெகுதனங்கள் போனதாலும்
மூலம்வந் துற்பத்தி முனையுந்தானே"

- யூகி வைத்திய சிந்தாமணி

As started above, the vali humour, especially ***Abana vayu*** is predominantly vitiated. The above song describes the aetiology of moolam, these are,

- Exposure to excessive heat and excessive cold
- Anger and frustration
- Anxiety and depression
- Increased sexual desire
- Heavy intake of salt and pungent food
- Scolding the elder people.

According to Agasthiyar Kanmakandam

"நீங்காத மூலநோய் கன்மத்தாலே
நிலைகெட்ட அபானத்தில் நெருப்போமீறி
வாக்காலே யபானத்தில் வாசல் தன்னில்
வந்து முளை மேகத்தால் சூட்டால் காணும்
தாக்கோ லாலடைத் தாற்போல வாயு நின்று
தன்மையுள்ள மலமதனை வறட்டித் தீய்ந்து

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பேய்கோலம் பண்ணுமடா மூல ரோகம்
புலத்தியனே பழவினைகளி னங்களே''

- அகத்தியார் கன்ம காண்டம்

According to karma hereditary factor plays an important role in the genesis of this disease. Karma theory is based on the belief that one is not dissociated from the fruits of the actions in the previous births. The intrinsic causes of inappropriate diet and acts

Adopting wrong yogic postures

During practice of Yogasanas continuing in prolonged sitting and straining postures predispose to vitiation of Vali humour, Azhal and moolaakkini leading to moola noigal.

According due to deranged varma nilai

If any injury to the utchi varman cause immediate collapse. If the trauma happens to be mild, the patient may develop difficulty in micturition and defecation. Persistent constipation leads to moola noi.

ACCORDING TO NOI VILAKKAM

There are 21 types of Moola Noigal; Ratha Moolam is one of the types of Moola Noigal.

குருதி எருவாய்முளை (இரத்தமூலம்)

''சேதியாய் தொப்புள்தண்ணில் வலித்து நொந்து
சிறுகதிர்போற் பீறிட்டு ரத்தம் வீழும்
மேதியாய் மேனிவற்றி வெளுத்துப் போகும்
மிக்ககைகா லசந்துமே சோகை யாகும்
மாதியாய் மார்பிளக்குந் தலைநோ வுண்டாம்
மயக்கந்தான் மிகுதியாய்த் தள்ளிப் போடும்
நாதியாய்க் கண்ணிரண்டு மஞ்சள் போலாம்
நலியும்ரத்த மூலத்தின் பண்பு தானே''

- **யூகி வைத்திய சிந்தாமணி**

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RATHA MOOLAM:

- Pain in umbilical region
- Pallor of the body
- Edema in both upper and lower limbs
- Chest pain
- Headache
- Giddiness
- Yellowish decoloration of eyes

NOI ENN (CLASSIFICATION)

Moolam has been classified into various types by different authors. Some of the types are described below.

Types of Moola noigal

According to Yugi vaithiya Chinthamani, Moolam is 21 types

- Neer Moolam
- Sendu Moolam
- Mulai Moolam
- Siru Moolam
- Varal Moolam
- **Ratha Moolam**
- Seezh Moolam
- Aazhi Moolam
- Thamaraga Moolam
- Kiranthi Moolam
- Kalappu Moolam
- Kutha Moolam
- Veli Moolam
- Churukku Moolam
- Savvu Moolam
- Vali Moolam
- Azhal Moolam
- Iyya Moolam
- Vinai Moolam
- Mega Moolam
- Pouthira Moolam

In Anubava vaithiya deva ragasiyam types of moolam described below

- Vali Moolam
- Azhal Moolam
- Iyya Moolam
- Thontha Moolam
- Thrithoda Moolam
- **Ratha Moolam**

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Agasthiyar paripooranam describes nine types Moolam. The types are,

- Ul Moolam
- Pura Moolam
- Mulai Moolam
- **Ratha Moolam**
- Seezh Moolam
- Vali Moolam
- Azhal Moolam
- Iyya Moolam
- Moola Paandu

Therayar describes ten types of Moola Noigal

‘‘சீயொழு கியுதுபு ணீரோழிகியது பவி
னீயொழு கியதற லேயொழுகியதத ளேயொழு கியது தசைக்
காயொழுகிய தழுமோரொழுகிய தடர் காலொழு கியது முளை
யேயொழு கியதிவை மூலம் தாய்நெறி யேர்பெறு மோபூதே’’.

- **தேரையர் சேகரப்பா**

The types are,

- Seezh Moolam
- Pun Moolam
- Thee Moolam
- Neer Moolam
- Mulai Moolam
- Sathai Moolam
- Kaduppu Moolam
- Veluppu Moolam
- Kattru Moolam
- PerumulaiMoolam

In Agasthiyar Ayul veetham, moolam classified into 6 types

- Vatha Moolam
- Pitha Moolam
- Kaba Moolam
- **Ratha Moolam**
- Thontha Moolam
- Vayu Moolam

Naadi Chakkaram, moolam classified into types,

- Vatha Moolam
- Pitha Moolam
- Kaba Moolam
- **Ratha Moolam**
- Thontha Moolam

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Sootha muni sutthitam, moolam classified into 6 types,

- Vatha Moolam
- Pitha Moolam
- Kaba Moolam
- **Ratha Moolam**
- Thontha Moolam
- Thirithosa Moolam

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வாதமூலம்:

“தன்மை**கோவைப்பழம் குதம்சிவப்புத்**

தனிலடப் பம்பூப்போல முளை வளர்ந்து

கண்மை கறுப்பாய்மி ருதுவாயிருக்கும்

கடுப்போடு தினவுகுற்றல் திமிர்த்தலாகும்

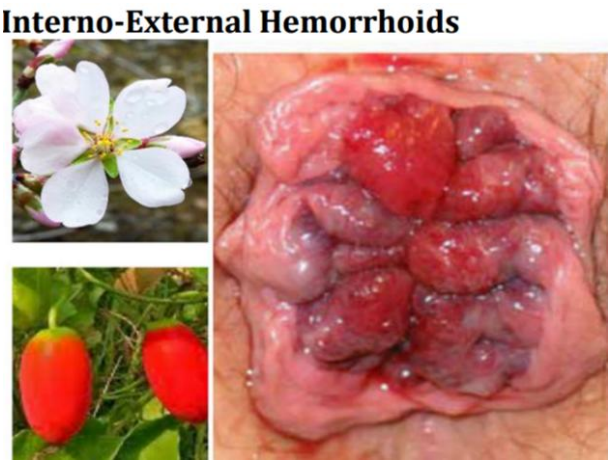
வண்மை மயிர் தான்முளைத்து மலஞ்சிக் கென்று

மகத்தாகக் கறுத்துமெத்த திரண்டு காணும்

வெண்மை வயிற்விட்டுமே குடலுள் வலியாகும்

மிக்க தலைவலிவாத மூலமாமே”

- **யூகி வைத்திய சிந்தாமணி**



VATHAMOOLAM:

- Pile is like almond flower and red ivy gourd fruit in colour.
- Inflammation of the anus.
- Pain in anus
- Itching
- Retention of feaces
- constipation
- Headache

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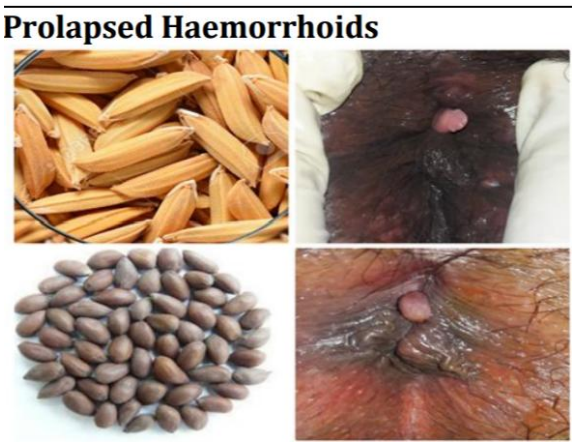
பித்த மூலம்:

“தலைவலிதான் மிகவுண்டாம் பருத்திக் கொட்டை
தன்போலு நெற்போலுமு ளையுண்டாகும்
மலைவலியாய் மலஞ்சிக்கி உருண்டு ருண்டு
மாவுண்டை திரிதிரியாய் ரத்தஞ் சீயாய்
குலவலியாய் குதங்கடுத்து எரிவு மாகிக்
கூச்சமாய் தாகமொடு வியர்வை யாகும்
துலைவலியா யத்துயக்குமாய்க் கோப மாகும்
சொற்பல வீனமும்பித்த மூல மாமே”

- **யூகி வைத்திய சிந்தாமணி**



PITHA MOOLAM:

- Pile mass present like a cotton seed and paddy
- Constipation and stools passed like flour ball with blood and pus
- Inflammation and burning sensation in anus
- Thirst
- Perspiration

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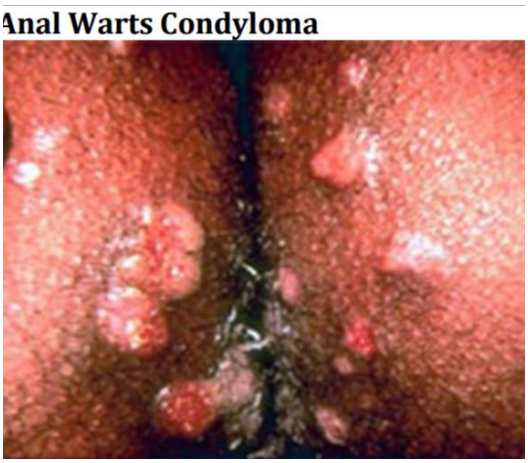
ஐய எருவாய் நோய் (சிலேத்தும மூலம்)

‘‘ஈனமாங் குதத்தில் முளை வெள்ளை யாகும்
எந்நேரந் தினவதிக மெரிவு மாகும்
கானமாங் கடுப்புடனே சீழுந் தண்ணீர்
கனமான வலியாகி மலந்தா னோங்கும்
தூனமா மூத்திரந்தான் சூடுண் டாகும்
சொற்குண பேதமாகுந் தாது நட்டம்
பானமாம் பாண்டுவொடு அருசி யாகும்
பரவுசேத் துமமூலப் பாங்கு தானே’’

- **யூகி வைத்திய சிந்தாமணி**



SILAETHUMA MOOLAM:

- A mass looks white in colour
- Burning sensation in anus
- Anal irritation
- Watery and pus discharge
- Painful defecation
- Mood swings
- Constipation
- Tastelessness
- Anaemia

`

OTHER LITERTURE REVIEWS ABOUT MOOLAM

According to thirumoolar Karukkadai vaithiyam – 600

"காயத்தில் மூலரோகம்
கண்டிடும் விதங்கள் கேளாய்
பாயொத்த பசியில்லாமல்
பட்சிக்கில் அடக்கல் வாயு
மாயத்தில் இருத்திக் கொண்டு
மலமதை அடக்கும் போதும்
ஓய்த்த குண்டலிக்குள்
உட்புகும் வாயு காணே"

-திருமூலர் கருக்கடை வைத்தியம் 600

It describes the pathology of Moolam,

- Suppression of appetite and defecation leads to derangement of Vayu.
- This vayu enters into Kundalini. Here, the Vayu combines with them and causes formation of moola noigal.
- When excess Vayu excerts pressure in them, and they produce external mass on straining i. e. while defecation.

Vitiated Vayu leads to constipation. In addition to this there is increased moolaakkini.

According to Therayar Segarappa

"கொடிய பொல்லாத மூல குணத்தை
யென் சொல்வேன் பரந்த
நிடியினி லொடுங்கும் மாறே
யெவரையுங் கசங்கச் செய்து
குடிகெடுமாறு செய்யுங்
கொண்பவ ராயுல் செய்து
முடிவத னாலே யென்று
மொழிந்தனர் தழைந்த நூலோர்"

- **தேரையர் சேகரப்பா**

Moola noi is an **irritating cruel disorder** of human being and the affected person's looks like a "**Scared serpent due to rumbling thunder".**

`

According to Thanvanthiri vaithiyam

"குரு பிதார்த்தத்தினாலும் கொடிய சஞ்சாரத்தினாலும்
பெருரூட்ச பதார்த்தாலும் பேச்சு மூச்சடக்காலும்
தருபூமிசை நடந்து சஞ்சிரித்திடுதலன்றி
இரு நரவாகனத்தில் யென்னாருமிருக்கையாலும்
அபானனாம் வாயு மெற்கொண்ட குதினால் மூலரோகம்
அபானவால் தன்னிலண்டியடைத்திடு மதுவுமன்றி
சுபாமல மூத்திரத்தில் தோஷமுண்டாகுங் கண்டால்
ஆபான வாதத்தின் செய்கை மிதுவென வறிகுவீரே"

- **தன்வந்திரி வைத்தியம் - முதல் பாகம்**

Thanvanthiri vaithiyam describes the causes of moolam as follows,

- Consumption of hard Diet foods
- Roaming restlessly
- Eating dry food stuff
- Restraining of speech and respiration
- Always walking and wishing to be carried by others.

The above song said, causes leads of Abana vayu which in turn leads to the causation of Moolam.

According to Therayar Vagadam

"நேத்திரமாம் பித்தமது வருகும்போது நிலையான
தலை நோவால் சரீரம் நெறித்து
தோத்திரமாய் மெய் வெதும்பி மூக்குவாயில்
சுகமான அபானத்திலிரத்தம் வீரும்
ஆத்திரமாய் பிறவாதம் நோய் கொள்ளும் பித்தம்
ஆரிதான மேகம் உண்டாய் நாரியர்க்கு
வேர்த்துறக்க மானதுபோல் மெய் வெதும்பி
மேலிவான அடிவயிறு புண்போல் நோகும். "

- **தேரையர் வாகடம்**

High levels of pitham reflecting bodyache, headache, Bleeding per rectum, epistasis, haemoptysis, venereal discharges, nagging pain in the lower abdomen are the features of increased Vatham.

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DIAGNOSTIC METHODOLOGY

The methodology of diagnosing disease in Siddha system shows uniqueness in its principle. The principle comprises of examination of Tongue, Complexion and Modulation in speech. Inspection of eyes and findings by palpation. It also includes examination of urine and Stool. The reinforcement of diagnosis is based on Naadi (Pulse) examinations. All these together constitute "***Envagai Thervugal***" which forms the basis of diagnostic methodology in Siddha system of medicine.

These tools not only help in diagnosis but also to observe the prognosis of the diseases and for reassuring the patient and to be informed about the nature of disease.

The Diagnostic methodology in siddha system is unique as it is made purely on the basis of clinical acumen of the physician. The diagnosis is arrived from,

- *Poriyal arithal* and *pulanal arithal* (examination of sense organs)
- *Vinaathal* (Interrogation)
- *Envagai thervu* (eight diagnostic tools)

Poriyal Aridhal:

The physician should examine the patient's porigal by his porigal.

- **Mei** –To feel all types of sensation
- **Vaai** – for Knowing taste
- **Kan** – For vision
- **Mooku** – for knowing the smell
- **Sevi** – For hearing

Pulanaal Arithal:

The physician should examine the patient 's pulangal by his porigal & Pulangal

- Hearing – Ear
- Vision – Eye
- Taste-tongue
- Sensation-skin
- Smell-Nose

`

Vinaadhal (Interrogation):

The physician should interrogate the patient's name, age, occupation, native place, socio economic status, dietary habits, present complication, history of present illness, aggravating factors, history of previous illness etc.,

ENVAGAI THERVUGAL:

"அகத்துறு நோயை கரத்தாம லகம்போல்
பகுத்தறிவீர் நாடிப் பரிசம் - தொகுத்த நிறம்
கட்டுவகைச் சொல்மொழிகண் கண்ட மல மூத்திரம் நா
எட்டுவகை யாலு மறிவீர்"

- அகத்தியர் வைத்திய சிந்தாமணி வெண்பா 4000

"நாடி பரிசம் நாநிறம் மொழிவிழி
மலம் மூத்திரம் மருத்துவராயுதம்"

- **தேரையர்**

According to Agathiyar Vaithiya Sinthaamani Venba – 4000and saint theraiyar the Envagaithervu (Eight types of diagnostic tools) .

Includes Naadi (Pulse), Naa (Tongue), Niram (Colour), Mozhi (Voice), Vizhi (Eyes), Malam (Faeces), Neer(Urine) and Sparisam (Touch & Palpation) .

NAADI:

The 'Pulse Diagnosis' is a unique method in Siddha Medicine. The pulse should be examined in the Right hand for male and the left hand for female. The pulse can be recorded at the radial artery. By keenly observing the pulsation, the diagnosis of disease as well as its prognosis can have basseted clearly.

Naadi is nothing but the manifestation of the vital energy that sustains the life with in our body. Naadi plays a most important role in Envagai thervu and it has been considered as foremost thing in assessing the prognosis and diagnosis of various diseases. Any variation that occurs in the three humors is reflected in the naadi. These three humors organize, regularize and integrate basic functions of the human body. So, naadi serves as a good indicator of all ailments.

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நாடி பார்க்கும் வகை:

Naadi is felt by,

- Vali – Tip of index finger
- Azhal – Tip of middle finger
- Iyyam – Tip of ring finger

RATHA MOOLAM results basically from derangement of **Vatham** and **Pitham**.

மூவகையும் மாத்திரை அளவும்:

"வழங்கிய வாதம் மாத்திரை ஒன்றாகில்
வழங்கிய பித்தம் தன்னில் அரைவாசி
அழங்கும் கபந்தான் அடங்கியே காலோடில்
பிறங்கிய சீவற்குப் பிசகொன்று மில்லையே"

- **நோய் நாடல் முதல் பாகம்**

The pulse is measured in wheat/grain expansible heights. The normal unit of pulse diagnosis is **1** mathirai for Vali (Vatham),½ mathirai for Azhal (Pitham) and ¼ mathirai for Iyyam (Kapham).

THE PULSE PLAY:

Compared to the gait of various animals, reptiles and birds,

- Vali – Movement of Swan and Peacock
- Azhal – Movement of Tortoise and Leech
- Iyyam – Movement of Frog and Serpent.

Naadi Nadai in Ratha moolam

"அனில பித்த தொந்தமலாது **மூலம்** வராது"

- **தேரையர்**

In Ratha moolam, the normal 1:1\2:1\4 mathirai pattern or gait pattern of hen turtle and frog of vatham, pitham and kapam respectively are affected giving rise to elevated maththirai of vatham and pitham than normal. This is often said in vallathi naadi as gait patterns of animals having speedy and forceful gait patterns such as cock for pitham. This is given in the verse as follows.

`

''தானென்ற வாதமது கோழி போல
சாவலைப் போல் பித்தமது தாண்டுமாகில்
கோனென்ற வாதபித்த தொந்திப்பாகும்''

- **வல்லாதி நாடி**

''**வாதமெனும்** நாடியது தோன்றில்
சீதமந்தமொடு வயிறுபொருமல் திரட்சிவாய்வு
சீதமுறுங் கிராணி மகோதரம் நீராமை
திரள்வாய்வு சூலை வலிகடுப்புத் தீரை
நீதமுறுங் கிருமிகுன்மம் அண்ட வாதம்
நிலையும்நீர்க் கிரிச்சரங்கள் தந்து மேகம்
பேதகமா முதரப்பிணி**மூல ரோகம்**
பேசவெகு பிணிகளுமே பொருளதாமே''

- **சதக நாடி**

SPARISM (Palpation)

Body is said to stay in ushnam or hyper thermic state. This is due to the combined attraction of vatham and pitham.

TONGUE EXAMINATION (நாத்தேர்வு) :

In Vali deranged persons, tongue will be cold, rough, furrowed and pungent taste. In azhal, it will be red or yellow and kaippu taste will be sensed. In Iyyam, it is pale. Sticky and sweet taste will be lingering. In depletion of thontham, tongue will be dark with raised papillae and dryness.

If the disease process takes a long course, then the naa become coated and pale. Except this all other qualities of naa are usually normal.

NIRAM (COLOUR OF THE BODY) :

Because vatham and pitham are affected the colour of the body is as in vatha pitha thontham i. e. slight dark or yellowish in colour. The colour change is due to veluppu noi which ensues after a long course of Ratha moolam.

In follows Vali, Azhal and Iyyam vitiations, the colour of the body will be dark, yellow or red and fair respectively

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VOICE EXAMINATION (ஒலி தேர்வு) :

In vitamin of Vali, Azhal and Iyyam the voice will is medium pitched base and shrill or low pitched respectively and by the voice, the strength of the body can be assessed.

MOZHI (Speech)

Due to the affection of vatham and pitham patients look anxious and the person's speech reflects his anxiety.

THE EYE EXAMINATION (கண் தேர்வு) :

In Vali disease the tears are darkened, in Azhal disease they are yellow, in Iyya disease they are whitish in color and in thontha disease the tears are multi colored. In Vali disease there will be excessive tears (epiphora). In disturbance of three humors, eyes will be inflammed and reddish.

FAECES EXAMINATION (மல தேர்வு) :

"ஓக்குமே வாத நோய் மலத்தைப் பார்க்கில்
உகந்தமலம் கறுகியே கறுத்திருக்கும்
மிக்கபித்த நோய்மலத்தை யுற்றுப் பார்க்கில்
மிகுந்தசிவப்புடன் பசுமை தானுந் தோற்றம்
மைக்குவளை மனேசே ளைய ரோகம்
மலமதுதான் வெண்மைனிற மாயிருக்கும்
பக்குவமா யிம்மூன்றுந் தொந்திப் பாகில்
பகருமின் நிறங்கள்வகை பரிந்து காணும்"

- **கண்ணுசாமி பரம்பரை வைத்தியம்.**

- In exacerbated Vali – faeces is hard, dry and black in colour
- In Azhal vitiation, it is Yellow
- In Iyyam disturbance it is pale.

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MALAM (Motion examination)

The amount of feces is reduced. The consistency becomes hard. There is no frothy or mucous. The colour is usually reddish yellow or dark. Constipation is usually encountered.

URINE EXAMINATION (நீர் தேர்வு) :

'Neer' refers to urine 'Kuri' refers to sign. Theraiyar, one of the renowned authors of siddha medicine described urine examination and stages of health. He had explained about the colour and consistency of the urine in vitiated humor and disease. He also emphasized the spreading nature of a single drop of oil on the surface of the urine indicating the imbalance of specific dosha and prognosis of disease. Normal urine is straw coloured and odorless. The time of the day and food taken will have an impact on the colour of the urine.

Neer Kuri (நீர் குறி)

The amount is usually normal but when veluppu and sobai develops,the amount is reduced. There is no froth. The colour is usually light reddish yellow.

NEI KURI (நெய்க்குறி) :

"அரவென நீண்டினதே வாதம்
ஆழிபோல் பரவின் அ.ந்தே பித்தம்
முத்தொத்து நிற்கின் மொழிவதென் கபமே"

- அகத்தியர் வைத்திய ரத்தின சுருக்கம்

The spreading pattern of oil drop is the indicative of Vali, Azhal and Iyyam disease e. g,

- Aravu (Snake pattern of spread) indicates Vali disease
- Mothiram (Ring Pattern of spread) indicates Azhal disease
- Muthu (Pearl Pattern of spread) indicates Iyya disease

In Neikkuri, the rapid spread of oil drop; Pearl beaded and Sieve type of spreading pattern indicates incurable state of the disease. From this, we can assess the prognosis by the Neikkuri.

Nei Kuri

Due to the vatha pitha thontham involvement the nei kuri is, serpent and ring shaped.

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மருத்துவம் (Line of Treatment) :

"வைத்தியச் செயல் வைத்தியமே"

- **திருமூலர் 800**

The main object of treatment is to bring down the deranged mukkutrams to natural equilibrium by giving purgatives, which cure derangement of Vatham; this is one of the causes for Ratha Moolam.

"**பேதியால் வாதம் தாழும்**"

"வாந்தியால் பித்தம் தாழும்"

"அஞ்சனத்தால் கபம் தாழும்"

- **வியாச பகவான் சரீர சூத்திரம்**

As per the above-mentioned poem, the author gives purgation Agasthiyar Kuzhambu 130 mg with ginger juice to all patients as per their body condition.

SUGGESTED LINE OF TREATMENT

Line of treatment for Ratha moolam consist of Purgation and Emetic should be given as the first line of treatment. Administration of internal medicine to stop bleeding to reduce inflammation and relieve constipation.

PINI NEEKKAM (TREATMENT)

Siddha system of medicine is able to cure disease by rooting out them once for all. This system envisages methods for prevention of diseases and it treats not only the disease but the person as a whole.

These include,

- Kaappu
- Neekkam
- Niraivu
- Kaappu (Prevention)

"மூலஞ்சேர் கறிநுகரோம் மூத்ததயிர் உண்போம்
முதனாளிற் சமைத்தகறி யமுதெனினு மருந்தோம்
ஞாலந்தான் வந்திடினும் பசித்தோழிய வுண்ணோம்
நமனார்க்கிங் கேதுவை நாமிருக்கு மிடத்தே"

- **பதார்தகுண சிந்தாமணி**

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Above verse explain,

- Tubers which induce haemorrhoids should be avoided.
- Sour curd to be taken
- Food prepared in the previous day is to be avoided even though it is delicious.
- Avoid eating food while angry.
- Among tubers, only yam is to be taken.
- Mild work is to be done after eating.

These are some instructions to be followed, to be free from the disease.

Neekkam (Treatment)

According to **"Anubava vatihiya deva ragasiyam"** Moolam treatment is divided into a type's namely,

- Internal medicine (oushadham)
- External medicine
- Surgery (Sasthiram)
- Cauterization (Akkni)

Depending upon the body, any type of treatment is prescribed among those 4 types Siddhars prefer internal medicine for moola noigal in their texts.

Line of treatment:

- Administration of Internal medicine
- To stop bleeding and to relieve the constipation
- To extenuate the derangement or morbid condition of Vatha pitha humour
- Pranayamam therapy to normalize the thathuvam
- Yoga theropy to normalize the bowel habits

Pranayama therapy

The basic vitality which is the key to life is what we term prana.

- Prana is the basic life principle.
- We believe that everything in creation had prana.
- Growth of prana from lower strata to higher strata is the process that characterizes life.

In man, this process is being accelerated by the conscious discrimination faculty and is called "**Pranayama"**.

`

During inhalation, oxygen enters the blood stream through the lungs. Once the air has circulated through the body, waste air in the form of carbon dioxide is ejected from the body during the exhalation process.

Yoga therapy

Yoga therapy is great help to prevent and control haemorrhoids from getting worse.Practice yoga cleansing technique keeps the body purified and prevent digestive and intestinal problems.

The following aasanas are prescribed to prevent constipation.

All inverted aasana like sarvangasana and sirasasana helps to drain the stagnant blood from the anus and may reduce or abolish the symptoms of this disease.

Aswini mudra

Practice of this mudra in various seated postures will strengthen the rectum & muscles and nerves surrounding the anal sphincter

Other recommended posture as follows,

- **GOMUKHASANA**
- **SALABASANA**
- **DHANURASANA**
- **PUYANGASANA**
- **ARAI MATCHENDRASANAM**
- **SARVANGASANA**

NIRAIVU (Life style modifications)

Advised to

- Avoid emotional stress
- Avoid strenuous work load
- Avoid sedentary life style
- Avoid smoking and alcohol
- Avoid tobacco chewing
- Avoid fast food & spicy items
- Advised to take plenty of fiber rich foods like fruits, greens, and vegetables.

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DIET ADVICE:

“மாறுபா டில்லா உண்டி மறுத்துண்ணின்
ஊறுபா டில்லையு யிர்க்கு”

- **திருக்குறள்.**

“மருந்தே உணவு, உணவே மருந்து”

- **திருமூலர்.**

Do’s

- Drink 3 to 4 liters of Water, a day.
- Take more amount ofTender coconut
- Cow’s butter milk, Cow’s ghee,
- Fresh vegetables, Fiber content vegetables.
- Fruits: Water melon, Cucumber.
- Advice to do pranayamam, Yoga for mental stress.
- Arai keerai, Thuthi keerai, Siru keerai
- Asafoetida
- Castor oil

Don’ts

- Cauliflower, Coffee, Tea, Chocolate, Meat, Fish, Bitter ground, Brinjal, Tubers, Egg, Oil foods, Maize, Caustic soda, Tamarind, Tobacco, Liquor
- Preserved beverages, Foods rich in salts, Spicy and fried foods
- Prolonged sitting, Excessive sexual inter course.

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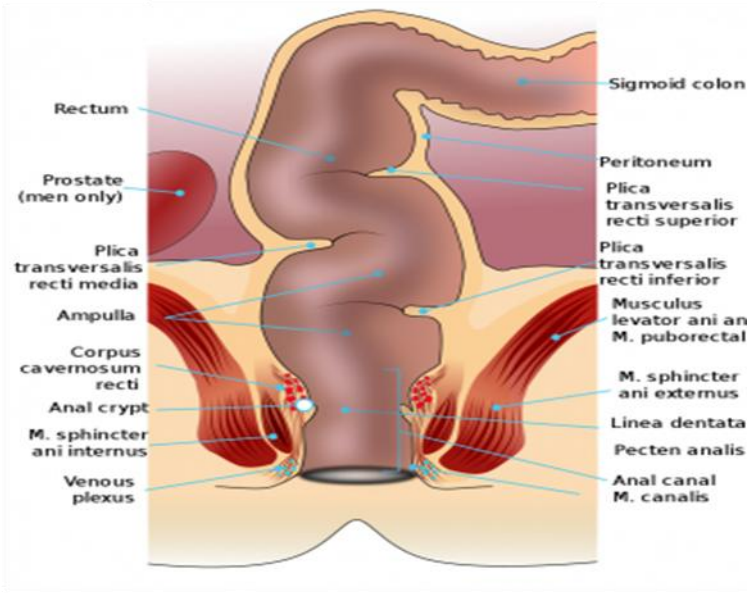
MODERN ASPECTS



ANATOMY OF RECTUM

The rectum is the penultimate part of the alimentary system. It acts primary to receive stool from colon.

SYNONYM:

Rectum in *Latin* means “Straight”

SITUATION

The rectum is an 8-inch (15cms) chamber that connects the colon to the anus. It lies in the true pelvis, more or less in the middle line.

EXTENT

The rectum is a chamber that begins at the end of the large intestine, immediately following the sigmoid colon, and ends at the anus.

COURSE AND DIRECTION

The rectum commences as the downward continuation of the sigmoid colon. It runs anterior to the sacrum. It passes downward and backwards and then downwards and forwards. Itends by piercing the levator ani muscle. It terminates by becoming the anal canal.

`

EXTERNAL FEATURES

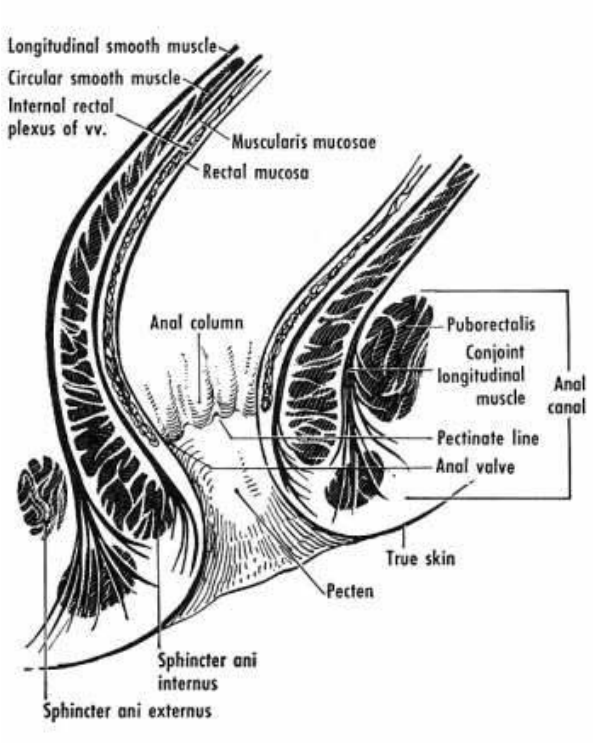
The rectum has the following features,

- Ampulla of rectum
- Ampulla is the terminal part of the rectum. It is situated above the levator ani muscle.
- Curves of the rectum
- The rectum has an anteroposterior curve corresponding to that of the sacrum and coccyx.
- The rectum also has 3 lateral curves
- At the commencement it is convex to the right side.
- At the level of sacro coccygeal joint it is convex to the left side.
- At the level of the tip of the coccyx itis again convex to the right rectum.

Folds in the rectum

The mucous membrane lining the interior is thrown into transverse folds and longitudinal folds.

The circular and longitudinal muscle coats may extend into these folds.



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RELATIONS OF THE RECTUM

RELATION

In Male **Anteriorly,** the rectum is related to the Recto vesical Pouch, Base of the urinary bladder, Seminal vesicles, Amuplla Of the vas deference, Terminal Uterus part of the ureter, posterior surface of the prostate gland, Sacrum, Coccyx, Ano coccygeal raphe, Median sacral vessels, Sympathetic chains

In Female **Anteriorly,** the rectum is related to the Recto uterine pouch, back of the upper part Vagina, Uterus, Sacrum, Coccyx, Ano coccygeal raphe, Median sacral vessels, Sympathetic chains

Posteriorly, the rectum is related to the sacrum, coccyx, and pelvic diaphragm.

LATERAL RELATIONS

Upper 1/3 of the rectum	-	para rectal fossa
Middle 1/3 of the rectum	-	Pelvic rectal space Levator ani muscle
Lower 1/3 of the rectum	-	Ischio rectal fossa

PERITONEAL RELATIONS

Upper 1/3 of rectum	-	The peritoneum covers the anterior and lateral surface of the rectum
Middle 1/3 of rectum	-	The peritoneum covers only the surface of the rectum
Lower 1/3 of the rectum	-	Non-peritoneal

INTERIOR OF THE RECTUM

The mucous membrane lining the interior is thrown into transverse and longitudinal folds. When the rectum distends the longitudinal folds disappear. The transverse folds are three in number. They are permanent folds and are known as valves of Houston. They are arranged as upper, middle and lower folds.

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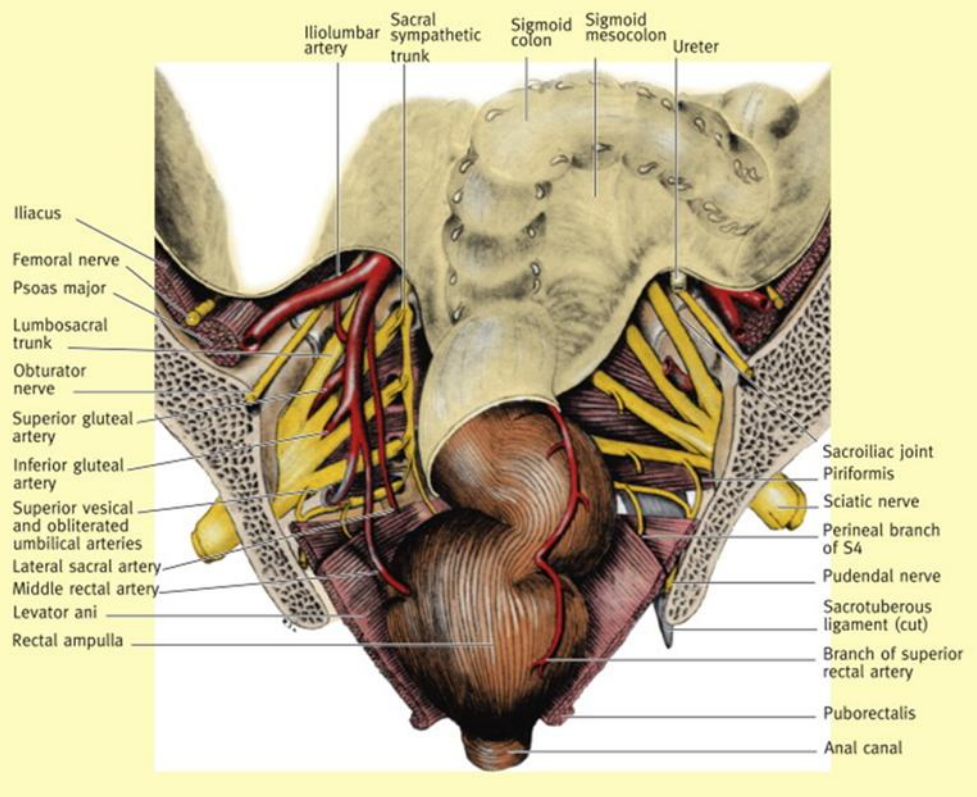


BLOOD SUPPLY

ARTERIAL SUPPLY

- Superior rectal artery from inferior mesenteric artery
- Middle recta artery from the internal iliac artery
- Inferior rectal artery from internal pudendal artery

VENOUS DRAINAGE

- Inferior mesenteric vein drains blood from the rectum, sigmoidcolon,descending coon and splenic flexure
- It begins as the sup.rectal vein and ascends, receiving tributaries from the sigmoid veins and the left colic veins.

Lymphatic drainage

- Upper 1/3 of the rectum is drained along the superior rectal vessels into inferior mesenteric lymph node.
- Middle 1/3 of the rectum is drained along the middle rectal vessel into internal iliac nodes.
- Lower 1/3 of the rectum is also drained into internal iliac nodes

`

NERVE SUPPLY

Sympathetic supply

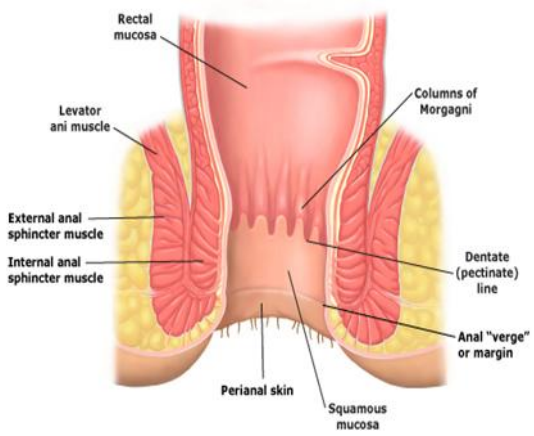
Superior hypogastric plexus from L1, L2 segments of the spinal cord.

Para sympathetic supply

Pelvic splanchnic nerves and Inferior hypogastric plexses (S2, S3, S4).

ANATOMY OF ANAL CANAL

The anal canal is the terminal portion of the alimentary system.



LENGTH

The anal canal is about 4 cms long.

EXTENT

It commences as the downward continuation of the rectum at ano rectal junction and it ends by opening into the exterior at anal opening.

COURSE

It passes downwards and backwards to the anal opening.

RELATIONS OF ANALCANAL

ANTERIORLY

MALE- Perineal body **FEMALE**-Back of the lower part of the vagina

Bulb of the penis

Membranous urethra

`

POSTERIORLY- Ano coccygeal raphe

Lateral relations

- Sphincters of the anal canal
- Levator ani
- Ischio rectal fossa

MUSCULATURE OF ANAL CANAL

The anal canal is surrounded by internal and external anal sphincters, which play a crucial role in the maintenance of faecal continence:

Internal anal sphincter – surrounds the upper 2/3 of the anal canal. It is formed from a thickening of the involuntary circular smooth muscle in the bowel wall.

External anal sphincter – voluntary muscle that surrounds the lower 2/3 of the anal canal (and so overlaps with the internal sphincter). It blends superiorly with the puborectalis muscle of the pelvic floor.This sphincter made up of striated muscle. It has 3 parts

The subcutaneous part

It encircles the lower end of the anal canal. It has no bony coccyx. It encircles the anal canal.

The deeper part

It encircles upper part of the anal canal. It has no bony attachment

The puborectalis Muscle

Puborectalis, Part of the funnel – shaped muscular pelvic diaphragm, maintains the angle between the anal canal and rectum and hence is an important component.

THE ANORECTAL RING

At the junction of the rectum and the anal canal, there is a muscular ring – known as the anorectal ring. It is formed by the fusion of the internal anal sphincter, external anal sphincter and puborectalis muscle, and is palpable on digital rectal examination.

THE PECTINATE LINE

- The pectinate line is wave like line
- This line is situated along the anal canal
- This line is an important land mark morphologically and surgically.

`

ARTERIAL SUPPLY

- The part of the anal canal above the pectinate line is supplied by superior rectal arteries
- The part below the pectinate line is supplied by inferior rectal arteries.

VENOUS DRINAGE

The upper half of the anal canal is drained by the superior rectal veins; tributaries of the inferior mesenteric vein thus the portal mesenteric venous system,

The middle rectal veins, which drain into the internal iliac veins.

The inferior rectal veins drain the lower half of the anal canal and the subcutaneous perianal plexus of veins. They eventually join the internal iliac vein on each ride.

LYMPHATIC DRAINAGE

Lymph from the upper half of the anal canal flows upwards to drain into the post rectal lymph nodes and from there goes to the para – aortic nodes via the inferior mesenteric chain.

Lymph from the lower half of the anal canal drains on each side first into the superficial and then into the inguinal group of lymph glands.

DEFECATION

This is the reflex phenomenon with a voluntary control.Thus, it has both reflexive(automatic) and voluntary components.The center for defecation is present in the sacral portion of the spinal cord, which is influenced by higher center.

Efferent pathway involves cholinergic para sympathetic fibers in the pelvic nerves

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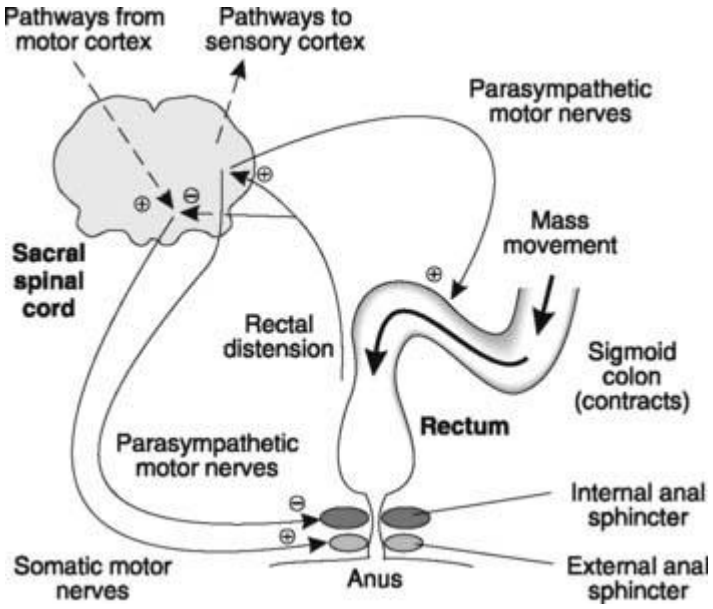
DEFECATION REFLEX



- Response to distension of the rectal wall
- Receptor send sensory nerve impulse to the sacral spinal cord
- Motor impulses from the cord travel along parasympathetic nerves back to the descending colon, rectum, anus
- Contraction of the longitudinal recta muscles shortens the rectum (increased pressure within it)
- Pressure along with voluntary contractions of the diaphragm and abdominal muscles
- Parasympathetic stimulation opens the internal anal sphincter
- Constriction of external anal sphincter
- Constriction of external anal sphincter
- Initiation of defecation reflex
- External anal sphincter opens
- The person defecates (the amount of the bowel movements that a person has over a given period of time depends on various factors such as diet,health and stress)

Normal range of bowel activity varies 2 or 3 bowel movement per day,3 or 4 bowel per day.

`

A VIEW ON HAEMORRHOIDS

SYNONYM

Meaning of Haemorrhoids in *Greek*: haima = blood, rhoos = flowing

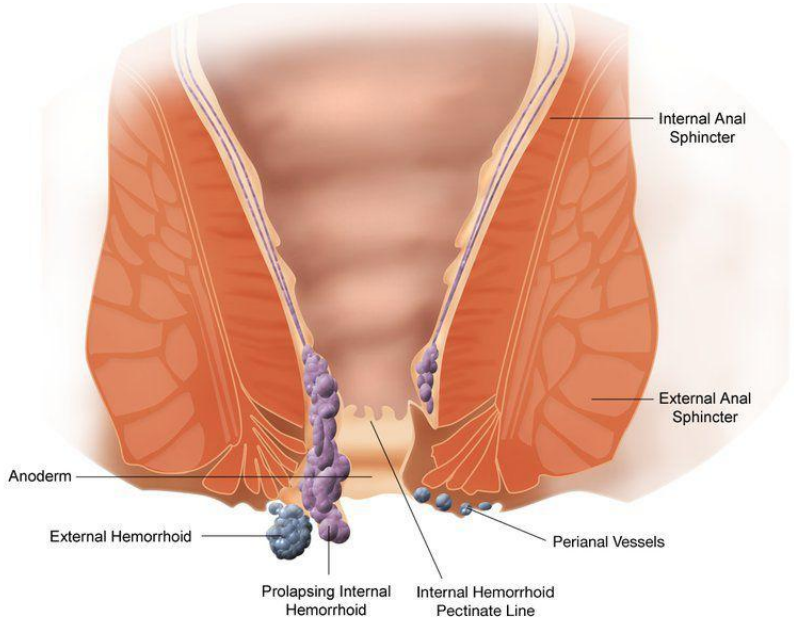
Piles is a *Latin* word, In *Latin* Pila means a ball.

EPIDEMIOLOGY

Many individuals experience this condition without seeking medical consultation; patients are often reluctant to seek medical help because of embarrassment or the fear, discomfort, and pain associated with the treatment, so the exact incidence of this disease cannot be estimated.In India approximately 40,723,288 people are reported to have hemorrhoids. 1 million new cases are reported annually, it is estimated that 50-85% 0f people around the world have hemorrhoids and in India 75% of the population is estimated. Current statistics suggest that almost half of people in their fifties have piles. In both genders, a peak in before the age of 20 is unusual, and Caucasians are affected more frequently than African Americans.

DEFINITION

Haemorrhoids are varicosities or swelling and inflammation of veins in the rectum and anal canal.



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CLASSIFICATION

- Haemorrhoids may be external or internal to the orifice.
- Internal haemorrhoids arise from the superior venous plexus, above the Hilton's line are covered by columnar epithelium.
- External haemorrhoids arise from the inferior venous plexus, above the Hilton's line and are covered by squamous epithelium.

PATHOGENESIS

The anal canal has a lumen lined by three fibrovascular cushions of submucosal tissue. The cushions are suspended in the canal by a connective tissue framework derived from the internal anal sphincter and longitudinal muscle. Within each cushion is venous plexus that is fed by arterio venous communications. These specialized vascular structures allow for enlargement of the cushion to maintain fine continence. In health as in disease the anal cushion appears in the right anterior, right posterior, and left lateral positions.

The anchoring and supporting connective tissue system deteriorates withaging. Fragmentation of the connective tissue supporting the cushion leads to their descent. Straining produces an increase in venous pressure and engorgement. The veins become distended as they lose their support. The descended loose lining becomes more sensitive to pressure from straining and to trauma from the stool.The prolapsed cushion has an impaired venous return, which results in cushion's epithelium, resulting in bleeding.

INTERNAL HAEMORRHOIDS

The term internal Haemorrhoids are varices of the tributaries of the superior haemorrhoidal veins which drain into the inferior mesenteric vein.

AETIOLOGY

Hereditary

This condition iscongenital weakness of walls of the veins or an abnormally large arterial supply to the haemorrhoidal plexus seen in members of the same family that there must be a predisposing factor.

`

Anatomical

- The collecting radicals of the superior haemorrhoidal vein lie unsupported in the very loose submucous connective tissue of the rectum
- These veins pass through musculature tissue and are liable to be constricted by its contraction during defecation
- The superior haemorrhoidal veins being tributaries of the portal vein, have no valves

Occupational

- Heavy manual labors like porters
- Prolonged standing workers like train drivers, traffic policemen, bus conductors, tea masters etc.
- Prolonged sitting workers like tailors. They are more prone to develop piles.

Chronic constipation

This causes straining while passing stools which in turn cause pressure effect in the rectum. Therefore, the veins are obstructed.

Frequent purgation

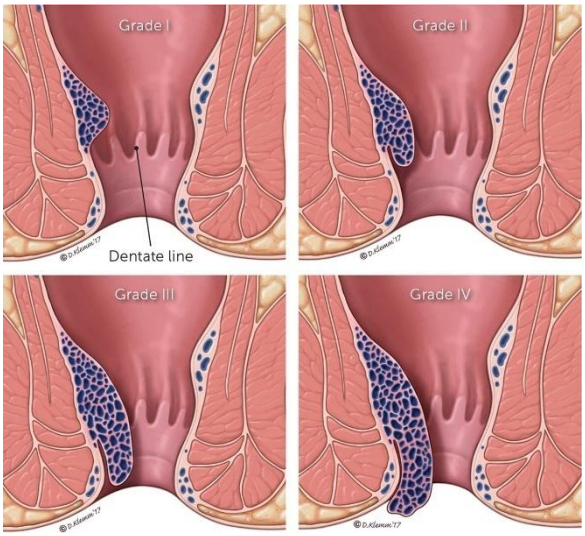
Frequent occurrences of dysentery and diarrohea all cause congestion of the rectal veins and favor the development of piles.

- Straining at micturition
- Presence of tumors
- Loss of sphinctertone
- Habitual over eating
- High blood pressure

`

CLASSIFICATION

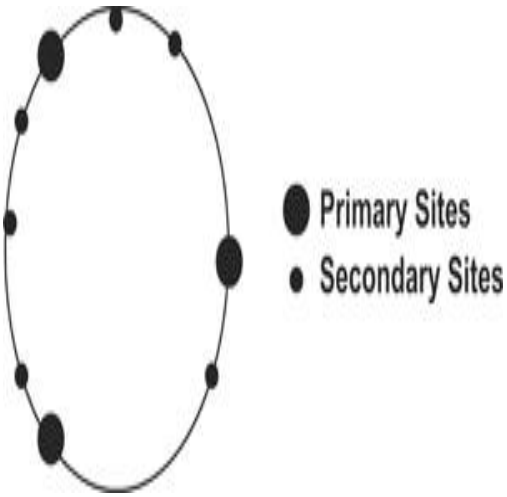
- First degree – Bleed only, prolapse
- Second degree – Prolapse but reduce spontaneously
- Third degree – Prolapse and have to be manually reduced
- Fourth degree – Permanently prolapsed

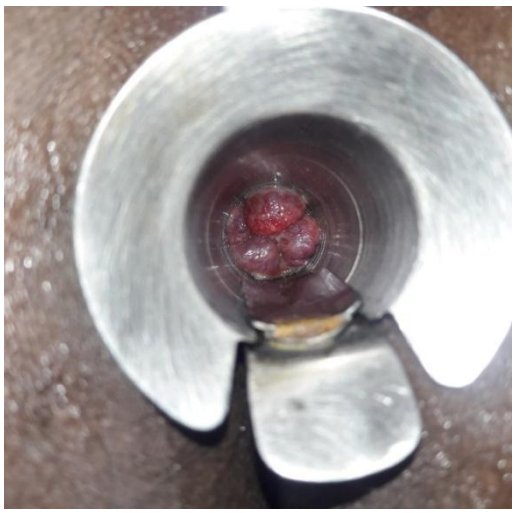


POSITION OF HAEMORRHOIDS

Haemorrhoids are usually situated in,

- 3'o clock position that is left lateral
- 7'o clock position that is right posterior
- 11'o clock position that right anterior





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CLINICAL FEATURES

Bleeding

Bleeding, as the name haemorrhoid implies is the principal and earliest symptom. The bleeding is characteristically separate from the motion and is seen either on the paperon wiping or as a fresh splash in the pan

Prolapse

Prolapse is a much later symptom. In first – degree haemorrhoids, the haemorrhoidal tissue protrudes into the lumen of the anal canal, but does not prolapse outside the anal canal. The veins of the anal canal are increased in size and number and may bleed at the time of evacuation.

Second – degree haemorrhoids may prolapse beyond the external sphincter and be visible during evacuation but spontaneously return to lie within the anal canal.

Third – degree haemorrhoids protrude outside the anal canal and require manual reduction.

Fourth – degree haemorrhoids are irreducible and are constantly prolapsed. It is important to document the grade of the haemorrhoids ot determine appropriate treatment and to evaluate the efficacy of a particular treatment modality.

Discharge

Soiling may occur in third and fourth degree haemorrhoids as a result of impaired continence or production of mucus discharge. Discharge can cause perianal irritation and itching.

`

Anal pain

Pain is absent unless complications supervene, Fourth degree haemorrhoids may become “Strangulated” and present with acute severe pain. Progressive venous engorgement of the acutely inflamed haemorrhoids leads to thrombosis.

Anaemia

Anaemia can be caused very rarely by profuse bleeding from haemorrhoids.

Constipation

Haemorrhoids are associated with chronic straining secondary to constipation, diarrhea, tenesmus, or long periods trying to defecate.

EXAMINATION

Inspection

On inspection there may be no evidence of internal haemorrhoids, In more advanced cases, redundant folds or tags of skin can be seen in the posterior of one or more of the primary haemorrhoids. When the patient strains, internal haemorrhoids may come into view transiently, or if they are of the fourth degree, and remain, prolapsed.

Palpation

Before digital examination palpation of the perianal region should be performed. A swelling or ulcer present in this region, an indurated tender swelling with brawny oedema on side of the anus is usually due to ano rectal abscess.

External opening of fistula – in ano can be seen in this region. This has to be differentiated from prolapsed of the rectum.

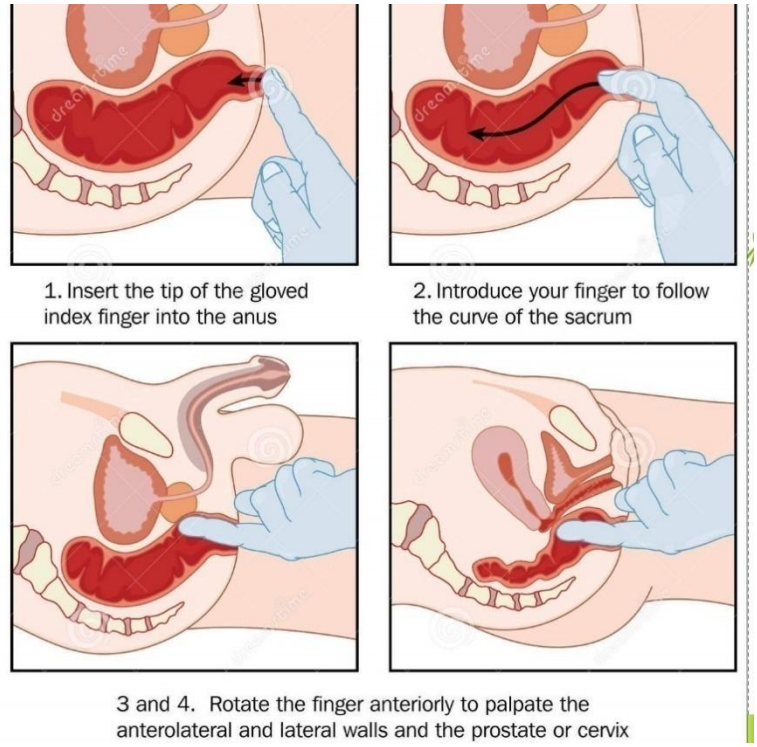
The patient lies in the left lateral position with the right buttock raised for the area to be inspected. Polyp tags and hematomas can be seen immediately Associated rashes and scratch marks are noted. Prolapsed internal haemorrhoids are distinguished by the covering of mucosa and by the lack of sensation. Strangulated haemorrhoids are grossly edematous

`

DIGITAL EXAMINATION

Internal haemorrhoids can befelt unless they are thrombosed. Possibly very large uncomplicated internal haemorrhoids are palpable. .

By introduction of gloved finger into the anal canal and rectum the following structures can be felt.



Anteriorly

Male	**Female**
Recto vesicalPouch	Pouch of Douglas
Base of bladder	Vagina
Seminal vesicles	Cervix
Vas deferens	Urogenital diaphragm
Prostate	Diaphragm
Bulb of penis	Perineal body

Posteriorly

Sacrum, coccyx and anococcygeal body

Laterally

Ischiorectal tissues and ischial spines

`

Proctoscopy

With the patient in the left lateral or knee elbow position, the lubricated and warmed instrument is gently inserted into the rectum. The instrument is introduced at first in the direction of the axis of the anal canal i. e. upwards towards the patient's umbilicus, until the anal canal is passed, then instrument is directed posteriorly to enter into the rectum proper. Now the obturator is withdrawn and the interior of rectum and anal canal is seen with prolapse into the proctoscope as the instrument is being withdrawn. Note the position of the piles as determined by the disposition of the branches of the superior haemorrhoidal artery.

LITHOTOMY POSITION

KNEE-ELBOW POSITION

There is one branch on the left side and two on the right side. Thus there are three primary piles via left lateral, right posterior and right anterior situated at 3, 7, and 11'o clock positions respectively.

The patient being in the lithotomy position a few (4 to 5) secondary piles may frequently develop in between the primary

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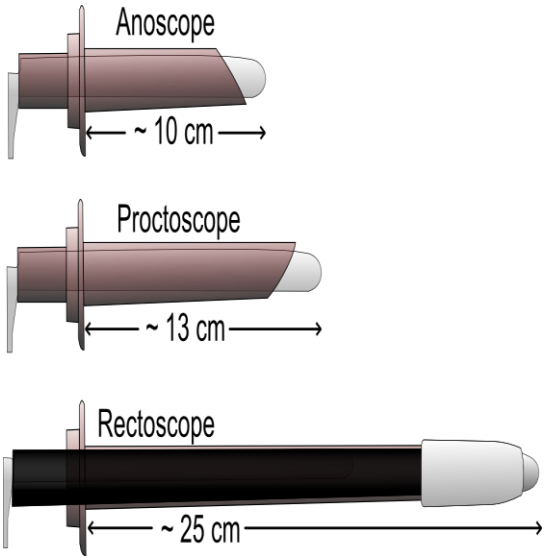
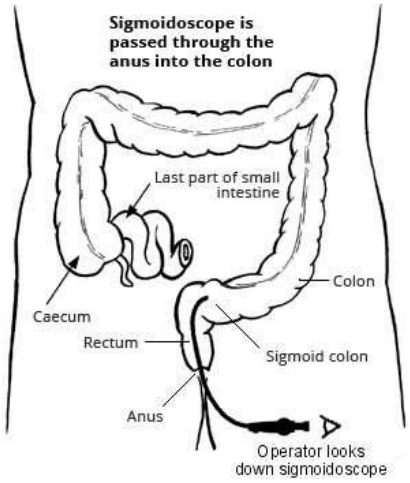
PROCTOSCOPE



Sigmoidoscopy

The patient must be in the knee elbow position which allows coils of the intestine to fall forward and leads to natural distension of the rectum with air. By this instrument whole of the rectum and a large part of the sigmoid colon can be examined. The instrument is gently passed under vision by distending the rectum with few light battles of the abashed pillars.



Sigmoidoscopy is useful in the younger age group (Under 35 years) who has bleeding haemorrhoids and no other symptom or risk factors.

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Rubber band ligation

Most internal haemorrhoids can be treated by this method. With a proctoscope in place the haemorrhoids can be grasped with forceps,then passed through a banding tool with which It is possible to apply a rubber band. \

Examination of the abdomen

The examination of the abdomen to exclude palpable lesions of the colon or aggravated factors for haemorrhoids. E. g. an enlarged liver.

Barium enema X- ray

The importance of this examination in a case bleeding per rectum and in pathologies of rectum and anal canal cannot be over emphasized. In any case of internal haemorrhoid barium enema X- ray must be performed to exclude any carcinoma above the rectum to be cause of this condition.

Blood for Bleeding time and clotting time

To rule out bleeding diathesis

Motion for occult blood

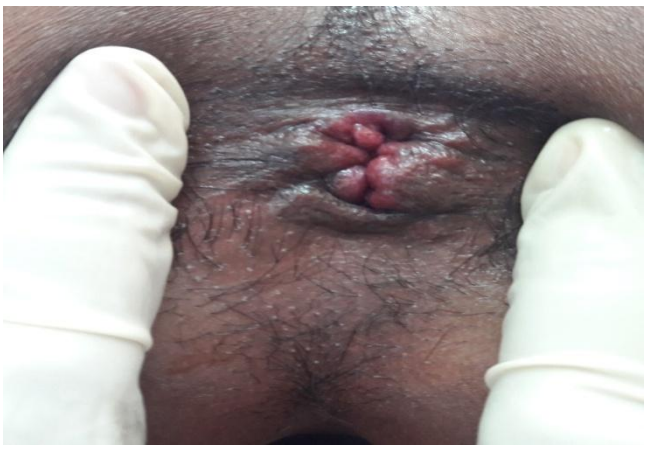
To rule out upper gastro intestinal disorders, carcinoma of colon and rectum.

`

DIFFERENTIAL DIAGNOSIS

External haemorrhoids

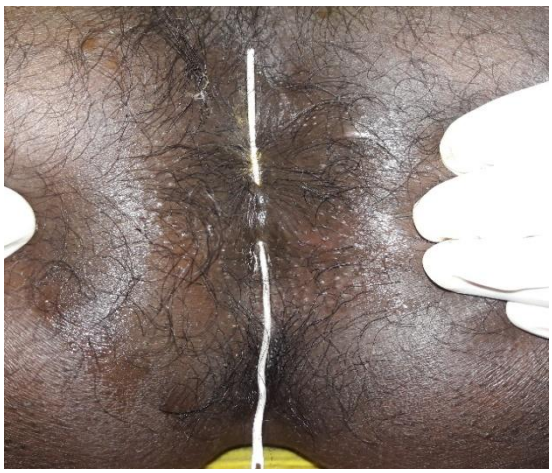
A thrombosed external haemorrhoids relates anatomically to the veins of the superficial or external haemorrhoids plexus and is commonly termed a perianal haematoma. It presents as a sudden onset, olive – shaped, painful blue subcutaneous swelling at the anal margin and is usually consequent upon straining at stool, coughing or lifting a heavy weight. The thrombosis is usually situated in a lateral region of the analmargin.



Fistula in ano

This is a track lined by granulation tissue which opens deeply in the anal canal or rectum and superficially on the skin around the anus. Sometimes the track does not open into the anal canal or rectum, when it should be called a sinus.

An anal fistula may occur with or without symptoms. A history of intermittent swelling with pain. Discomfort and discharge in the perianal region can often be obtained. Inspection and palpation usually delineate the course and nature of the fistula.



Anal Fistula -External opening 6’0 clock and Internal opening is 6’o clock position

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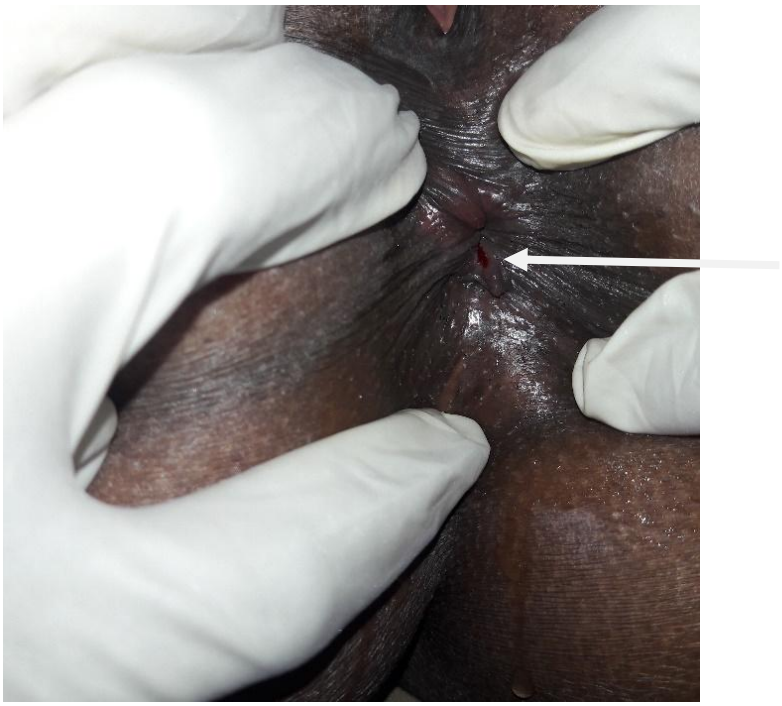
Fissure in ano

An anal fissure is a longitudinal split in the anoderm of the distal anal canal, which extends from the anal verge proximally towards, but not beyond, the dentate line.

Acute anal fissures are, characterized by severe anal pain associated with defaecation, as well as the passage of fresh blood, normally noticed on the tissue after wiping. Chronic fissures are characterized by a hypertrophied anal papilla internally and a sentinel tag externally. When chronic, patients may also complain of itching secondary to irritation from the sentinel tag, discharge from the ulcer.



Fissure in ano- 6'o clock position

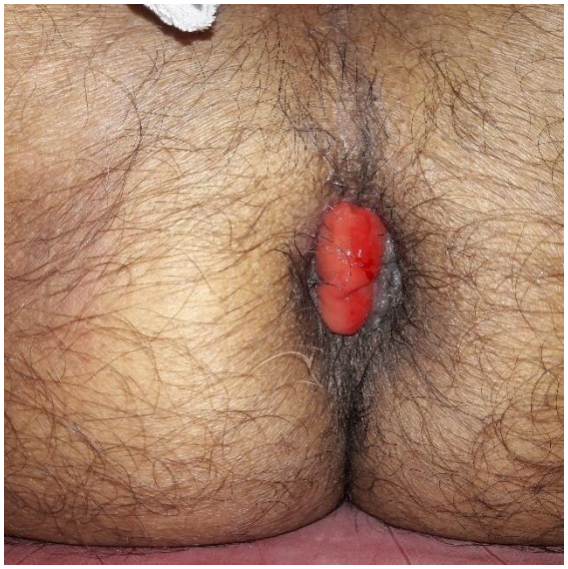
Rectal prolapse

The mucous membrane and submucosa of the rectum protrude outside. The anus for approximately 1-4cm. When the prolapsed mucosa is palpated between the finger and thumb, it is evident that it is composed of no more than a double layer of mucous membrane(cf. full- thickness prolapse)

`

The condition in adults is often associated with third – degree haemorrhoids. Prolapsed mucous membrane is pink; prolapsed internal haemorrhoids are plum coloured and more pedunculated. In rectal prolapse faecal incontinence is an important feature.

Rectal prolapse



Condylomata Accuminata (Anal Warts)

There is increasing evidence that sexually transmitted infection with human papilomavirus (HPV) forms the aetiological basis of anal and perianal warts, anal intraepithelial neoplasia (AIN) and squamous cell carcinoma of the anus.

Condylomata accuminata is the most common sexually; transmitted disease encountered by colorectal surgeons and is most frequently observed in homosexual men. Associated warts on the penis and along the female genital tract are common.

Many are asymptomatic, but pruritus, discharge, bleeding and pain are usual presenting complaints.

Proctitis

Inflammation of the rectal mucosa. The inflammation can be acute or chronic. The symptoms are tenesmus and the passage of blood and mucus and, in severe cases, of pus also. Although the patient has a frequent intense desire to defaecate, the amount of faeces passed at time is small. Acute proctitis is usually accompanied by malaise and pyrexia. On rectal examination, the mucosa feels swollen and is often tender.

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Polyp

This is bright – red glistening pedunculated sphere (‘cherry tumor’), which is found in infants and children. Occasionally, it persists into adult life. It can cause bleeding or pain if it prolapses during defecation

Carcinoma of rectum

The rectum is the most frequent site for cancer. Early symptoms of rectal cancer are bleeding per rectum, Tenesmus, Early morning diarrhea, colicky pain.

COMPLICATIONS

Profuse haemorrhage

Profuse haemorrhage is not rare. The bleeding mainly occurs externally but it may continue internally after the bleeding haemorrhoid has retracted or has been returned. In these circumstances, the rectum is found to contain blood.

Anaemia

Repeated loss of small amounts of blood over a period of years can giverise to severe secondary anaemia and it is not unusual for a patient attending for treatment of piles to be found to have a haemoglobin concentration is below 50%. Prompt efficient treatment of the haemorrhoids results in rapid correction of the anaemia.

Strangulation

One or more of the haemorrhoids prolapsed and become gripped by the external sphincter. Further congestion follows because the venous return is impeding. Second degree haemorrhoids are most often complicated in this way. Strangulation is piles.Unless the internal haemorrhoids can be reduced within 1 or 2 hours. Strangulations is followed by thrombosis.

Thrombosis

The affected haemorrhoids or haemorrhoids become dark purple or block and feel solid. Considerable oedema of the anal margin accompanies thrombosis. Once the thrombosis has occurred, the pain of strangulation largely passes off, but tenderness persists.

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Ulceration

Superficial ulceration of the exposed mucous membrane often accompanies strangulation with thrombosis.

Gangrene

Gangrene occurs when strangulations is sufficiently tight to constrict the arterial supply of the haemorrhoid. The sloughing is usually superficial and localized. Occasionally a whole haemorrhoid sloughs off, leaving an ulcer which heals gradually.

Fibrosis

After thrombosis, internal haemorrhoids sometimes become converted into fibrous tissue. The fibrosed haemorrhoid is at first sessile, but by repeated traction during prolapsed at defecation, it becomes pedunculated and constituted a fibrous polyp that is readily distinguished by its white colour from an adenoma, which is bright red. Fibrosis is an external haemorrhoid favors prolapsed of an associated internal haemorrhoid.

Suppuration

Suppuration is uncommon. It occurs as a result of a thrombosed haemorrhoid. Throbbing pain is followed by perianal swelling or submucous abscess results.

Pylephlebitis (portal pyaemia)

Theoretically, infected haemorrhoids should be a potent cause of portal pyaemia and liver abscesses.

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MATERIALS AND METHODS

A clinical study on siddha herbal formulation "Kukkilathy Chooranam" in "Ratha Moolam" (Bleeding Piles)

STUDY DESIGN AND CONDUCT OF STUDY:

Study type	**:**	An open clinical trial
Study place	**:**	OPD of Ayothidoss Pandithar Hospital, National Institute of Siddha, Tambaram sanatorium, Chennai-47.
Study period	**:**	12 months.
Sample size	**:**	30 patients
Randomization	**:**	Patients will be randomly assigned To Treatment.

TREATMENT:

Medicine Name	**:**	**KUKKILATHY CHOORANAM (**Internal)
Dosage	**:**	4g (twice/day) after food
Adjuvant	**:**	Cow's Ghee
Duration	**:**	45 days.

STANDARD OPERATING PROCEDURE FOR "KUKKILATHY CHOORANAM":

Required raw drugs:

- Purified Kukkil *(Shorea robusta)* - 134.4g
- Purified Parangipattai (*Smilax china)* - 67.2g
- Purified Gandhagam (Sulfur) - 33.6g
- Arisithippili (Fruit of *Piper longam*) - 8.4g
- Kandathippili (Root of *Piper longam*) - 8.4g
- Vetpalaiarisi (*Wrightia tinctoria*) - 8.4g
- Vaividangam (*Embelia ribes*) - 8.4g

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SOURCE OF RAW DRUGS:

The above said raw drugs will be purchased from a well reputed country shop at Chennai. The raw drugs will be authenticated by Botanist and Pharmaegonist NIS, Chennai. The raw drugs will be purified, and the medicine will be prepared as per SOP as in the Gunapadam Laboratory of NIS, Chennai.

Purification of the ingredients:

All the drugs mentioned here were purified as per the Siddha literature.

- **Shorea robusta:**

  Resin of Shorea robusta was boiled with tender coconut and then dried.

- **Sulphur:**

  The *kalkam*of Lowsonia inermis was mixed in cow's curd and placed in a mud pot. The mouth of the pot was covered with a cloth. Sulphur was placed over the cloth. The pot was covered with another suitable pot and buried in the ground. The entire setup was subjected to*pudam* with five dung cakes.The sulphur which melts and settles down was collected. This procedure was repeated for 7 times.

- **Wrightia tinctoria:**

  Seeds of Wrightia tinctoria were cleaned well from dust and impurities. Then it was fried well.

- **Embelia ribes:**

  Seeds of Embelia ribes were cleaned well from dust and impurities. Then it was fried well.

- **Piper longum fruit:**

  Fruit of Piper longum was soaked in lemon juice and it was dried in sunlight until the juice gets evaporated. Then it was fried well.

- **Smilax china:**

  Rhizome of Smilax china was boiled with milk and then dried.

- **Piper longum root:**

  Root of Piper longum was soaked in lemon juice and it was dried in sunlight until the juice gets evaporated. Then it was fried well.

`

Method of Preparation:

The purified herbal ingredients were made into fine powder separately. Then the purified sulphur was grinded by using *kalvam*, after made into powder the above herbal powder were added and grinded. It was finely powdered and purified by *Pittavial murai* then kept in an air tight container.

DISPENSING:

The prepared drug will be dispensed in sachets (4g) once in 7days for 45 days. At each visit the patients will be advised to return the unconsumed drug if any.

SUBJECT SELECTION:

When patients reporting at OPD NO 1, Dept of Maruthuvam, Ayothidoss Pandithar Hospital, NIS with symptoms of inclusion criteria will be subjected to screening test and documentation will be done by using screening proforma.

11.0 SELECTION CRITERIA:

INCLUSION CRITERIA:

Patients who are having the following, will be included in the study:

- Age: 20- 60Yrs
- Sex – Both male and female
- Patients who are having the following symptoms of bleeding piles (1^{st} degree haemorrhoids) confirmed by Proctoscopy, constipation, bleeding per anus, itching in the perianal region, pain in all limbs.
- Willing to give blood samples for the investigation when required.

EXCLUSION CRITERIA:

The patients one who have the following criteria will be excluded from this study:

- Patient having 2^{nd} ,3^{rd} degree internal haemorrhoids
- Pregnancy & lactation
- External haemorrhoids
- Fissure in ano
- Fistula in ano
- Hypertension
- Rectal polyp
- Rectal cancer

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WITHDRAWAL CRITERIA:

a. Development of any serious adverse reactions during the trial period.
b. Increase in severity of symptoms.
c. Patient will not take medication regularly
d. The Patient one who not willing to continue the course of clinical trial.

ASSESSMENTS AND INVESTIGATIONS:

a) Clinical assessment
b) Siddha assessment
c) Routine investigations:
1. Modern parameters
2. Siddha parameters
d) Specific investigations

a) CLINICAL ASSESSMENT:

Bleeding after defecation
Anal pain
Rectal bleeding
Anemia
Constipation
Discharge of pus and mucous
Pruritus ani
Pain in all limbs
Irritation and soreness after defecation

SIDDHA ASSESSMENT:

Thinai (Living Place):

1. Kurinchi (Hill areas)
2. Mullai (Forest)
3. Marutham (Fertile land)
4. Neithal (Costal area)
5. Paalai (Desert)

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Paruva Kalam (season)

1. Kaarkaalam (Aug 18 – Oct 17)
2. Koothir kaalm (Oct 18 – Dec 16)
3. Munpanikaalm (Dec 17 – Feb 12)
4. Pinpani kaalam (Feb 13 – April 13)
5. Ilavenil kaalam (April 14 – June 14)
6. Muthuvenil kaalam (June 15 – Aug 17)

Iymporikal:

1. Mei (Skin)
2. Vaai (Tongue)
3. Kan (Eye)
4. Mooku (Nose)
5. Sevi (Ear)

UYIRTHATHUKKAL:

Vatham:

1. Praanan
2. Abaanan
3. Samaanan
4. Udhaanan
5. Viyaanan
6. Naagan
7. Koorman
8. Kirukaran
9. Dhananjeyan
10. Devathathan

Pitham:

1. Anarpitham
2. Prasakam
3. Saathakam
4. Aalosakam
5. Ranjakam

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Kabam:

1. Avalambagam
2. Kilethagam
3. Santhigam
4. Tharpagam
5. Pothagam

Enn Vagai Thervu (Eight types of Examination):

1. Naadi (Pulse perception)
2. Naa (Tongue)
3. Niram (Complexion)
4. Mozhi (Voice)
5. Vizhi (Eyes)
6. Sparisam (Palpatory perception)
7. Malam (Bowel habits)
8. Moothiram (Urine){Neerkuri& Neikuri}

ROUTINE INVESTIGATION

HAEMATOLOGY

- Hb (gms%)
- Total WBC Count(cells/cumm)
- DC
  - Polymorphs(%)
  - Lymphocytes (%)
  - Eosinophils (%)
  - Monocytes (%)
  - Basophils (%)
- Total RBC count (cells/cu.mm)
- ESR(mm/hr)

BLOOD BIOCHEMISTRY

- Fasting and postprandial Blood sugar

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CLINICAL BIOCHEMISTRY

RENAL FUNCTION TEST

- Blood urea (mg/dl)
- S. total creatinine (mg/dl)
- Uric acid (mg/dl)

LIPID PROFILE

- S. Total cholesterol (mg/dl)
- HDL (mg/dl)
- LDL (mg/dl)
- VLDL (mg/dl)
- TGL (mg/dl)

LIVER FUNCTION TEST

- S. Total bilirubin (mg/dl)
- S. Direct bilirubin (mg/dl)
- S. Indirect bilirubin (mg/dl)
- SGOT (U/dl)
- SGPT (U/dl)
- S. Alkaline phosphatase (U/dl)
- S. Total protein (g/dl)
- S. Albumin (g/dl)
- S. Globulin (g/dl)

OTHER TEST

- S. Calcium (mg/dl)

URINE EXAMINATION

- Neerkuri and Neikuri
- Albumin
- Sugar (Fasting & postprandial)
- Deposits

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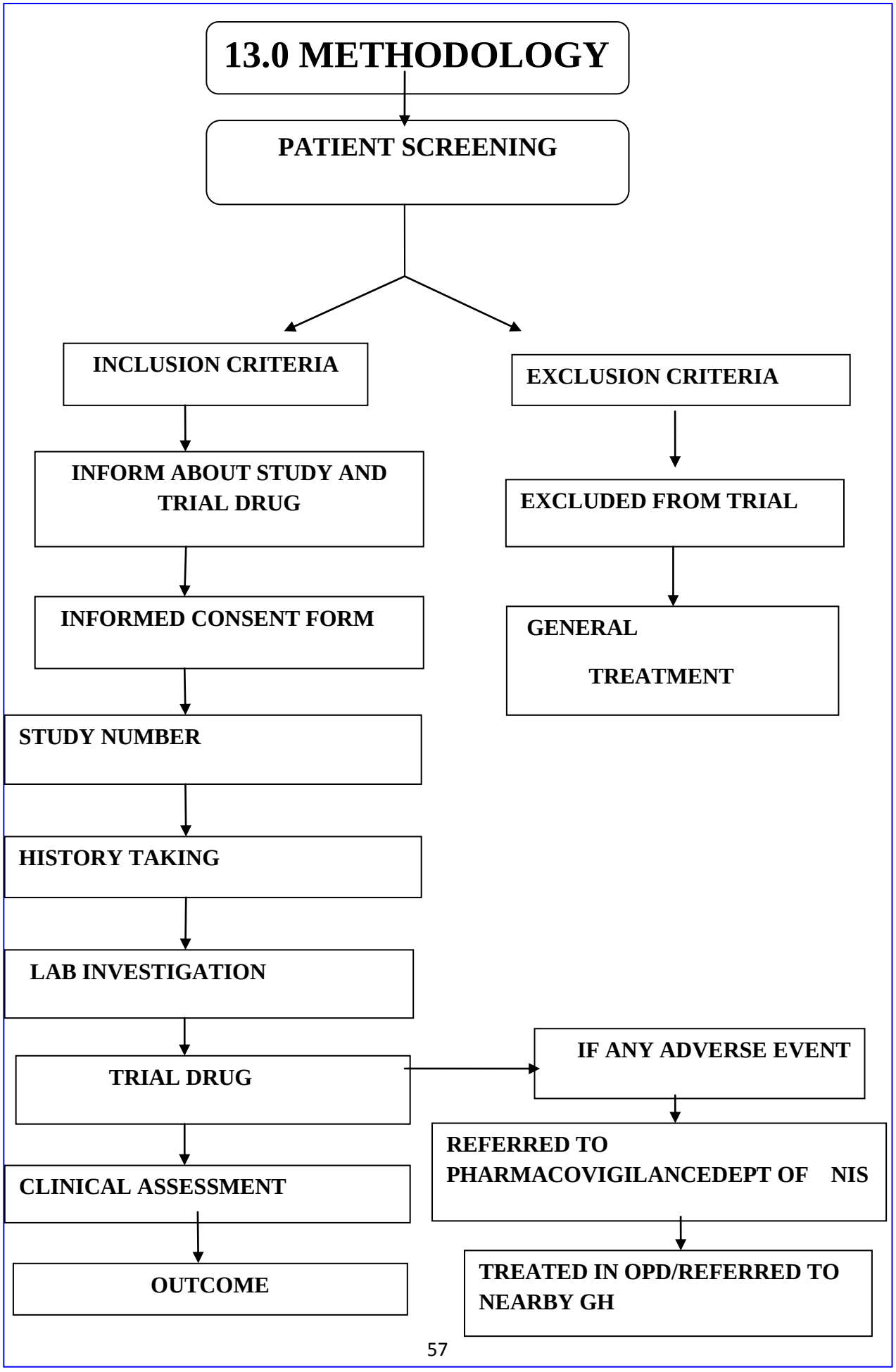
MOTION

- Ova
- Cyst
- SPUTUM
- AFB

SPECIAL INVESTIGATIONS:

Proctoscopy

13.0 METHODOLOGY



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STUDY ENROLLMENT:

- In this clinical trial, patients reporting at OPD 1 Maruthuvam, Ayothidoss Pandithar Hospital, NIS with the clinical symptoms of bleeding after defecation, anal pain with rectal bleeding, anemia, constipation, irritation and soreness after defecation, pruritis ani, pain present in all limbs will be examined clinically will be enrolled in the study based on the inclusion and exclusion criteria.
- The patients enrolled in this study will be informed about the objective of the study, trial drug, possible outcomes in their own language and terms understandable to them.
- After ascertaining the patient's willingness, informed consent will be obtained in the consent form.
- All these patients will be given unique registration card which will contains information regarding patients' Registration number, Address, Phone number and Doctors phonenumber etc. It can help to report easily if any adverse reactions arise.
- Complete clinical history, complaints and duration, examination findings-- all will be recorded in the prescribed case record form. Screening Form- I will be filled up; Form II will be used for recording the patients' history, clinical examination of signs and symptoms and laboratory investigations respectively.
- Patients will be advised to take the trial drug with an appropriate dietary advice would be given according to the patients' perfect understanding.

14.0 CONDUCT OF THE STUDY:

Patients who comes under Inclusion and Exclusion Criteria will be recruited for the Study. Then the trial drug "**KUKKILATHY CHOORANAM"** will be given at a dose of 4gm twice a day continuously for 45 days. For OPD patients, they should visit the hospital once in 7days. At each visit clinical assessment will be done and prognosis will be noted.

Laboratory investigations and proctoscopy will be done on 0^{th} day and 46^{th} day of the trial.During the treatment, patients will be advised not to take tamarind, tea, coffee, non-vegetarian, and advised to take the diet as given in Form VIII. If any of the trial patients who fail to collect the trial drug on the prescribed day but wants to continue in the trial, from the next day or two, he/ she will be allowed, but defaulters of more than

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one week will not be allowed to continue and be withdrawn from the study with fresh case being included.

Follow-up: After the end of the treatment, the patient will be advised to visit the OPD for another 2 months for follow-up. In the follow-up period the patient's improvement will be documented. Trial medicines will not be given in this period.

15.0 DATA MANAGEMENT:

- After enrolling the patient in the study, a separate file for each patient will be opened and all forms will be filed in the file. Study No. and OPD/ IPD No. will be entered on the top of file for easy identification. Whenever the study patient visits OPD during the study period, the respective patient file will be taken and necessary recordings will be made at the CRF or other suitable forms.
- The screening forms will be separately.
- The Data recordings will be monitored for completion by Guide (HOD, Dept. of Maruthuvam), SRO (statistics) and the adverse event will be monitored by the members of the reactions Pharmacovigilance department of NIS. All forms will be further scrutinized in presence of investigator by Sr. Research Officer (statistics) for logical errors and incompleteness of data to avoid any bias. No modification in the results is permitted for unbiased reports.

16.0 OUT COME OF TREATMENT:

Primary out come:

- Protoscopic examination,
- Improvement of clinical symptoms with Questionnaire and Haemorrhoid Symptoms Severity Score (HSS Score).

Secondary out come:

- Relieving of other clinical symptoms such as anemia, Pruritis ani, constipation, General body weakness.Influence of other co factors related to the disease such as Age, Sex etc.

17.0 ADVERSE EFFECT/SERIOUS EFFECT MANAGEMENT:

If the trial patient develops any adverse reaction, he/she will be referred to the pharmacovigilance department of NIS. The members of this department will assess the adverse event and recorded in the prescribed adverse reaction form. For any AE the patients will be treated with proper management at NIS, OPD.

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18.0 STATISTICAL ANALYSIS:

All the data will be entered into computer using MS Access software with macro for logical errors and manually cross checked for data entry error. Then the data will be exported to STATA/SPSS Software for univariate /multivariate analysis. Student't' test and Paired 't' test and will be performed for determining the significance of a particular effect variable.

19.0 ETHICAL ISSUES:

1.To prevent any infection, while collecting blood sample from the patient, only disposable syringes, disposable gloves, with proper sterilization of lab equipments will be used.

2. No other external or internal medicines will be used. There will be no infringement on the rights of patient for this particular indication.

3. The data collected from the patient will be kept confidentially. The patientwill be informed about the diagnosis, treatment and follow-up.

4. After the consent of the patient (through consent form) they will be enrolled in the study.

5. Informed consent will be obtained from the patient explaining in the understandable language to the patient.

6. Treatment would be provided free of cost.

7. In conditions of treatment failure, adverse reactions, patients will be given alternative treatment at the National Institute of Siddha with full care throughout the end.

8. The patients who are excluded [as per the exclusion criteria] will be given proper treatment at NIS.

ASSESSMENT FORMS:

Form - I	Screening and Selection Proforma
Form - II	Case record form
Form - III	Laboratory investigation form
Form – IV	Treatment Compliance form
Form - V	Information sheet
Form - VI	Consent form
Form -VII	Withdrawal form/ Adverse drug reaction form/ Pharmacovigilance form
Form -VIII	Dietary Advice form

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OBSERVATION AND RESULTS

For the clinical study 30 patients was selected and treated in PG Maruthuvam Department, Ayothidoss Pandithar Hospital, National Institute of Siddha, Chennai – 47 Results were observed with respect to the following criteria.

1. Gender Distribution
2. Age Distribution
3. Occupation
4. Food Habits
5. Socio Economic Status
6. Seasons Distribution
7. Land Distribution
8. Yaakai Distribution
9. Gunam Distribution
10. Envagai Therguval
11. Udal Kattukal
12. Kosangal
13. Naadi Nadai
14. Uyir Thathukkal
15. Pitham
16. Kabam
17. Neikuri
18. Chronicity of Illeness
19. Clinical Features
20. Improvement of Clinical Features
21. Health Assessment Questionarie
22. Haemoglobin level
23. Grade of result

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PREPARATION AND PROPERTIES OF TRIAL DRUGS

STANDARD OPERATING PROCEDURE FOR "KUKKILATHY CHOORANAM":

Required raw drugs:

Purified Kukkil (Shorea robusta)	- 134.4g
Purified Parangipattai (Smilax china)	- 67.2g
Purified Gandhagam (Sulfur)	- 33.6g
Arisithippili (Fruit of Piper longam)	- 8.4g
Kandathippili (Root of Piper longam)	- 8.4g
Vetpalaiarisi (Wrightia tinctoria)	- 8.4g
Vaividangam (Embelia ribes)	- 8.4g

Purification of the ingredients:

All the drugs mentioned here were purified as per the Siddha literature.

- **Shorea robusta:**

  Resin of Shorea robusta was boiled with tender coconut and then dried.

- **Sulphur:**

  The *kalkam*of Lowsonia inermis was mixed in cow's curd and placed in a mud pot. The mouth of the pot was covered with a cloth. Sulphur was placed over the cloth. The pot was covered with another suitable pot and buried in the ground. The entire setup was subjected to*pudam* with five dung cakes.The sulphur which melts and settles down was collected. This procedure was repeated for 7 times.

- **Wrightia tinctoria:**

  Seeds of Wrightia tinctoria were cleaned well from dust and impurities. Then it was fried well.

- **Embelia ribes:**

  Seeds of Embelia ribes were cleaned well from dust and impurities. Then it was fried well.

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- **Piper longum fruit:**

  Fruit of Piper longum was soaked in lemon juice and it was dried in sunlight until the juice gets evaporated. Then it was fried well.

- **Smilax china:**

  Rhizome of Smilax china was boiled with milk and then dried.

- **Piper longum root:**

  Root of Piper longum was soaked in lemon juice and it was dried in sunlight until the juice gets evaporated. Then it was fried well.

METHOD OF PREPARATION:

Make a fine powder of Gandhagam separately and powdered other drugs then finally mixed both.

DRUG STORAGE:

The trial drug will be stored in a clean and dry wide mouthed container.

DISPENSING:

The prepared drug will be dispensed in sachets (4g) once in 7days for 45 days. At each visit the patients will be advised to return the unconsumed drugs and return to the research scholar.

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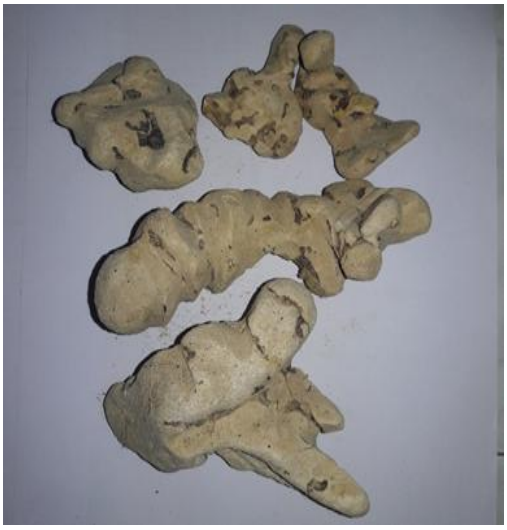
DRUGS PHOTOS

KUKKIL

PARANGIPATTAI



GANDHAGAM

BEFORE PURIFICATION

AFTER PURIFICATION

`

ARISI THIPPILI

KANDA THIPPILI

VETPAALAI ARISI

VAAI VIDANGAM

`

KUKKILATHY CHOORANAM

AS PER SIDDHA LITERATURE-GUNAPADAM REVIEW

KUKKIL – Shorea robusta

Synonym:

- *Kungiliyam*
- *Sarauvarasam*
- *Gugglu*

Parts Used:

Resin

Organoleptic Characters:

Taste	:	Bitter
Character	:	Heat
Division	:	Acrid

Action:

- Stimulant
- Expectorant
- Diuretic

`

General Characteristics of *Kukkil*:

பெரும்பாடு மேகம்போம் பேரா துடலில்
அரும்பிய புண் ணாறுமிவை யல்லால்-குரும்பாம்
எலும்புருக்கி புண் சிழும் ஏகும் உலகில்
சலம்பருகுங் குங்கிலியத் தால்.

- அகத்தியர் குணவாகடம்

Resin is used to cure disease like leucorrhoea, menorrhagia, **ulcers**, pustules, **deep wounds.**

Medicinal Uses:

- The powdered resin is mixed with sugar and given for diarrhoea in children.
- The powdered resin along with milk is taken as an alterative.
- It is used for fumigating the rooms of ill people.
- It is used as an ointment for wound.

***PARANGIPATTAI* – Smilax china**

Synonym:

- *Mathusmigam*
- *Mathusmigi*
- *Seenapattai*
- *Parangichakkai*

Parts Used:

Root tuber.

Organoleptic Characters:

Taste	:	Sweet
Character	:	Coolant
Division	:	sweet

Action:

- Alterative
- Antisyphilitic
- Aphrodisiac
- Depurative

`

General characteristics of *Parangi Pattai*:

தாகம் பலவாதந் தாதுநட்டம் புண்பிளவை
மேகங் கடிகிரந்தி வீழ்**மூலந்**-தேகமுடன்
சூட்டை பகந்தமேற் கொள்வமனம் போம்பறங்கிப்
பட்டையீனை யுச்சரித்துப் பார்.

- தேரையர் குணவாகடம்

It cures thirst, *Vatha* disease, ulcer, diabetes, carbuncle**, haemorrhoid** , leprosy and scabies.

Medicinal Uses:

- The decoction of the powder is given for above mentioned ailments.
- The powdered root is used for ulcer, eczema, leucorrhoea, indigestion, diarrhoea, and belching.

***THIPPILI* – Piper longum**

Synonyms:

- *Aargathi*
- *Unrasam*
- *Ulavainesi*
- *Kaman*
- *Kudari*
- *Kolagam*
- *Koli*
- *Saram*
- *Kanai*
- *Aathi marunthu*

Parts used:

Fruit

Organoleptic characters:

Taste	:	Acrid
Character	:	Heat
Division	:	Sweet

`

Action:

- Stimulant
- Carminative

General characteristics of *Thippili*:

திப்பிலியின் றண்டுலஞ் சிலேத்மத்தைப் போக்கிவிடும்
உப்பிசத்தை மேகத்தை ஓட்டுங்காண்-தப்பாமல்
வாத சுரந்தணிக்கும் மாகபரோ கந்தொலைக்கும்
தாதுவை வளர்ப்பிக்குங் சாற்று.

- **அகத்தியர் குணவாகடம்**

It cures cough, **ulcer**, bronchial asthma, *kapha* diseases, anaemia, headache, delirium, sinusitis and throat pain.

Medicinal uses:

- The fruit powder along with Terminalia chebula is given for tuberculosis.
- The fruit powder mixed with honey and bettle leaf juice is given for cough and fever.
- The fruit powder mixed with milk is given for delirium.
- The fruit powder mixed with honey cures tenia infection.

KANDATHIPPILI – **Piper longum**

Synonyms:

- *Kiranthigam*
- *Thanmoolam*
- *Thippili Kattai*
- *Nathikaranthai*
- *Narukkuver*
- *Narukku Thippili*
- *Modiver*

Parts Used:

Root

`

Organoleptic charaters:

Taste	:	Acrid
Character	:	Heat
Division	:	Acrid

Action:

- Stomachic

General characteristics of *Kandathippili*:

தாகபித்தஞ் சோகந் தணியாச் சுரமிருமல்
மேகங் குரற்கம்மல் மெய்க்கடுப்பும்- ஏகுங்காண்
திப்பிலிமூ லங்கண்டத் திப்பிலிய தாம்நறுக்குத்
திப்பிலியென் றேயோருக்காற் செப்பு.

- அகத்தியர் குணவாகடம்

It cures thirst, *pitha* disease, cough, diabetes, fever, delirium, cough, diarrhoea and body pain.

Medicinal uses:

- The Root powder mixed with milk is given for lumbago, thirst and *vatha* diseases.
- The Root powder is used as snuff is in care of delirium, giddiness and heart attack.

***VAIVIDANGAM* – Embeliaribes**

Synonym:

- *Vaivilangam*
- *Varnanai*
- *Keralam*

Parts used:

Seed

`

Organoleptic charaters:

Taste	:	Bitter
Character	:	Heat
Division	:	Acrid

Action:

- Anthelmintic
- Carminative
- Stomachic
- Stimulant

General characteristics of *Vaividangam*:

பாண்டுகுட்டம் குன்மம் பருந்தூல நோய்வாதந்
நீண்டு திரிவிடஞ் சிரந்துண்டம்-பூண்டமடி
நோய்விளங்கக் காட்டாத நுண்கிருமி **யாசனப்புண்**
வாய்விளங்கங்காட்ட விருமார்.

- அகத்தியர் குணவாகடம்

It cures anaemia, peptic ulcer, obesity, snake bite and **ano-rectal ulcer**.

Medicinal uses:

- For anthelmintic action it is given along with honey.
- The seed powder mixed with milk is given for indigestion, blotting and abdominal pain in children.
- It is externally used for scorpion bite.
- The seeds are grinded with butter and applied for headache.

`

VETPALAI ARISI – **Wrightia tinctoria**

Synonym:

- *Girimalligai*
- *Kudasam*
- *Varsam*

Parts Used:

Leaves bark and seed.

Organoleptic charaters:

Taste	:	sweet
Character	:	Coolant
Division	:	Sweet

Action:

Leaves, bark

- Aphrodisiac
- **Astringent**

Seed

- **Tonic**

General Characteristics of *Vetpalai arisi*:

வெட்பாலை தன்னரிசி வீறுபித்த வாதமொடு
கொட்பார் கரப்பான் குடல்வாத-உப்பிசத்தைக்
காணாம லேநாளுங் கண்டிக்குங் காசினியிற்
பூணார் முலையா புகல்.

- அகத்தியர் குணவாகடம்

It cures *vatha pitha* disease, skin disease, blotting and diarrhoea.

`

Medicinal Uses:

- The seed powder cures abdominal discomfort and blotting.
- The leaf has the property to cure tooth ache.
- Bark decoction is given for fever.

GANDHAGAM - Sulphur

There are 64 kinds of *Paashaanas* which are classified into two types

- Natural (32)
- Synthetic (32)

Sulphur is one of the natural *Paashaanas* which is bitter and astringent in taste.

Other Names:

- *Natham*
- *Paraiveeriyam*
- *Athitha Prakasam*
- *Beejam*
- *Shakthi*
- *Chendurathathi*
- *Deviuram*
- *Ponvarni*

Types:

Based on the color the Gandhagam has been divided into four types. They are,

- White
- Red
- Golden Yellow
- Black

Action:

- **Laxative.**
- Tonic.
- Antiseptic.
- It also **increases the bile fluids**.
- It increases various body secretions.
- When used in high doses it causes diarrhoea.

`

General characters of *Gandhagam*:

நெல்லிக்காய்க் கந்திக்கு நீள்பதினெண் குட்டமந்தம்
வல்லை கவிசைகுன்ம வாயுகண்ணோய்-பொல்லா
விடக்கடிவன் மேகநோய் வீறுசுரம் பேதி
திடக்கிரக ணீகபம்போந் தேர்.

This is considered to useful in the treatment of 18 types of skin disease.

Medicinal uses:

- Liver Enlargement
- Abdominal distension
- Eye diseases
- Chronic venereal diseases
- Chronic diarrhoea
- Gastric ulcer
- Poisonous bites
- Fever
- Chronic dysentery

BOTANICAL REVIEW

SHOREA ROBUSTA

Synonyms:

Sanskrit	:	Sala, Sarja, Guggilam
Bengali	:	Sal,Salwa
Gujrati	:	Ral
Hindi	:	Damar, Dhuna
Telgu	:	Guggilamu
Punjabi	:	Sal, Seral

`

Taxonomical classification:

Kingdom	:	Plantae
Phylum	:	Angiosperms
Order	:	Malvales
Family	:	Dipterocarpaceae
Genus	:	Shorea
Species	:	Shorea robusta

Parts used-Resin

Actions:

- Stimulant
- Expectorant,
- Diuretic
- Anti-Vatha
- **Styptic.**

Phytochemical constituents:

S. robusta resin has been reported to contain several mono-, sesqui- and tri-terpenoids includes ursolic acid, tri and tetrahydroxy ursenoic acid, asiatic acid, α and β-amyrin, α –amyrenone, mangiferonic acid, benthamic acid and uvaol.

The phytochemical analysis of the extract showed the presence of triterpenoids, sterols and resin.

Medicinal uses:

- As an ingredient of ointments for skin diseases and in ear troubles.
- The resin obtained from the plant is considered as an astringent and is used in dysentery and **bleeding piles.**
- It is also given in gonorrhoea and for delayed digestion.
- Mixed with boiled milk it is a useful remedy in cough, bronchitis, and leucorrhoea.
- The resin is used for treating menorrhogea, enlargement of the spleen and for relieving eye irritations.

`

Scientific review:

Wound healing activity:

The ethanolic extract of S.robusta resin(10% and 30% w/w applied locally in excised and incised wounds) produced a dose-dependent acceleration in wound contraction and incr4eased hydroxyproline content and tensile strength of wounds in rats.the result demonstrate wound healing activity of ethanolic extract of S.robusta resin.

Analgesic activity

The extract produced significant central and peripheral analgesic effects, as is evident from increase in reaction time in hot plate and tail flick tests, inhibition in writhing counts in acetic acid-induced writhing test, inhibition of licking time in formalin-induced hind paw licking, increased pain threshold in paw withdrawal latency in carrageenan-induced hyperalgesia and increased paw withdrawal threshold in post-surgical pain.

SMILAX CHINA

Synonyms:

Sanskrit	:	Madusnuhi
Telgu	:	Pirangi-chekka
Hindi	:	Chobchini
Malayalam	:	Pavu

Taxonomical classification:

Kingdom	:	Plantae
Phylum	:	Angiosperms
Order	:	Coronarieae
Family	:	Lilliaceae
Genus	:	Smilax
Species	:	Smilax china

Parts used:

Root tuber

`

Actions:

- Alterative
- Carminative
- Depurative
- Diaphoretic
- Diuretic
- Tonic

Phytochemical constituents:

The root is known for its steroidal saponins. Pro-sapogenin-A of dioscin, gracillin. Me-protogracillin, me-protodioscin and its 22-hydroxy-analog.

Scientific review:

Anti inflammatory property:

A marked anti inflammatory activity of a Smilax china extract has been reported using carrageenin - induced rat oedema

EMBELIA RIBES

Synonyms:

Sanskrit	:	Jantughna, Krmighna, Vella, Krmihara, Krmiripu
Bengali	:	Vidang
Gujarati	:	Vavding, Vavading, Vayavadang
Hindi	:	Vayavidanga, Bhabhiranga, Baberang
Malayalam	:	Vizhalari, Vizalari
Punjabi	:	Babrung, Vavaring

Taxonomical classification:

Kingdom	:	Plantae
Phylum	:	Angiosperms
Order	:	Ericales
Family	:	Myrsinaceae
Genus	:	Embelia
Species	:	Embeliaribes

`

Parts used:

Seeds

Actions:

- **Anthelmintic**
- **Astringent**
- **Carminative**
- **Alterative**
- **Stimulant.**

Phytochemical constituents:

- *Embelia ribes* berries contain several chemical constituents like embelic acid, volatile oil, fixed oil, resin, tannin,christembine (alkaloid).
- Phenolic acids like caffeic acid, vanillic acid, chrorogenic acid, cinnamic acid, ocumaricacid16. 4.33% of the embelin content is observed in the berries of *Embelia ribes*.
- Phytochemical investigation of the seeds revealed 3 new compounds identified as 3 – (4-hydroxyoctadecanyloxy)–p-quinonyl-5-methylene-8-(10-pentanyloxy) -p-quinine (embelinol), n-pentacosanyl-nnonadeca-71-en-91–alpha–ol-11-oate (embeliaribyl ester), 1,2,4,5-tetrahydroxy 3-undecanyl benzene (embeliol) and a known compound embelin.

Scientific review:

Anthelmintic activity

The ethanolic extract of the seeds of Embeliaribes was evaluated for its anthelmintic efficacy in vitro.Graded doses of the extract (10,50,100,200mg/mL) showed significant anthelmintic activity, with their sensitivity when compared with the standard.

Anti oxidant property:

Free radical scavenging reactions and antioxidant activity of embelin has been studied and found that embelin scavenge DPPH radical and inhibit hydroxyl radical induced deoxyribose degradation, lipid peroxidation and restore impaired superoxide dismutase in rat liver mitochondria

`

Medicinal uses:

- Used in decoction for fevers and for diseases of the chest and skin.
- Aquous extract of the fruit show anti bacterial activity against Stap.aureus and E.coli.
- The plant is also useful and known for its blood purifying properties.
- Aqueous extract of the fruit shows **anthelmintic against tapeworms.**

PIPER LONGUM

Synonyms:

Sanskrit	:	Krishnapippali
Bengali	:	Pipul
Gujrati	:	Lindi pepper
Hindi	:	Pippal
Malayalam	:	Pippali
Punjabi	:	Maghan

Taxonomical classification:

Kingdom	:	Plantae
Phylum	:	Angiosperms
Order	:	Microembryeae
Family	:	Piperaceae
Genus	:	Piper
Species	:	Piperlongum

Parts used:

Root , Fruit

Actions:

Root:

Thermogenic, **tonic, stomachic, digestive, anthelmintic**, expectorant.

Fruit:

Acrid, **stomachic, carminative**, aphrodisiac, expectorant, **digestive**, emollient, antiseptic.

`

Phytochemical constituents:

The root of piper longum contains Piperine, piplartine, piperlongumine, piperlonguminine, triazontane, dihydro stigmasterol, reducing sugars and glycosides.

The fruit contains,

- Piperine (4-5%), piplartine.
- Piperlongumine, piperlonguminine, methyl 3, 4, 5-trimehoxycinnamate.
- Volatile oil, starch, protein, carbohydrates, saponin and amygdalins.

Scientific review:

Anti inflammatory property:

Piper extracts and piperine possess inhibitory activities on prostaglandin and leukotrienes COX-1 inhibitory effect and thus exhibit anti-inflammatory activity32.

Fruit:

Anti hyperlipidemic property:

Methyl piperine significantly inhibited the elevation of total serum cholesterol, and the total cholesterol to HDL-cholesterol ratio, in rats fed with a high cholesterol diet. The unsaponifiable fraction of the oil of Piper longum also significantly decreased total serum cholesterol and hepatic cholesterol in hypercholesterolaemic mice39.

Anti inflammatory property:

A marked anti inflammatory activity of a decoction of P.longum fruits has been reported using carrageenin - induced rat oedema40.

Medicinal uses:

Root:

- Used for the diseases of respiratory tract viz. cough, bronchitis, asthma.
- Counter irritant and **analgesic** when applied locally for muscular pain and inflammation.
- Sedative in insomnia and epilepsy.
- General tonic and haematinic.
- As cholagogue in obstruction of bile duct and gall bladder.

`

Fruit:

- Fruit is used in palsy, gout and lumbago.
- Fruit is a valuable alternative tonic in paraplegia, chronic cough and enlargement of spleen.
- The roasted fruits are beaten up with honey and given to treat rheumatism. Fruit decoction is extensively used in acute and chronic bronchitis.
- It is reported as good remedy for treating gonorrhea, menstrual pain, tuberculosis,
- Sleep disturbances, respiratory tract infections, chronic gut-related pain and arthritic conditions.

WRIGHTIA TINCTORIA

Synonyms:

Sanskrit	:	Hyamaraka
Bengali	:	Indrajav
Gujrati	:	Mitha Indrajava
Hindi	:	Mitha Indrajava
Malayalam	:	Bhanthappala

Taxonomical classification:

Kingdom	:	Plantae
Phylum	:	Angiosperms
Order	:	Gentianales
Family	:	Apocyanaceae
Genus	:	Wrightia
Species	:	Wrightia tinctoria

Parts used:

Seeds

Actions:

- Anthelmintic
- Astringent
- Carminative
- Alterative
- Stimulant.

`

Phytochemical constituents:

- Methanolic extract revealed the presence of Steroids, Flavonoids and Phenolics.
- Ethyl acetate extract revealed the presence of Tannins, Steroids, Flavonoids and Phenolics. whereas chloroform extract revealed the presence of Alkaloids, Saponins and Steroids.

Scientific review:

Anthelmintic activity

Methanolic extract of Wrightia tinctoria have better anthelmintic activity

Wound-healing activity

The ethanol extract promotes better wound-healing by increasing the percentage wound closure.The pro healing action seems to be due to the increased synthesis of collagen, it's cross-linking as well as better alignment and maturation

Medicinal uses:

- The germinated seed is used to traditionally cure jaundice.
- Bark and seeds are used in bilious infections
- The bark and seeds are effective against psoriasis and non-specific dermatitis. It has anti-dandruff properties and hence is used in hair oil preparations.

MINERALOGICAL ASPECT

SULPHUR

Sulphur is occurs in combination with many metals such as copper, iron etc.The chemical properties of sulphur and its compounds including the reaction with mercury, Hg to form a red solid, mercuric sulphide (H_2S).

Synonyms:

Sulfur, Brime stone, colloidal sulphur, floor of sulphur, corosal D&F

`

General uses of sulphur

Sulphur is commercially important in manufacture of chemical such as sulphuric acid the chemicals is also used for manufacture of sulfa drugs. In agriculture, the sulphur is the fore most important crop nutritive element & it is also used as a fertilizer it is also used to manufacture poultry feeds. Sulphur is used in medicines only after it is refined well.

Medicinal uses:

Sulphur is used in scabies. The fumes of burning sulphur are said to cures gout and rheumatic affections. In organic sulphur reduces the motility and invasion of MDA-MB-231 human breast cancer cells. It is also used as the following purposes in medical uses such as,

- Ring worm
- Indigestion
- Diarrhoea
- Vomiting
- Belching
- **Hemorrhoids and anal fissures**
- Insomnia
- Pre-menstrualsyndrome
- Headache
- Dizziness
- Mental tension
- Lack of memory
- Cataract
- Bronchitis
- Migraine
- Fever and Conjunctivitis.

`

GHEE (Adjuvant)

Synonyms

- *Aavin nei*
- *Ko nei*
- *Thuppu*

When ghee taken in required quantities along with usual diet, it helps in **proper digestion and utilization of the diet** and gives strength and vigor to the body.

General Character

“தாக முழலைசுட்கஞ் சர்த்தி பித்தம் வாயு பிர
மேகம் வயிற்றெரிவு விக்கலழல் - மாகாசங்
குன்மம் வறட்சி குடற்புரட்ட லஸ்திசுட்கஞ்
சொன்**மூலம்** போக்கு நிறைத் துப்பு”

- **பதார்த்த குண விளக்கம் தாது சீவ வரக்கம்**

Indication:

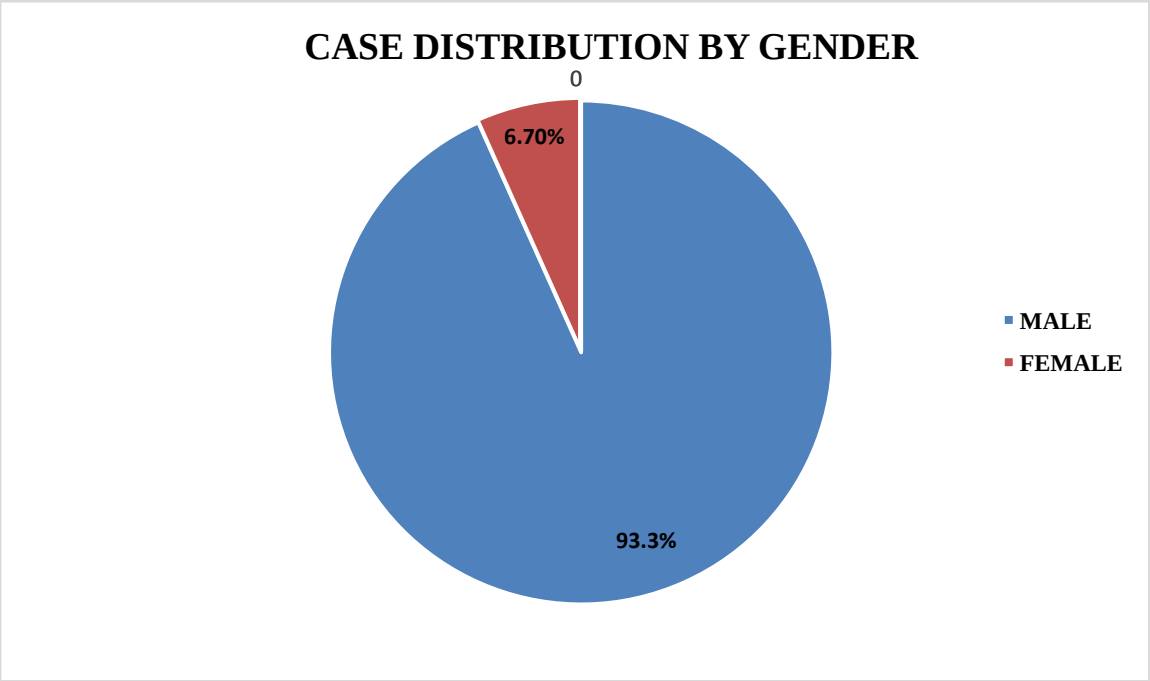
It controls thirst, vomiting, excessive pitha, burning sensation of the stomach, hiccup, abdominal pain, dryness, heat, cough, hypermotility of the gut, weakness of bones, **piles** etc.

`

CASE DISTRIBUTION BY GENDER

TABLE 1

GENDER	NO OF CASES	PERCENTAGE
MALE	28	93.3%
FEMALE	2	6.7%



Inference:

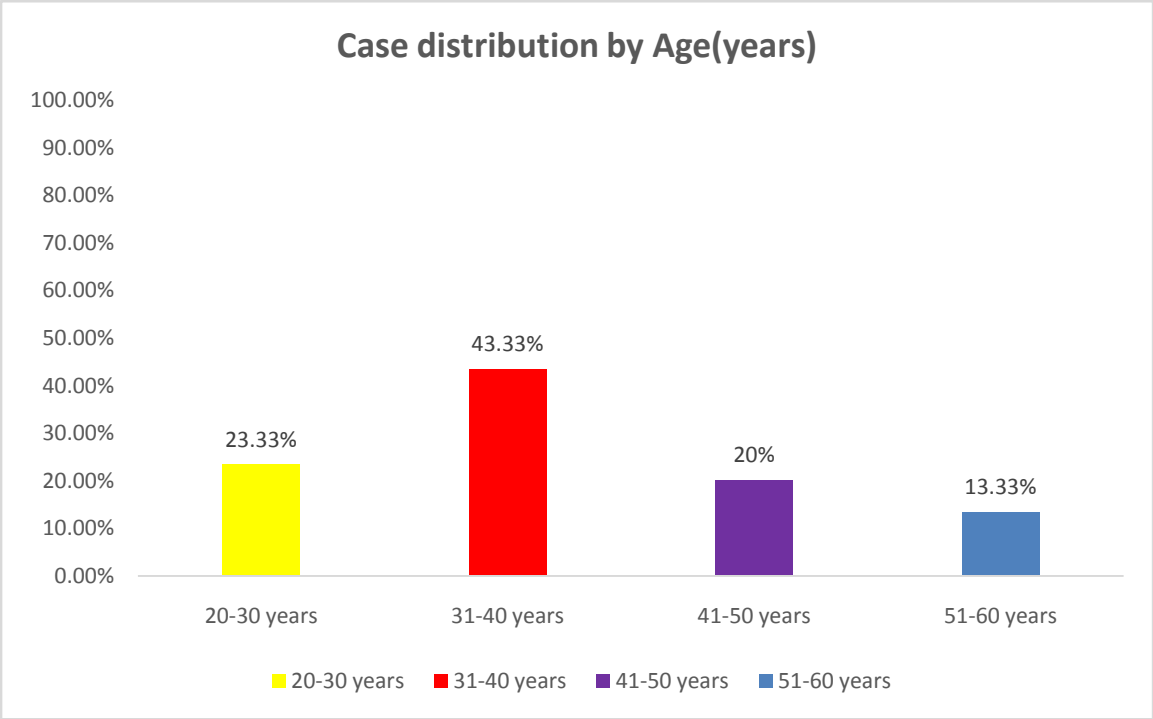
30 patients of both sex were selected for this study, among them 28 (93.3%) were male and 2 (6.7%) were female

`

CASE DISTRIBUTION BYAGE:

TABLE 2:

AGE	NO OF CASES	PERCENTAGE
20-30 years	**7**	**23.33%**
31-40 years	**13**	**43.33%**
41-50 years	**6**	**20%**
51-60 years	**4**	**13.33%**



Inference:

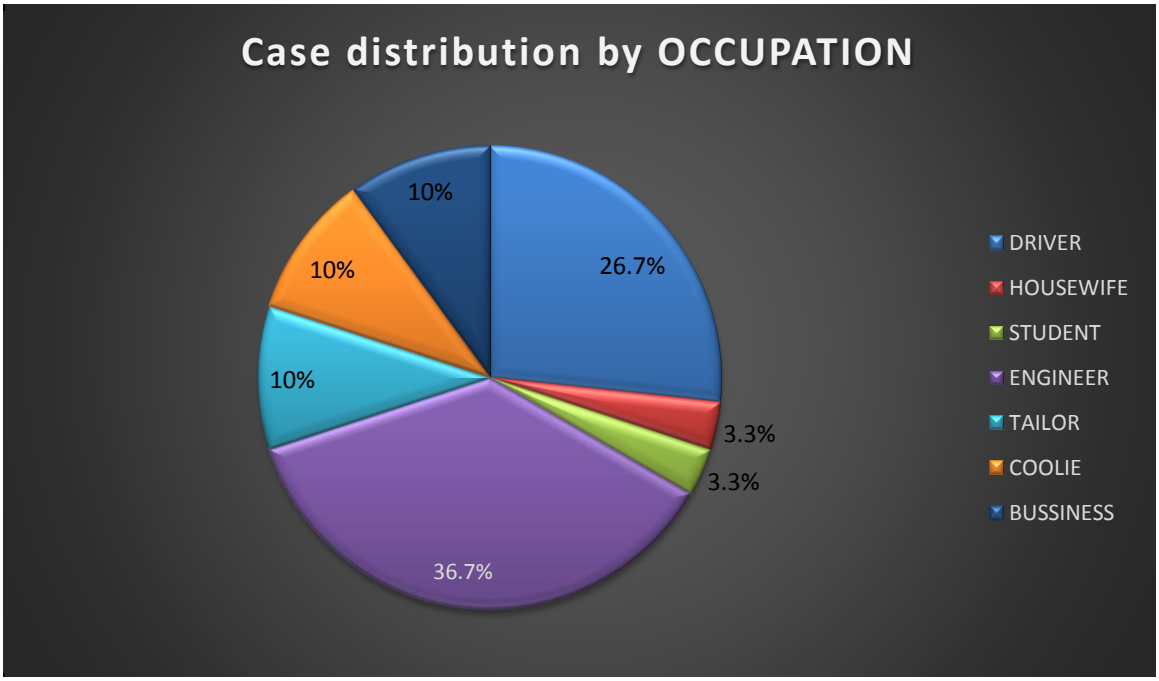
Out of 30 cases age 20-30 years cases 7 (23.33%) were found ,age 31-40 years 13 cases (43.33%) were found ,age 41-50 years 6 cases (20%) were found and age 51-60 years 4 cases (13.3%) were found.

`

CASE DISTRIBUTION BY OCCUPATION

TABLE 3:

WORK	NO OF CASES	PERCENTAGE
DRIVER	8	26.7%
HOUSEWIFE	1	3.3%
STUDENT	1	3.3%
ENGINEER	11	36.7%
TAILOR	3	10%
COOLIE	3	10%
BUSINESSMEN	3	10%



Inference:

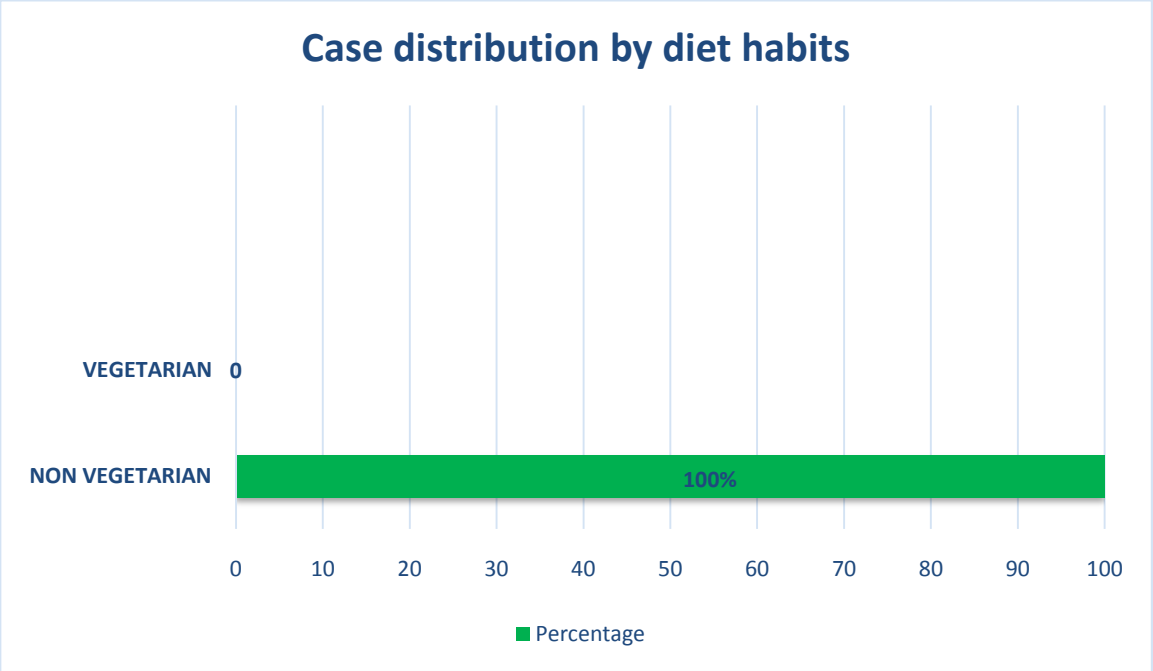
Out of 30 cases 8 patients (26.7%) were driver, 1 patient (3.3%) is housewife, 1 patient (3.3%) is student,11 patients (36.7%) were Engineers,3 patients (10%)were Tailors, 3 patients (10%)were coolie,3 patients (10%)were Businessman.

`

CASE DISTRIBUTION BY DIET HABIT

TABLE4:

DIET HABIT	NO OF CASES	PERCENTAGE
NON-VEG	30	100%
VEG	0	0%



Inference:

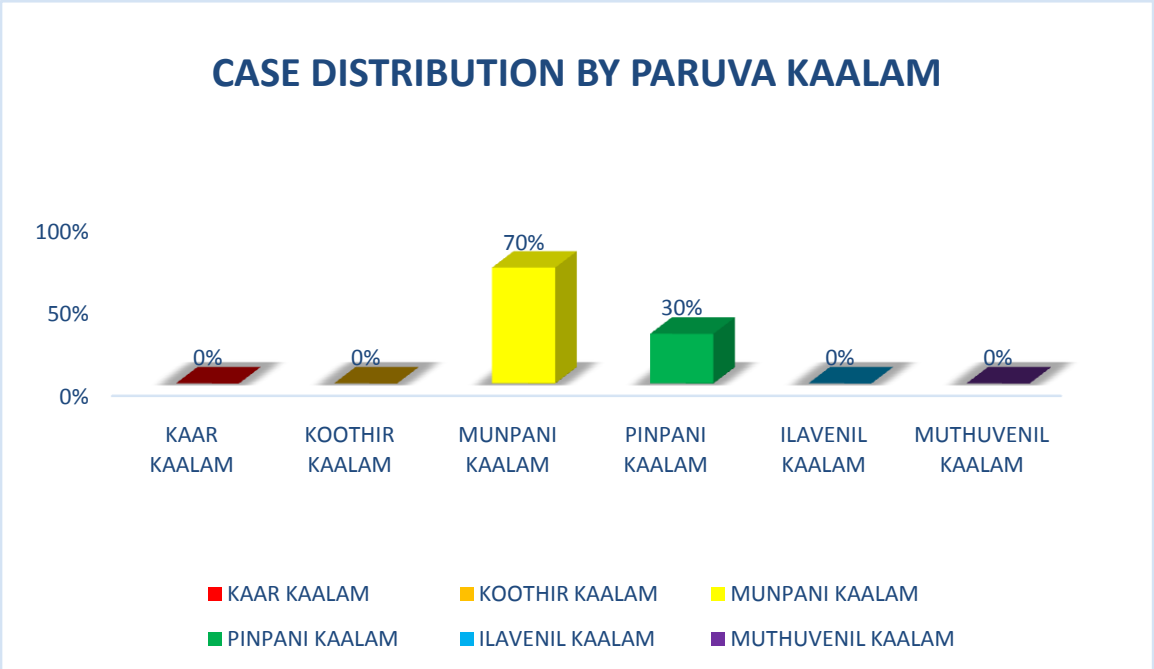
Non-vegetarian 30 patients (100%) are more prone to Ratha moolam.

`

CASE DISTRIBUTION BY PARUVA KAALAM (SEASON)

Table 5:

Paruva Kaalam (Season)	No of cases	Percentage
Kaar Kaalam (Aug 15 - Oct 14)	0	0%
Koothir Kaalam (Oct 15 - Dec 14)	0	0%
Munpani Kaalam (Dec 15 - Feb 14)	21	70%
Pinpani Kaalam (Feb 15 - Apr 14)	9	30%
Ilavenil Kaalam (Apr 15 - Jun 14)	0	0%
Muthuvenil Kaalam (Jun 15 - Aug 14)	0	0%



Inference:

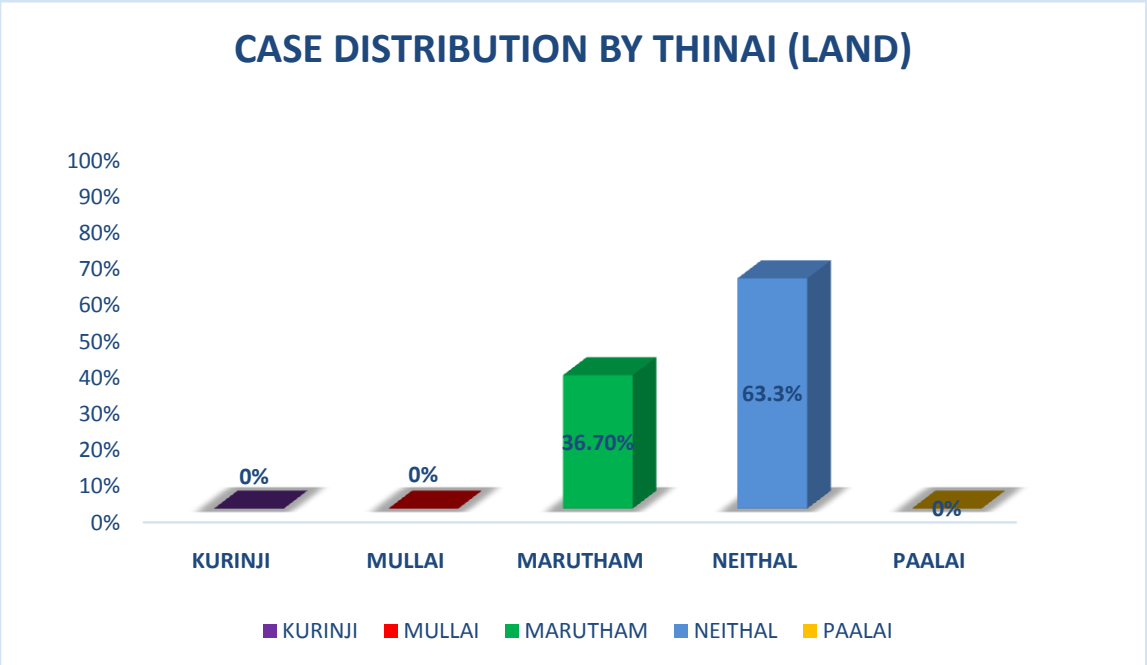
Among the 30 cases 21 cases (70%) were admitted in Munpani Kaalam (Dec 15-Feb14) and 9 cases were (30%) admitted in Pinpani Kaalam (Feb 15-April 14) .

`

CASE DISTRIBUTION BY THINAI (LAND)

Table :6

Thinai (Land)	No of cases	Percentage
Kurinji (Hill)	0	0%
Mullai (Forest)	0	0%
Marutham (Fertile)	11	36.7%
Neithal (Coastal)	19	63.3%
Paalai (Desert)	0	0%



Inference:

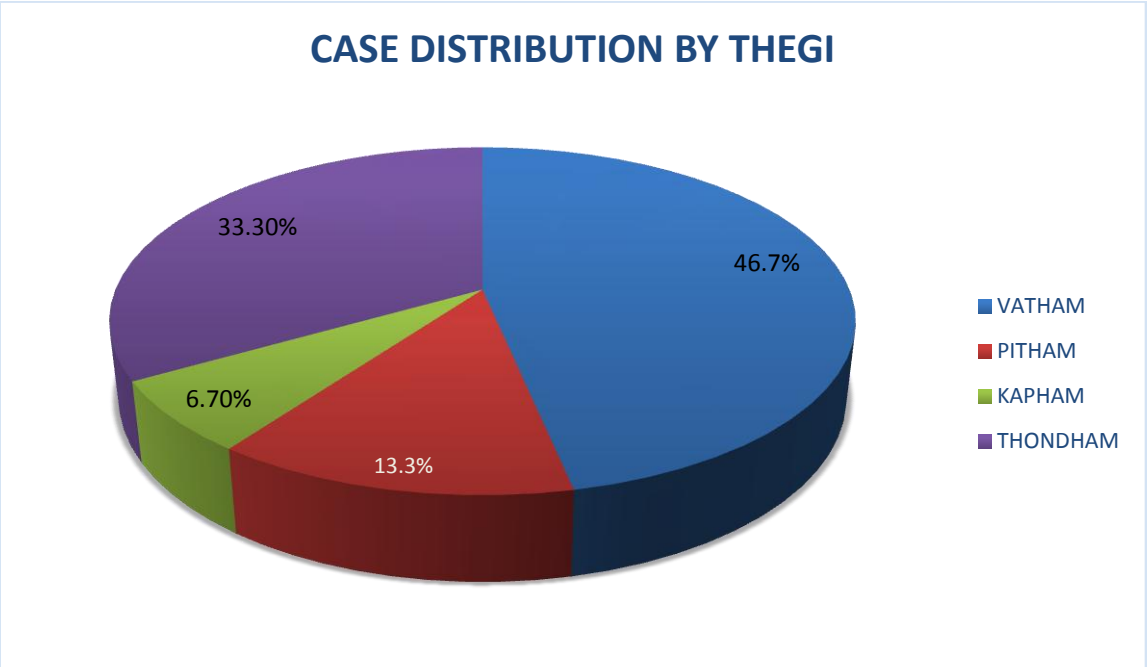
Among the 30 cases 19 cases (63.3%) were from Neithal thinai and 11 cases (36.7%) were from Marutham thinai.

`

CASE DISTRIBUTION BY THEGI

Table 7:

Yaakai	No of cases	Percentage
Vatham	14	46.7%
Pitham	4	13.3%
Kapham	2	6.7%
Thondham	10	33.3%



Inference:

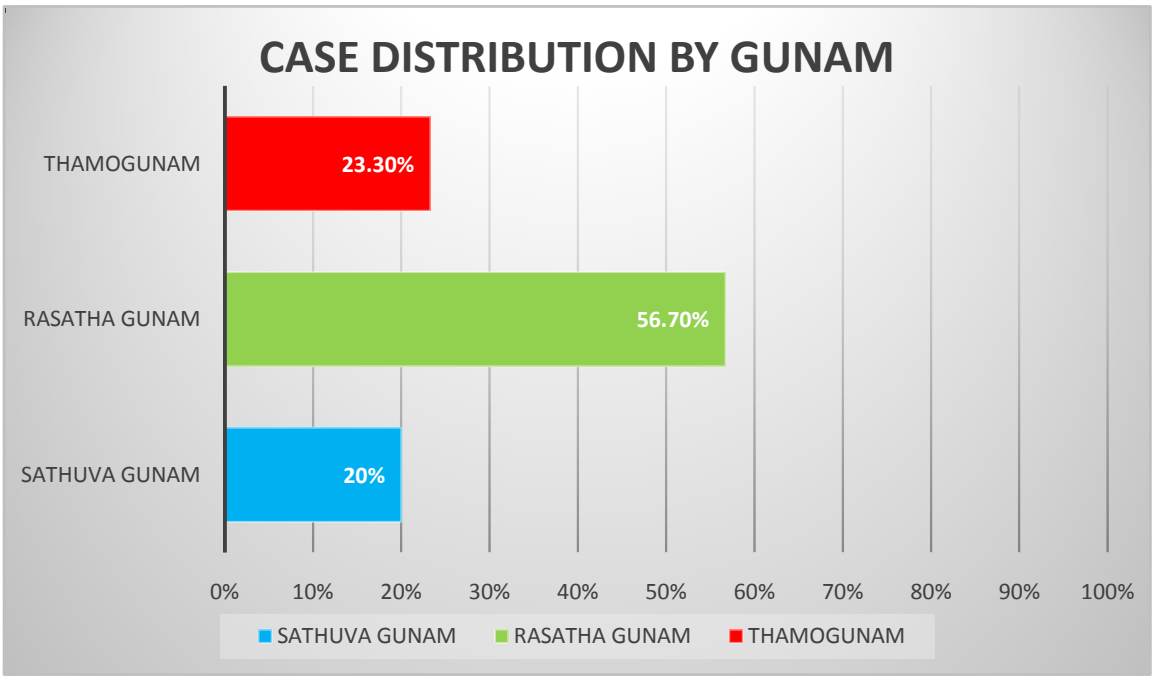
Among the 30 cases 14 cases (46.7%) were Vatha thegi, 4 cases (13.3%) were Pithathegi, 2 cases (6.7%) were Kaba thegi and 10 cases (33.33%)were Thondha thegi.

`

CASE DISTRIBUTION BY GUNAM

Table 8:

Gunam	No of cases	PERCENTAGE
Sathuvagunam	6	20%
Rasatha Gunam	17	56.7%
Thamo Gunam	7	23.3%



Inference:

Out of 30 cases 17 cases (56.7%) were found to posses rasathagunam, 6 cases (20%) were found to possess sathuvagunam and 7 cases (23.3%) werefound to posses thamogunam

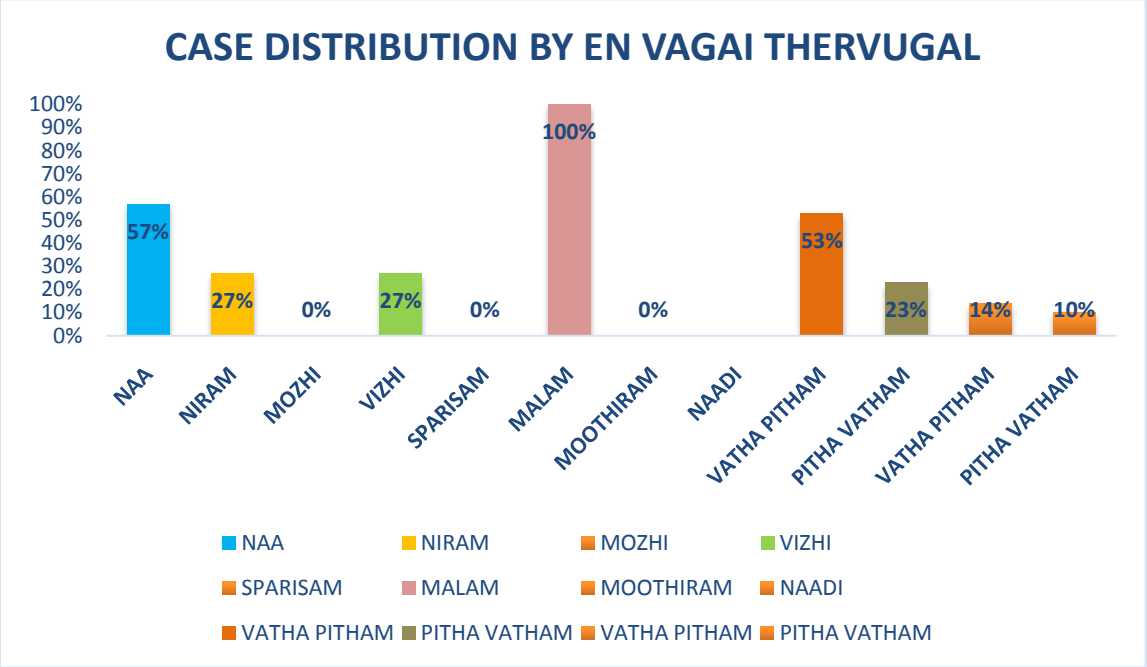
`

CASE DISTRIBUTION BY ENVAGAI THERVUGAL

Table 9:

Envagai Thervugal	No of cases	PERCENTAGE
Naa	17	57%
Niram	8	27%
Mozhi	0	0%
Vizhi	8	27%
Sparisam	0	0%
Malam	30	100%
Moothiram	0	0%
Naadi		
a) Vatha Pitham	16	53%
b) Pitha Vatham	7	23%
c) Vatha Kabam	4	14%
d) Pitha Kabam	3	10%

`



Inference:

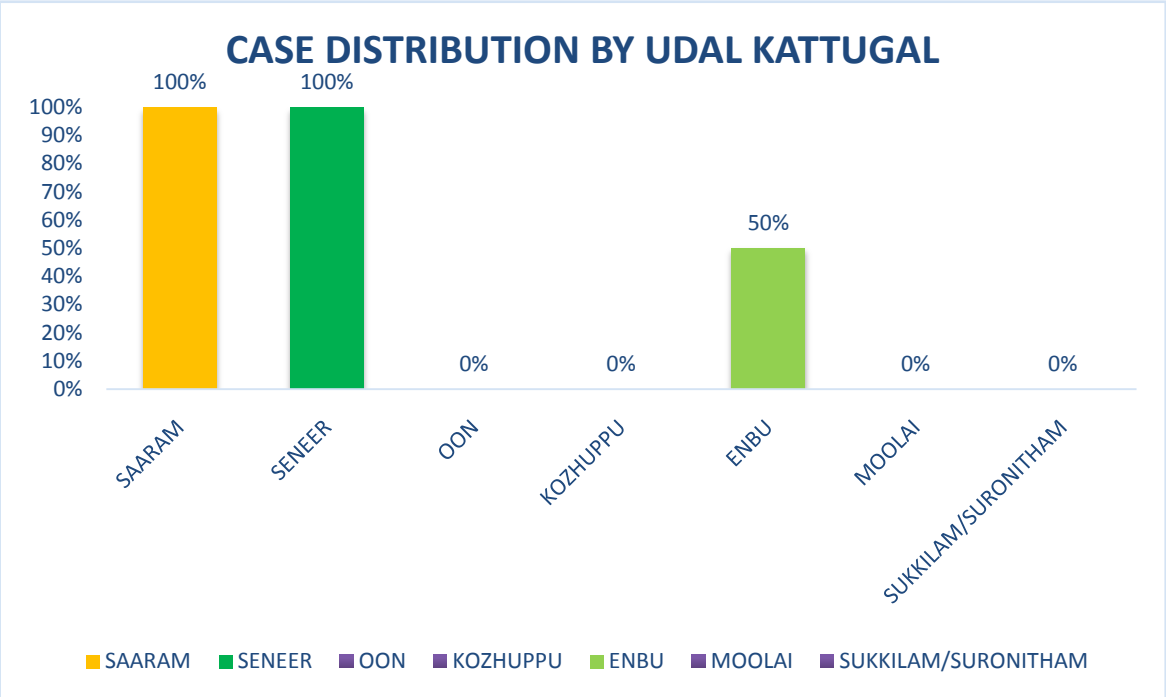
In Envagai Thervugal Malam was found to be affected in all 30 cases (100%) ,Naa(Coated tongue)was affected in 17 cases (57%), Niram (Pallor) was affected in 8 cases (27%), Vizhi (Pallor in palpabrel conjuctiva) was affected in 8 cases (27%). The Naadinadai seen in Rathamoolam were vathapitham in 16 cases (53%) , Pithavatham in 7 cases (23%) vathakapham in 4 cases(14%) and pithakabam in 3 cases (10%)

`

CASE DISTRIBUTION BY UDAL KATTUGAL

Table 10:

Udal Kattukal	No of cases	PERCENTAGE
Saaram	30	100%
Senneer	30	100%
Oon	0	0%
Kozhuppu	0	0%
Enbu	15	50%
Moolai	0	0%
Sukkilam / Suronitham	0	0%



Inference:

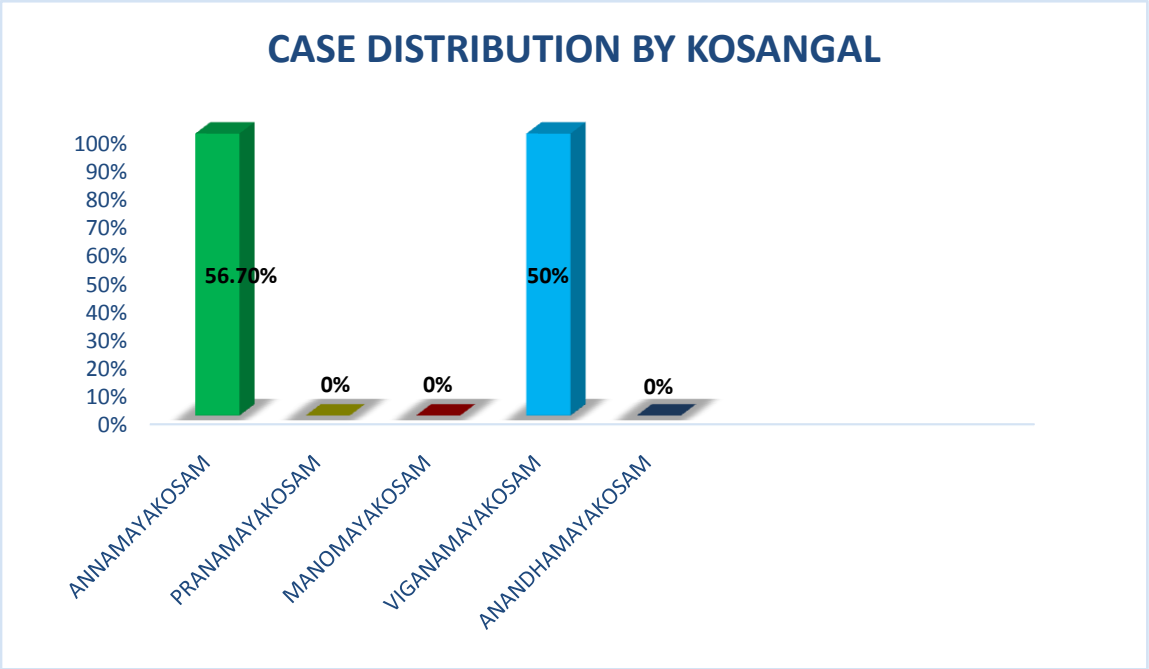
Among 30 cases saram was affected in 30 cases (100%) , Senneer was affected in 30 cases (100%) and Enbu was affected in 15 cases (50%) .

`

CASE DISTRIBUTION BY KOSANGAL

Table 11:

Kosam	No of cases	PERCENTAGE
Annamaya Kosam	17	56.7%
Pranamaya Kosam	0	0%
Manomaya Kosam	0	0%
Vignanamaya Kosam	15	50%
Anandamaya Kosam	0	0%



Inference:

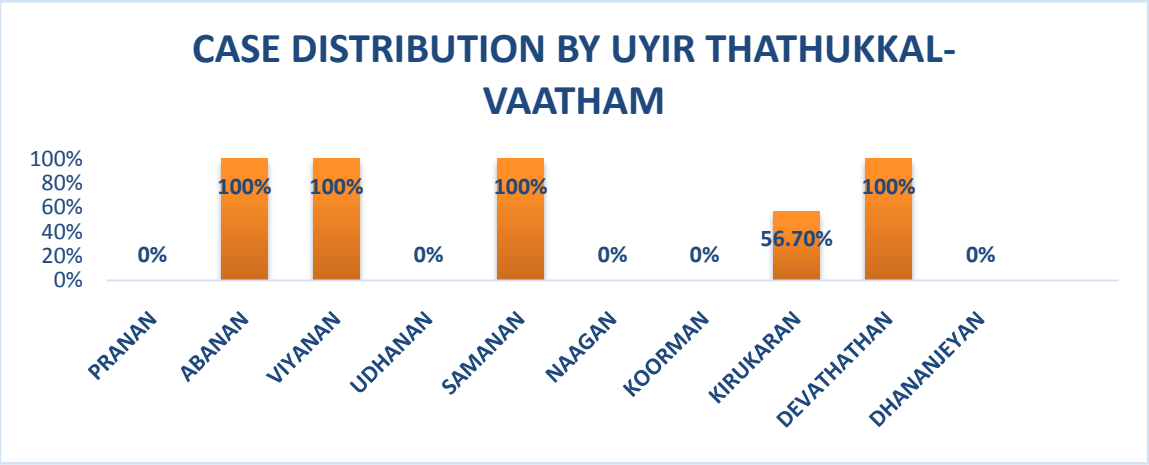
Among with 30 cases Annamaya Kosam was affected in 17 cases (56.7%) and Vignanamaya kosam was affected in 15 cases (50%)

`

CASE DISTRIBUTION BY UYIR THATHUKKAL - VATHAM:

Table 12:

Uyir Thathukkal	No of cases	PERCENTAGE
Pranan	0	0%
Abaanan	30	100%
Viyanan	30	100%
Udhaanan	0	0%
Samanan	30	100%
Naagan	0	0%
Koorman	0	0%
Kiru karan	17	56.7%
Devathathan	30	100%
Dananjayan	0	0%



Inference:

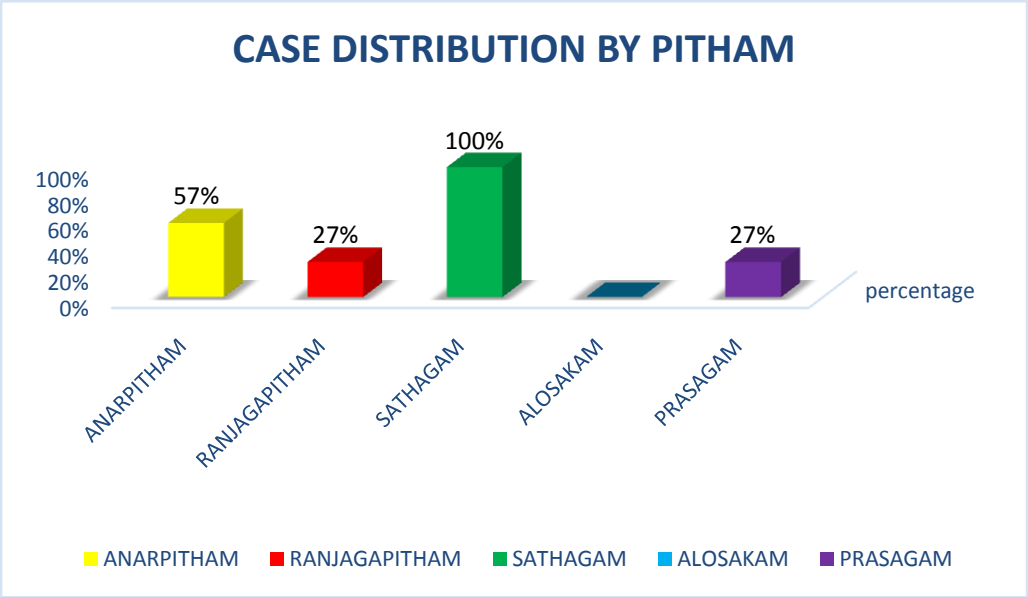
Among the 30 cases Abanan, Samaanan and Viyanan were affected in all 30 cases (100%) Kirukaran was affected in 17 cases (56.7%) and Devathathan was affected in 30 cases (100%).

`

CASE DISTRIBUTION BY PITHAM

Table 13:

Pitham	No of cases	PERCENTAGE
Anarpitham	17	57%
Ranjagapitham	8	27%
Sathakam	30	100%
Alosakam	0	0%
Prasakam	8	27%



Inference:

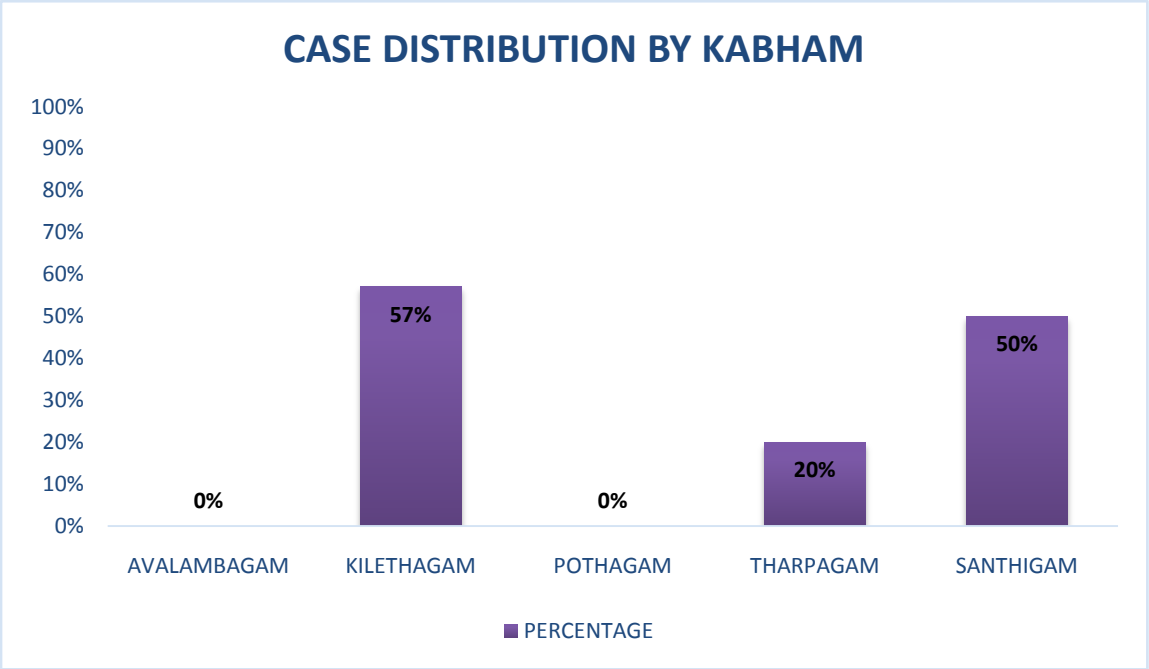
Sathagapitham was affected (Unable to perform their routine activities) in all the 30 cases (100%) Anarpitham was affected in 17 cases (57%), Ranjagapitham was affected in 8 cases (27%) and prasaka pitham was affected (Itching present around the anus) in 8 cases (27%).

`

CASE DISTRIBUTION BY KABAM

Table 14:

Kabam	No of cases	PERCENTAGE
Avalambasam	0	0%
Kilethagam	17	57%
Pothagam	0	0%
Tharpagam	6	20%
Santhigam	15	50%



Inference:

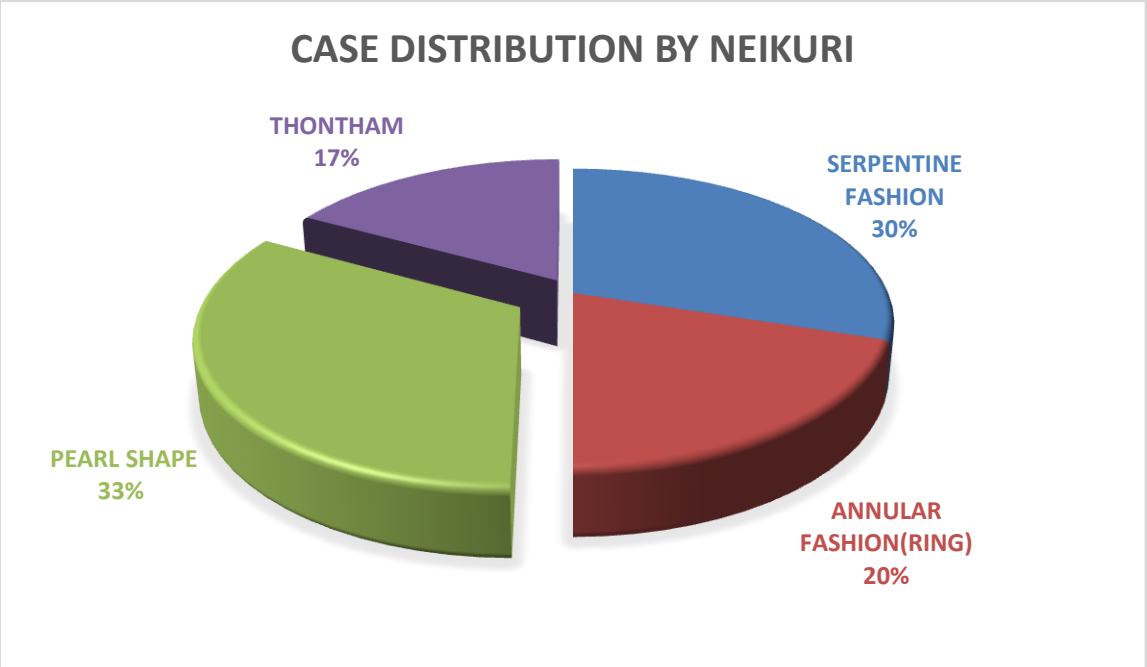
Kilethagam was affected in 17 cases (57%) tharpagam was affected in 6 cases (20%) Santhigam was affected in 15 cases (50%) .

`

CASE DISTRIBUTION BY NEIKURI

Table 15:

NEIKURI	No of cases	PERCENTAGE
Serpentine Fashion	9	30%
Annular Fashion (Ring)	6	20%
Pearl Shape	10	33%
Thontham	5	17%



Inference:

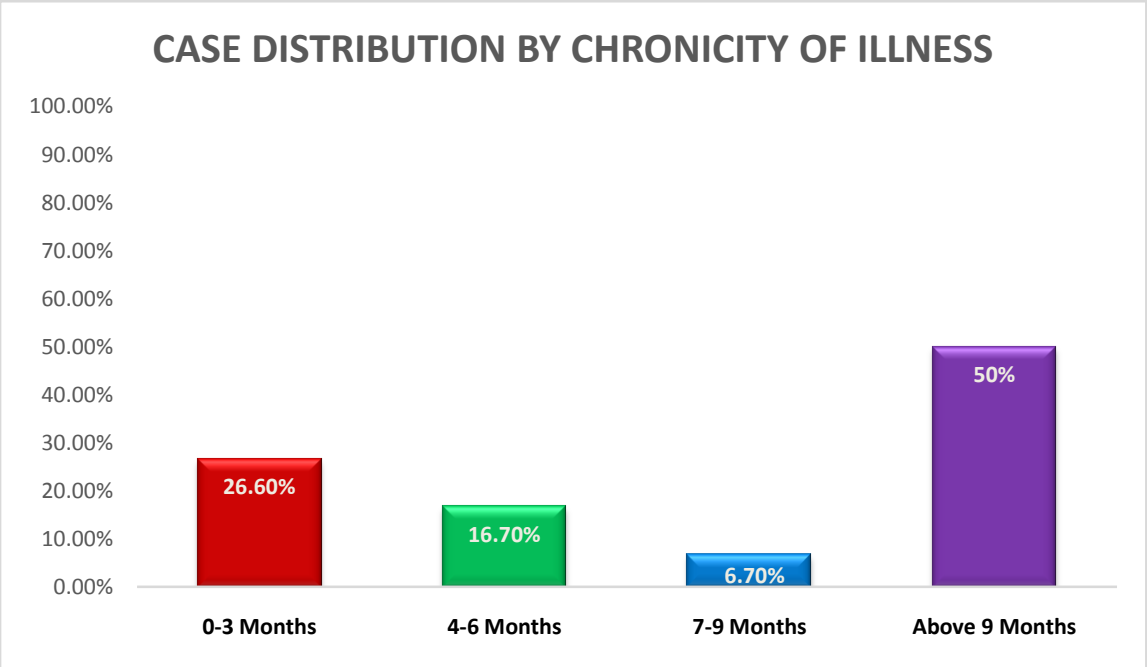
Among 30 cases in 9 cases (30%) nei kuri was observed as serpentine like, in 6 cases (20%) the neikuri was observed as annular like, in 10 cases (33%) the neikuri was observed as Pearl shape, in 5 cases (17%) the neikuri was observed as thontham type.

`

CASE DISTRIBUTION BY CHRONICITY OF ILLNESS

Table 16:

CHRONICITY OF ILLNESS	NO OF CASES	PERCENTAGE
0-3 Months	8	26.6%
4-6 Months	5	16.7%
7-9 Months	2	6.7%
Above 9 months	15	50%



Inference:

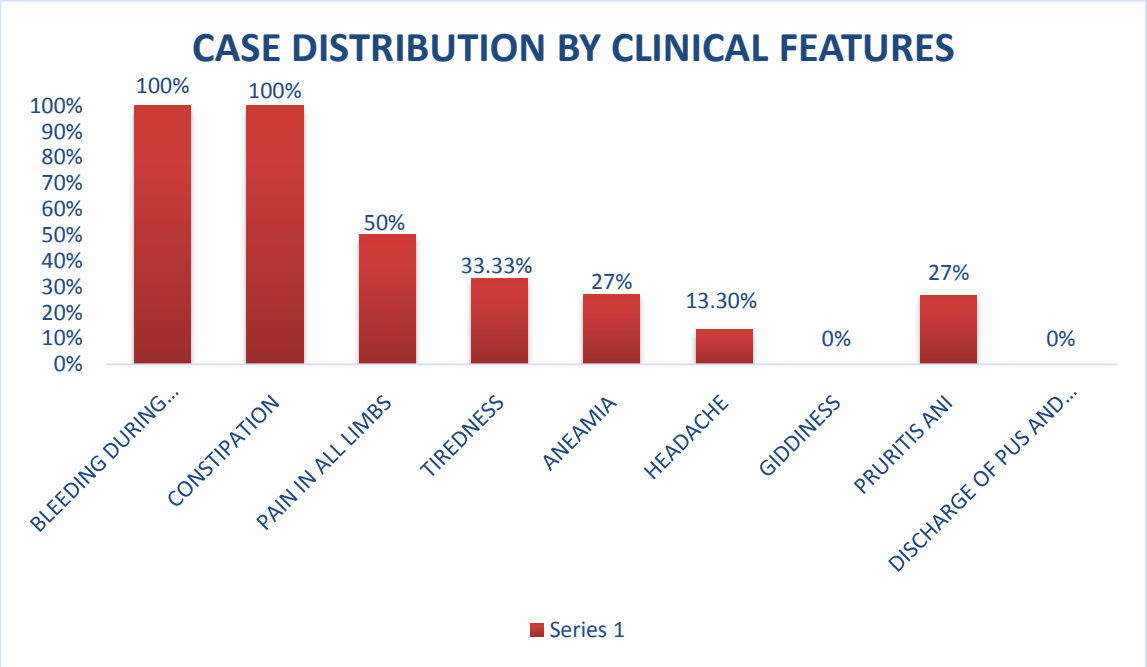
Among 30 cases 0-3 months chronicity of illness was found in 8 cases (26.6%) 4-6 months chronicity of illness in 5 cases (16.7%), 7-9 months chronicty of illness in 2 cases (6.7%) and above 9 months chronicity of illness in 15 case (50%) .

`

CASE DISTRIBUTION BY CLINICAL FEATURES

TABLE 17:

CLINICAL FEATURES	No of cases	PERCENTAGE
Bleeding during defecation	30	100%
Constipation	30	100%
Pain in all limbs	15	50%
Tiredness	10	33.33%
Anemia	8	27%
Headache	4	13.33%
Giddiness	0	0%
Pruritus in ani	8	27%
Discharge of pus and mucous	0	0%



Inference:

In Clinical features all 30 cases (100%) had bleeding during defecation and constipation, 10 cases (33.33%) had tiredness,15 cases (50%) had pain in all limbs, 4 cases(13.3%) had headache,8 cases(27%) had pruritic ani and Anemia 8 cases (27%).

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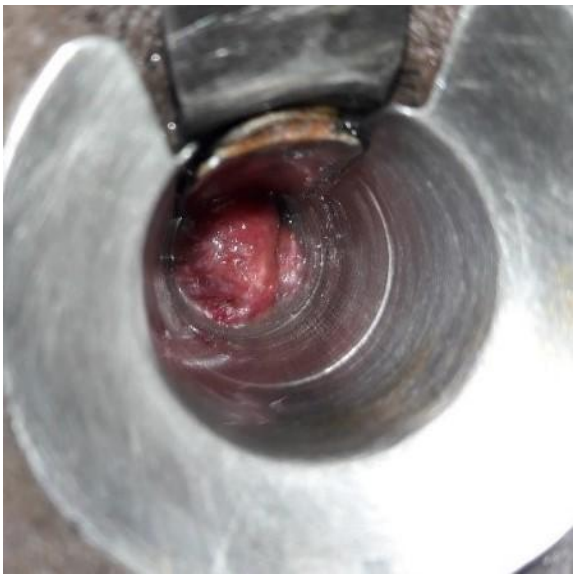
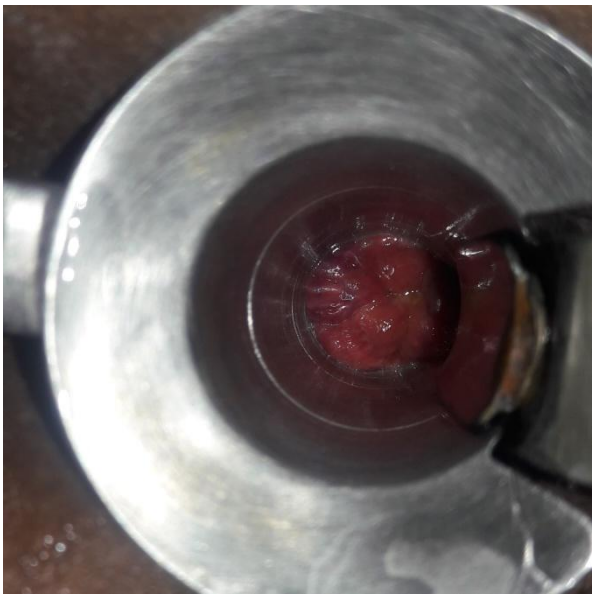
PROCTOSCOPY EXAMINATION: BEFORE AND AFTER TREATMENT

OP NO-J78540

AGE/SEX-35/M

BEFORE TREATMENT **AFTER TREATMENT**



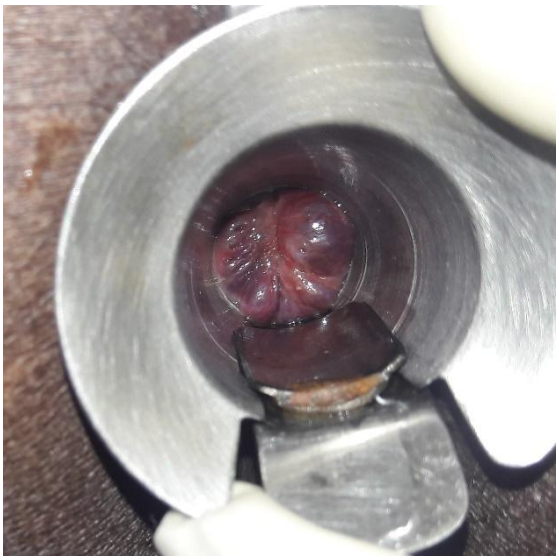


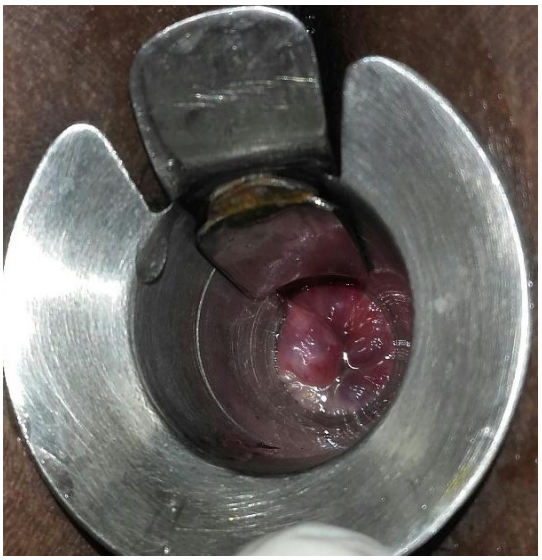
RESULT-11’o clock pile mass size reduced after the treatment

OP NO-J28368

AGE/SEX-24/M

BEFORE TREATMENT **AFTER TREATMENT**





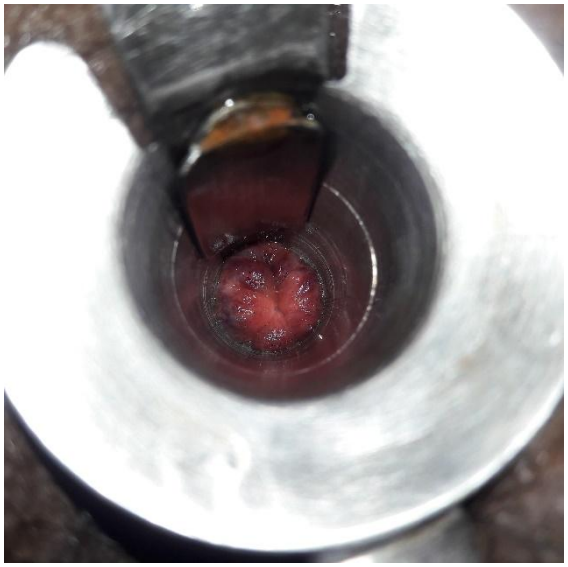
RESULT:3’o clock pile mass size reduced afterthe treatment.

`

OP NO:J53599

AGE/SEX-34/M

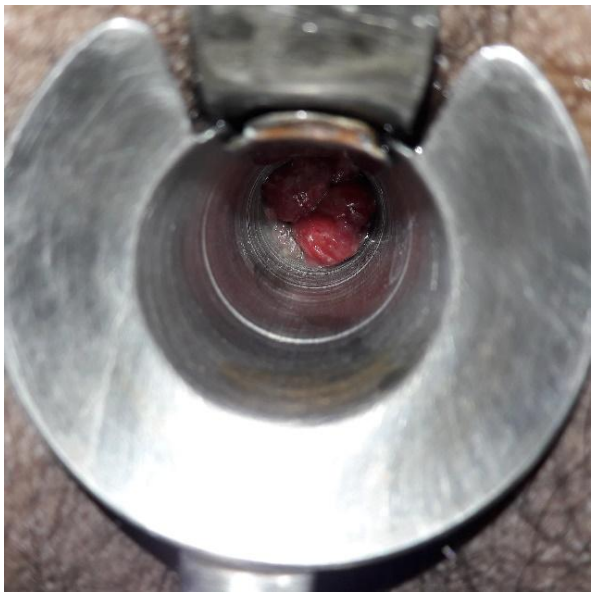
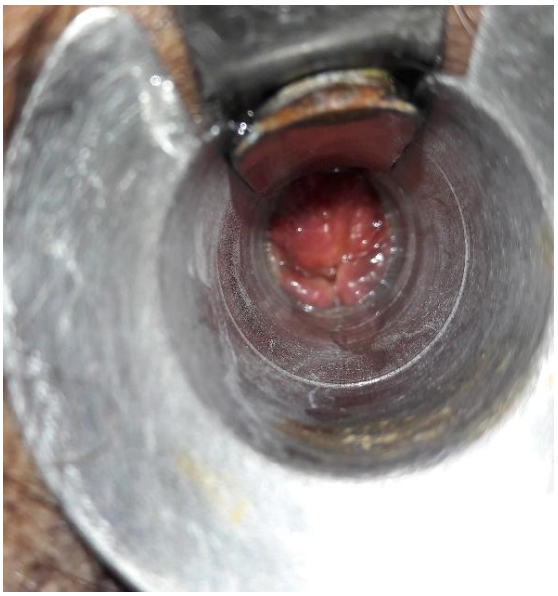
BEFORE TREATMENT **AFTER TREATMENT**

RESULT:3’o clock pile mass size reduced after the treatment.

OP NO: J19200

AGE/SEX:49/M

RESULT:3’o clock.7’o clock,11’o clock pile mass size reduced well after treatment.

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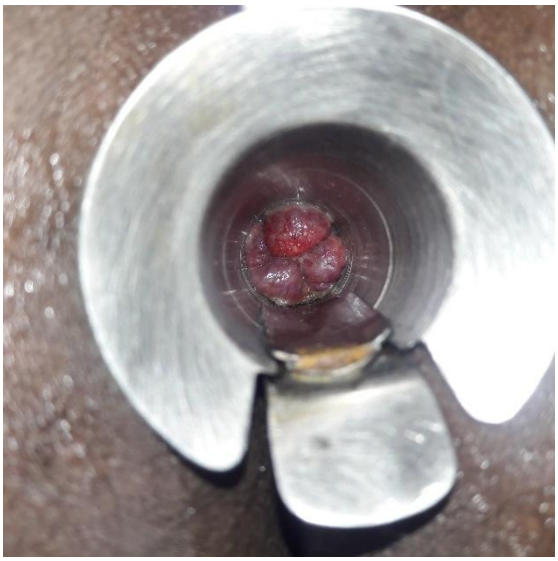
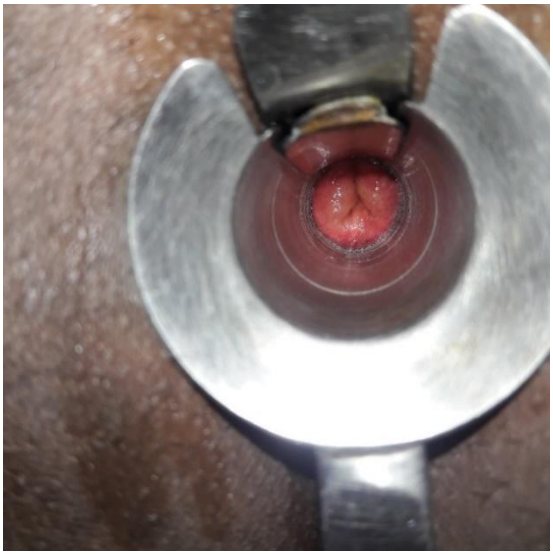
OP NO:J84439

AGE/SEX: 30/M

BEFORE TREATMENT **AFTER TREATMENT**

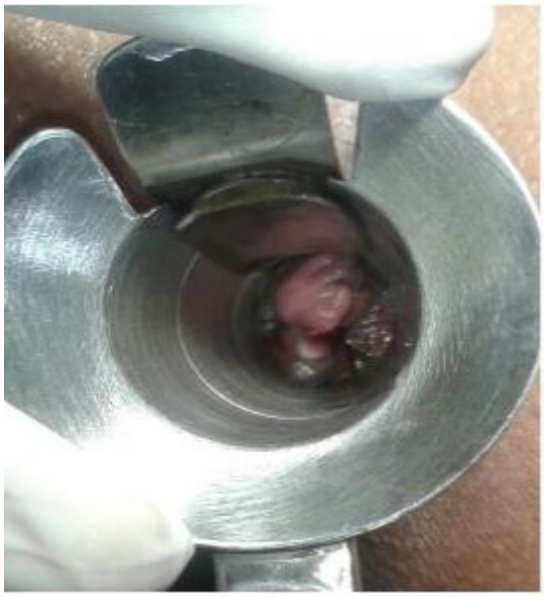
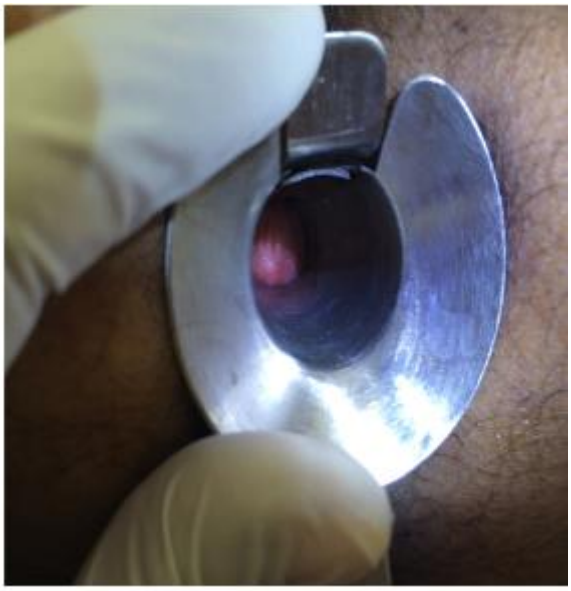



RESULT-3 ‘o clock,7’0 clock and 11’o clock pile mass size reduced after the treatment

OP NO:J94089

AGE/SEX-35/M

BEFORE TREATMENT **AFTER TREATMENT**

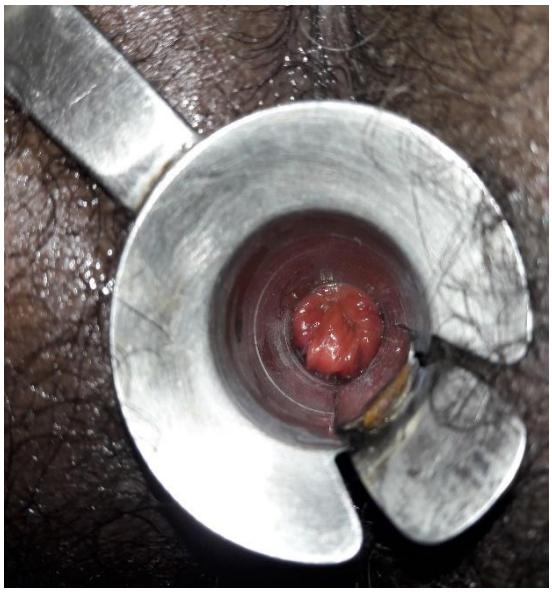
RESULT- 11’O Clock pile mass size reduced after treatment.

`

OP NO-J38498

AGE/SEX-58/M

BEFORE TREATMENT **AFTER TREATMENT**



RESULT:3'o clock and 11'o clock Pile mass completely reduced well after the treatment

POSITION OF PILE MASS:

TABLE 18:

S. NO	POSITION OF PILE MASS	NO OF CASES	PERCENTAGE (%)
1	3'o Clock	6	20%
2	7'oClock	10	33.33%
3	11'oClock	7	23.33%
4	More than one pile mass in various clock position (3,7,11)	7	23.33%

Inference:

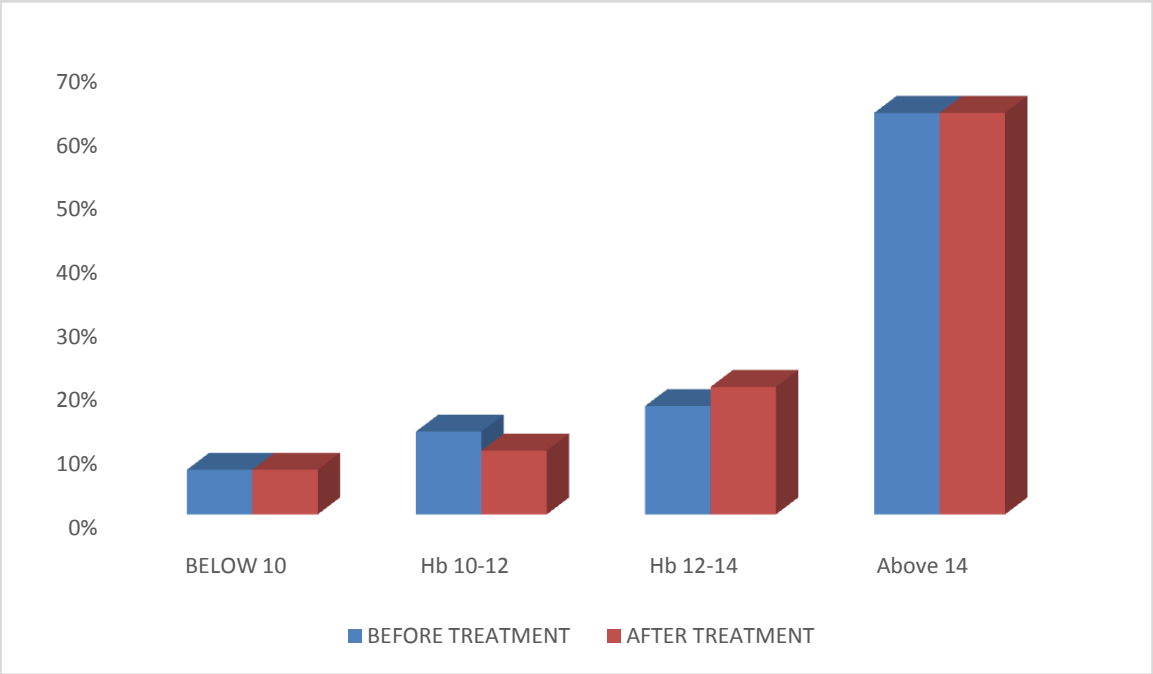
Among 30 cases 6 cases (20%) were in 3'oClock position, 10 cases (33.33%) were in 7'oClock position ,7cases (23.33%) were in 11'oClock and 7 (23.33%) cases were in more than one pile mass in various clock position.

`

CASE DISTRIBUTION BY HAEMOGLOBIN LEVEL BEFORE AND AFTER TREATMENT

Table 19:

LEVELS	BEFORE TREATMENT		AFTER TREATMENT	
Haemoglobin (mg %)	**No. of cases**	**Percentage**	**No. of cases**	**Percentage**
Below 10	2	7%	2	7%
10 – 12	4	13%	3	10%
12 – 14	5	17%	6	20%
Above 14	19	63%	19	63%



Inference:

Among 30 cases before treatment 2 cases (7%) were in below 10 gm/dl, 4 cases (13%) were 10-12 gm/dl, 5 cases (17%) were in 12-14 gm/dl and 19 cases (63%) were in above 14 gm/dl.

After treatment 2 cases (7%) were in below 10 gm/dl, 3 cases (10%) were in 10-12, 6 cases (20%) were in 12-14 gm/dl, and 19 cases (63%) were in above 14 gm/dl..

`

ASSESSMENT OF RESTRICATION OF MOVEMENTS

HEALTH ASSESSME`NT QUESTIONNAIRE:

Patients marks scored out of HAQ questionnaire is graded in level as follows in which increased score represent severity of the disease. (Annexure)

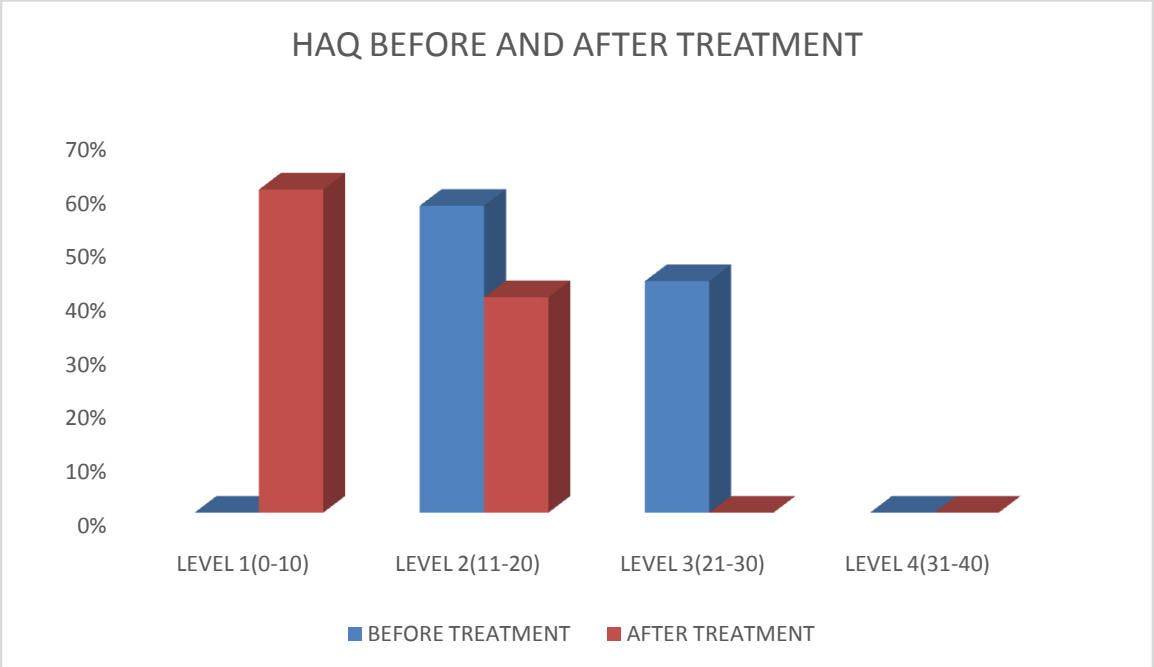
(Perform activities without any difficlty) LEVEL I – Marks scored between 0 – 10

(Perform activities with some difficulty) LEVEL II – Marks scored between 11 – 20

(Perform activity with much difficulty) LEVEL III – Marks scored between 21 – 30

(Unable to do) LEVEL IV – Marks scored between 31 – 40

LEVELS	HAQ SCORE BEFORE TREATMENT		HAQ SCORE AFTER TREATMENT	
Scores	**No. of cases**	**Percentage**	**No. of cases**	**Percentage**
1 (0 - 10)	0	0%	18	60%
2 (11-20)	17	57%	12	40%
3 (21-30)	13	43%	0	0%
4 (31-40)	0	0%	0	0%



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Observations :

Among 30 cases before treatment 17 cases (57%) were in level II and 13 cases (43%) were in level III according to their mark scores.

After treatment 18 cases (60%) were in level I and 12 cases (40%) were in level II according to their mark scores.

Results:

Hence according to the HAQ score improvements

Good Improvement	– 60%
Moderate Improvement	– 40%
Poor Improvement	– 0%

STATISTICAL ANALYSIS:

HEALTH ASSESSMENT QUESTIONAAIRE:

HAQ Score	**Sample**	Mean	Std. Deviation	Std. Error Mean	t VALUE	p VALUE
Before Treatment	30	17.46	4.80	0. 88	13.77	P<0.0001
After Treatment	30	9.7	2.71	0.49		

OBSERVATION:

Statistical analysis reveals that there has been a significant reduction in HAQ score after treatment indicating the improvement in patient doing their daily activities.

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MEAN AND STANDARD DEVIATION OF CLINICAL SYMPTOMS BY HAEMORRHOIDS SYMPTOMS SEVERITY SCORE(HSS SCORE) AT BEFORE AND AFTER TREATMENT:

HSS Score	**Sample**	Mean	Std. Deviation	Std. Error Mean	t VALUE	p VALUE
Before Treatment	30	6.93	1.31	0. 24	31.81	p <0.0001
After Treatment	30	0.766	0.678	0.12		

OBSERVATION:

Statistical analysis reveals that there has been a highly significant reduction in HSS score after treatment indicating the improvement.

HAEMOGLOBIN:

HAEMOGLOBIN	**Sample**	**Mean ± SD**	**Std. Error Mean**	**t VALUE**	**p VALUE**
Before Treatment	30	13.8 ± 1.8	0.33	0.46	p = 0.64
After Treatment	30	13.9 ± 1.74	0.29		

OBSERVATION:

There was no significant increase after the treatment

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PROGNOSIS CHART

CLINICAL SEVERITY SYMPTOMS BY HAEMORRHOIDS SYMPTOMS SEVERITY SCORE (HSS SCORE) AT BEFORE AND AFTER TREATMENTS (Annexure) [Score:0-Never, 1-Less than once/week, 2-1-6 times /week, 3-Always]

SEVERE SYMPTOMATIC CASES BY HSS SCORE:

S.NO	BEFORE TREATMENT							AFTER TREATMENT					
	OP NO	Freq. of pain in the anal region	Freq. of itching or discomfort in anal region	Freq. of bleeding at stools	Freq. of soiling of under clothes	Freq.of prolapsed pile mass	Total Score	Freq. of pain in the anal region	Freq. of itching or discomfort in anal region	Freq. of bleeding at stools	Freq. of soiling of under clothes	Freq. of prolapsed pile mass	Total score
1	J38498	3	2	3	1	-	9	1	0	1	0	-	2
2	J68904	3	3	3	0	-	9	0	0	0	0	-	0
3	K18601	3	3	3	0	-	9	1	1	0	0	-	2
4	J97362	2	3	3	1	-	9	1	0	1	0	-	1
5	J78540	3	2	3	1	-	9	0	1	0	0	-	1
6	K12746	3	2	3	1	-	9	1	0	0	0	-	1
7	J91103	3	3	2	0	-	8	0	1	0	0	-	1
8	K00069	3	2	3	0	-	8	0	1	0	0	-	1
9	J81833	3	2	3	0	-	8	0	1	0	0	-	1
10	J81620	3	3	2	0	-	8	0	1	0	0	-	1
11	J28368	2	3	3	0	-	8	0	0	0	0	-	0
12	J84175	3	2	3	0	-	8	1	0	0	0		1
13	I70669	2	3	2	0	-	7	1	0	0	0	-	1
14	G19200	2	2	2	1	-	7	0	0	0	0	-	0
15	J75058	2	2	3	0	-	7	1	0	0	0	-	0
16	J94089	2	3	2	0	-	7	1	0	0	0	-	1
17	J52425	2	2	3	0	-	7	1	0	0	0	-	1
18	I86147	2	2	2	0	-	6	0	1	0	0	-	1
19	J84439	2	2	2	0	-	6	0	0	0	0	-	0

*Reduction in scores -Moving forward from high levels to low levels

From the above HSS scoring measure it can be concluded that 4 cases symptoms are completely relieved and for 15 cases symptoms were reduced well, those patients were improved severe to Mild level.

Symptoms completely relieved

`

MODERATE SYMPTOMATIC CASES BY HSS SCORE:

		BEFORE TEATMENT						AFTER TREATMENT					
S.NO	OP NO	Freq. of pain in the anal region	Freq. of itching or discomfort in anal region	Freq. of bleeding at stools	Freq.of soiling of under clothes	Freq. of prolapsed pile mass	Total score	Freq.of pain in the anal region	Freq. of itching or discomfort in anal region	Freq. of bleeding at stools	Freq. of soiling of under clothes	Freq. of prolapsed pile mass	Total score
1	E008475	3	1	3	1	-	8	0	0	0	0	-	0
2	J92730	3	1	3	0	-	7	1	0	0	0	-	0
3	J90246	3	1	3	0	-	7	1	0	0	0	-	0
4	J74703	3	0	3	0	-	6	1	0	0	0	-	1
5	J53599	3	1	2	0	-	6	0	0	0	0	-	0
6	G88614	3	1	2	0	-	6	1	0	0	0	-	1
7	J57261	3	1	2	0	-	6	0	0	0	0	-	0
8	J86157	2	1	3	0	-	6	0	0	0	0	-	0
9	J80311	2	0	2	1	-	5	0	0	0	0	-	0
10	J81185	2	2	1	0	-	5	0	0	0	0	-	0
11	J94085	2	0	2	0	-	4	0	0	0	0	-	0

*Reduction in scores -Moving forward from high levels to low levels

From the above HSS scoring measure it can be concluded that 7 cases symptoms are completely relieved and for 11 cases symptoms were reduced well, those patients were improved Moderate to Mild level.

 Symptoms completely relieved

From this HSS Score finally it is concluded that 11 cases (37%) symptoms were completely relieved and 19 cases (64%) symptoms were reduced well, those patients were improved Moderate to mild.

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IMPROVEMENT OF CLINICAL FEATURES -HEALTH ASSESSMENT QUESTIONAAIRE(HAQ):

TABLE 20

GOOD CONTROL

S. NO	OP NO	A/S	HAQ SCORE	
			BEFORE TREAT MENT	AFTER TREAT MENT
1	J81185	37/M	14	8
2	J28368	24/M	12	7
3	I70669	36/M	20	8
4	J74703	48/M	12	8
5	J94085	32/M	11	6
6	I86147	50/M	12	7
7	J53599	34/M	13	5
8	J80311	58/M	11	6
9	G19200	47/M	15	10
10	J81833	30/M	22	10
11	G88614	29/M	12	8
12	J75058	35/M	13	8
13	J84439	30/M	11	7
14	J94089	35/M	20	10
15	J68904	58/M	19	9
16	J57261	52/M	11	9
17	J86157	37/M	13	8
18	E08475	49/M	22	8

MODERATE CONTROL

S. NO	OP NO	A/S	HAQ SCORE	
			BEFORE TREAT MENT	AFTER TREAT MENT
1	J84175	21/F	21	11
2	J38498	58/M	22	12
3	K18601	34/M	24	17
4	J97362	26/M	22	12
5	J91103	32/M	22	14
6	K00069	34/M	21	12
7	J74540	33/M	23	13
8	K12746	41/M	24	11
9	J81620	49/M	21	12
10	J52425	21/M	22	13
11	J92750	40/M	21	11
12	J90246	34/M	18	11

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LABORATORY REPORTS

OBSERVATION OF CLINICAL LABORATORY EXAMINATIONS

At the time of admission to the trial, in all the 30 patients following parameters observed,

I. Routine blood investigations,
   1. Haemoglobin estimation
   2. Total WBC Count
   3. Total RBC Count
   4. Differential Count
   5. Erythrocyte sedimentation rate
   6. Bleeding Time
   7. Cloting Time

II. Blood Sugar
   1. Fasting
   2. Post Prandial

III. Liver Function Test

IV. Renal Function Test

V. Serum Lipid Profile

VI. Urine Examination
   1. Albumin
   2. Sugar
   3. Deposit

VII. Motion

KUKKILATHY CHOORANAM-BEFORE TREATMENT

S NO	OP NO	Hb (gm/dl)	TOTAL WBC	DC-P(cells/µl)	DC - L(cells/µl)	DC-E(cells/µl)	TOTAL RBC(million/µl)	ESR ½ hour(mm/Hr)	ESR 1 hr(mm/Hr)	Bleeding time	Clotting time	Sugar fasting(mg/dl)	Sugar PP(mg/dl)	urea mg/dl	creatinine mg/dl	uric acid mg/dl
1	J81185	14.4	9100	79	19	2	4.6	8	10	2mins20sec	4mins20sec	91	86	25	1.1	6.7
2	J28368	11.1	8900	56	41	3	3.6	12	24	1min50sec	3min50sec	100	115	12	0.7	2.5
3	J84175	9.6	8100	52	44	4	3.5	34	70	2mins20sec	3 min 20sec	86	110	18	0.7	4
4	J38498	14.9	7800	73	25	2	4.9	4	8	1min30sec	4min15sec	107	115	18	0.9	4.3
5	K18601	13	8500	54	38	8	4.3	3	6	1min10sec	2min20sec	88	128	23	0.7	4.3
6	I70669	15.5	6900	65	30	3	5.9	10	22	2min20sec	3min50sec	93	108	13	1	7.2
7	J97362	15	8500	78	20	2	5.2	2	4	2min20sec	3min15sec	86	125	17	0.9	6.2
8	J74703	16.6	8100	59	34	7	4.6	10	20	2min20sec	3min15sec	103	110	21	1.1	6.9
9	J94085	15.1	7500	68	28	4	4.8	4	8	2min15sec	4min50sec	94	113	15	1	5.3
10	I86147	14.1	5900	70	27	3	4.4	10	8	2min20sec	3mins15sec	95	120	14	1.2	6.7
11	J53599	14.7	8900	56	35	8	5.2	10	22	2min20sec	3min15sec	94	112	13	0.9	5.2
12	J91103	14.7	5400	58	40	2	5.5	4	10	3min15sec	4min55sec	93	108	13	1	3.7
13	J80311	11.8	6900	61	36	3	5.5	2	4	1min20sec	2min40sec	110	128	10	1	4.7
14	G19200	15.5	4800	65	30	5	5.6	4	10	2min20sec	3min50sec	95	121	15	0.9	5.5
15	K00069	15.1	7400	72	24	4	5.1	2	4	1min20sec	2min15sec	85	122	15	1	4.6
16	J74540	14.5	6500	64	34	2	5.4	10	20	2min15sec	2min20sec	102	118	17	1	5.5
17	J81833	11.5	8800	60	35	5	4.6	10	6	1min50sec	1min20sec	90	120	15	0.9	5.5
18	K12746	10	6800	64	30	6	4.5	12	26	2min30sec	5min10sec	83	103	18	0.7	4.2
19	G88614	12.6	9100	69	27	4	5.3	2	4	1min20sec	2min20sec	88	117	16	1.1	6.4
20	J75058	14	5300	67	31	2	6.8	2	6	2min20sec	3min20sec	93	126	12	0.9	3
21	J84439	15.2	6200	57	38	5	4.8	2	4	2min25sec	4min10sec	89	130	13	0.9	7.7
22	J81620	12.6	9900	59	38	3	4.6	36	72	1min20sec	3min15sec	86	112	15	1.1	5.4
23	J94089	15.3	7900	64	34	2	5	2	10	2min15sec	3min20sec	110	149	20	1	6.3
24	J68904	15.7	7200	65	32	3	5.8	10	20	2min20sec	3min50sec	194	138	18	1.4	4.9
25	J57261	14.4	7700	65	32	3	4.8	2	4	2min15sec	3min20sec	82	110	16	1.1	5.6
26	J52425	12.3	5800	58	40	2	5.2	2	6	2min40sec	3min15sec	84	128	11	0.9	4.5
27	J86157	13.7	8000	63	32	5	4.8	8	10	2min50sec	3min20sec	93	125	23	0.8	4.2
28	J92730	15.2	7800	67	31	2	4.9	2	4	2min50sec	2min20sec	96	132	16	1.1	5
29	J90246	14.5	5800	61	30	9	4.8	4	10	1min15sec	4min10sec	78	95	12	1	6
30	E08475	11	5600	58	40	2	5.1	20	42	1min55sec	3min50sec	96	102	38	1.2	6.9

S NO	OP NO	Tot cho mg/dl	HDL mg/dl	LDL mg/dl	VLDL mg/dl	TGL mg/dl	T.bili mg/dl	D.Bili mg/dl	ID bili mg/dl	Calcium mg/dl	SGOT IU/l	SGPT IU/l	Alk.phos IU/l	Urine Albumin	Urine sugar	Urine depoist	bile salt	bile pigment	ova	cyst	occlt blood
	J81185	138	60	81	18	88	0.8	0.3	0.5	9.4	22	15	70	nil	nil	3-5pus/3-6 epi cells	nil	neg	nil	nil	absent
2	J28368	200	58	100	14	74	1	0.4	0.6	9.6	13	9	81	nil	nil	2-4pus/2-5epi	nil	neg	nil	nil	absent
3	J84175	121	50	73	13	65	0.4	0.2	0.2	9.2	15	16	65	nil	nil	6-8pus/6-8epi	nil	neg	nil	nil	absent
4	J38498	256	62	157	23	112	0.6	0.2	0.4	11.1	17	18	88	nil	nil	1-2pus/1-2epi	nil	neg	nil	nil	absent
5	K18601	158	48	95	15.2	158	0.3	0.4	0.3	9	20	89	89	nil	nil	2-3epi/3-6pus	nil	neg	nil	nil	absent
6	I70699	183	56	116	18	93	1	0.4	0.6	9.4	20	22	73	nil	nil	2-4pus/2-4epi	nil	neg	nil	nil	absent
7	J97362	147	45	75	11	55	1.43	0.51	0.92	9.7	17	21	73	nil	nil	1-2pus/1-3epi	nil	neg	nil	nil	absent
8	J74703	146	44	91	58	289	0.8	0.3	0.5	9	21	30	62	nil	nil	3-5pus/1-6epi	nil	neg	nil	nil	absent
9	J94085	110	38	64	17	87	1.2	0.5	0.8	9.3	18	13	51	nil	nil	2-4pus/1-2epi	nil	neg	nil	nil	absent
10	I86147	106	43	56	17	85	0.4	0.1	0.2	8.1	17	18	81	nil	nil	2-4pus/2-4epi	nil	neg	nil	nil	absent
11	J53599	191	45	119	51	256	0.5	0.2	0.3	9.3	23	19	86	nil	nil	3-5pus/3-5epi	nil	neg	nil	nil	absent
12	J91103	195	48	117	31	156	0.3	0.1	0.2	9.6	17	21	139	nil	nil	3-5pus/1-2epi	nil	neg	nil	nil	absent
13	J80311	190	45	116	60	299	1.1	0.4	0.7	9.7	36	47	90	nil	nil	2-4pus/2-4epi	nil	neg	nil	nil	absent
14	G19200	207	54	107	23	115	1	0.3	0.5	9	18	19	80	nil	nil	4-6pus/1-2epi	nil	neg	nil	nil	absent
15	K00069	166	40	78	22	109	0.5	0.2	0.3	8.1	17	11	67	nil	nil	2-4pus/1-2epi	nil	neg	nil	nil	absent
16	J74540	226	56	142	27	136	0.9	0.3	0.6	9.3	19	24	51	nil	nil	1-2pus/1-2epi	nil	neg	nil	nil	absent
17	J81833	200	50	105	20	120	1	0.5	0.4	8.5	20	18	50	nil	nil	1-2pus/2-6epi	nil	neg	nil	nil	absent
18	K12746	160	38	99	20	101	0.4	0.2	0.2	10.2	22	27	89	nil	nil	3-5pus/4-5epi	nil	neg	nil	nil	absent
19	G88614	145	45	75	18	90	1.1	0.4	0.7	10.1	22	31	32	nil	nil	2-4pus/3-4epi	nil	neg	nil	nil	absent
20	J75058	145	52	80	21	108	0.7	0.2	0.4	10.2	19	14	57	nil	nil	4-6pus/1-2epi	nil	neg	nil	nil	absent
21	J84439	209	51	130	44	220	0.6	0.2	0.4	9.6	35	50	86	nil	nil	1-2pus/1-2epi	nil	neg	nil	nil	absent
22	J81602	140	35	90	30	150	0.3	0.1	0.2	8.8	14	23	108	nil	nil	3-5pus/3-6epi	nil	neg	nil	nil	absent
23	J94089	140	41	84	22	108	0.8	0.3	0.5	10.3	18	25	78	nil	nil	1-2pus/2-5epi	nil	neg	nil	nil	absent
24	J68904	186	44	117	45	225	0.3	0.1	0.2	9.2	19	26	77	nil	nil	2-4pus/2-4epi	nil	neg	nil	nil	absent
25	J57261	190	56	116	28	141	0.4	0.2	0.2	9.4	20	29	99	nil	nil	2-4pus/2-4epi	nil	neg	nil	nil	absent
26	J52425	114	46	68	20	100	0.9	0.4	0.5	9.6	16	12	75	nil	nil	1-2pus/1-2epi	nil	neg	nil	nil	absent
27	J36157	133	40	83	24	122	0.3	0.1	0.2	10.5	16	19	69	nil	nil	2-4pus/2-4epi	nil	neg	nil	nil	absent
28	J92730	141	48	83	15	74	1	0.4	0.7	9.9	15	9	69	nil	nil	1-3pus/1-3epi	nil	neg	nil	nil	absent
29	J90246	140	41	83	24	11	0.8	0.3	0.5	9.1	23	36	43	nil	nil	2-4pus/2-4epi	nil	neg	nil	nil	absent
30	E08475	191	37	103	65	227	0.5	0.2	0.3	4.3	20	25	84	nil	nil	1-3pus/3-4epi	nil	neg	nil	nil	absent

KUKKILATHY CHOORANAM-AFTER TREATMENT

S NO	OP NO	Hb g/dl	WBC cells/µl	DC -P cells/µl	DC-L cells/µl	DC - E cells/µl	Total RBC	ESR ½ hr	ESR 1 hr	BT	CT	Sugar Fasting gm/dl	Sugar PP gm/dl	urea gm/dl	Creatinine gm/dl	uric acd gm/dl	Calcium gm/dl
1	J81185	14.8	8000	72	26	2	4.5	16	14	2mins30sec	4mins20sec	122	120	17	1	6.4	9.1
2	J28368	11.2	9200	55	40	5	3.8	8	10	1min20sec	3 min 20sec	90	110	16	0.6	2.6	9.4
3	J84175	9.8	8200	56	39	5	3.6	15	30	2mins10sec	3 min 30sec	84	108	8	0.7	3.3	9.6
4	J38498	15.2	7300	67	31	2	5	4	9	1min20sec	2min30sec	112	120	16	1	4	9.2
5	K18601	13.1	8600	52	37	9	4.1	3	7	1min30sec	2min30sec	85	125	20	0.8	4.4	9.1
6	I70669	16.2	6600	57	41	2	5.6	8	20	1min45sec	3mins56sec	90	105	20	1	9.2	9.2
7	J97362	15.2	6600	52	44	4	4.9	2	3	2min10sec	3min10sec	90	120	18	0.8	6.5	9.3
8	J74703	16.7	6200	62	30	8	4.2	9	12	2min25sec	3min10sec	105	112	22	1	6.5	9.2
9	J94085	15.3	9800	65	30	5	4.6	4	6	2min20sec	4min20sec	90	115	16	1	5.4	9.2
10	I86147	14.5	5800	72	25	3	4.6	22	6	2min3osec	3min20sec	90	118	16	1	6.8	8.6
11	J53599	14.9	7200	54	37	9	5.3	8	20	2min20sec	3min10sec	90	110	12	1	5.4	9
12	J91103	14.3	6100	55	43	2	5.4	2	10	3min10sec	4min50sec	90	105	14	1	3.5	9.8
13	J80311	12.1	7200	60	37	3	5.7	3	6	1min20sec	2min35sec	105	120	10	1.1	4.2	7.7
14	G19200	15.4	4480	67	31	2	5.8	4	6	2min3osec	3min20sec	90	120	16	0.8	5.2	9.2
15	K00069	15	7200	70	25	6	5.2	2	6	1min30sec	2min3osec	80	126	12	1	4.3	8.2
16	J74540	14.8	6800	64	32	4	5.6	2	6	3min50sec	3min50sec	98	110	18	1	5.2	9.8
17	J81833	11.9	8200	65	30	5	4.7	8	4	2min20sec	2min50sec	91	110	16	0.4	5.8	8.4
18	K12746	10.4	6000	61	33	6	4.6	2	4	2min20sec	4min10sec	90	100	16	0.9	4.6	9.8
19	G88614	12.4	8900	65	29	6	5.2	2	4	1min20sec	2min25sec	89	120	1.2	6.1	6.1	9.4
20	J75058	13.8	5800	60	38	2	5.4	2	7	2min20sec	3min25sec	104	110	11	1.1	3.7	10.3
21	J84439	15.3	6800	58	39	3	4.6	2	10	2min10sec	4min40sec	113	118	21	1	8.1	10.2
22	J81620	14.3	8200	52	45	3	5.4	4	8	1min20sec	3min15	98	110	19	1.2	7.2	8.6
23	J94089	15.1	8300	61	35	4	4.8	2	8	2min45sec	3min50sec	114	128	20	1.1	6.4	8.4
24	J68904	15.2	8100	64	33	3	5.5	14	30	2min15sec	3min20sec	120	130	17	1.2	4.7	7.1
25	J57261	14.6	5800	58	40	2	4.6	2	10	2min10sec	4min5sec	80	102	18	0.9	4.6	8.2
26	J52425	12.8	5700	55	42	3	5.1	2	4	2min40sec	3min20sec	78	120	12	0.8	4.8	9.8
27	J36157	13.5	7800	60	33	7	4.9	8	9	2min5sec	4min50sec	112	120	17	1	5.9	9.5
28	J92730	15.3	7400	65	33	2	4.8	2	5	1min30sec	2min50sec	90	120	20	1.2	5.9	9.1
29	J90246	14.8	8800	60	36	4	4.9	3	8	1min40sec	3min50sec	88	132	12	1.1	6.4	9.4
30	E008475	11.2	7200	55	43	3	5.2	18	20	1min50sec	3min40sec	90	103	35	1	6.2	4.6

S NO	OP NO	Total Chol.	HDL	LDL	VLDL	TGL	T.Bilirubin	D.Bili	ID Bili	SGOT	SGPT AT	Urine Albumin	Urine Sugar	Deposits	Bile salt	Bile pigment	Motion-Ova	Cyst	Occult bloodt
1	J81185	140	47	86	11	58	0.7	0.3	0.4	20	12	nil	nil	3-5 pus /2-4 epi	nil	neg	nil	nil	absent
2	J28368	190	56	102	16	72	1.1	0.3	0.5	12	8	nil	nil	2-4pus/2-6epi	nil	neg	nil	nil	absent
3	J84175	120	40	75	19	98	0.3	0.1	0.2	13	12	nil	nil	2-4pus/1-2epi	nil	neg	nil	nil	absent
4	J38498	230	52	135	26	132	0.7	0.3	0.4	19	21	nil	nil	2-4pus/1-2epi	nil	neg	nil	nil	absent
5	K18601	155	45	90	15.1	150	0.4	0.3	0.2	22	80	nil	nil	2-4epi/3-8pus	nil	neg	nil	nil	absent
6	I70669	187	48	107	29	147	1.2	0.4	0.8	20	22	nil	nil	3-5pus/2-4epi	nil	neg	nil	nil	absent
7	J97362	140	40	72	12	50	1	0.2	0.3	19	20	nil	nil	1-2pus/1-3epi	nil	neg	nil	nil	absent
8	J74703	140	42	82	59	250	0.6	0.3	0.5	16	28	nil	nil	2-3pus/3-4epi	nil	neg	nil	nil	absent
9	J94085	108	39	65	14	82	1	0.5	0.6	15	13	nil	nil	2-5pus/1-2epi	nil	neg	nil	nil	absent
10	I86147	102	40	52	18	86	0.3	0.2	0.1	20	21	nil	nil	2-5pus/3-4epi	nil	neg	nil	nil	absent
11	J53599	190	40	110	40	196	0.5	0.3	0.3	25	18	nil	nil	3-5pus/3-6epi	nil	neg	nil	nil	absent
12	J91103	196	45	120	30	158	0.2	0.1	0.3	16	22	nil	nil	3-4pus/1-2epi	nil	neg	nil	nil	absent
13	J80311	179	41	103	30	148	0.9	0.3	0.6	15	14	nil	nil	1-3pus/4-6epi	nil	neg	nil	nil	absent
14	G19200	200	52	106	24	110	1	0.2	0.3	15	24	nil	nil	2-4pus/1-2epi	nil	neg	nil	nil	absent
15	K00069	165	42	76	20	104	0.4	0.1	0.2	12	13	nil	nil	2-4pus/1-2epi	nil	neg	nil	nil	absent
16	J74540	210	50	140	26	130	0.3	0.2	0.7	22	28	nil	nil	1-2pus/1-2epi	nil	neg	nil	nil	absent
17	J81833	198	51	101	19	110	0.5	0.4	0.3	22	19	nil	nil	1-2pus/2-4epi	nil	neg	nil	nil	absent
18	K12746	141	35	82	24	122	0.3	0.1	0.2	20	25	nil	nil	3-5pus/4-6epi	nil	neg	nil	nil	absent
19	G88614	43	78	19	94	18	1	0.3	0.6	25	28	nil	nil	2-6pus/2-4epi	nil	neg	nil	nil	absent
20	J75058	152	52	82	17	83	0.5	0.2	0.3	29	38	nil	nil	2-3pus/2-4epi	nil	neg	nil	nil	absent
21	J84439	210	46	125	55	218	0.6	0.2	0.4	21	18	nil	nil	1-2pus/1-4epi	nil	neg	nil	nil	absent
22	J81620	174	41	99	27	137	0.5	0.2	0.2	17	30	nil	nil	3-5pus/2-5epi	nil	neg	nil	nil	absent
23	J94089	153	42	87	15	75	0.9	0.3	0.6	14	17	nil	nil	1-3pus/1-3epi	nil	neg	nil	nil	absent
24	J68904	202	38	118	34	172	0.4	0.1	0.3	13	11	nil	nil	2-3pus/2-4epi	nil	neg	nil	nil	absent
25	J57261	188	46	104	37	187	0.4	0.1	0.3	16	20	nil	nil	2-4pus/2-3epi	nil	neg	nil	nil	absent
26	J52425	116	40	62	22	98	0.6	0.5	0.6	18	17	nil	nil	1-2pus/1-2epi	nil	neg	nil	nil	absent
27	J86157	154	43	88	40	153	0.5	0.2	0.3	21	25	nil	nil	2-3pus/2-3epi	nil	neg	nil	nil	absent
28	J92730	125	42	96	17	88	1.1	0.4	1	13	12	nil	nil	2-3pus/2-3epi	nil	neg	nil	nil	absent
29	J90246	136	40	82	20	102	0.8	0.3	0.6	15	16	nil	nil	2-3pus/3-4epi	nil	neg	nil	nil	absent
30	E008475	198	30	78	66	220	0.3	0.1	0.4	22	20	nil	nil	1-5pus/3-6epi	nil	neg	nil	nil	absent

QUALITATIVE ANALYSIS

BIO CHEMICAL ANALYSIS

(Qualitative Analysis of "KUKKILATHY CHOORANAM")

Preparation of the Extract

5 gm of KUKKILATHY CHOORANAM was weighed accurately and placed in a 250 ml clean beaker. Then 50 ml distilled water was added and dissolved well. Then it is boiled well for about 10 minutes. It was cooled and filtered in a 100 ml volumetric flask and then it was made up to 100 ml with distilled water. This fluid was taken for analysis.

SL. NO	EXPERIMENT	OBSERVATION	INFERENCE
1.	Appearance of the sample	Greyish white in colour	
2.	**Solubility:** a. A little of the sample is shaken well with distilled water. b. A little of the sample is Shaken well with con. Hcl Con. H_2SO_4.	**Sparingly soluble**	**Presence of Silicate**
3.	**Action of Heat:** A small amount of the sample is taken in a dry test tube and heated gently at first and then Strong.	No colour fumes.	Absence of Carbonate andNitrate.
4.	**Flame Test:** A small amount of the sample is made into a paste with con. Hcl in a watch glass and introduced into non-luminous part of the Bunsen flame.	No colour flames appeared.	Absence of Copper.

5	**Ash Test:** A filter paper is soaked into a mixture of sample and cobalt nitrate solution and introduced into the Bunsen flame and ignited.	No Yellow colour flame.	Absence of Sodium.

SL. NO.	EXPERIMENT	OBSERVATION	INFERENCE
TEST FOR ACID RADICALS			
1.	**Test For Sulphate:** a. 2 ml of the above prepared extract is taken in a test tube to this added 2ml of 4% ammonium oxalate solution. b. 2ml of the above prepared extract is added with 2 ml of dil-Hcl is added until the effervescence ceases off. Then 2ml of Barium chloride solution is added.	No Cloudy appearance present	Absence of sulphate
2.	**Test For Chloride:** 2 ml of the above prepared Extract is added with dil. HNO_3 till the effervescence ceases. Then 2 ml of silver nitrate solution is added.	No Cloudy appearance.	Absence of Chloride.
3.	**Test For Phosphate:** 2 ml of the extract is treated with 2ml of ammonium molybdate solution and 2 ml of con. HNO_3	**Cloudy yellow appearance**	**Presence of Phosphate.**

4.	**Test For Carbonate:** 2m1 of the extract is treated with 2m1 magnesium sulphate solution	No cloudy appearance	Absence of Carbonate.
5	**Test For Nitrate:** 1gm of the substance is heated with copper turnings and concentrated $H_2SO_4$and viewed the test tube vertically down.	No characteristic changes.	Absenceof Nitrate.
6.	**Test For Sulphide** 1 gm of the substance is Treated with 2m1 of con. Hcl.	No Rotten egg Smelling	Absence of Sulphide
7.	**Test for fluoride & oxalate** 2 m1 of The Extract Is Added With 2m1of Acetic Acid and 2 m1 calcium Chloride solution and heated.	No Cloudy appearance.	Absence ofFluoride & Oxalate
8.	**Test for Nitrite:** 3drops of extract is placed on a filter paper, on that 2 drops of acetic Acid and 2 drops of benzidine solution is placed.	No characteristic Changes.	Absence of nitrite.
9.	**Test For Borate:** 2 pinches of the substance is made into paste by using sulphuric acid and alcohol (95%) and introduced into the blue flame.	No yellow precipitate is obtained.	Absence of borate.

II. TEST FOR BASIC RADICALS			
1	**Test For Lead:** 2 m1of the extract is added with 2m1of potassium iodide solution.	No Yellow precipitate is obtained	Absence of Lead.
2.	**Test for Copper:** a. One pinch of substance is Made into paste with con. Hcl In a watch glass and introduced into the non-luminous part of the flame. b. 2 ml of extract is added with Excess of ammonia solution.	No Blue colour flame precipitate No Blue colour precipitate	Absence of Copper. Absence of Copper.
3.	**Test For Aluminium:** Take the 2m1of the extract sodium hydroxide is added in drops to excess.	No characteristic changes	Absence of Aluminium.
4.	**TestForIron: (Ferrous)** To the 2 ml of extract 2m1 ammonium thiocyanate solution and 2m1of con. HNO_3 is added.	No Brown colour Appearance	Absence of Iron**.**
5.	**Test For Zinc:** To 2m1 of the extract sodium hydroxide solution is added in Drops to excess.	No White precipitate Formed	Absenceof Zinc.
6.	**Test For Calcium:** 2m1 of the extract is added with 2m1 of 4% ammonium oxalate Solution.	No Cloudy appearance And white precipitate is Present.	Absenceof Calcium.

7.	**Test For Magnesium:** To 2ml of extract sodium hydroxide solution is added in Drops to excess.	White precipitate is not Obtained.	Absence of Magnesium.
8.	**Test For Ammonium:** To 2ml of extract few ml of Nessler's reagent and excess of sodium hydroxide solution are Added.	Brown colour not Appeared.	Absence of Ammonium.
9.	**Test For Potassium:** A pinch of substance is treated with 2ml of sodium nitrite solution and then treated with 2m1 of cobalt nitrate in 30% glacial acetic acid.	**Yellowish precipitate is obtained**	**Presence of Potassium.**
10.	**Test For Sodium:** 2 pinches of the substance is made into paste by using HCL And introduced into the blue flame of Bunsen burner.	No Yellow colour Flame appeared.	Absence of Sodium.
11.	**Test For Mercury:** 2m1 of the extract is treated with 2ml of sodium hydroxide solution.	Yellow precipitate is Present	Presence of Mercury.
12.	**Test For Arsenic:** 2m1 of the extract is treated with 2m1 of sodium hydroxide solution.	No brownish red Precipitate is obtained	Absence of Arsenic.

III. MISCELLANEOUS			
1.	**Test for Starch:** 2ml of extract is treated with weak iodine solution.	No blue colour developed	Absence of Strarch.
2.	**Test For Reducing Sugar:** 5. ml of Benedict's qualitative Solution is taken in a test tube and allowed to boil for 2 minutes and added 8 to 10 drops of the extract and again boil it for2 minutes. The colour changes are noted.	No Brick red colour developed	Absence of Reducing sugar.
3.	**Test For The Alkaloids:** a. 2m1 of the extract is treated with 2ml of potassium Iodide solution.	**Yellow colour developed**	**Presence of Alkaloid.**
4.	**Test for Tannic Acid:** 2ml of extract is treated with 2ml of ferric chloride solution.	No Black precipitate is formed	Absence of Tannic acid**.**
5.	**Test for Unsaturated Compound:** To the 2ml of extract 2ml of Potassium Permanganate solution is added.	Potassium Permanganate is not decolourised	Absence of Unsaturated Compound.
6.	**Test For Amino Acid:** 2 drops of the extract is placed on a filter paper and dried well and 2 ml of biuret reagent is added.	No Violet colour developed	Absence of Amino acids.

7.	**Test For type of Compound:** 2ml of the extract is treated with 2 ml of ferric chloride solution.	No Green colour developed	Absence of oxyquinole epinephrine and pyro catechol.
		No Red colour developed	Anti pyrine, Aliphaticamino acids and Meconic acid are absent.
		No Violet colour developed	Salicylate and Resorcinol is absent.
		No blue colour Developed	Morphine, Phenol cresol and hydro quinone are absent

RESULT:

- Silicate
- Phosphate
- Potassium

Alkaloid are the chemical constituents present in **KUKKILATHY CHOORANAM.**

PHYSIOCHEMICAL ANALYSIS OF –KUKKILATHY CHOORANAM

1. **Loss On Drying:**

An accurately weighed 2g of ***Kukkilathy Chooranam*** formulation was taken in a tarred glass bottle. The crude drug was heated at 105^0C for 6 hours in an oven till a constant weight. Percentage moisture content of the sample was calculated with reference to the shade dried material.

2. **Determination of total ash:**

Weighed accurately 2g of ***Kukkilathy Chooranam*** formulation was added in crucible at a temperature 600^0C in a muffle furnace till carbon free ash was obtained. It was calculated with reference to the air dried drug.

3. **Determination of acid insoluble ash:**

Ash above obtained, was boiled for 5min with 25ml of 1M Hydrochloric acid and filtered using an ash less filter paper. Insoluble matter retained on filter paper was washed with hot water and filter paper was burnt to a constant weight in a muffler furnace. The percentage of acid insoluble as was calculated with reference to the air dried drug.

4. **Determination of water soluble ash:**

Total ash 1g was boiled for 5min with 25ml water and insoluble matter collected on an ash less filter paper was washed with hot water and ignited for 15 min at a temperature not exceeding 450^0C in a muffle furnace. The amount of soluble ash is determined by drying the filtrate.

5. **Determination of water soluble Extractive:**

5gm of air dried drug, coarsely powered ***Kukkilathy Chooranam*** was macerated with 100ml of distilled water in a closed flask for twenty-four hours shaking frequently. Solution was filtered and 25 ml of filtrated was evaporated in a tarred flat bottom shallow dish, further dried at 100^0 C and weighted. The percentage of water soluble extractive was calculated with reference to the air dried drugs.

6. Determination of alcohol soluble extractive:

2.5gm. of air dried drugs, coarsely powdered ***Kukkilathy Chooranam*** was macerated with 50 ml. alcohol in closed flask for 24 hrs. With frequent shaking it was filtered rapidly taking precaution against loss of alcohol. 10ml of filtrate was then evaporated in a tarred flat bottom shallow dish, dried at 100^0C and weighted. The percentage of alcohol soluble extractive was calculated with reference to air dried drug.

S. No	Parameters	Percentage
1	Loss on drying	2.64%
2	Total ash value	2.02%
3	Acid insoluble ash	Less than 1%
4	Water soluble ash	1.30%
5	Water soluble extraction	4.57%
6	Alcohol soluble extraction	53.46%

The above stated physiochemical properties for the given sample certified to be present.

PRELIMINARY PHYTOCHEMICAL SCREENING

KUKKILATHY CHOORANAM

The preliminary phytochemical screening test was carried out for each extracts of ***Kukkilathy Chooranam*** as per the standard procedure.

1. Detection of alkaloids:

Extracts were dissolved individually in dilute Hydrochloric acid and filtered.

a) Mayer's Test: Filtrates were treated with Mayer's reagent (Potassium Mercuric Iodide). Formation of a yellow colored precipitate indicates the presence of alkaloids.

b) Wagner's Test: Filtrates were treated with Wagner's reagent (Iodine in Potassium Iodide). Formation of brown/reddish precipitate indicates the presence of alkaloids.

c) Dragendroff's Test: Filtrates were treated with Dragendroff's reagent (solution of Potassium Bismuth Iodide). Formation of red precipitate indicates the presence of alkaloids.

d) Hager's Test: Filtrates were treated with Hager's reagent (saturated picric acid solution). Presence of alkaloids confirmed by the formation of yellow colored precipitate.

2. Detection of carbohydrates:

Extracts were dissolved individually in 5 ml distilled water and filtered. The filtrates were used to test for the presence of carbohydrates.

a) Molisch's Test:

To 2 ml of plant sample extract, two drops of alcoholic solution of α- naphthol are added. The mixture is shaken well and few drops of concentrated sulphuric acid is added slowly along the sides of test tube. A violet ring indicates the presence of carbohydrates.

b) Benedict's Test:

Filtrates were treated with Benedict's reagent and heated gently. Orange red precipitate indicates the presence of reducing sugars.

3. Detection of glycosides:

Extracts were hydrolyzed with dil. HCl, and then subjected to test for glycosides.

a) Modified Borntrager's Test: Extracts were treated with Ferric Chloride solution and immersed in boiling water for about 5 minutes. The mixture was cooled and

extracted with equal volumes of benzene. The benzene layer was separated and treated with ammonia solution. Formation of rose-pink color in the ammonical layer indicates the presence of anthranol glycosides.

b) Cardiac glycoside (Keller-Killiani test): Extract was shaken with distilled water (5 mL). To this, glacial acetic acid (2 mL) containing a few drops of ferric chloride was added, followed byH2SO4 (1 mL) along the side of the test tube. The formation of brown ring at the interface gives positive indication for cardiac glycoside and a violet ring may appear below the brown ring

4. Detection of saponins

a) Froth Test: Extracts were diluted with distilled water to 20ml and this was shaken in a graduated cylinder for 15 minutes. Formation of 1 cm layer of foam indicates the presence of saponins.

b) Foam Test: 0.5 gm of extract was shaken with 2 ml of water. If foam produced persists for ten minutes it indicates the presence of saponins.

5. Detection of phytosterols

a) Salkowski's Test: Extracts were treated with chloroform and filtered. The filtrates were treated with few drops of Conc. Sulphuric acid, shaken and allowed to stand. Appearance of golden yellow color indicates the presence of triterpenes.

6. Detection of phenols Ferric Chloride Test:

Extracts were treated with 3-4 drops of ferric chloride solution. Formation of bluish black color indicates the presence of phenols.

7. Detection of tannins Gelatin Test:

The extract is dissolved in 5 ml of distilled water and 2 ml of 1% solution of Gelatin containing 10% NaCl is added to it. White precipitate indicates the presence of phenolic compounds.

8. Detection of Flavonoids

a) Alkaline Reagent Test: Extracts were treated with few drops of sodium hydroxide solution. Formation of intense yellow color, which becomes colorless on addition of dilute acid, indicates the presence of flavonoids.

b) Lead acetate Test: Extracts were treated with few drops of lead acetate solution. Formation of yellow color precipitate indicates the presence of flavonoids.

9. Detection of proteins and aminoacids

a) Xanthoproteic Test: The extracts were treated with few drops of conc. Nitric acid. Formation of yellow color indicates the presence of proteins.

b) Ninhydrin Test: To the extract, 0.25% w/v ninhydrin reagent was added and boiled for few minutes. Formation of blue color indicates the presence of amino acid.

10.Detection of diterpenes Copper Acetate Test:

Extracts were dissolved in water and treated with 3-4 drops of copper acetate solution. Formation of emerald green color indicates the presence of diterpenes

11. Gum and Mucilage:

To 1ml of extract add 2.5ml of absolute alcohol and stirring constantly. Then the precipitate was dried in air and examine for its swelling properties. Swelling was observed that will indicate presence of gum and mucilage.

12. Test for Fixed oils and Fats

a. Spot test : A small quantity of extract is pressed between two filter papers. Oil stain on the paper indicates the presence of fixed oils.

13. Test for Quinones

Extract was treated with sodium hydroxide blue or red precipitate indicates the presence of Quinones.

The Preliminary phytochemical studies of aqueous extract of ***Kukkilathy Chooranam*** were done using standard procedures. The results were presented in tables. The present study reveals that the bioactive compounds were present in all the extracts of

Kukkilathy Chooranam

S.no	Phytochemicals	Test Name	H2O Extract
1.	Alkaloids	Mayer's Test	**-ve**
		Wagner's Test	**-ve**
		Dragendroff's Test	**-ve**
		Hager's Test	**-ve**
2.	Carbohydrates	Molisch's Test:	**+ve**
		Benedict's Test	**+ve**
3.	Glycoside	Modified Borntrager's Test	**+ve**
		Keller Killiani	**-ve**
4.	Saponin	Froth Test	**+ve**
		Foam Test	**-ve**
5.	Phytosterol	Salkowski's Test	**-ve**
6.	Phenols	Ferric Chloride Test	**-ve**
7.	Tannins	Gelatin Test	**-ve**
8.	Flavonoids	Alkaline Reagent Test	**-ve**
		Lead acetate Test	**-ve**
9.	Proteins and amino acids	Xanthoproteic Test	**-ve**
10.	Diterpenes	Copper Acetate Test	**-ve**
11.	Gum & Mucilage	Extract + Alcohol	**-ve**
12.	Fat & Fixed Oil	Spot Test	**-ve**
13.	Quinones	NAOH + Extract	**-ve**

+ve/-ve present or absent if component tested

The above stated physiochemical properties for the given sample certified to be present.

TOXICITY STUDY

Toxicity studies:

The treated rats with 2000 mg/kg in the acute toxicity study did not show any mortality, any untoward clinical sign, any behavioral signs, alterations in body weight and necropsy findings at the end of the study. This indicates that the dosages administered were below toxic level and proves the safety of the drug. The acute toxicity helped to fix the doses for pharmacological activities.

The 28 days Repeated dose oral toxicity (OECD - 407) and 90-days Repeated dose oral toxicity study (OECD – 408) of *Kukkilathy chooranam* in Wistar albino rats were studied. The treated animals survived throughout the study period of 28 days and 90 days respectively and did not reveal any treatment related major abnormal clinical signs at the test dose levels. The overall percentage of body weight gain in rats treated with the drug was found to be normal indicating that the test animals were in a healthy condition during the 90 days of observation period.

TheP valuesof haematological parameters and biochemical parameters of the tested rats were not significant indicating that the drug exerted nil impact on the parameters and they were within the reference range.In histopathological study on KC high dose treated rats no significant abnormalities were seen. The necropsy studies showed no remarkable changes.

This results strongly stress the fact of the drug having no toxic effect on the body metabolism.So, the trial drug *Kukkilathy chooranam* hope fully use for human trails.

Reference: Reg No-321412204,Dept. of Gunapadam,Oct-17, The Tamil Nadu Dr.M.G.R. Medical University, NIS Library book ref no-D342

DISCUSSION

- Authentication of herbaland mineralraw drug, the ingredients of the trail drug Kukkilathy Chooranam were obtained from the Assistant Professor of medicinal botany and lecturer, Department of Gunapadam of National institute of Siddha prior to the medicine preparation.
- The pre clinical toxicity study for the trail drug Kukkilathy chooranam was already have been evaluated (Ref: Reg No-321412204, Dept.of Gunapadam, Oct-17,The Tamil Nadu Dr.M.G.R. Medical University, NIS Library book ref no-D342).
- The Phytochemical and physicochemical analysis of the trail drug were done in The Tamil Nadu Dr.M.G.R. Medical University, Dept. of Siddha, and the bio chemical qualitative analysis were done in the bio chemistry lab of National Institute of Siddha. It is reveled the presence of phytochemical Alkaloid, silicate, phosphate, potassium, carbohydrate, glycoside, Saponin.

S.No	Parameters	Percentage
1	Loss on drying	2.64%
2	Total ash value	2.02%
3	Acid insoluble ash	Less than 1%
4	Water soluble ash	1.30%
5	Water soluble extraction	4.57%
6	Alcohol soluble extraction	53.46%

- The clinical study was conducted with a well defiened protocol and proper profoma after the approval of the Institutional Ethical Committee (NIS/IEC/2016/11-01/14.10.2016).
- After the screening of 70 cases reporting at the OPD of Dept. of Maruthuvam and Dept. of Aruvai and thol maruthuvam 30 cases were recruited as per inclusion criteria(Form-I). Before enrollment to the trail the informed consent was obtained from all the patients. (Forum-IV)

- All the patients were advised to have oil bath with Chitramutti oil on Day -1 and Day-2 they were given purgation with Agasthiyar kulambu 130mg with ginger juice, Day-3 advised to take rest,no medicine was given on that day. From Day-4 onwards treatment started. The patient were treated for a period of 45 days with Kukkilathy Chooranam (Internal)4g, twice a day with ghee (After food)
- The trail drug was given for 7 days/visit and clinical assessment was done during each visit in OPD patients (7 days once) and the data were noted in the clinical assessment proforma (Form-II)
- Routine clinical laboratory investigation and proctoscopy examination were done on day 0 ,46th day of the trail for OPD patients. All the patients were put under observation for 2 months (Follow up period) without the trail drug treatment.

DISCUSSION ON THE OBSERVATIONS of; Age, Gender, Place of living, Season, Occupation, Uyir thathukkal, Udal kattukal, Kosam, Gunam, Thegi,En vagai thervu, Chronicity of illness, Clinical features, Proctoscopic examination, HAQ,HSS Score, Clinical laboratory parameters.

Incidence with reference to gender distribution:

30 patients of both sex were selected for this study, among them 28 (93.3%) were male and 2(6.7%) were female. The majority affected was male.

Incidence with reference to with age distribution:

Out of 30 cases age 20-30 years cases 7 (23.33%) were found ,age 31-40 years 13 cases (43.33%) were found ,age 41-50 years 6 cases (20%) were found and age 51-60 years 4 cases (13.3%) were found. This study showed that the highest incidence of Ratha moolam was between age group 31-40 years cases (43.33%%) were to be found.

Incidence with reference occupation:

Out of 30 cases,**8 patients (26.7%) were driver,** 1 patient (3.3%) was housewife, 1 patient (3.3%) was student, **11 patients (36.7%) were Engineers,**3 patients (10%) were Tailor, 3 patients (10%) were coolie, 3 patients (10%) were Businessman.

This data showed the relationship of occupation towards the disease Ratha moolam.

- (Drivers, Tailors-Prolonged sitting)
- (Engineers, Housewives, Bussinessman, Student-Stress)

Prolonged sitting and stressful occupation vitiates the vatham and pitham causes **Moolam**

”அனில பித்த தொந்தமலாது மூலம் வராது”.

- தேரையர்

Incidence with reference to diet:

All **30 patients (100%)** were **Non vegetarians**, as per their dietic history (low fiber Intake) they were more prone to Ratha moolam.

Incidence with reference to Paruva kaalam:

Among the 30 cases 21 cases (70%) were reported in Munpani Kaalam (Dec 15-Feb14) and 9 cases were (30%) reported in Pinpani Kaalam (Feb 15-April 14) .

Incidence with reference to Thinai:

Among the 30 cases 19 cases (63.3%) were from Neithal thinai and11 cases (36.7%) were from Marutham thinai.

Most of the cases were belong to Neithal land.

“நெய்தனில மேலுவர்ப்பை நீங்கா துறினுமது
வெய்தனில மேதங்கு வீடாகும். ”

- **நோயில்லா நெறி.**

Incidence with reference to body constitution :

Among the 30 cases 14 cases (46.7%) were Vatha thegi, 4 cases (13.3%) were pithathegi , 2 cases (6.7%) were kaba thegi and 10 cases(33.33%) were thondha thegi.

As per Saint Theraiyar,Vatha thegi were more prone to Moolam.

”அனில பித்த தொந்தமலாது மூலம் வராது”.

- **தேரையர்**

Vatha thegi were more affected with the bleeding piles symptoms.

Incidence with reference to Gunam:

Out of 30 cases 17 cases (56.7%) were found to possess rasathagunam, 6 cases (20%) were found to possess sathuvagunam and 7 cases (23.3%) found to possess thamogunam Majority of cases possessed **Rasatha gunam**.

Incidence with reference to Envagai thervugal(Eight diagnostic tools)

In Envagai Thervugal Malam was found to be affected in all 30 cases (100%) , Naa(Coated tongue) was affected 17 cases (57%) , Niram (Pallor) was affected in 8 cases (27%) ,Vizhi (Pallor in palpabrel conjunctiva) was affected in 8 cases (27%). The Naadinadai seen in Rathamoolam were **Vathapitham** in 16 cases (53%), Pithavatham in 7 cases (23%) vathakapham in 4 cases (14%) and pithakabam in 3 cases (10%)

Inference:

"பொருளான **வாதத்தில் பித்தஞ்** சேர்ந்து
பொருந்து குணங்களுட்ண வாயு சக்தி
செரியாமை புளித்தேப்பம் பொருமல் நீரிற்
சிவப்புலம் பிடித்தல் உருத் தாதுநட்டம்".

-சதக நாடி

Incidence with reference to Udal kattukal:

Among 30 cases saram was affected (Unable to perform their routine activites) in 30 cases (100%), Senneer was affected (Bleeding at stools) in 30 cases (100%) and Enbu (pain in all the limbs) was affected in 15 cases (50%) .

Incidence with reference to kosangal:

Among with 30 cases Annamaya Kosam was affected (loss of appetite) in 17 cases (56.7%) and Vignanamaya kosam was affected(Pain in all the limbs) in 15 cases (50%)

Incidence with reference to uyir thathukkal:

Incidence with reference to Vatham:

Among the 30 cases Abanan, Samaanan and Viyanan were affected in all 30 cases (100%) which results in bleeding P/R during defecation,Pain in all the limbs, Constipation. Kirukaran was affected (loss of appetite) in 17 cases (56.7%). Devathathan was affected in 30 cases (100%) (Tiredness and constipation).

Incidence with reference to pitham:

Sathagapitham was affected (Unable to perform their routine activities) in all the 30 cases (100%) Anarpitham was affected (loss of appetite) in 17 cases (57%), Ranjagapitham was affected (Anaemia) in 8 cases (27%) and Prasaka pitham was affected (Itching present around the anus) in 8 cases (27%).

Incidence with reference to kabam:

Kilethagam was affected (loss of appetite) in 17 cases (57%) tharpagam was affected (burning sensation in the both eyes) in 6 cases (20%) Santhigam was affected (pain in all the limbs) in 15 cases (50%) .

Incidence with reference to Neer kuri and Nei kuri:

All 30 cases were observed straw coloured normal urine. Among 30 cases in 9 cases (30%) nei kuri was observed as serpentine like, in 6 cases (20%) the neikuri was observed as annular ring like , in 10 cases (33%) the neikuri was observed as Pearl shape, in 5 cases (17%) the neikuri was observed as thontham type.

CHRONICITY OF ILLNESS:

Among 30 cases 0-3 months chronicity of illness was found in 8 cases (26.6%) , 4-6 months chronicity of illness in 5 cases (16.7%) , 7-9 month's chronicity of illness in 2 cases (6.7%) and above 9 months chronicity of illness in 15 cases (50%) .

CLINICAL FEATURES:

Among 30 cases (100%) had bleeding during defecation and constipation, 10 cases (33.33%) had tiredness, 15 cases (50%) had pain in all limbs ,4 cases (13.3%) had headache, 8 cases (27%) had pruritic ani and Anemia in 8 cases (27%).

PROCTOSCOPY EXAMINATION:

Among 30 cases, the position of pile masses were as follows:

In 6 cases (20%) -3'o clock position

In 10 cases (33.33%) -7'o clock position

In 7 cases (23.33%) - 11'o clock position

In 7 cases (23.33%) were in more than one pile mass in various clock position. (eg:3'o clock and 11'o clock). Pile mass size reduced well after the treatment.

HEALTH ASSESSMENT QUESTIONNAIRE:

The health status of the patients is assessed before and after the treatment with the test drug to know whether the treatment has significant effect in improving the health status of the patient. Paired comparison test is used to find the effectiveness of the test drug.

Among 30 cases before treatment 17 cases (57%) were in level II and 13 cases (43%) were in level III according to their mark scores.

After treatment 18 cases (60%) were in level I and 12 cases (40%) were in level II according to their mark scores.

Statistical analysis done shows that the trail drug Kukkilathy chooranam is effective and significant ($p<0.0001$). Thus it is effective in improving the health status of the patients through which they can able to perform their daily activities independently.

Results arrived on the basis severity of clinical symptoms-HSS Score

From the HSS Score, finally it is concluded that 11 cases (37%) symptoms were completely relieved and 19 cases (64%) symptoms were reduced well, those patients were improved Moderate to mild score. Statistical analysis done shows that the trail drug Kukkilathy chooranam is effective and significant ($p<0.0001$).

BLOOD PARAMETER: HEMOGLOBIN

Among 30 cases before treatment the haemoglobin level in 2 cases (7%) were below 10gm/dl, 4 cases (13%) haemoglobin level were 10-12 gm/dl , in 5 cases (17%) the haemoglobin level were in 12-14gm/dl and 19 cases (63%) were in above 14.

After treatment 2 cases (7%) were in below 10, 3 cases (10%) were in 10-12, 6 cases (20%) were in 12-14, and 19 cases (63%) were in above 14gm/dl.

There was no significant difference in before and after treatment.

SUMMARY

- The aim of the study was to evaluate the therapeutic efficacy of the Kukkilathy Chooranam (internal) in Ratha moolam.
- Before initiating the clinical trial, approval was got from the Institutional Ethical committee of National Institute of Siddha (NIS/IEC/2016/11-01/14.10.2016) for conducting the clinical studies respectively by submitting the well defined protocol and proforma. It was registered prospectively in the Clinical Trail Registry of India (CTRI Reg No:CTRI/2017/07/009127)
- The raw drugs were authenticated by the Assistant professor of medicinal botany and Investigator, Dept.of Gunapadam, NIS, and the trail drug was prepared by the investigator in the Gunapadam lab of National Institute of Siddha as per the standard operating procedure mentioned in the protocol.
- As per Siddha Materia Medica the ingredients of the trial drug were found to possess astringent, anthelmintic, anti-inflammatory and styptic action.
- The Phytochemical and physico chemical analysis of the trail drug were done in The Tamil Nadu Dr.M.G.R. Medical University, Dept. of Siddha and the bio chemical qualitative analysis were done in the bio chemistry lab of National Institute of Siddha. It is reveled the presence of phytochemicals Alkaloid, silicate, phosphate, potassium, carbohydrate, glycoside, Saponin.
- For clinical study 70 cases were screened based on inclusion and exclusion criteria at the OPD of department of Maruthuvam, NIS. Out of 70 cases 30 cases were recruited for the clinical trial. Clinical diagnosis of Ratha moolam was made by both Siddha and modern methodology.
- Before initiating the trial informed consent was obtained from all the patients.
- Prognosis was assessed through proctoscopic examination done at initial day and at the end of 46^{th} day. Prognosis was recorded through HAQ and Haemorrhoids Symptoms Severity Score.
- All the patients were advised to have oil bath with Chitramutti oil on Day -1 and Day-2 they were given purgation with Agasthiyar kulambu 130mg with ginger juice, Day-3 advised to take rest, no medicine was given on that day(to correct the elevated mukkutram) From Day-4 onwards treatment started. The patient

were treated for a period of 45 days with Kukkilathy Chooranam (Internal) 4g,twice a day with ghee (After food)

- The patients were treated for a period of 45 days. The trial medicine selected for internal treatment was Kukkilathy Chooranam (internal medicine) at the dose of 4 g twice a day with adjuvant of ghee as per Siddha literature Anuboga vaithiya navaneetham thirattu- Page no :1248-1249
- Routine clinical laboratory investigation was carried out before and after treatment and the concerned data were recorded in the proforma.(Form-III)
- Clinical assessment was done during each visit in OPD patients (7 days once) and the data were noted in the prescribed proforma. (Form-II)
- During the study period there was no event of any adverse reactions were reported owing to the drug or disease.
- Diet restriction was strictly followed during the period of drug administration as well as in re-dieting period as per noted in the dietary advice form .(Form-VII)
- The HAQ questionnaire score showed good improvement in 60% and moderate improvement in 40%.Improvement in other clinical symptoms before and after treatment revealed the efficacy of the trail drug, in relieving constipation, bleeding at stools, anal itch, discomfort, dyschezia etc. Statistical analysis done for HAQ and it shows that the trail drug Kukkilathy chooranam is effective and significant ($p<0.0001$). Thus it is effective in improving the health status of the patients through which they can able to perform their daily activities independently.
- From the HSS Score, finally it is concluded that 11 cases (37%) symptoms were completely relieved and 19 cases (64%) symptoms were reduced well, those patients were improved Moderate to mild score. Statistical analysis done for HSS Score shows that the trail drug Kukkilathy chooranam is effective and significant ($p<0.0001$).
- In the case of Clinical laboratory parameters there was no significant improvement in hemoglobin level after treatment.

CONCLUSION

- It is concluded by this study that Kukkilathy Chooranam (Internal) is to be safe, efficacious and cost effective potent herbo mineral drug in the treatment of Haemorrhoids.
- From the HSS Score, finally it is concluded that 11 cases (37%) symptoms were completely relieved and 19 cases (64%) symptoms were reduced well, those patients were improved Moderate to mild score. Statistical analysis done for HSS Score shows that the trail drug Kukkilathy chooranam is effective and significant ($p<0.0001$).On Proctoscopic examination showed significant reduction of internal pile mass size in after treatment.
- There was no adverse reaction was reported during the trial period.
- Because of the encouraging clinical outcome, the study may be further carried out with the same drug "**Kukkilathy Chooranam**"in a larger clinical population.

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NATIONAL INSTITUTE OF SIDDHA, CHENNAI – 47

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DEPARTMENT OF MARUTHUVAM

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FORM I - SCREENING AND SELECTION PROFORMA

1. O.P No _____ 2. S.No: _____

4. Name: _____ 5. Age (years): ☐☐ 6. Gender: Female/male

7. Contact No: ----------

8.INCLUSION CRITERIA:

- Age: 20- 60Yrs Yes/No
- Sex- Both male and female Yes/No
- Patients who will be having classical symptoms of bleeding piles Yes/No
- Willing to give blood samples for the investigation required. Yes/No
- Patient's willing for consent to include in trail Yes/No

9.EXCLUSION CRITERIA:

Patient having 2nd, 3rd degree internal haemorrhoids.	Yes	No	Fistula in ano	Yes	No
Pregnancy and lactation	Yes	No	Rectal tuberculosis	Yes	No
Fissure in ano	Yes	No	Cardiac disease	Yes	No
External haemorrhoids	Yes	No	History of taking treatment for any other ailments	Yes	No
History of drug/alcohol abuse	Yes	No	Hypertension	Yes	No

10.ADMITTED TO TRAIL: YES ☐ NO ☐ If Yes Serial No:

Date: Signature of the Lecturer:

Station:

Signature of the Investigator: Signature of the HOD:

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FORM II-CLINICAL REPORT FORM

1. Serial No: _____ 2. OP/IP No: ----------

3. Name: _____ 4. Gender: Female/ Male

5. Age (years): _____ DOB ☐☐ ☐☐ ☐☐☐☐

Date Month Year

6. Address: ----------

---

7. A) Occupation: ---------- B) Nature of work ----------

8. Educational Status: A) Illiterate ☐ B) Literate ☐

9. Height: --------- cms 10.Weight: ---------- kg

Date of Trial Drug Initiation _____ Date of Trial Drug Cessation_____

11. COMPLAINTS AND DURATION:

_____

_____

_____

_____

12. HABIT OF

A) Smoking Yes duration _____ years Number-

B) Tobacco chewing Yes duration _____ years

C) Betel chewing Yes duration _____ years

D) Alcoholism Yes duration _____ years; Quantity- ml

13. DIETARY STYLE: A. Pure vegetarian ☐ B. Non-vegetarian ☐

Less intake of water : Yes ☐ No ☐

14. DRUG HISTORY:

Had the patient been treated before with allopathic drug A) Yes ☐ No ☐

15. MARITAL STATUS: 1.Married ☐ 2.Unmarried ☐

No of children: ☐ Male: ☐ Female: ☐

16. FAMILY HISTORY:

Whether this problem runs in family? 1. Yes ☐ 2.No ☐

If yes, mention the relationship of affected person(s) ----------

---

17. MENSTRUAL HISTORY:

18. BOWEL HABITS & MICTURITION: Normal

Historyof habitual constipation 1.Yes ☐ 2.No ☐

History of frequent diarrhoea 1.Yes ☐ 2.No ☐

MODE OF ONSET: Gradual ☐ Sudden ☐

DURATION : _____ weeks/Months/Years

PAIN IN ANAL REGION Yes ☐ No ☐

If yes, whether there was pain in the beginning? Yes ☐ No ☐

TENDERNESS : At Beginning ☐ During the Course ☐

DISCHARGE /BLEEDING Yes ☐ No ☐

If Yes, its nature: Serous ☐ Serosanguineous ☐ pus ☐ blood ☐

19.SLEEP: Sleep disturbance - Yes ☐ No ☐

If yes: ……..

20. **PSYCHOLOGICAL STATE:**

Normal ☐ Occupational stress ☐ Anxiety ☐ Depression ☐

5. THEGI: [TYPE OF BODY CONSTITUTION]

Vatham predominant		Kabam predominant	
Pitham predominant		Thondha udal	

6.NILAM: [LAND WHERE PATIENT LIVED MOST]

Kurinji (Hilly terrain) ☐ Mullai (Forest range) ☐ Marutham (Plains) ☐ Neithal (Coastal belt) ☐ Paalai (Arid regions) ☐

7. KAALAM: [SEASON]

Kaarkalam(Aug15-Oct14) ☐ Pinpanikalam(Feb15-Apr14) ☐

Koothirkalam(Oct15-Dec14) ☐ Ilavenil(Apr15-June14) ☐

Munpanikalam(Dec15-Feb14) ☐ Muthuvenil(June15-Aug14) ☐

8. GUNAM:[CHARACTER]

Sathuvam ☐ Rasatham ☐ Thamasam ☐

SIDDHA SYSTEM OF EXAMINATION

1. ENVAGAI THERVU: [EIGHT-FOLD EXAMINATION]

I. NAADI: [PULSE PERCEPTION]

		0^{th} day	7^{th} day	14^{th} day	21^{th} day	28^{th} day	35^{th} day	45^{th} day
	Date							
KAALAM	Vatham							
	Pitham							
	Iyyam							
MAATHIRAI	Vatham							
	Pitham							
	Iyyam							
NAADI								

*MAATHIRAI ALAVU:Vatham-1; Pitham-1/2; Iyyam-3/4

II. NAA:[TONGUE]

	BEFORE TMT	**AFTER TMT**
Colour	normal/Red pale/yellow	normal/ Red pale/yellow
Taste	Sweet/Sour/ Pungent/ Bitter/None	Sweet/Sour/ Pungent/Bitter/None
Coating	Present/Absent	Present/Absent
Fissure	Present/Absent	Present/Absent
Saliva	Normal/Increased/Decreased	Normal/Increased/Decreased
Dryness	Present/Absent	Present/Absent
Glossitis	Present/Absent	Present/Absent
Baldness	Present/Absent	Present/Absent

III.NIRAM: [COMPLEXION]

BEFORE TMT	AFTER TMT
Dark/Yellow tinted/Wheatish brown / Pale	Dark/Yellow tinted / Wheatish brown/ Pale

IV.MOZHI: [VOICE]

BEFORE TMT	AFTER TMT
Medium/High / Low pitched	Medium/High/Low pitched

V.VIZHI: [EYES] (Lower palpabrel conjunctiva)

BEFORE TMT	AFTER TMT
Yellow / Red/ Pale/Normal	Yellow/ Red/ Pale/Normal

VI. MALAM; [BOWEL HABITS / STOOLS]

Malam	BEFORE TMT	AFTER TMT
Colour	Dark/ Yellow/ Pale/Others	Dark/ Yellow/ Pale
Consistency	Solid/Semisolid Watery	Solid/Semisolid Watery
Stool bulk	Normal/Reduced	Normal/Reduced
Constipation	Present/Absent	Present/Absent
Diarrhoea	Present/Absent	Present/Absent

VII. URINE EXAMINATION:

NEERKURI	**BEFORE TMT**	**AFTER TMT**
Niram [Colour]	White/Yellowish/Straw coloured/Crystal clear	White/Yellowish/ Straw coloured / Crystal clear
Manam [Odour]	Present Absent	Present Absent
Nurai [Froth]	Nil Reduced/Increased	Nil Reduced/Increased
Edai [Sp.gra]	Normal Increased/Reduced	Normal Increased/Reduced
Enjal [Deposits]	Present/ Absent	Present/ Absent
Volume	Normal Increased/Reduced	Normal Increased/Reduced

NEIKURI	BEFOR E TMT	AFTER TMT
Serpentine fashion(**FS/SS/NS)**		
Annular/Ringed fashion**(FS/SS/NS)**		
Pearl beaded fashion(**FS/SS/NS)**		
Mixed fashion(**FS/SS/NS)**		
Other fashion(**FS/SS/NS)**		

***FS-Fast Spreading; SS-Slow spreading; NS-Not spread**

VIII. SPARISAM: [PALPATORY PERCEPTION]

BEFORE TMT	AFTER TMT
Warmth/Cold/Normal Sweat	Warmth/ Cold/Normal Sweat

9. AIYMPORIGAL (SENSORY ORGANS)

IYMPORIGAL	BEFORE TMT	AFTER TMT
Mei (Skin)		
Vai (Buccal Cavity)		
Kann (Eye)		
Mooku (Nose)		
Sevi (Ear)		

10.KANMENDRIYAM (MOTOR ORGANS)

KANMENDRIYAM	BEFORE TMT	AFTER TMT
Kai (upper limb)		
Kaal (lower limbs)		
Vai (buccal cavity)		
Eruvai (excretory organs)		
Karuvai (reproductive organs)		

11. KOSANGAL (Sheath)

KOSANGAL	BEFORE TMT	AFTER TMT
Annamaya Kosam		
Pranamaya kosam		
Manomaya kosam		
Vignanamaya kosam		
Ananthamaya kosam		

12. MUKKUTRAM: [AFFECTION OF THREE HUMORS]

A)VATHAM:

VATHAM	BEFORE TMT	AFTER TMT
Praanan		
Abaanan		
Samaanan		
Udhaanan		
Viyaanan		
Naagan		
Koorman		
Kirukaran		
Devathathan		
Dhananjeyan		

B) PITHAM:

PITHAM	BEFORE TMT	AFTER TMT
Anarpitham		
Prasakam		
Ranjakam		
Aalosakam		
Saathakam		

C) IYYAM:

IYYAM	BEFORE TMT	AFTER TMT
Avalambagam		
Kilethagam		
Pothagam		
Tharpagam		
Santhigam		

13. SEVEN DHATHUS: (7 SOMATIC COMPONENTS)

SEVEN DHATHUS	BEFORE TMT	AFTER TMT
Saaram [Chyme]		
Senneer [Blood]		
Oon [Muscle]		
Kozhuppu [Fat]		
Enbu [Bones]		
Moolai [Bonemarrow]		
Sukkilam/Suronitham [Genital discharges]		

GENERAL EXAMINATION

Pallor ☐ **Jaundice** ☐ **Cyanosis** ☐ **Clubbing** ☐

BP_____ mm/Hg Pulse _____/mt Oedema ☐ **Breathlessness** ☐

CLINICAL SYMPTOMS:

CLINICAL SYMPTOMS	BEFORE TMT	AFTER TMT
Bright red bleeding occurs during defecation(splash in the pan)		
Constipation		
Loss of appetite		
Pain in all limbs		
Anaemia		
Headache		
Tiredness		
Giddiness		

PROCTOSCOPY: Position of haemorrhoids

1.3'o clock ☐ **2. 7'o clock** ☐ **3. 11'o clock** ☐

Date:

Station:

Signature of the Investigator:

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

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FORM III LABORATORY PARAMETERS-CHART

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

3. Name: _____ 4. Age: _____ years 5. Gender: M/F

BLOOD INVESTIGATION		0th DAY Date:	45th DAY Date	NORMAL VALUES
HB (gms%)				M:14-18 ;W:11-15
T.RBC(milli/cu.mm)				M:4.5-6.5 ;W:3.5-5.5
ESR (mm)	½ hr.			
	1 hr.			M:0-10 ;W:0-20
T.WBC (cu.mm)				4000-11,000
	Polymorphs			40-75
DIFFERENTIAL COUNT (%)	Lymphocytes			20-35
	Monocytes			2-10
	Eosinophils			1-6
	Basophils			0-1
BT (per min)				2-6
Clotting time				3-8
Blood glucose (mg/dl)	Fasting			80-120
	PP			<130

	Random			**<140**
Lipid profile (mg/dl)	**Serum cholesterol**			**150-250**
	HDL			**30-60**
	LDL			**Upto 130**
	VLDL			**40**
	TGL			**Upto 160**
RFT (mg/dl)	**Blood urea**			**16-50**
	Serum creatinine			**0.6-1.2**
	Serum Uric acid			**M:3-9 ;W: 2.5-7.5**
LFT (mg/dl)	**Total bilirubin**			**0.3-1**
	Direct bilirubin			**0.1-0.3**
	Indirect bilirubin			**0.2-0.8**
	Serum calcium			**9-11**
	SGOT (IU/L)			**6-18**
	SGPT (IU/L)			**3-26**
	Alkaline phosphatase (kingÅ units)			**3-12**

URINE INVESTIGATION	Before TMT Date:	After TMT Date:
Albumin		
Neerkkuri		
Niram		
Manam		
Nurai		
Edai		
Enjal		
Neikkuri		
Fasting sugar		
PP sugar		
Random Sugar		
Deposits		
Bile salts		
Bile Pigments		
MALAM		
Ova		
Cyst		
Occult blood		

DATE:

STATION:

SIGNATURE OF THE INVESTIGATOR

SIGNATURE OF LECTURER **SIGNATURE OF THE HOD**

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FORM IV (DRUG COMPLIANCE FORM)

S. NO: --------- OPD/IPD NO : ---------- NAME :----------

Name Of The Drug :, KUKKILATHY CHOORANAM 4g,twice a day with Ghee

On 0th day–Date ;Drug issued: (Nos) / Drug returned: (Nos)
On 7th day-Date: ;Drug issued: (Nos) / Drug returned: (Nos)
On 14th day -Date: ;Drug issued: (Nos) / Drug returned: (Nos)
On 21th day-Date: ;Drug issued: (Nos) / Drug returned: (Nos)
On 28th day-Date: ;Drug issued: (Nos) / Drug returned: (Nos)
On 35th day-Date: ;Drug issued: (Nos) / Drug returned: (Nos)
On 45th day-Date: ;Drug issued: (Nos) / Drug returned: (Nos)

Day	Date	Morning (7-8 am)	Evening (7-8 pm)
Day 1			
Day2			
Day3			
Day4			
Day5			
Day6			
Day7			
Day8			
Day9			
Day10			
Day11			
Day12			
Day13			
Day14			
Day15			
Day16			
Day17			

Day18			
Day19			
Day20			
Day 21			
Day22			
Day23			
Day24			
Day 25			
Day 26			
Day27			
Day 28			
Day29			
Day30			
Day31			
Day32			
Day33			
Day34			
Day35			
Day36			
Day37			
Day38			
Day39			
Day40			
Day41			
Day42			
Day43			
Day44			
Day45			

Date:

Station:

Signature of the Investigator:

Signature of the Lecturer: Signature of the HOD

தேசிய சித்த மருத்துவ நிறுவனம் சென்னை 47

அயோத்திதாசர் பண்டிதர் மருத்துவமனை

இரத்தமூலம் நோய்க்கான சித்த மருந்து "குக்கிலாதி சூரணம்"

பரிகரிப்புத் திறனைக் கண்டறியும் மருத்துவ ஆய்விற்கான தகவல் படிவம்.

தகவல்படிவம்

முதன்மை ஆராய்ச்சியாளர் பெயர் : மரு.அ.ஐஸ்வர்யா

நிறுவனத்தின்**பெயர்** : தேசியசித்தமருத்துவநிறுவனம்
தாம்பரம்சானடோரியம்
சென்னை- 47

மரு.அ.ஐஸ்வர்யா ஆகிய நான் தேசிய சித்த மருத்துவமனையில் பட்டமேற்படிப்பு பயின்றுவருகிறேன். இ**ரத்தமூலம்** எசூதூட் தொப்புளில் வலிகதிர்போல இரத்தம் பீறிட்டு ஊற்றும் மேனிவற்றி வெளுப்பு உண்டாகும் கைகால்கள் அசதி சோபையுண்டாகும். தலை நோயுண்டாகும். மயக்கம் ஆகிய குறிகுணங்கள்காணும். இந்நோய்க்கு தேசிய சித்த மருத்துவமனையில் பல சித்தமருந்துகள் பயன்படுத்தப்பட்டு வருகின்றது. சித்தபட்டமேற்படிப்பில் ஆய்வின் ஒரு பகுதியாக புதிய மருந்துகளை பயன்படுத்தும் நோக்கில் **"குக்கிலாதி சூரணம்"** (உள் மருந்து) பரிந்துரை செய்கிறோம். இந்த மருந்தின் செய்முறை, அளவு, அனுபானம் மற்றும் மருத்துவ பயன்கள் அனைத்தும் அங்கீகரிக்கப்பட்ட சித்த மருத்துவ நூலில் கூறப்பட்டுள்ளது. எந்தவித கட்டணமுமின்றி தாங்கள் இந்த மருந்தினை பெற்றுக்கொள்ளலாம். இந்த ஆய்வில் மருந்து உட்கொள்ளும் காலம் 45 நாட்கள் ஆகும். இம்முறைப்படி வெளி நோயாளர்கள் 7 நாட்களுக்கு ஒரு முறை மருத்துவமனைக்கு வரவேண்டும். 45 நாட்கள் மருந்து உட்கொள்ளும் காலம் முடிந்த பிறகு நோய்க்கான குறிகுணங்கள் மற்றும் ஆய்வக பரிசோதனைகள் இவற்றின் முடிவுகளின் அடிப்படையில் மருந்தின் பரிகரிப்புத்திறன் கண்டறியப்படும்.

இந்த ஆய்வு சம்பந்தமாக சில கேள்விகளை தங்களிடம் கேட்க இருக்கிறேன். தங்களிடமிருந்து பெறப்படும் கருத்துக்கள் மற்றும் குறிப்புகள் அனைத்தும் நம்பிக்கையாக பதிவு செய்யப்படும்.இந்த ஆய்வில் தங்களை உட்படுத்திக்கொள்வதின் மூலம் எந்த வகையிலும் பாதிப்புக்குள்ளாக மாட்டீர்கள் என உறுதி அளிக்கிறேன்.

எந்தவித வற்புறுத்தலுமின்றி, இந்த ஆய்வில் பங்கேற்கவும், இந்த ஆய்வு சம்பந்தமாக கேட்கப்படும் கேள்விகளுக்கு பதில் கூறவும் தங்களுக்கு முழு சுதந்திரம் அளிக்கப்படுகிறது. இந்த ஆய்வில் பங்கேற்பதற்கு எந்த சன்மானமும் வழங்கப்படமாட்டாது. ஆனால், ஆய்வு முழுவதும் எனது மேற்பார்வையிலும், தங்கள் உடல்நலன் குறித்த தனி கவனத்திலும் ஆய்வு மேற்கொள்ளப்படும். **இரத்த மூலம்** நோய்க்கான புதிய மருந்தின் பரிகரிப்புத்திறனை சமூகத்திற்கு உணர்த்தும் வகையில் இந்த ஆய்வு மேற்கொள்ளப்படுகிறது, இந்த ஆய்வில், மருந்து உட்கொள்ளும் காலத்தில் மாறுபட்ட குறிகுணங்கள் தொடர்ந்து இருக்கும் பட்சத்தில், முதன்மை ஆராய்ச்சியாளரான என்னிடம் தெரிவிக்கப்பட்டு, தேசிய சித்த மருத்துவமனையில் அதற்க்கான தீர்வு வழங்கப்படும். இந்த ஆய்வினைத் தொடர தங்களுக்கு விருப்பம் இல்லையெனில், எப்பொழுது வேண்டுமானலும் ஆய்வின் இடையில் விலகிக்கொள்ளவும், மருத்துவமனையில் வழங்கப்படும் இந்நோய்க்கான வழக்கமான மருந்துகளை பெற்றுக்கொள்ளவும் அறிவுறுத்தப்படுகிறீர்கள்.

இந்த ஆய்வில் சேகரிக்கப்படும் விபரங்கள் அனைத்தும் தங்களுக்கும் முதன்மை ஆராய்ச்சியாளரான எனக்கும் இடையில் இரகசியமாக வைக்கப்படும். கேள்வி பதில் வடிவத்தில் தங்களிடம் கேள்விகள் கேட்கப்படும். அனைத்து படிவங்களிலும் தங்களின் பெயர் தவிர்க்கப்பட்டு ஆய்வாளரால் தங்களுக்கென தனிக் குறியீடு வழங்கப்படும். அந்தக் குறியீடு ஆய்வாளருக்கு மட்டுமே தெரிந்ததாக இருக்கும். நீங்கள் இந்த ஆய்வில் பங்கேற்க விருப்பப்பட்டால், திட்ட வரைவு தகவல் படி தேர்வு செய்யப்படுவீர்கள்.

நீங்கள் இந்த ஆய்வில் பங்கேற்கும் முன், இந்த ஆய்வினைப் பற்றிய மேலும் விபரங்கள் பெற வேண்டுமென விருப்பப்பட்டால், இந்த ஆய்வின் முதன்மை ஆராய்ச்சியாளர் மற்றும் தேசிய சித்த மருத்துவமனை, பட்ட மேற்படிப்புத்துறை மரு.அ.ஐஸ்வர்யாஆகிய என்னை 8526460100 என்ற எண்ணில் தொடர்பு கொள்ளலாம். மேலும், நீங்கள் இந்த ஆய்வில், உங்களது பங்கேற்பு மற்றும் உரிமை பற்றி தெரிந்து கொள்ள தேசிய சித்த மருத்துவமனை, தலைவர்/செயற்க்குழு உறுப்பினர் அவர்களையும் 91-44-22411611 என்ற எண்ணில் தொடர்பு கொள்ளலாம்.

NATIONAL INSTITUTE OF SIDDHA, CHENNAI – 47

AYOTHIDASAR PANDITHAR HOSPITAL

DEPARTMENT OF MARUTHUVAM

A clinical study on Siddha Herbal formulation **"KUKKILATHY CHOORANAM"** in **"*RATHA MOOLAM*" (bleeding piles)"**

FORM V – INFORMATION SHEET

Name of the Principal Investigator : Dr.A.Aishwarya
Name of the Institution : National Institute of Siddha, Tambaram Sanatorium, Chennai-47.

- I, **Dr.A.Aishwarya** Studying M.D(S) in National Institute of Siddha, Chennai. The disease called **"*RATHA MOOLAM*" (BLEEDING PILES)**, symptoms like as pain around the umbilicus, splashing of blood during defecation, weakness in the limbs, giddiness[1] can be correlated with Internal Haemorrhoids mentioned in Modern science.
- .. This condition is being treated is NIS with many siddha formulations. As a part of M.D(S) research programme and developing new efficacious medicine, we propose to study the **"KUKKILATHY CHOORANAM"** (Internal) formulation for treating the condition. This formulation has been mentioned in siddha literature and empirical evidence with contemporary tools is required for documentation. You can receive medicines free of cost **"KUKKILATHY CHOORANAM"**(Internal) (4 gm bd) twice for 7 days in a duration of 45 days The diagnosis tests will be carried out free of cost. We will assess the effect of treatment after completion of 45 days of treatment using clinical and lab parameters.
- In this regard, we need to ask you few questions. We will maintain confidentiality of your comments and data obtained from you. There will be no risk of disclosing your identity and no physical, psychological or professional risk is involved by taking part in this study.
- Taking part in this study is voluntary. No compensation will be paid to you for taking part in this study. You can choose not to answer any specific question. There is no specific benefit for you if you take part in the study, but you will be under our clinical monitoring and specific attention will be given for your health.

Taking part in the study may be of benefit to the community, as it may help us to develop medicine for **"*RATHA MOOLAM*" (BLEEDING PILES)**, In case of any adverse symptoms which is expected for few patients during the treatment, shall be reported to PIs and care will be taken in NIS for relief. You can withdraw from the study at the midst of treatment period, if you are not interested to continue and you will receive our usual treatment without condition.

- The information we will collect in this study, will remain between you and the principal investigator. We will ask you a few questions through questionnaire. We will not write your name on different forms which sent to other investigation forms investigating/analysis sections and we will use a code instead given by the principal investigator. Only the principal investigator will know the key to this code which will be kept in safe custody. If you agree to be a participant in this study, you will be screened as per the study protocol.
- If you wish to find out more about this study before taking part, you can ask me all the questions you want or contact **Dr.A.Aishwarya** Studying M.D(S) scholar cum principal investigator of this study, attached to the National Institute of Siddha, Chennai (Mobile phone no:8526460100). You can also contact the Chairman/Member-secretary of Ethics committee, National Institute of Siddha, Chennai – 600047, Tel no: 91-44-22411611, for rights and participation in the study.

தேசிய சித்த மருத்துவ நிறுவனம், சென்னை-47

அயோத்திதாசர் பண்டிதர் மருத்துவமனை

இரத்த மூலம் நோய்க்கான சித்த மருந்து "குக்கிலாதி சூரணம்"
பரிகரிப்புத் திறனைக் கண்டறியும் மருத்துவ ஆய்விற்கான ஒப்புதல் படிவம்.

FORM VI
ஒப்புதல் படிவம்

நான் மேற்கூறிய தகவல் படிவத்தை படித்து அல்லது படிக்க கேட்டுக் கொண்டேன். இது தொடர்பான விளக்கங்களையும் கேட்டு தெரிந்து கொண்டேன். எந்தவித வற்புறுத்தலின்றி என் சொந்த விருப்பத்தின் பேரில் என்னை இந்த ஆராய்ச்சிக்கு உட்படுத்த என் முழுமனதோடும் சுயநினைவோடும் சம்மதம் தெரிவிக்கின்றேன் . எனக்கு விருப்பம் இல்லாத பட்சத்தில் இந்த ஆராய்ச்சியில் இருந்து என்னை எப்போது வேண்டுமானாலும் விடுவித்து கொள்ளும் உரிமையை பெற்றுள்ளேன் என்பதையும் அறிவேன்.

இந்த ஆய்வின் போது எடுக்கப்படும் புகைபடங்கள் மருத்துவ அறிவியலின் முன்னேற்றத்திற்காக மட்டும் பயன்படுத்தப்படும்.

தேதி :

இடம் :

கையொப்பம் **சாட்சிக்காரர்**
கையொப்பம்

பெயர் **பெயர்**

உறவுமுறை:

NATIONAL INSTITUTE OF SIDDHA, CHENNAI – 47

AYOTHIDASAR PANDITHAR HOSPITAL

DEPARTMENT OF MARUTHUVAM

A clinical study on siddha herbal formulation **"KUKKILATHY CHOORANAM"** in **"*RATHA MOOLAM*" (bleeding piles)"**

FORM – VICERTIFICATE OF CONSENT

"I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have asked have been answered to my satisfaction.

I consent voluntarily to participate as a participant in this study and understand that I have the right to withdraw from the study at any time without in any way it affecting my further medical care".

″I have received a copy of the information sheet/consent form".

Date:

Signature of the participant

In case of illiterate participant,

"I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely."

The photographs taken in the study will be displayed only in scientific conference for the advancement of medical knowledge.

Date:

Signature of a witness

Left thumb Impression of the Participant

(Selected by the participant bearing no connection with the survey team)

NATIONAL INSTITUTE OF SIDDHA, CHENNAI – 47

AYOTHIDASARPANDITHARHOSPITAL

DEPARTMENT OF POTHUMARUTHUVAM

A CLINICAL STUDY ON SIDDHA HERBAL FORMULATION "KUKKILATHY CHOORANAM" IN "RATHA MOOLAM" (BLEEDING PILES).

FORM VII- WITHDRAWAL FORM/ADVERSE DRUG REACTION/PHARMACOVIGILANCE FORM

Reg No:

Serial No: OP/IP No:

Name: Age: Gender: M/F

DATE OF TRIAL COMMENCEMENT:

DATE OF WITHDRAWAL FROM TRIAL:

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

NATIONAL PHARMACOVIGILANCE PROGRAMME FOR SIDDHA DRUGS

Reporting Form for Suspected Adverse Reactions to Siddha Drugs

- **Please note:** i. **All** consumers / patients and reporters information will remain confidential.

ii. It is requested to report all suspected reactions to the concerned, even if it does not have complete data, as soon as possible.

PeripheralCenter code: State:

1. Patient / consumer identification (please complete or tick boxes below as appropriate)

Name	Father name	Patient / Record No.
Ethnicity	Occupation	
Address Village / Town		Date of Birth / Age:

Post / Via District / State	Sex: Male / Female Weight : Degam:

2. Description of the suspected Adverse Reactions (please complete boxes below)

Date and time of initial observation		Season:
Description of reaction		Geographical area:

3. List of all medicines / Formulations including drugs of other systems used by the patient during the reporting period:

Medicine	**Daily dose**	**Route of administration & Vehicle - Adjuvant**	**Date**		**Diagnosis for which medicine taken**
			Starting	**Stopped**	
Siddha					
Any other system of medicines					

4. Brief details of the Siddha Medicine which seems to be toxic :

Details	Drug – 1	Drug – 2	Drug – 3
a) Name of the medicine			
b) Manufacturing unit and batch No. and date			
c) Expiry date			
d) Purchased and obtained from			
e) Composition of the formulation / Part of the drug used			

b) Dietary Restrictions if any
c) Whether the drug is consumed under Institutionally qualified medical supervision or used as self medication.
d) Any other relevant information.

5. Treatment provided for adverse reaction:

6. The result of the adverse reaction / side effect / untoward effects (please complete the boxes below)

Recovered:	Not recovered:	Unknown:	Fatal:	If Fatal Date of death:
Severe: Yes / No.	Reaction abated after drug stopped or dose reduced:			
	Reaction reappeared after re introduction:			
Was the patient admitted to hospital? If yes, give name and address of hospital				

7. Any laboratory investigations done to evaluate other possibilities? If Yes specify:

8. Whether the patient is suffering with any chronic disorders?
Hepatic Renal Cardiac Diabetes Malnutrition

Any Others

9. H/O previous allergies / Drug reactions:

10. Other illness (please describe):

11. Identification of the reporter:

Type (please tick): Nurse / Doctor / Pharmacist / Health worker / Patient / Attendant / Manufacturer / Distributor / Supplier / Any others (please specify)
Name:
Address:
Telephone / E – mail if any :

Signature of the reporter: **Date:**

Please send the completed form to:

Name & address of the RRC-ASU/ PPC-ASU

The Director
National Institute of Siddha,
ntre For Siddha Medicine),
Tambaram Sanatorium, Chennai-600 047.
Fax : 044 – 22381314
Website : www.nischennai.org
Email: nischennaisiddha@yahoo.co.in

Who Can Report?

⇒ Any Health care professionals like Siddha Doctors / Nurses / Siddha Pharmacists / Patients etc.

What to Report?

⇒ All reactions, Drug interactions,

Confidentiality

⇒ The patient's identity will be held in strict confidence and protected to the fullest extent.

⇒ Submission of report will be taken up for remedial measures only not for legal claim

NATIONAL INSTITUTE OF SIDDHA, CHENNAI – 47
AYOTHIDASAR PANDITHAR HOSPITAL
DEPARTMENT OF MARUTHUVAM

FORM VIII- DIETARY ADVICE FORM

A CLINICAL STUDY ON SIDDHA HERBAL FORMULATION "KUKKILATHY CHOORANAM" IN "RATHA MOOLAM" (BLEEDING PILES).

IEC NO: NIS/IEC

DIET ADVICE:

Do's

- Drink 3 to 4 litres of Water, a day.
- Take more amount of Tender coconut
- Vegetables : Cow's butter milk, Cow's ghee, Fresh vegetables, Fiber content vegetables.
- Fruits: Water melon, Cucumber.
- Advice to do pranayamam, Yoga ,for mental stress.
- Aria keerai, Thuthi keerai, Siru keerai
- Asafetida
- Castor oil

Dont's

- Cauliflower, Coffee, Tea, Chocolate, Meat, Fish, Bitter ground, Brinjal, Tubers, Egg, Oil foods, Maize, Caustic soda, Tamarind, Tobacco, Liquor
- Preserved beverages, Foods rich in salts, Spicy and fried foods
- Prolonged sitting ,Excessive sexual inter course.

தேசிய சித்த மருத்துவ நிறுவனம், சென்னை – 47
அயோத்திதாசர் பண்டிதர் மருத்துவமனை
பொதுமருத்துவத் துறை

இரத்த மூலம் நோய்க்கான சித்த மருந்து "குக்கிலாதி சூரணம்"
பரிகரிப்புத் திறனைக் கண்டறியும் மருத்துவ ஆய்விற்கான

படிவம் VIII - உணவு பரிந்துரை படிவம்

IEC NO: NIS/IEC

சேர்க்கவேண்டியவை:

- நாள் ஒன்றுக்கு 2 முதல் 3 லிட்டர் வரை தண்ணீர் அருந்த வேண்டும்.
- இளநீர் சேர்க்க வேண்டும்.

காய்கள்:

அவரை, வெண்டை, காறுக்கருணை, காறாக் கருணை, சேனைக் கிழங்கு, அத்திக் காய், ஆகியவை சேர்க்க வேண்டும்.

கீரைகள்:

சிறுகீரை, தாளிக்கீரை, பசலைக்கீரை, சுக்கான் கீரை, துத்திக் கீரை, வெந்தயக் கீரை ஆகியவை சேர்க்க வேண்டும்.

- கார் அரிசி, சவ்வரிசி, மணக்கத்தை, குறுவை ஆகயவை சேர்க்க வேண்டும்.

1. தியானம் மற்றும் யோகம் செய்ய வேண்டும்
2. உட்காரும்போதெல்லாம் கீழ்வாய் உறுத்தாதிருக்கப் பஞ்சு மெத்தையில் அமர்ந்திருப்பது நன்மை.

அசைவ உணவுகள்:

- மீன் வகைகளில விலாங்கு மீன் நன்று.
- நத்தை உண்பது நன்று.

தவிர்க்க வேண்டியவை:

- கிழங்கு வகைகள்
- காரம்
- முட்டைக்கோஸ்
- காளிபிளவர்
- காபி/டீ
- சாக்லேட்
- மாமிசம்
- முட்டை
- ஸ்ட்ராபெர்ரி
- சமையல் சோடா
- மிகுபுளி
- புகையிலை
- பதப்படுத்தப்பட்ட குளிர் பானங்கள்
- உப்பு நிறைந்த உணவு மற்றும் நீர்
- பொரிக்கப்பட்ட மற்றும் மசாலா சேர்ந்த உணவு வகைகள்.

HEALTH ASSESSMENT QUESTIONNAIRE FOR HEMORRHOIDS (HAQ – H)
NATIONAL INSTITUTE OF SIDDHA - CHENNAI

1. DO YOU DEFAECATE
- ☐ WITHOUT ANY DIFFICULTY (1)
- ☐ WITH SOME DIFFICULTY (2)
- ☐ WITH MUCH DIFFICULTY (3)
- ☐ WITH TOO MUCH DIFFICULTY POSTPONE DEFECATION ITSELF. (4)

2. TIME TAKEN FOR DEFAECATION:
- ☐ 1 - 5 MINUTES (1)
- ☐ 6 – 10 MINUTES (2)
- ☐ 11– 15 MINUTES (3)
- ☐ MORE THAN 15 MINUTES (4)

3. HOW DO YOU FEEL AFTER DEFAECATION
- ☐ FREE (COMPLETELY EVACUATED) (1)
- ☐ MILD DISCOMFORT (THAT IT DISAPPEARS QUICKLY) (2)
- ☐ MODERATE DISCOMFORT (IT LASTS FOR SOME TIME) (3)
- ☐ MORE DISCOMFORT, TRY TO DEFAECATE AGAIN (4)

.4. FREQUENCY OF PASSING STOOLS
- ☐ ONCE DAILY/TWICE DAILY (1)
- ☐ TWO DAYS ONCE (2)
- ☐ THREE DAYS ONCE (3)
- ☐ FOUR DAYS ONCE (4)

5. DO YOU PASS BLOOD DURING DEFAECATION.

- ☐ NO (1)
- ☐ FEW DROPS (2)
- ☐ MORE DROPS (3)
- ☐ SEVERE BLEEDING (4)

6. DO YOU FEEL PAIN DURING DEFAECATION

- ☐ NO (1)
- ☐ MILD PAIN (HOWEVER I DEFAECATE) (2)
- ☐ SEVERE PAIN (HOWEVER I DEFAECATE) (3)
- ☐ EXCRUCIATING PAIN (I POSTPONE DEFAECATION) (4)

7. DO YOU FEEL PAIN AFTER DEFAECATION

- ☐ NO (1)
- ☐ 5 – 10 MINUTES (2)
- ☐ 11 – 15 MINUTES (3)
- ☐ MORE THAN 15 MINUTES (4)

8. DO YOU FEEL PAIN/ DISCOMFORT WHILE DOING LONG TIME SITTING, RIDING, ETC

- ☐ NO (1)
- ☐ SOMETIMES (2)
- ☐ OFTEN (3)
- ☐ ALWAYS (4)

9. DO YOU THINK OF THIS PROBLEM WHILE AT WORK

- ☐ NO (1)
- ☐ SOMETIMES (2)
- ☐ OFTEN (3)
- ☐ ALWAYS (4)

10. DO YOU WHEEL EMBRASSED WHILE MOVING OUT WITH OTHERS

- ☐ NO (1)
- ☐ SOMETIMES (2)
- ☐ OFTEN (3)
- ☐ I AVOID OUTING (4)

BEFORE TREATMENT TOTAL MARKS ☐

AFTER TREATMENT TOTAL MARKS ☐

WEEKLY ASSESSMENTS

Date of Initiation _____Date of Trial Cessation_____

Haemorrhoids Symptom Severity Score*

Answers → **1ST WEEK** **Questions ↓**	**Never**	**Less than once/week**	**1–6 times/Week**	**Everyday /Always**	**2ND WEEK**	**3RD WEEK**	**4TH WEEK**	**5TH WEEK**	**6TH WEEK**	**7TH WEEK**
Frequency of Pain in the anal region	**[0]**	**[1]**	**[2]**	**[3]**						
Frequency of Itching or discomfort in the anal region	**[0]**	**[1]**	**[2]**	**[3]**						
Frequency of bleeding at stools	**[0]**	**[1]**	**[2]**	**[3]**						
Frequency of soiling of underclothes	**[0]**	**[1]**	**[2]**	**[3]**						
Frequency of prolapsed pile mass	**[0]**	**[1]**	**[2]**	**[3]**						
Adding answer scores	**_____ + _____ + _____ + ____**									
HSS Score	**/15**									

*Haemorrhoids grading and Symptoms Severity Scoring Published by Karolinska University Hospital Huddinge Stockholm

NATIONAL INSTITUTE OF SIDDHA- राष्ट्रीय सिद्ध संसथान
Ministry of AYUSH- आयुष मंत्रालय
GOVERNMENT OF INDIA-भारत सरकार
TAMBARAM SANATORIUM, CHENNAI -600 047 -ताम्बरम सनटोरियमचेन्नई -600 047
फ़ोन\Tele : 044-22411611 फैक्स\Fax : 22381314
ईमेल: nischennaisiddha@yahoo.co.in वेब :www.nischennai.org

F.No.NIS/6-20/IEC/15-16 Dt: 14.10.2016

CERTIFICATE

Address of Ethics Committee: National Institute of Siddha, Tambaram Sanatorium, Chennai-600047, Tamil Nadu, India	
Principal Investigator: Dr. A.Aishwarya – I year, Dept.of Maruthuvam	
Protocol Title:- A Clinical Study on Siddha herbal formulation "Kukkilathy Chooranam" in "Ratha Moolam" (Bleeding piles)	
Documents filed	1) Protocol, 2) Data Collection forms
Clinical trial Protocol (others – Specify)	**Yes-(M.D-Dissertation)**
Informed consent documents	**Yes**
Any other documents	-
Date of IEC approval & its number	**NIS/IEC/2016/11-01/ 14.10.2016**

We approve the trial to be conducted in its presented form.

The Institutional Ethics Committee expects to be informed about the progress of the study, any SAE occurring in the course of the study.

(Dr.V.Subramanian)
Chairman

(Prof.Dr.V.Banumathi)
Member Secretary

NATIONAL INSTITUTE OF SIDDHA ★ CHENNAI 600 047

Clinical Trial Details (PDF Generation Date :- Mon, 23 Apr 2018 12:50:21 GMT)

CTRI Number	CTRI/2017/07/009127 [Registered on: 27/07/2017] - Trial Registered Prospectively
Last Modified On	08/02/2018
Post Graduate Thesis	Yes
Type of Trial	Interventional
Type of Study	Siddha
Study Design	Single Arm Trial
Public Title of Study	A clinical trail on siddha medicine kukkilathy chooranam in the treatment of Moolam(Bleeding piles)
Scientific Title of Study	A Clinical study on siddha herbal formulation "KUKKILATHY CHOORANAM" in "RATHA MOOLAM" (Bleeding piles)

Secondary IDs if Any

Secondary ID	Identifier
NIL	NIL

Details of Principal Investigator or overall Trial Coordinator (multi-center study)

Details of Principal Investigator	
Name	Dr AAishwarya
Designation	PG Scholar
Affiliation	National Institute of Siddha
Address	National Institute of Siddha Room no 1 Department of Maruthuvam Tambaram sanatorium Kancheepuram Kancheepuram TAMIL NADU 600047 India
Phone	8526460100
Fax	04422381314
Email	aishuuammu6@gmail.com

Details Contact Person (Scientific Query)

Details Contact Person (Scientific Query)	
Name	Dr KManikavasagam
Designation	Head of the Department
Affiliation	National Institute of Siddha
Address	National Institute of Siddha Room no 1 Department of Maruthuvam Tambaram sanatorium Kancheepuram Kancheepuram TAMIL NADU 600047 India
Phone	9444249798
Fax	04422381314
Email	drkmvm@gmail.com

Details Contact Person (Public Query)

Details Contact Person (Public Query)	
Name	DR TLakshmikantham
Designation	Lecturer
Affiliation	National Institute of Siddha
Address	National Institute of Siddha Room no 1 Department of Maruthuvam Tambaram sanatorium Kancheepuram Kancheepuram TAMIL NADU 600047 India
Phone	9444466880

Fax	04422381314
Email	drlakshmiramaswamy@gamil.com

Source of Monetary or Material Support

Source of Monetary or Material Support
> National Institute of Siddha tambaram sanatorium Kancheepuram

Primary Sponsor

Primary Sponsor Details	
Name	AYOTHIDOSS PANDITHAR HOSPITAL
Address	National institute of siddha tambaram sanatorium kancheepuram
Type of Sponsor	Research institution and hospital

Details of Secondary Sponsor

Name	Address
NIL	NIL

Countries of Recruitment

List of Countries
India

Sites of Study

Name of Principal Investigator	Name of Site	Site Address	Phone/Fax/Email
Dr AAishwarya	Ayothidoss pandithar hospital	National institue of siddha Room no 1 Department of Maruthuvam National institute of Siddha tambaram sanatorium kancheepuram Kancheepuram TAMIL NADU	8526460100 04422381314 aishuuammu6@gmail.com

Details of Ethics Committee

Name of Committee	Approval Status	Date of Approval	Is Independent Ethics Committee?
INSTITUTIONAL ETHICAL COMMITTEE	Approved	14/10/2016	No

Regulatory Clearance Status from DCGI

Status	Date
Not Applicable	No Date Specified

Health Condition / Problems Studied

Health Type	Condition
Patients	Ratha moolam(Bleeding Piles)

Intervention / Comparator Agent

Type	Name	Details
Comparator Agent	NIL	NIL
Intervention	Kukkilathy Chooranam	4 gram of Kukkilathy chooranam will be given orally twicw a day along with ghee for a period of 45 days

Inclusion Criteria

Inclusion Criteria	
Age From	20.00 Year(s)
Age To	60.00 Year(s)
Gender	Both
Details	1) Patients who are having the following symptoms of bleeding piles (1st degree haemorrhoids) constipation ,bleeding per anus ,itching in the perianal region,pain in all limbs confirmed by proctoscopy 2) willing to give blood samples for the investigation when required

Exclusion Criteria

Exclusion Criteria	
Details	1)Patients having 2nd ,3rd degree internal haemorrhoids 2)Pregnancy and lactation 3) External Haemorrhoids 4)Fistula in ano

	5)Hypertension 6)Rectal polyp 7)Rectal Cancer

Method of Generating Random Sequence	Not Applicable
Method of Concealment	Case Record Numbers
Blinding/Masking	Open Label

Primary Outcome

Outcome	Timepoints
1)Proctoscopic examination 2)Improvement of clinical symptoms and reduction of bleeding during defecation	45 days

Secondary Outcome

Outcome	Timepoints
1)Relieving of other clinical symptoms such as anaemia,pruritis ani,constopation,general body weakness 2) influence of other co factors related to the disesae such as Age,sex,etc.	45 days

Target Sample Size	Total Sample Size= 30 Sample Size from India= 30
Phase of Trial	Phase 2
Date of First Enrollment (India)	05/01/2018
Date of First Enrollment (Global)	No Date Specified
Estimated Duration of Trial	Years=1 Months= 0 Days=0
Recruitment Status of Trial (Global)	Not Applicable
Recruitment Status of Trial (India)	Open to Recruitment
Publication Details	not yet
Brief Summary	It is a single,non randomizied open lable trail to determined the efficacy and the saftey of KUKKILATHY CHOORANAM in patients with RATHA MOOLAM (BLEEDING PILES).In this trail 30 Bleeding piles patients will be recruited and the trail drug will be administred 4 gram twice a day along with ghee for a period of 45 days.During the study period all the study related data will be recorded and documented in a separate trail master file for each patients.During the trail period if any adverse effect will be noticed will be refferd to pharmacovigillance department in NIS and further management will also be given in NIS OPD and IPD.The entire trail will be monitored by the research monitoring commitee of NIS.During this trail all the safety and efficay parameters will be recorded in the CRF.After complition of the trail all the study related data will be analysed statistically.The outcome of this trail will be published in the indian journal of medical research.

NATIONAL INSTITUTE OF SIDDHA, CHENNAI – 600047

BOTANICAL CERTIFICATE

Certified that the following plant drugs used in the Siddha formulation **"Kukkilathy Chooranam"** (Internal) taken up for Post Graduation Dissertation studies by **Dr.A.Aishwarya** M.D.(S), II year, Department of Maruthuvam, 2017, are identified through Visual inspection, Experience, Education & Training, Organoleptic characters, Morphology and Taxonomical methods as

Shorea robusta Gaertn.f. (Dipterocarpaceae), Oleo resin

Smilax china Linn. (Liliaceae), Root

Piper longum Linn. (Piperaceae), Fruit

Piper longum Linn. (Piperaceae), Root

Wrightia tinctoria (Rottler.) R.Br. (Apocynaceae), ~~Stem bark~~ Seeds

Embelia ribes Burm.f. (Myrsinaceae), Fruit

MEDICINAL BOTANY
CHENNAI
600 047
National Institute of Siddha

Certificate No: NISMB2762017

Date: 06-03-2017

Authorized Signatory

Dr. D. ARAVIND, M.D.(s),M.Sc.,
Assistant Professor
Department of Medicinal Botany
National Institute of Siddha
Chennai - 600 047, INDIA

NATIONAL INSTITUTE OF SIDDHA
MINISTRY OF AYUSH
GOVERNMENT OF INDIA
TAMBARAM SANATORIUM, CHENNAI - 600 047
Tele : 044-22411611 Fax : 22381314
nischennaisiddha@yahoo.co.in www.nischennai.org

F.No:NIS/Gunapadam/Au/2017/3 18.03.17

AUTHENTIFICATION CERTIFICATE

Certified that the sample submitted for identification by Dr. A. Aishwarya, II year PG scholar, Dept. of Maruthuvam, National Institute of Siddha, Chennai - 47, voucher number 2, is identified as **Gandhagam- Sulphur**, on the basis of macroscopic character.

This certificate is issued for the purpose of preparing her dissertation medicine in Gunapadam laboratory, NIS.

Dr. S. Visweswaran, M.D (s).
Head of Department
Department of Gunapadam
National Institute of Siddha
Tambaram Sanatorium, Chennai-47.

The Tamil Nadu Dr.M.G.R.Medical University

69, Anna Salai, Guindy, Chennai - 600 032.

This Certificate is awarded to Dr/Mr/Mrs.....AISHWARYA.A.....

For participating as ~~Resource Person~~ / Delegate in the Twenty First Workshop on

"RESEARCH METHODOLOGY & BIOSTATISTICS"

*For **AYUSH Post Graduates & Researchers***

Organized by the Department of Siddha

The Tamil Nadu Dr. M.G.R. Medical University From 25th to 29th April 2016.

Dr.N.KABILAN, MD(S),
PROF & HEAD
DEPT.OF SIDDHA

Prof.**Dr.P.ARUMUGAM,** M.D.,
REGISTRAR i/c

Prof. **Dr.S.GEETHALAKSHMI,** M.D., Ph.D.,
VICE CHANCELLOR

NATIONAL SEMINAR ON

"RESEARCH METHODOLOGY AND PUBLIC HEALTH INITIATIVE THROUGH SIDDHA SYSTEM OF MEDICINE"

(RM & PHISSM – 2018)

6TH & 7TH APRIL 2018

प्रमाण पत्र
CERTIFICATE

सिद्ध क्षेत्रीय अनुसन्धान संस्थान
पूजप्पुरा, तिरुवनंतपुरम, केरल
SIDDHA REGIONAL RESEARCH INSTITUTE
Poojappura, Thiruvananthapuram, Kerala

केन्द्रीय सिद्ध अनुसन्धान परिषद्
(आयुष मंत्रालय, भारत सरकार)
CENTRAL COUNCIL FOR RESEARCH IN SIDDHA
Ministry of AYUSH, Govt. of India

This is to certify that Dr./Shri/Smt. Aishwarya A, Nrs, Chennai has ~~participated~~/presented a paper entitled Yugi's concept on Maalam - A scientific Review in the National Seminar on "Research Methodology and Public Health Initiative through Siddha System of Medicine" (RM & PHISSM – 2018) organized by Siddha Regional Research Institute, Thiruvananthapuram on 6th & 7th April 2018 at Dr. M R DAS Convention Centre, Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram, Kerala.

RM & PHISSM 2018

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Organizing Secretary and Convenor

प्रो.डॉ.आर.एस. रामस्वामी / Prof. Dr. R. S. Ramaswamy
Director General, CCRS

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International Journal of Ayurveda and Pharma Research

http://ijapr.in

Certificate Of Publication

Is hereby awarding this certificate to

A.AISHWARYA, T.LAKSHMI KANDHAM, K.MANIKAVASAKAM, V.BANUMATHI

In recognition of the publication of the Review Article entitled

"YUGI'S CONCEPT ON MOOLAM (ANO RECTAL DISEASES)- A SCIENTIFIC REVIEW"

Published in International Journal of Ayurveda and Pharma Research

VOLUME 6, ISSUE 3: MARCH 2018

B. Srinu

EDITOR-IN-CHIEF
IJAPR

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ADDRESS: DR. B. SRINIVASULU, FLAT NO: 105, BLOCK - A, SRINIDHI APARTMENTS, BESIDES INDIAN OIL PETROL PUMP, PUPPALAGUDA MAIN ROAD, MANIKONDA POST OFFICE, RANGA REDDY DISTRICT, PIN: 500089, TELANGANA, INDIA. TELEPHONE: +919703393005, +919347000599

Government of India
Ministry of AYUSH

Siddhar Agathiyar
Father of Siddha Medicine

Certificate of Achievement

This Certificate is proudly presented to

Dr. Aishwarya A

NIS, Chennai

for making outstanding poster presentation titled

Prevention and management of hypertension by lifestyle modification through siddha system

in the National Conference on "*Prevention and Management of Lifestyle Disorders through Siddha system of Medicine*" on **the first Siddha Day** held on **04.01.2018** – organised by Central Council for Research in Siddha (CCRS) jointly with Directorate of Indian Medicine and Homoeopathy, Govt. of Tamil Nadu, The Tamil Nadu Dr. M.G.R. Medical University and National Institute of Siddha.

மார்கழி
ஆயில்யம்
சித்த மருத்துவத்
திருநாள்

Prof. Dr. R. S. Ramaswamy
(Director General
Central Council for Research in Siddha)
Chairman

Prof. Dr. P. Parthiban
(Joint Director, DIM&H
Govt. of Tamil Nadu)
Organising Secretary

Certificate. No: FSD/Comp/105

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International Journal of Ayurveda and Pharma Research

Review Article

A SCIENTIFIC REVIEW OF *MOOLAM* (ANO RECTAL DISEASES)-YUGI'S VERSION

A.Aishwarya[1]*, T.Lakshmi Kantham[2], K.Manikavasakam[3], V.Banumathi[4]

*[1]PG Scholar, [2] Lecturer, [3]Head of the Department, Department of Maruthuvam, National Institute of Siddha, Tambaram Sanatoruim, Chennai, Tamil Nadu

[4]Director, National Institute of Siddha, Tambaram Sanatoruim, Chennai, Tamil Nadu

ABSTRACT

Worldwide, the overall prevalence of an ano rectal disease in the general population is estimated to be 4.4%. The faulty dietary pattern and life style , hereditary factors are important etiological factors of this disease. As per saint Yugi *Moolam* is classified as 21 types based on clinical symptoms and size, shape, colour of the pile mass which includes some of the ano-rectal diseases. The diet and deeds which influences the vital humors *Vatham* (Intestinal peristaltic movement) and *Pitham* (metabolism and absorption) of food stuffs are said to be major causative factors of this disease. As per Yugi's version the following ano rectal diseases under *Moola noi* have been categorized as, *Neer moolam* (Inflammatory bowel disease), *Aazhi moolam* (strangulated haemorrhoids), *Sittru moolam* (adenomatous colorectal polyps), *Varal moolam* (colorectal non-neoplastic polyps), *Seezh moolam* (kaposis sarcoma), *Silaethuma moolam* (anal warts condyloma), *Thondha moolam* (rectal cancer), *Vinai moolam* (irritable bowel syndrome), *Powthira moolam* (anal fistula), *Kutha moolam* (rectal prolapse), *Ratha moolam* (internal haemorrhoids 1st degree - bleeding piles), *Mega moolam* (gonococcal proctitis), *Vaatha moolam* (interno-external hemorrhoids), *Pitha moolam* (prolapsed haemorrhoids), *Surukku moolam* (anal stenosis), *Mulai moolam* (sentinel pile), *Savvu moolam* (perianal tuberclosis). This paper focuses the scientific basis of etiology and classification of *Moolam* by saint Yugi.

KEYWORDS: Ano rectal disease, Haemorrhoids, Moolam, Siddha, Yugi.

INTRODUCTION

Siddha system is well founded under the basic principles of nature and its elements. prevention and treatment are the basic aim of the Siddha system of medicine. Siddha insists to lead a healthy life both physically and mentally. They classified the disease on the basis of *Thiridhosa* theory. Saint Agasthiyar identified 4448 diseases and one among them is *Eruvai Mulainoi*. Saint *Yugi* classified *Moolanoi* into 21 types. *Moolam* in Siddha means the area *Moolathram* or root. *Moolatharam* has been given maximum important in Siddha system as it is energy producing centre of the body (Kundalini). If the early stage is not being taken care of it may lead to complications and need to be corrected with surgery. *"Anilapithathondhamalathu-moolamvaraathu" (Anilam-vaatham, Pitha-pitham)*- As per saint Theraiyar derangement of *Vatham* and *Pitha* humor due to lifestyle changes diet and deeds resulting *Moolam*.

The main *Vatha* humor and *Pitha* humor get affected cause in *Moolanoi* (Haemorrhoids). In *Moolanoi*, increased *Keelvaikanal* stimulates *Vatha humor* these totally stimulate *Pithahumor*, constipation develops due to effects of *Keevaikanal.* So the symptoms like loss of appetite, emaciation, mental depression, decreased body fluids and blood volume are developed.

METHODOLOGY

The literature cited here principally extracted from the *Yugivaithyasidhamani*. For the understanding and validation of the correlated information reputed journals and databases were referred. After the methodological collection of the above information data were correlated with the current scenario and conclusions were arrived. Then a comprehensive review was made.

OBSERVATION

ETIOLOGY-According to *Yugivathiya chindhamai*[1]

Thathaiyang mathiga maang kuliri naalum *Thariyatha thavazhchiyaar kirandhi yaalum* *Puthayaam porunthaa ushnathaalum* *Punarchi yaayi kobathaar salippinaau* *Kaththayaam vegukaamam vendalaalum* *Kadinamam mupplaum kaarathaalum* *Mothayaam veguthanagal ponathalum* *Moolam vanthu munaiyum thaanay.*	The poem describes the etiology of *Moolam*, these are 1. Exposure to excessive heat and excessive cold 2. Anger and frustration 3. Anxiety and depression increased sexual desire 4. Heavy intake of salt and pungent food These are all Vitiates *Abanavayu* (*Vatha* humor)

Sanippana mooaththin peyaray thennil
Samarasamam neermoolang sendu mooam
Munipana mulaimoolang sittru moolam
Moorkkamamvaralmoolamrathamoolam
Thinipana seemoola maazhi moolam
Thiniyana thamaraga mamoolath thodu
Vanipana vathamodu pithamoolam
Vagaiyaana setumathin moola mae.
Vagaiyagundh thondhamaa moolathodu
Valarkindra vinaimoolam mega moolam
Pagaiyaagum powthira mamoolamodu kuthaya moolam
Pugaiyaagum puramoolang surukku moolam
Porugundra savvagu moolathodu
Thugaiyaagu moolandhaani rubath thondrum
Sootchamaa yithinudaiya surubang kaelay.

Above poem as per saint Yugi *moolam* is classified as 21 types based on clinical symptoms and pile mass size, shape colour which includes some of the ano-rectal diseases. They are

1. *Neer moolam*	11. *Pitha moolam*
2. *Sendu moolam*	12. *Kaba moolam*
3. *Mulai moolam*	13. *Thondha moolam*
4. *Sittru moolam*	14. *Vinai moolam*
5. *Varal moolam*	15. *Mega moolam*
6. *Seezh moolam*	16. *Powthira moolam*
7. *Ratha moolam*	17. *Kiraandhi moolam*
8. *Aazhi moolam*	18. *Kudha moolam*
9. *Thamaraga moolam*	19. *Pura moolam*
10. *Vatha moolam*	20. *Surukku moolam*
	21. *Savvu moolam*

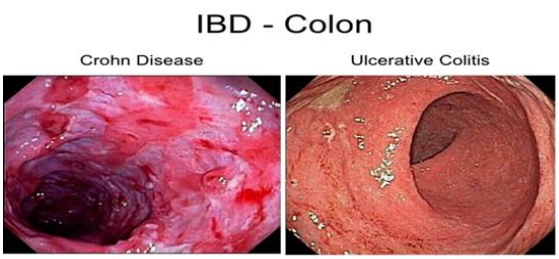
Interpretation

1.*Neer Moolam* (Figure 1)

Surupangkael thoppulilay miga valithu
Surundumay keezhvayitrai porumi kondu
Varupangkael maamvarandu vaai neeruroom
Vaayvuthaan pirigaiyilay nuraipor kaanum
Thurungkael pidavaithanir roivu maagum
Surukkaga malamvaruthal polirukum
Nirupangkael adikadikku neerai pogum
Nilaiyaana neermoolam ninaivaaip paaray

- Abdominal pain
- Abdominal distension
- The stools will dry up
- Excessive salivary secretion
- Frothy discharge during flatus

Inflammatory Bowel Disease



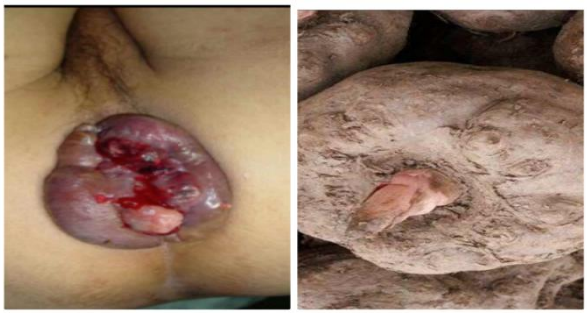
- Abdominal pain
- Abdominal discomfort
- Tenesmes, pellety stools
- Diahrrhoea with mucus
- Oral ulceration[2]

2. *Sendu Moolam* (Figure 2)

Ninaivaaga karunaiyida mulaiyay pola
Nimirnth ezhunthu naalmondru nirpamaagi
Kanavaagak kandriyay miga vaikkum
Kaarandhaan pottavudan kalaiyaayi veezhum
Inavaaga raththamodu thaneer kaanum
Irugiyay maanththee yumirai chaaagum
Thinavaaga vasanaththai surukki koollum
Seya sendu mooolathin riramai thaanay.

- Pile mass is like base scape of elephant foot yam
- There will be pain on three days from occurrence of pile mass
- Patient will get rid of the mass after application of *Kaaram*
- Bloody and watery discharge
- Constipation, Anal stricture

Thrombosed External Hemorrhoids



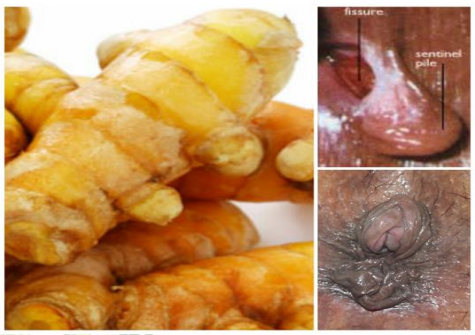
- Patients present with acute pain.
- Surgical excision is indicated for symptomatic thrombosed external hemorrhoids within 48 to 72 hours of pain onset[3]
- Constipation
- the clot may erode through the skin and discharge itself. [4]

3. *Mulai Moolam* (Figure 3)

Thiramaga vaasanathir kaduppu mundaam
Thiratchiyaai thadithérivu seyalung kaanum
Aramaga vadivayir ukallu poam
Aasanadhaan migasurungi thinavu mundam
Kuramaga kuthikolla raththapee rirangum
Koosatha iraichalmiga veppa mundaam
Maramaaga manjalmulai polaezhumbum
Malandheeyu mulaimoola vanmai thaanay

- Anal pain
- The anus get hardened and burning sensation occurs
- Bleeding
- Belching
- Constipation
- Pile mass may look like turmeric buds

Sentinel Pile



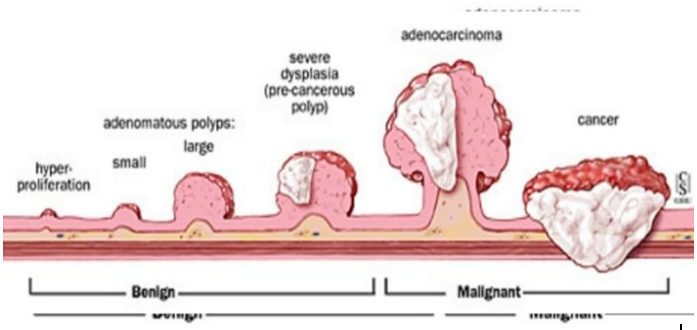
- Chronic anal fissures are also often accompanied by an external skin tag (sentinel pile) at the distal end of the fissure and a hypertrophied anal papilla at the proximal end.
- Severe tearing pain with the passage of faeces often with a small amount of bright red blood with the stool.
- Constipation.[5]

4. *Sittru Moolam* (Figure 4)

Vanmaiyaa udamberiyum mayakka maagum
Vayiruthaan palapalannum valuvaai kuttrum
Inmayaai kurukurendaray iraichalaagum
Isivudanay porumalaayi laippu maagum
Thinmayaai siththumoolai pala vundaagum
Thegamengum veluppaagum seyalung kaanum
Venmaiyaai veuthumay pasiyirathau
Meni kannunj sittru mulai midukkundha thaanay

- Giddiness
- The skin of the abdomen look shining, tender and borborygmi.
- Abdominal distension
- Weight loss
- Pallor of the body
- Small masses will appears
- Loss of appetite
- General weakness

Adenomatous Colorectal Polyps



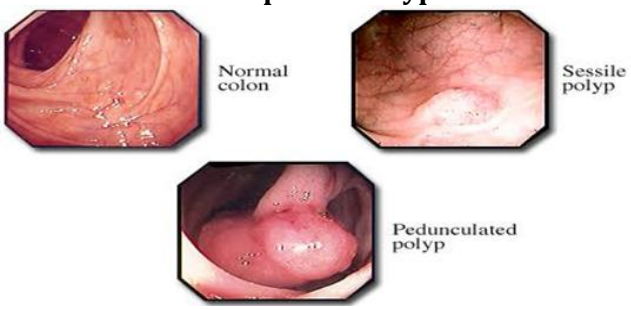
- Polyps are usually asymptomatic but may ulcerate and bleed, cause abdominal pain, and, when very large, produce intestinal obstruction.
- Adenomatous polyps are common
- colorectal cancers arise from adenomas.[6]

5.*Varal Moolam* (Figure 5)

Midukkaga malaththaiyay yirukki kollum
Miguvaaga rathamathu thuliyaai vizhum
Adukkaga sadamularthi yazhal kazhikkum
Aanmaaithaan migapesi sandai kollum
Udukkaga ullirukku muaigal thaanum
Oruvarkku theriyaathu odikki vaikkum
Thidukkaga naal thanilay pelan kuraikkum
Seyalazhikkum varalmooa sethi thanay.

- Constipation
- Bleeding per rectum
- Increased body temperature
- Anger speech
- Invisible mass present in rectum
- Body strength will gradually come down.

Colorectal Non- Neoplastic Polyps



- Hyperplastic polyps are the most common non-neoplastic polyp in the colon. They are small nodules or polypoid lesions composed of normal cellular components
- Bleeding per rectum
- Constipation
- Polyps are categorized as sessile if the base is attached to the colon wall, or pedunculated if a mucosal stalk is interposed between the polyp and the wall.[6]

6. *Ratha Moolam* (Figure 6)

Sethiyaai thopputhanil valiththu nondhu
Sirukathir porpeerittu ratham veezhum
Maethiyaai menivattri veluththu pogum
Miga kaikaalsanthumay sobaiyaagum
Maathiyaai marpiakkundh thalaini vundaam
Mayakkndhaan miguthiyaai thali podum
Naathiyaai kannirandu manjal polaam
Naliyum ratha moolaththin nanbuthaanay.

- Pain in umbilical region
- Pallor of the body
- Edema of both upper limb and lower limbs
- Chest pain
- Headache
- Giddiness
- Yellowish discoloration of eyes

Internal Haemorrhoids 1st Degree (Bleeding Piles)

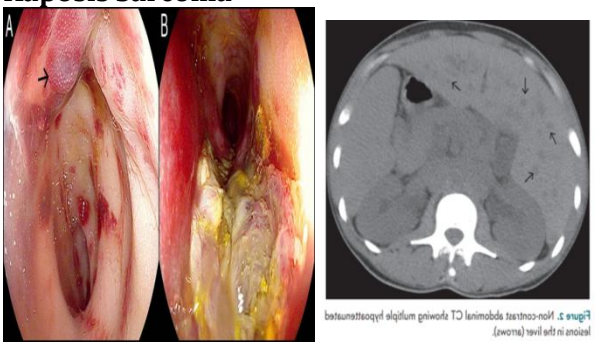
- The most common presentation of internal hemorrhoids is rectal bleeding during defecation.
- Patients with acutely thrombosed or strangulated internal hemorrhoids usually present with severely painful.[7]

7. *Seezh Moolam* (Figure 7)

Nanbaaga kuthangkaduththu erippu thondrum
Naatriyay seeyodu thaneer kaanum
Manpaaga maamisangal karaindhu kondu
Vadivamellam veluthunmay manjaalagum
Menbaaga mevumvaa neera thaagum
Midukkana nadaikuraiyu melivu maagum
Thinbaaga siruneer thaan manjlikkum
Seemoola thannudaiya saethi yaamay.

- Burning sensation in anal region
- Purulent mucous discharge
- Skin becomes pale and yellow
- Yellowish discoloration of urine

Kaposis Sarcoma



- Severe rectal pain
- Bloody mucous discharge per-rectum
- Rectal mucosa with hemorrhagic nodules and a necrotic ulcer in the rectum
- Jaundice hypo attenuated lesions in the liver, along with worsening lymphadenopathy.[8]

8. *Aazhi Moolam* (Figure 8)

Saethiyai neenda valli kizhangu polath
Thimirthumay yegamulai yaaga kkaanum
Neethiyaai neerodung seeyumi raththam
Niranirai yaayiththondri yaemalamung chikkum
Kaathiyaai kaarangall yaetridathu
Kadiya balaveenamaandh thegandh thaanum
Aadhiyaam asaththathanai poruthuk kollum
Aazhimoo laththinida aanmai thaanay

- Pile mass is like sweet potato
- Watery, bloody and pus discharge
- Constipation
- Generalized weakness
- Death will happen after a long time

Strangulated Haemorrhoids

- Acute prolapse, where the haemorrhoidal mass becomes trapped by the sphincter outside the anus, can lead to obstruction of venous return, oedema and strangulation.
- Constipation
- If untreated, this can be severely incapacitating for several weeks.[9]

9. *Thamaraga Moolam* (Figure 9)

Moolamaam pavaththil ulakkai poon pol
Muthirntha thaamarai poo polalarnthirukkum
Noolamaam norukkaa malamumg kaanum
Nunukaeri yiraththa modu thinavundam
Vaalamai vayiriranthu neerai poogum
Vayiroothi pasiyilla mandhang kaanum
Thaalamaa maelmoochai asathi undaam
Thamaragama moolathin thanmai thaanay.

A pile mass is like plunger and lotus flower

- bleeding and itching in anal region
- Watery stools
- Loss of appetite with indigestion
- Tiredness

Internal Haemorrhoids 4th Degree

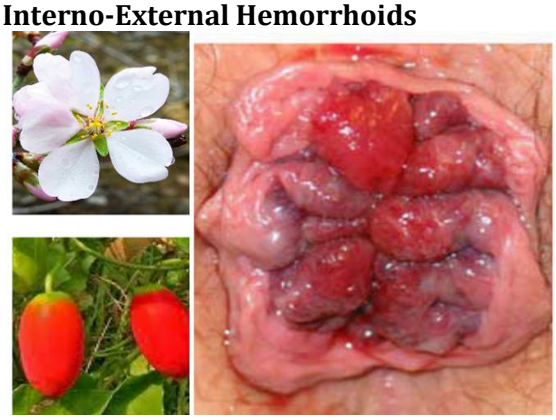
- Hemorrhoids cannot be reduced. They are permanently prolapsed
- bleeding during /after defecation
- pain
- prolapse
- Itching and peri-anal soiling.[10]

10. *Vaatha Moolam* (Figure 10)

Thanmai kovaipazham kudham sivappu
Thanil adappam poo pola mulai valarnthu
Kanmai karuppaai miruthuvaai irukum
Kadppodu thinavu kuttral thimirthalagum
Vanmai mayir thaan mulaithu malang chikki kendru
Magathaga karuththu meththa thirandu kaanum
Venmai vayirvitumay kudalul valiyaagum
Mikka thalaivali vaatha moolamaamay"

- Pile mass is like almond flower and red ivy gourd fruit in colour
- Inflammation of the anus, Pain in anus
- Itching, Retention of faces
- constipation, Headache

Interno-External Hemorrhoids



- Incomplete evacuation or rectal fullness
- Defecation of hard fecal material.[11]

11. *Pitha Moolam* (Figure 11)

Thalaivalithaan migavundaam paruthi kottai
Thanpolu nerpolum mulaiyundaagum
Malaivaliyaai malanjikki urundu rundu
Maavundai thirithiriyaayi rathang seeyaai
Kulavaliyaayi kuthang kaduththu erivu maagi
Koochamaai thaaga modu viyarvai yaagum
Thalaivaiya yaththuyakumamai koba maagum
Sorpala veenamumpitha moola maamay

- Pile mass present like a cotton seed and paddy
- Constipation and stools passed like flour ball with blood and pus.
- Inflammation and burning sensation in anus
- Thirst
- Perspiration

Prolapsed Haemorrhoids

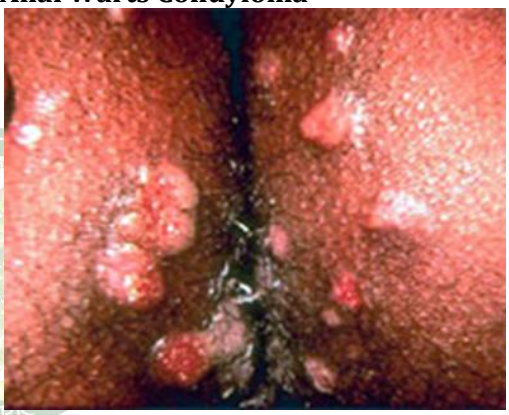
- Patients frequently complain of bleeding with or without defecation, a swelling, mild discomfort or irritation.
- Other symptoms may include soilage or mucous discharge.
- pruritis, and a sense of incomplete evacuation.[12]

12. *Silaethuma Moolam* (Figure 12)

Eenamang kuthaththil vellai yaagum
Yendhnaerathi navathiga merivu maagum
Kaanamang kaduppudanay seeyundh thaneer
Kanamana valiyaagi malandha noongumam
Thonamaa moothirandhaan soodun daagum
Sorgunaa paethagamaagundh thaathu nasht
Paanamam paanduvudu arusi yaagum
Paravu settumamooap paangu thaanay

- Pile mass looks white in colour
- Burning sensation present
- Anal irritation
- Watery and pus discharge
- Painful defecation
- Mood swings
- Oligospermia
- Anaemia
- Tastelessness

Anal Warts Condyloma



- Itching, and discharge
- The lesions are benign they cause psychological distress and may cause problems in relationships because they are disfiguring and sexually transmitted.[13]

13. *Thondha Moolam* (Figure 13)

Paangana kudhamirugi kozhi soodu
Padithathupor ranirukkum nadakka votta
Vaangana vayirumeththa porumalagum
Varuthamodu viyarththumay miga nadukkum
Thaangana thavithumay thaaga maagum
Thariyaamal vayiruvum bethi yaagum
Theengana sedamattai porsurukuum
Thidikumay thondhamendra moolandhaanay.

- Pile mass is like cocks comb
- Difficulty in walking
- Increased sweat and tremor
- Increased thirst
- Dairrhoea
- Weight loss(Body will shrink like leech)

Rectal Cancer

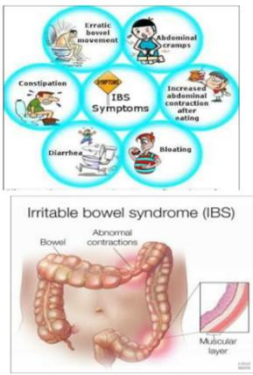
- IBD are highly encouraged to be screened for colorectal cancer on a more frequent basis.
- Abdominal pain can occur
- change in bowel habit.[14]

14.*Vinai Moolam* (Figure 14)

Thidikittu soruseriyamai yaagum
Theebanathaa nilamarpi lithae kaagum
Adukitta adivayitrir kuttra lundaam
Aangara kobamodu maamung kattum
Kadukitta kaikaalu mochalagum
Kanamaaga vayir iraindhu kaandha lundaagum
Vedukittu narmbella misivu maagum
Migakadukkum vinaimoola vibarandhaanay.

- Sudden shock
- Indigestion
- Belching
- Abdominal pricking pain
- Constipation
- General weakness

Irritable Bowel Syndrome



- Colicky or cramping is felt in the lower abdomen
- Abdominal boating
- Constipation and tend to pass infrequent pellety stools
- Chronic fatigue syndrome.[15]

15. *Mega Moolam* (Figure 15)

Vinaiyaaga lingathil vellai yootrum
Meththavaai kuthathannir uthirang saaikkum
Sanaiyaaga sathamaai kazhichalaagum
Thaakkana siruneeru mericha laagum
Panaiyaaga padukung kaal thalaivalikum
Barama udamberikkum thirundaagum
Munaiyaaga moothirandhaan madhuramaagum
Moorkkamana megamendra moolandh thaanay.

- Discharge from genital
- Bleeding per anus
- Diarrhoea, Burning micturition
- Sweet taste present in urine

Gonococcal Proctitis

- The higher incidence in male reflects ano receptive transmission.
- Rectal inflammation
- Viscous yellow muco purulent anal discharge.
- Rectal bleeding.[16]

16. *Powthira Moolam* (Figure 16)

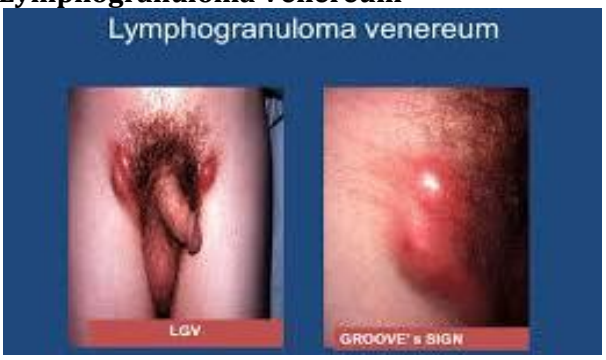
Moorkamai powthirathir katti yaagi
Moothiranthaan adikadikku aruvalagum
Kaarththamaang kaalkaiyung kanappu maagum
Kanakanakung kuthangkuying saavar sodu
Poorkamaam poopola mulaigal kaanum
Porung kovaipazham pola sivappu maagum
Paarkamang kaarandhaan podath theerum
Powthirama moolathin panbu thaanay.

- Perianal abscess will develop
- Frequent urination
- A masses looks like mango flower, and cock comb, red ivy gourd fruit colour.
- *Kaaram* application will be the cure this condition

Anal Fistula

Occurrence of

- Skin irritation around the anus
- Throbbing, constant pain that may be worse when sit down, move around, have a bowel movement or cough
- A discharge of pus or blood when having a bowel movement (rectal bleeding).[17]

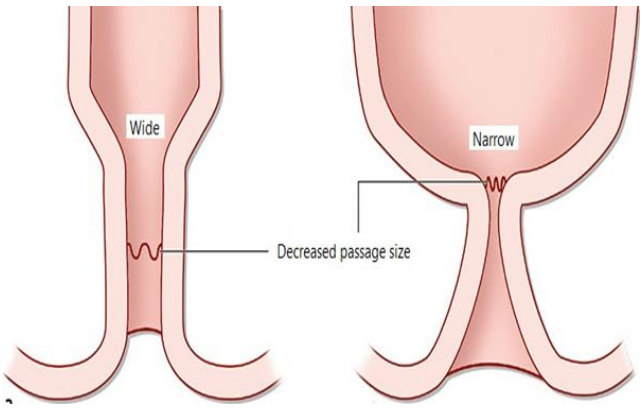
17. *Kirandhi Moolam* (Figure 17) *Panbuthaan lingaththir punnundaagum* *Baaramaik kaalkaiyung kaduppu mundaam* *Gunpathaak kuthathukkul virana maagi* *Kodi kodiyaayi mulaiyundaagi seeyum raththam* *Thanbuthaan thaneerum perugavundaam* *Thanalpola erivodu kaduppu maagum* *Kenbuthaan kettiyaai malam varandu* *Keetraga vediththrangu kirandhi mooolam* • Ulcer on penis • Continuous chain like lesion • Purulent and Bloody discharge • Constipation • Burning sensation in anal region	**Lymphogranuloma Venereum**  • Ulcer on penis • Fluctuant and suppurative lymph nodes then develop, causing the classic "bubo" of LGV. These "buboes" may rupture in one-third of patients, which may lead to sinus tract formation • Patients had gastrointestinal symptoms (eg, bloody proctitis with a purulent or mucous anal discharge and constipation).[18]
18. *Kutha Moolam* (Figure 18) *Erangumay moongilida kuruththu pola* *Izhuththumay thalidilo vullay pogum* *Pirangumay seeyodu ratham paayum* *Perugiyaay vayiru meththa kanaththu kollum* *Arangumay kaalkaiyum thaippu maagum* *Adikadikku naavarandu thaneerthedum* *Kurangumay migavalikkung kobamundaagum* *Kodiyakutha moolaththin gunama thaamay.* • Pile mass is like bamboo shoot • Pile mass reduce manually • Mucous and bloody discharge • Emotional status-Get anger soon	**Rectal Prolapse**  • Patients with prolapse most frequently complain of protrusion of the rectum during defecation. This may reduce spontaneously or require manual reduction. • Less frequent presenting symptoms include bleeding, pain, mucous discharge, and pruritus. • Clinical factors associated with prolapse include straining at bowel movements, neurologic diseases and mental illness.[19]
19. *Pura Moolam* (Figure 19) *Gunamathaa yennaipor ranneer polum* *Kootrana kaduppodu seeyu mundaam* *Thinamathaai thinavedukkundh thirpundaagum* *Siru sirangaai melelaang soriyu maagum* *Panamathaaya sanaththir paguppu pola* *Paangaga vithanamai padukai kooda* *Pinamathaai mugamelam vaatamundaam* *Paerana puramoola puthumai thanay* • Oily, and watery discharge through anus • Anal itching • Small itchy lesion all over the body • Unable to lie down	**Perianal Paget's Disease**  • Histologically, PPD is characterized by large vacuolated cells with mucin content, called Paget cells.[18] • Clinical presentation of PPD is an erythematous plaque with squamous areas. • Anal itch.[20]

20. *Surukku Moolam* (Figure 20)

Puthumaiyaa yaasanaththai surukkik kondu
Perungkudalil valiyoodu porumalaagum
Kathumayaaai kudhandh thannir radippun daagum
Kazhalumay thaneerum rathandhthaanum
Vethumayaai vevvanalpo lazhandru kaanum
Vettrudambaai thaanveluththu verippundaagum
Padhumaipol thegamengum savu kodap
Panbaana surukkendra moolandh thaanay.

- Tightening of anal orifice
- Abdominal distension
- Watery and bloody diarrhoea
- Paleness of the skin

Anal Stenosis



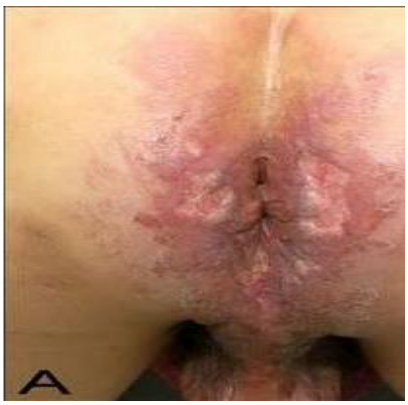
- Anal stenosis may follow almost any condition that causes scarring of the anoderm.
- Inflammatory bowel diseases may cause anal stenosis, particularly Crohn's disease. These stenoses are characterized by a transmural scarred inflammatory process.[21]

21. *Savvu Moolam* (Figure 21)

Surukkiyay mudhuguthandi lurpavaththu
Thoppuilay thaamaraipoo pola malrnthu
Arukkiyay kuttrila kaara maaki
Adivayitrir lngumay moola rogam
Sorukkiyay savvupola sanathiay
Suttriyay nindruthaan seeyundh thaneer
Parukkiyay kasivaagu mendhnae randhaan
Panbaana savvaagu moolandh thaanay.

- Pain starts in low back and it radiates to lower abdomen
- A membranous like structure in anus
- Pus and purulent discharge

Perianal Tuberculosis



- Anal pain or discharge
- Perineal ulcerations
- Bacilli invasion of the intestinal wall
- Generalized abdominal tenderness[22]

CONCLUSION

From the above comparative analysis, it is clear that the literatures of saint Yugi about the etiology signs and Symptoms, appearance of pile mass in *Eruvaimulainoi* (ano-rectal diseases) closely correlates with that the modern medical literatures. The signs and symptoms of the medical conditions mentioned in modern literature have already been scientifically validated. Therefore the saint Yugi's etiology, signs and symptoms appearance of pile mass in *Eruvaimulainoi* (an ano rectal disease) following the close lines of modern medical literature automatically stands validated. So it is need of the hour to focus n screening and diagnosing various types of *Eruvaimulainoi* (ano rectal diseases) mentioned by saint Yugi with respect to modern science to reach out various Siddha treatment strategies in successful manner.

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***Address for correspondence**
Dr A.Aishwarya
PG Scholar,
Department of Maruthuvam, National Institute of Siddha, Tambaram Sanatoruim, Chennai, Tamil Nadu, India.
Email:
draishwaryabalan6@gmail.com

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