A STUDY ON
THENDA VAATHAM

Dissertation Submitted To
THE TAMIL NADU DR.M.G.R Medical University
Chennai – 32

In Partial fulfillment for The Award of Degree of
DOCTOR OF MEDICINE (SIDDHA)
(Branch V - Noi Naadal)

DEPARTMENT OF NOI NAADAL
GOVERNMENT SIDDHA MEDICAL COLLEGE
PALAYAMKOTTAI – 627 002
MARCH 2009
ACKNOWLEDGEMENT

The author just starts her gratitude to the almighty for making it possible to bring out this dissertation successfully. Along with God the author have to recognize her parents here.

The author thank to esteemed authorities of Tamil Nadu Dr.M.G.R Medical University, Chennai for granting her the opportunity to execute this research work in the department of Noi Naadal, Government Siddha Medical College, Palayamkottai.

This study Thenda Vaatham is the outcome of her research work for M.D. Degree done under the supervision of professor Dr.R.Devarajan M.D(s)., Principal I/C and Head of the Post Graduate Department of Noi Naadal, Government Siddha Medical College, Palayamkottai.

The author express to thanks to our Vice Principal Dr.Soundararajan M.D. (s), Government Siddha medical College Palayamkottai.

The author express her whole hearted thanks to her Lecturer Dr.A.Vasuki Devi, M.D(s), for her valuable guidance for delivering this dissertation book in a successful manner, she inspired the author lot.
The author really fortunate and extremely happy in having as her lecturer Dr.S.K.Sasi, M.D(s), to whom, the whole credit must go for developing the study. Author takes this opportunity to acknowledge her sincere thanks to her lecturer for the constant enthusiasm guidance rendered throughout this dissertation work.

The author would like to record her special thanks to Dr.Rajasekar M.D.(s), whose inspiring words and encouragement in preparing this project

The author expresses her sincere thanks to Dr.Raja Pandian M.B.B.S., D.C.H., Rajan Hospital, Ambasamudram for his help in this dissertation work.

The author also grantful and profusely thanks to Dr.Paul Chandra M.B.B.S., D.G.O., Chandra Nursing Home, V.K.Puram, for her guidance.

The author also grateful to the lecturers and staffs of the Biochemistry Department and Clinical Pathology Department and technicians of Hospital Lab, Govt Siddha Medical College, Palayamkottai.

The author expresses her thanks to the Technicians of the Lotus Paramedical College Lab, V.K.Puram for their timely help for this dissertation work.
The author also grateful to the **Librarians**, Govt Siddha Medical College, Palayamkottai and District Central Library, Tirunelveli for providing her the necessary materials for the preparation of this dissertation.

The author would like to extend her special thanks to the **St. Jude’s Computer Research Institute** especially **Mr. Gopal Krishnan** for his assist in bringing out the book successfully.
INTRODUCTION

India, the land of “Unity in Diversity” popular not only for its tradition, heritage and culture but also famous for its traditional system of medicine called indigenous system of medicine. The unique nature of this system is its continuous service to humanity in computing discuses and in maintaining its physical, mental and moral health, while many of these contemporaries had completed their forces long ago.

The term “Siddhar” has been derived from the word “Siddhi” which means accomplished achieved or perfected success and so it refers to one who had attained his end in spiritual goal, they were mystics, yogis, poets, devotees, and medical men of various combinations.

The siddha system of medicine is not only curative, it also possess preventive and rehabilitation and Rejuvenation aspects of its own kind than other systems of medicine. Siddhars are not only scientists they are social reformers, physicians and chemists, they heal, cure and solve the human problems by their “Supernatural Power” called Siddhi
According to this, human body is composed of five basic elements viz earth, water, fire, air, and aakaayam. Human body is functioning on the homeostasis of three vital forces such as Vaatha, Pitha and Kaba. Any dearrangements in the homeostasis may lead to diseased condition called pini or noi.

Siddhars are classified the diseases into 4448 types. Siddhars diagnosing the diseases by means of Envagai Thervu which includes Naadi, Neerkkuri and Neikkuri the “Precise Diagnostic Tool” of siddhars. The treatment aspect involves the neutralization of affected humors.

The author has selected “Thenda Vaatham” which comes under the types of vaatha diseases in “Yugi Vaithiya, Chinthamani” for dissertation work. This dissertation deals with the basic principles of siddha medicine, the etiology, pathology of the disease and its diagnostic measures in concluding the disease as “Thenda Vaatham” with clinical measurements.
SIDDHA PHYSIOLOGY

Siddhars believed that five elements are the basic of the universe and every human being. Our ancient literature Tholkaapiyam also accepts the concepts of siddhars. The universe is a composition of five elements viz earth, air, water, ether and fire which are known as “Panchabootham” in siddha system. So the human body is a composition of this panchabootham.

According to siddha physiology man is considered as the microcosm. Universe is considered as the macrocosm. It shows that the human body is the replica of the universe.

Vethas reveal that one of the five elements combined with the other four elements in different proportions to form the human body. The basic reason for the soul resting in uyirthathu or jeevathathu. This uyirthathu divided into three thodas known as vaatham, pitham, kabam and acquires three characters (Mukkunam – Sathuva, rajo, thomal thereby it protects and develops the soul and body.

Each and every atom consists of 96 thathuvas. These 96 thathuvas are invisible to our naked eye until it is present in a single atom. Since it mingles or joins to form a multi cellular body and it gets larger size according to the shape and merges to act respectively.
Due to the combination of 96 thanuvas, soul originates, acquires, shape and multiplies to grow larger and finally gets a body to live and then performs its duties, multiplies its generations, gets its old ages and dies. Finally it reaches its initial stage where it was in primitive.

These 96 thanuvas are limited to all human beings in normal condition. This not only consists of the physical components of the human body but also the mental intellectual components like passions, qualities, knowledge, the functions of the sense organs, motor organs and their co-ordination.

The physiology of siddha system involves 96 basic factors, seven constituent elements, 14 reflexes, aru suvaigal, four udal thee and three udal vanmaigal.

“இந்திய முக்கிய விசாராணுஷ்கம்”
- விஜயகாந்திக் கோவால

**Thathuvas 96**

- Boothams - 5
- Pori - 5
- Pulan - 5
- Kanmenthiriyam - 5
- Gnanenthiriyam - 5
- Antha Karanam - 4
- Arivu - 1
- Naadi - 10
- Aasayam - 5
- Kosam - 5
They are

10 types of Vaatham
5 types of Pitham
5 types of Kabam

1. Abanan (Keelnokkungal)
   Tendency to move downwards, responsible for defaecation, micturition, menstruation, ejaculation of semen and ova.

2. Pranan (Uyirkkal)
   Regulates the respiratory system. It controls the knowledge, mind and five sensory organs.

3. Viyaanan (Paravukal)
   Spreads all over the body and is responsible for proper distribution of nutrition and for movements in all direction.
4. Udhaanan (Melnokkunkal)
   It is responsible for nausea, vomiting, hiccup, cough and sneezing.
5. Samaanan (Nadukkal)
   Responsible for proper digestion and it stabilizes the above said four vayus.
6. Naagan
   Helps in opening and closing of eyes. Intelligence of an individual.
7. Koorman
   Responsible for yawning, vision and closure of eyelids.
8. Kirugaran
   It is responsible for salivation, nasal secretions, hunger, sneezing, cough and concentration on a particular thing.
9. Deevadhathan
   Responsible for laziness, sleeping and anger.
10. Dhananjayan
    After death it escapes on the third day through the head.

**Types of Pitham**

- Anilam - It controls the appetite and help in digestion
- Ranjagam - It gives colour to the blood.
- Saathagam - It has the property of fulfillment and controls the body.
- Aalosagann - It is located in the eyes and responsible for visual perception.
- Praasagam - It gives complexion to the skin
**Kabam – 5**

- **Avalmbagam** – It is present in the lungs and is responsible for the basic function of the heart and other four types of kabam.
- **Kilethagam** – It is present in the Stomach. It makes the food wet and helps for digestion.
- **Pothagam** – It is present in tongue and is responsible for the sense of taste.
- **Tharpagam** – It is located in the head and keeps the eye cool.
- **Santhigam** – Located in the joints and responsible for free movements of the joints.

**Udal Thathus – 7**

Saaram, Senneer, Oonn, Kozhuppu, Enbu, Moolai and Sukkilam or Suronitham.

The thathus maintain the function of different organs, systems and vital parts of the body. They play a very important role in the development and nourishment of the body.

The thathus are also part of the biological protective mechanism with the help of agni, they are responsible for the immune mechanism. When one thathu is defective, it affects the successive thathu, as each thathu receives its nourishment from the previous thathu.

- **Saaram** – contains nutrients from digested food and nourishes all the tissues, organs and systems.
- Seneer – governs oxygenation in all tissues and vital organs and maintains life.
- Oonn – covers the delicate vital organs, performs the movements of the joints and maintains the physical strength of the body.
- Kozhuppu – maintains the lubrication and oilness of all the tissues and gives energy to the body.
- Enpu – gives support to the body structure.
- Moolai – fills up the body spaces and carries motor and sensory impulses.
- Suronitham (or) Sukkilam – contains the ingredients of all tissues and are responsible for reproduction.

**Vegams 14 – Urges**

Reflex is on involuntary response to stimulus. They are specific and predictable and are usually purposeful and adoptive. They depend upon an intact neural pathway between the point of stimulation and responding organ.

Our siddhars mention 14 vegams.

They are

- Vaatham - Flatus
- Thummal - Sneezing
- Siruneer - Urine
- Malam - Stool
- Kottavi - Yawning
- Pasi - Hunger
- Neer vetkkai - Thirst
Body fires 4

The normal digestive fire is called as sadaraakkini and it is a combination of samana vayu, analapitham and kilethagam.

Analapitham is predominant while samaana vayu takes the saaram to various parts of the body and maintain the function of udhaanan and abaana vayus and kilethagam moistures the food in the digestive process.

1. Samaakkini
2. Mandhaakkini
3. Deekshakkini
4. Vishamaakkini

Suvaigal 6 (Tastes)

Six tastes are arises from the panchaboothams. Each taste is the combination of two boothams.

Inippu (Sweet) - Mann + Neer
Pulippu (Sour)  - Mann + Thee
Uppu (Salt)   - Neer + Thee
Kaippu (Bitter) - Vaayu + Aakaayam
Kaarppu (Pungent) - Vaayu + Thee
Thuvarppu (Astringent) - Mann + Vaayu

**Udal Vanmai**

Udal vanmai is of three types
1. Iyarkai Vanmai
2. Seyarkai Vanmai
3. Kaala Vanmai

1) **Iyarkai Vanmai**

It is considered three gunagals - Sathuva, Raso, Thamo gunagsal. It denotes the natural immunity or stamina of the body at birth.

2) **Seyarkai vanmai**

Improving the health by nutritious food activities and medicine.

3) **Kaala Vanmai**

Development of immunity and stamina according to the age and environment.
SIDDHA PATHOLOGY

Our siddhars says that each physician should have a perfect knowledge of pathology for treat the patient. Otherwise the treatment will fail. This said by our siddhar as.

“எனினும் குறுகு வருகை
பரார்விலகிறல் விழுறைத்து
நிகழ்விளையான குறுகு
தோர்ந்த ஒழுங்கில் சுருக்கம்
பரார்விலகிறல் விழுறை
பல்புரோட்டாக வரக்கை
நிகழ்விளையான குறுகு
சிலமருந்து தோர்ந்த ஒழுங்கம்”
- சிறிக்கா புரோட்டாக

Siddha pathology deals with the diseased condition of the body, which is due to food alterations, seasonal and environmental variations, alteration in the 7 physical constituent’s withholding of the 14 reflexes and by personal behaviour. The disease is reflecting through the pulses. (i,e) the three humours. All the above factors are almost present in the pathogenesis of all the disease. So the author discusses in detail how they alter the physiology of the human body.

Food Variations

“புதியமாம் விகிதந்தக்கன் பார்விலகிறல் விழுறைத்து
தோர்ந்த ஒழுங்கில் பிடித்து குறுகு - சிறிக்கா புரோட்டாக
சிலமருந்து விகிதந்தக குறுகு தோர்ந்த ஒழுங்கம்
சிறிக்கா புரோட்டாக விழுறைத்து”
- Sour and astringent increases vaatham.
- Salt and bitter increases pitham.
- Pungent and sweet increases kabam

**Environmental variation**

The place where the people are living is also responsible for a disease. Thinai are classified into 5 types

- Kurinji – Kaba diseases
- Mullai – Pitha diseases
- Neythal – Vaatha diseases
- Marutham – No diseases will occur.
- Paalai – Mukkuttra diseases.

**Seasonal variations**

One year is classified into six seasons. Each are constituting two months. Alteration in characters of the three humours occurs due to seasonal variations.

<table>
<thead>
<tr>
<th>Humours</th>
<th>↑</th>
<th>↑↑</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaatham</td>
<td>Muthuvenil Kaalam</td>
<td>Kaarkaalam</td>
<td>Koodhir Kaalam</td>
</tr>
<tr>
<td>Pitham</td>
<td>Kaarkaalm</td>
<td>Koodhir Kaalam</td>
<td>Munpanikkaalam</td>
</tr>
<tr>
<td>Kabam</td>
<td>Pinpanik Kaalam</td>
<td>Ilavenil Kaalam</td>
<td>Mudhuvenil Kaalam</td>
</tr>
</tbody>
</table>

↑ Thannilai valarchi, ↑↑ Piranilai valarchi, N – Normal
Udal Thathukkal -7

The udal kattukal may be decreased or increased based on the nutrition that he gains or looses.

❖ Saaram

If increased, shows symptoms of increased kabam like decreased appetite, excess salivation and excessive sleeping.

If decreased, loss of weight, lassitude, dryness of the skin and the function of sense organs are diminished.

❖ Senneeer

If increased, blood pressure increases with red eye, haematuria, boils, tumours, spleenomegaly and jaundice.

If deceased there will be tiredness, dryness, anaemia and lassitude.

❖ Oon

If increased, excess growth around the cheek, face, abdomen, thigh, genitalia etc.

If decreased, muscle wasting with lethargic sense organs.

❖ Kozhuppu

If increased, identical features of increased oon, like excess growth around the cheek, neck, face, abdomen, thigh and genitalia occurs.

If decreased, loin pain, emaciation and spleenomegaly.

❖ Enbu

If increased, ossification and denitition are quickened.

If decreased, joint pain along with easy falling of nail, hair, and teeth.
❖ Moolai

If increased, heaviness of body, eye, swollen interphalangeal joints, oliguria and non-healing ulcers.

If decreased, osteoporosis and blurred vision.

❖ Venneer

If increased, excess sexual activity with calculi formation.

If decreased, there will be pain in the genitalia and failure to reproduce.

Vegangal 14

Reflexes are essential for the normal physiology when there is any self suppression to those reflexes that will lead to the pathological state.

❖ Vaatham – Flatus:

If the abaanavaayn is suppressed, chest pain, ulcer like pain, abdominal pain, body pain, constipation, dysuria and indigestion predominates.

❖ Thummal – Sheezing

If arrested leads to head ache, facial pain, and low back pain, neuritic pain in the sense organs are felt.

❖ Siruneer – Urine

If controlled it leads to urinary tract complications.

❖ Malam – Faeces

If suppressed, there will be pain aggrevated in knee joint, head ache, general weakness, flatulence and other diseases may also originate.

❖ Kottavi – Yawning

If controlled it leads to indigestion and maeganoi.
❖ **Pasi – Hunger**

If ignored, all organs will get tired and they will be affected soon. Though patina, (i.e) fasting is insisted, it is applicable only to a healthy normal person, allowing to take food once a day. Here the symptoms are due to prolonged fasting.

❖ **Neervetkai**

Without water, all cells of the body will get tired and pain may supervene.

❖ **Kaasam – cough**

If it is suppressed, it will aggravate the symptoms leading to chest pain.

❖ **Elaippu**

Without rest, it will lead to fainting and maega disease.

❖ **Nithirai**

All organs will get rest only during sleep. If disturbed, it will leads to headache, pain in the eyes, deafness and speech disturbances.

❖ **Vaanthi**

It suppressed, it will be lead to itching, anaemia, and eye diseases.

❖ **Kanneer**

If controlled, it leads to sinusitis, headache, eye disorders and chest pain.

❖ **Sukkilam**

If suppressed there will be joint pain, difficulty in urination, fever and chest pain.
Suvasam

If suppressed, cough, abdominal discomfort and anorexia may arise.

Thodam 3- Humous:

The three physical elements of the external world that is air, heat, water from the three fundamental principles on which the constitution of human being has been based. The three elements as they enter the body they are called tridhosam that is vaatham, pitham and kabam. The three humours maintain the human body through their combined functioning. Any imbalance in them bring about diseases.

Features of Exaggerated vaatham

Body pain, joint pain, pricking pain, astringent taste, darkening of motion and urine, difficulty in flexion and extension of limbs, generalized weakness, constipation and mental distress.

Features of Decreased vaatham

Pain in the body, low pitch voice, difficulty in doing work, impairment of intelligence, giddiness, syncope and symptoms of increased kaba.

Features of Exaggerated Pitham

Yellowish discolouration of eyes, skin, motion and urine, increased appetite, thirst, burning sensation all over the body, decreased sleep.

Features of Decreased Pitham

Manthakkini (ie) decreased digestion, cold, loss of appetite.
Features of Exaggerated Kabam

The body fire is decreased, increased salivation, feeling a sensation of body weight, becoming chill and pallor, dyspnoea cough, fullness of stomach and sleep supervenes.

Features of Decreased Kabam

Giddiness, dryness of joint, increased sweating and palpitation.
AIM AND OBJECTIVES

AIM

"நாக்பாசது வயத்தி இனக்கு"  

In Siddha medicine, vaatham is considered as the most primitive cause of the disease. According to aetiology, several types of Vaatha disease are classified by our siddhars – “Yugi” has identified eighty types of vaatha disease. Thenda Vaatham is one among them which has been taken up for study in this dissertation.

As vaatham is considered to be one of the eight magaa rogangal, the author has choosen a type of vaatha disease as the dissertation topic.

To collect and analyse the literature in siddha system.

To study and evaluate the highlights of pathogenesis that occurs in Thenda Vaatham. It is helpful for the clear understanding of the disease.

To have a plan for further studies on this disease.

To achieve this aim the following have been drawn.
OBJECTIVES

- To collect literatures about Thenda Vaatham Both (Siddha and Modern)
- To know the etiology, course of the disease Thenda Vaatham in general.
- To study the signs and symptoms, Pathology and complication of the disease on the basis of siddha aspect.
- To study the disease Thenda Vaatham on the basis of seven Physical constituents of the body, seasonal variations, age, sex, socio economic status, habits and family history.
- To support the study of disease by using modern parameters.
- To diagnose the disease Thenda vaatham by Envagai Thervugal mentioned in Siddha literatures.
ELUCIDATION ABOUT THENDA VAATHAM

Meanings for words

* தொட்டும்
  -  தொட்டும்

**கொட்டும்
  - Pestle, Body, Walking stick, rigid and stiff like a rod

**தொட்டும்
  - வெர்வேற்றும் விளையாடியும் Vertebral column,
A kind of Rheumatism characterized by great prostration in which the body is rendered like a log of wood, unable to stretch or fold the limbs and pass motion or urine. The whole body assumes a thorough rigidity as the stiffness appearing after death.

- *அறுப்பு –* Fundamental cause Nerve plexus in the body described as a four petalled lotus situated between the base of the sexual organ and the anus. One of the aatharam.

**இந்தியா! என்று பார்த்து கூறினார்**

"சோதனை செய்யும் காலச்சவரிசைநூல் மொழியால் தேவதை தோன்றி வேலையை நூற்றாண்டுகளை சில்லை பிறக்க வைப்பதற்கு கூடிய நாளை வெளிப்புற என்று பாடல்" 

The first chakra situated at the base of the spinal column and has the control of the excretory organs; the penis, the anus and the colon.
* Combine or Join together – குறிப்பிட்டுதல்
  To arise, To appear, To come near

** Copulation

* To rise up- பெருங்குழிப்படுத
  Shooting up, to float, to be superior

• Back - The region of the spine
  முக்கியம் பிற்குறும
  Middle place

* Head - கைல்

* Sweat - நிப்பாடம

* Bad nature - எள் சுசம

* Pain - தட்டி
  Hurt, Pity

* Body - குழு
  Colour

** To become confused and turgid – குழுவான
  Getting over ripe
** Weak - பொருளையுடைய

* Nature - மருத்துவம், Health
* Good quality, Beauty, Side, Place

** To be abundant - வாழ்த்து

Excessive

** To covet – To be strong wish for, Hanker after.

* Speed, Quickness - விளை

** Agitation of mind, Affliction, Sorrow

* To move slowly

To spread, To extend over

* To press out - அனுக்குத்திக

** To grow strong, becoming strong

* To appear, Encasing

** Well being

* Abundantly - பெருமான்

** Greately
* Walk – act of walking - கலந்துறுத்து
  Occupation
** Journey, Gate, Usage, Fashion, Custom, Nature

* Not permit

** As a bond

* Chest - சிற்றுது

* அளவு – Wide, Extent

* Denotes Tamil Lexicon Dictionary
** Denotes T.V.Sambasivam Pillai Dictionary

Meanings for Sentences

பொத்துமையிலும் மொழிய குறுக்குப் பதில்
  Pain arising from the sacroiliac joint

பாதியும் மொழிய குறுக்கு பதில்
  Pain rising up to the thoracic spine.

பிக்கியிலும் கரியம் மாறும் வில்லைப்பார்க்கு
  Pain in the head and sweating
Severe pain, body become contused

Body weakness

Yellow coloured urine and faeces

These are all the symptoms of Thenda Vaatham

Aggressive expulsion of urine and faeces due to repeatedly controls urged urine and faeces

Bowel disturbances

Forcible application of oil in the head

After oil application walk for long distance, vaatha is produced abundantly leads inability to walk.
It affects the nerves, bones and chest also.

**Meaning of this poem**

- Pain surges up from the sacroiliac region and ascends to involve the entire vertebral column
- Sweating
- Bodyache
- Fatigue
- Yellow coloured stool and urine
- Aggressive expulsion of urine and faeces due to repeatedly controls urged urine and faeces.
- It affects the nerves, bones and the chest.
REVIEW OF LITERATURES

In siddha medical literatures the classification and description of the disease conditions under the heading **VAATHA NOIGAL** numbering about 80 with slight variations in the different texts regarding the number 80 is found in the following sources.

1. Yugi vaithiya chinthamani- 80 types
   Perunool -800
2. Aayul vetham  1200  80 types
3. Thanvanthri vaithiyam  80 types
4. Jeeva Rakshamirtham  80 types
5. Theraiyar vaagadam  81 types
6. Anubava theva Ragasiyam  84 types
7. Ashtanga Sangiragam  85 types

In above all literatures, all the vaatha diseases are explained including Thenda vaatham.

1) According to **Thanvanthri Vaithiyam**

   "ஆவந்தைகள் அன்று அந்தியவை சீல் பல்கள்கற்கு
   இரண்டுகள் விளக்கும் காத்ரைகள் விளக்கியின் கருச்சலையின்
   இரண்டுகள் கூட்டி மூன்றுகள் பல்கள் விளக்கியின்
   இரண்டுகள் கூட்டி வந்து வந்து வந்து வந்து வந்து வந்து
   வந்து

   - Thanvanthri
2) According to AGATHIYAR AAYULVETHAM -1200

"கூராண்டு மாசிக்கு வேளுந்தராக வச்சு மலைந்து 
பாணி கூராண்டு பின்னி போன்று மாசிக்கு வேளுந்தராக வச்சு"

- Agathiyar

- Pain in the vertebral column.

3) According to SIKITCHARATHNA DEEPAM

- Pain in the Vertebral column
- Sweating
- Body ache
- Yellow coloured urine and faeces
- Body is rendered like a log of wood.
4) According to JEEVARATCHAMIRTHAM ANUPAVA
VAITHIYA THEVA RAGASIYAM –PART I

- Numbness
- Chillness
- Loss of memory
- Giddiness
- Emaciation
- Severe pain
- Anuria

5) According to ROGA NIRNAYA SAARAM

"…”

- T.R.Mahaadeva Pandithar

- Body is rendered like a log of wood.
6) According to **SEGARASA SEKARA VAIHYAM-THANNU VAATHAM**

"கலாந்தரிக்குண்டு குற்றிக் குற்றிக் விலங்கு நிலவுகின் கலாந்தரிக்குண்டு குற்றிக் விலங்கு வெள்ளிக்குருக்கு மாற்றுக் கலாந்தரிக் குற்றிக் நிலவு வசதியின் விலங்கு வெள்ளிக்குருக்கு குற்றிக் நிலவிலிருந்து"

- Seetharam Prasath

1. **புகழ்குடும்பு மேறி** - Pain in the vertebral column
2. **ஏை விலங்கு** - Body is rendered like a log of wood.
3. **எல்லை மேறி** - Body pain

7) According to **VAITHIYA SAARA SANGIRAHAM**

"கலாந்தரிக்குண்டு விளக்க குற்றிக் பாதித்தள்ளும்"

1. **புகழ்குடும்பு மேறி** - Pain in the vertebral column

8) According to **SAAMBA SIVAM PILLAI DICTIONARY**

A kind of Rheumatism characterised by great prostration in which the body is rendered like a log of wood, unable to stretch of fold the limbs and pass motion or urine. The whole body assumes a thorough rigidity as the stiffness appearing after death.
DETAILED PATHOLOGICAL VIEW OF
DISSERTATION TOPIC

Introduction about dissertation topic

The dissertation topic Thenda Vaatham comes under the vaatha diseases. So the author discuss about the Vaatham.

Vaatham

Vaatham is the major vital force of the body. It is formed by vaayu and aakaayam(wind and sky). It prevails all over the body. It is expelled through faeces. It is the root cause of all diseases.

Location

The vaatham lives in the place from Abaanan to navel.

“அம்மில் வெளியிலுள்ள வெள்ளையின் வாத்தம் வாய்வுத் தற்கொள்கையால் பதிக்கப்படுகிறது
அகழ்பத்துல் சார்ந்து பொருளியற்ற காட்டு வாத்தம்”

This also shows,

below novel in the place of vaatham.

“அகழ்பத்தில் வெளியிலுள்ள வாத்தமிடை”

- திசையைத்திசை

the vaatham lodges on faecal matter.

Generally Vaatham lives in

<table>
<thead>
<tr>
<th>Abaanan</th>
<th>Nervous system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edakalai</td>
<td>Joints</td>
</tr>
<tr>
<td>Kamakodi</td>
<td>Skin</td>
</tr>
<tr>
<td>Undiyin Keezh Moolam</td>
<td>Hair follicles</td>
</tr>
<tr>
<td>Hip region</td>
<td>Genetial organs</td>
</tr>
<tr>
<td>Bones</td>
<td>Stools</td>
</tr>
<tr>
<td>Muscles</td>
<td></td>
</tr>
</tbody>
</table>
Properties of Vaatham

“வாக்தம் தாரிக்கொள்ளும் வந்தைகளை தயாரிக்கும்
செய்கிறது மூலிகைகளை விடுபடும்
கொடுக்கும் சூழலத்தில் விடும் குரலும்பிடும்
வாக்தம் வாக்தம் வாக்தம் வாக்தம்”

In normal conditions vaatha gives encouragement to mind, controls breathing, expels 14 veges, gives coordination to seven udal kattugal and gives energy to the physical body.

Qualities of Vaatham

- Kadinam - Hard
- Varatchi - Dry
- Elaesu - Light
- Kulirchi - Cold
- Asaithal - Movement
- Anuthuvam - Subtleness

Vaatham and Suvai

There are six types of tastes appreciable. They are sweet, salt, sour, bitter, pungent and astringent.

Some suvaigal will aggravate vaatham and some suvaigal may neutralize vaatham. Further if the vaatham is increased, this itself will cause a alteration of taste in tongue, which is appreciable by the patient. So, suvaigal holds a separate place in diagnosing.

“சூழலில் படிப்பு மிகும் மூலிகை வாக்தம்”
- அகல்தினம் நீர்

“புளிகையான விளையான போச்சுக்கும் கூறு”
- வைப்பார

Sour, astringent and pungent tastes raising the vaatha dosha.
The vin and vali forms the vaatham and this exaggerated vaatham can be neutralized by tastes like sweet, sour, and salt.

“வாதம் வியோலிக் கருது பல்லி வழு”
- கல்குருநாயகம்

The basic concept behind this, among the Panchapoothams as vin and vaayu forms vaatham; the other poothas forming tastes are advisable to neutralize it. In sweet, sour, and salt, the vayu and vin doesn’t takes part.

Further the opposite qualities of vaatham, helps in neutralizing the exaggerated vaatham.

Miruthu - Softness  
Pasumai - Greasy  
Paluvu - Heavy  
Akkini - Heat  
Sthiram - Stable  
Katti - Solid

Classification

In classification, we can find different views regarding the number

In yugivaithya chinthamani, yugi says

“எண்ணாற் மாற்றும் எண்ணாற்றும்”

there are 80 types of vaatha. But in concluding section of the yugi vaithiya chinthamani, the number of vaatha diseases has been given as 84.

“அந்தப் பாதுகாப்புக்கு உதவு
அனுரூபம் கூட அன்னைக்காலங்கால”
But in “Siddha Maruthauvam” says the number as 85, while
describing the names and symptoms
In Agathiyar 2000,

“நான்கு வாதத்தில் நினைவும் பாதிக்கும் கல்லந்தல்
நான்கு அணையத் தெளிவு தருமத்தில்
என்ற கண்ணகத்து குடிய கருவாகத் செய்யும்
என்ற நான்கு கிளையாகத் காண்கிறது”

40 types vaatha diseases are in the upper half and 40 in the
lower half of the body and the total number is 80.

In Bohar Vaithiyam 700, says the number as 80

“நான்கு வாதத்தில் நினைவும் பாதிக்கும் கூறும்”

In Agathiyar Rathina Surukkam 500, says the number as 84.

“நான்கு வாதத்தில் நினைவும் பாதிக்கும் கூறும்”

Functions of Vaatham

- Body ache
- Pricking pain
- Tearing pain
- Nerve weakness
- Shivering
- Mental distress
- Dryness
- Movements
- Weakness
- Joints pain
- Traumatic pain
- Dislocation of joint
- Pilo erectin
- Paralysis of limbs
- Polydypsia
- Severe pain in calf and thigh muscles
- Bony pricking pain.
- Anuria and constipation
- Unable to do flexion and extension of the limbs
- All tastes to be like astringent
- Darkness of skin, eyes and urine.
- Excess salivation
- Weakness of organs
AETIOLOGY

In yugi vaithiya chinathamani and other literatures the author can not find any specific causes for Thenda vaatham. But in general causes for all types of vaatha diseases have been described. These are

- Sexual act, during abnormally increased condition of vaatha
- Walking for a long distance
- Exposure to Chillness

Excessive intake of curd, tubers, and fruits

Excessive intake of curd, tubers, and fruits
- Breach of trust
- Abusing the pious, elderly people, the priests and the holy spirits
- Exploitation of charitable properties
- Ingratitude toward mother, father and teacher

"தரைசலர் கவரியம் தம்பூப் எளியான்
தகவல் பெரிதறந்து கொண்டாடுகற்றான்
அதிரச்தர் தமிழ் பாறத்து சாக்கியான்
நூற்றன் நேற்றுநில் குல்ம மற்றும்
பாத்திரங்கள் குறைத்தந்த் பீர்சீ பிறந்த
பஞ்சிலிய பிறந்த்தந்த் பார் பிராணம்
திருசலர் சுதைப்புண்ணாக வரும் திருமலன்
சிதைப்பணம் மாணாக விருந்துக்குள்ளே கொண்டான்"

- Excessive intake of bitter foods, astringent foods and punget foods.
- Intake of dry and old cooked rice.
- Drinking raw rain water.
- Sleeping during day time.
- Awake during night
- Starvation
- Lifting of heavy loads and
- Sexual preoccupations

"தரைசலர் கவரியம் பிழ்காத்து விளையாடி
தங்களுக்கு மாற்றும் எளியான் கொண்டான்
அதிரச்தர் வருந்துகின்று சாக்கியான்
அதிரச்தர் விருந்துகின்று பீர்சீ பிறந்த்
அதிரச்தர் விருந்துக்குள்ளே கொண்டான்"
Disobedient attitude towards god,
Refusing food for destitutes and sanyasins
Disregarding the advice of priests,
Engaging in murdering, stealing and justful activities and lying

According to Agathiyar Kanma Kaandam - 300

In siddha system, many diseases are due to kanma, which means the good or bad committed by an individual in his previous and present births. The genetic dispositions of certain diseases are probably the result of kanma. According to the above versa, Vaatha disease may also be precipitated by kanma.

According to Para Rasa Sekaram
1. Excessive intake of foods with taste of kaippu, karppu and thuvarppu
2. Due to food toxicity
3. Cereals like varagu
4. Day time sleeping
5. Sleeplessness at night
6. Excessive eating
7. Fasting
8. Increased sexual activities
9. Constipation
10. Fear
11. Anger
12. Excessive sarrow
13. Polluted air
14. Alteration of diet habits, timing of food
15. Excessive intake of water
16. Increased intake of pulippu
17. Increased intake of ghee

For this dissertation work, the author consider all the causes for vaatha diseases which is mentioned in all the above literatures.
Pathogenesis of Thenda Vaatham

Siddha Aspect

AETIOLOGY

- Dietary Changes
- Seasonal Changes
- Hereditary
- Environmental Changes
- Suppression of 14 Urges
- Excessive intake of curd, tubers and roots.
- Walking for a long distance
- Exposure to chillness

DISTURBANCES IN MUKKUTTRAM ➔ UDAL THATHUKKAL ➔ THENDA VAATHAM

<table>
<thead>
<tr>
<th>Vaatham increased</th>
<th>Kabam increased</th>
<th>Pitham decreased</th>
</tr>
</thead>
<tbody>
<tr>
<td>Praanan - Dyspnoea, Loss of appetite</td>
<td>Avalambagam - Dyspnoea</td>
<td>Anilam - Loss of appetite</td>
</tr>
<tr>
<td>Abaanan - Loss of appetite, constipation</td>
<td>Kilethagam - Loss of appetite, fatigue.</td>
<td>Ranjagam - Pallor of the skin</td>
</tr>
<tr>
<td>Udhaanan - Dyspnoea</td>
<td>Tharpagam - Sweating in the Head</td>
<td>Prasakam - Dryness of the skin</td>
</tr>
<tr>
<td>Viyaanan - Fatigue, inability to walk</td>
<td>Santhigam - Pain in the spine, Restriction of movements.</td>
<td>Saathakam - Inability to walk.</td>
</tr>
<tr>
<td>Samaanan - Disturbances of other Vaayus.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Devathathan - Fatigue.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Saaram - Fatigue
Senneer - Fatigue, Pallor of the skin
Oon - Pain in the spine, inability to walk.
Kozhuppu - Emaciation
Enbu - Pain in the spine, Restriction of movements.
Moolai - Erosion and Sclerotic changes in the disc
Sukkilam/ Suronitham - Decreased sexual desire
THEORETICAL VIEW OF DISSERTATION TOPIC

Anatomy of vertebral column:

The vertebral column forms back bone of the body. It forms a part of the axial skeleton. It is made up of 33 pieces of vertebrae and in intervening intervertebral discs.

Length: It is 60 -70 cm. There are 7 cervical vertebrae 12 Thoracic vertebrae and 5 Lumbar vertebrae.

Five pieces of sacral vertebrae unit to form sacrum. Four pieces of coccygeal vertebrae unit to form the coccyx.

Curvatures of the vertebral column:-

Vertebral column is not straight. Its curvatures can be better appreciated from the side. The curvatures are classified into primary and secondary curvatures.

- Primary Curvatures:-

The thoracic and sacral curvatures are the primary curvatures. They are present at the time of birth.

- Secondary Curvatures:

The cervical and lumbar curvatures appear late due to functional needs. They are the secondary curvatures. The cervical curvature appears when the infant holds its head up after the third month and the lumbar curvature develops due to standing and walking. The lumbar curvature is also convex forwards and it appears by first year.
Joints of the vertebral column:

The vertebrae from the second cervical to the first sacral inclusive are articulated to one another by a series of cartilaginous joints between the vertebral bodies and a series of synovial joints. They are united by anterior and posterior longitudinal ligaments and by intervertebral discs of fibrocartilage.

**Intervertebral joints:**

Adjoining vertebrae are connected to each other at three joints. There is median joint between the vertebral bodies and two joints – right and left between the articular processes.

The joints between the articular processes are plane synovial joints. The joint between the vertebral bodies is a symphysis. (Secondary cartilaginous joint). The surfaces of the vertebral bodies are lined by thin layers of hyaline cartilage. Between these layers of hyaline cartilage there is a thick plate of fibrocartilage which is called the intervertebral disc.

**Intervertebral discs:**

These are fibrocartilagious disc which intervene between the bodies of adjacent vertebrae and bind them together. Their shape corresponds to that of the vertebral bodies between which they are placed. The thickness of the disc varies in different regions of the vertebral column and in different parts of the same disc. In the cervical and lumbar regions the discs are thicker in front than behind, while in the thoracic region they are of uniform thickness. The discs are thinnest in the upper thoracic region, and thickest in the lumbar region.
The discs contribute about one fifth of the length of the vertebral column. The contribution is greater in the cervical and lumbar regions than in the thoracic region.

Each disc is made up of the following three parts:
- Nucleus pulposus.
- Annulus fibrosus.
- Cartilage plate.

**Nucleus pulposus**
Is the central part of the disc. It is soft and gelatinous at birth. It is kept under tension and acts as a hydraulic shock absorber with advancing age, the elasticity of the disc is much reduced.

**Annulus fibrosus:**
It forms the peripheral part of the disc. Fibrous rings arranged concentrically around nucleus pulposus. It provides resilience to the intervertebral disc. It is firmly attached to the bodies of the adjacent vertebrae.

**Cartilage plate:**
They are situated on either side of the Nucleus pulposus. They are representing non-ossified parts of the vertebral epiphyseal plate.

**LIGAMENTS OF THE VERTEBRAL COLUMN:**
Apart from the intervertebral disc and the capsules around the joints between the articular processes, adjacent vertebrae are connected by several ligaments. They are
1. The anterior longitudinal ligament.
2. The posterior longitudinal ligament
3. The intertransverse ligaments.
4. The interspinous ligaments.
5. The supraspinous ligaments.
PHYSIOLOGY

Physiology is defined as a branch of science dealing with the study of normal functions of living organisms.

Physiology of the vertebral column

Functions

1. It forms the strong pillar on the back of the neck and trunk.
2. It protects the spinal cord and meanings.
3. It supports the body weight. It transmits the body weight to the pelvic -girdle.
4. It acts as a shock absorber.
5. Muscles and fascia are attached to it.
6. It forms the central axis of movement of the trunk.

Movements:

1. Flexion
2. Extension
3. Lateral Flexion
4. Rotation
Flexion and extension movements are taking place only in the cervical region, lumbar region, and thoraco-lumbar region.

**Intervertebral Discs**

Their physical characteristics permit them to serve as shock absorbers when the load on the vertebral column is suddenly increased, as when one is jumping from a height. Their elasticity allows the rigid vertebrae to move one upon the other. Unfortunately, their resilience is gradually lost with advancing age.

The semifluid nature of the nucleus pulposus allows it to change shape and permits one vertebra to rock forward (or) backward on another, as in flexion and extension of the vertebral column.
ANKYLOSING SPONDYLITIS

It is a chronic progressive and crippling disease affecting the spine. The exact etiology is unclear. Ankylosing spondylitis has been found to be more prevalent in certain races and hence shows a genetic predisposition. It is related to certain tissue types of the human leucocyte antigen (HLA) system. The majority of ankylosing spondylitis patients are found to belong to HLA B27 group.

**Alternative names**

Marie strumpell disease
Rheumatoid spondylitis
Ankylopoietica
Pocker back
Bamboo spine
Spondylitis and
Spondylo arthropathy

**Definition**

Ankylosing – Immobility and consolidation.

Spondylitis – Inflammation of one or more vertebrae.

Ankylosing spondylitis – chronic inflammatory disease that affects the joints between the vertebrae of the spine and the joints between the spine and the pelvis. It eventually causes the affected vertebrae to fuse or grow together. This results pain and stiffness in the neck and back.
Causes:

- Genetic predisposition is important.
- The disease is much more common in family members than in general population.
- Typically occurs in HLA - B_{27} positive subjects (90%) and in half of their first degree relatives (53%).
- Since classic anklosing spondylitis is sometimes associated with genetiourinary or bowel infection.

Clinical Features

- It occurs in 3^{rd} and 4^{th} decades of life
- More common in males than females
- Male, female ratio is 3:1
- The onset is usually insidious over months or years.
- Pain in the spine
- Body Stiffness
- Fatigue
- Pleuritic chest pain

Pathogenesis

- The pathogenesis of Ankylosing spondylitis is incompletely understood.
- A number of features of the disease implicate immune-mediated mechanisms, including elevated serum levels of Ig A and acute phase reactants, inflammatory histology, and close association with HLA - B_{27}. 
No specific event or exogenous agent that triggers the onset of disease has been identified.

Overlapping features with reactive arthritis and inflammatory bowel disease suggest that enteric bacteria, particularly "Klebsiella Pneumonia" are common in Ankylosing spondylitis patients.

Furthermore, antigenic interrelatedness between B27 and certain enteric bacteria has been documented, but it is not yet known whether these factors contribute to the pathogenesis of Ankylosing spondylitis.

Evidence that B27 plays a direct role is provided by finding that rats transgenic for B27 spontaneously develop spondylitis, along with colitis, peripheral arthritis and other lesions characteristic of the spondyloarthropathies.

**On examination**

The movements of the whole spine are limited, the sacrospinalis muscles are in spasm, but there is no point of localized tenderness in the spine. There is tenderness over one or both sacro-illiac joints. The chest expansion is diminished to less than 5 cms due to the involvement of the costovertebral joints one of the last joint to be affected is the temporo mandibular joint.
Pathology

HLA – B27 Positive Patients

Earliest and most characteristic changes in Sacro iliac joint
Sacroilitis

Gradually eroded sclerotic margins of the joint
Fibro cartilage regeneration
Ossification
Joint may be totally obliterated

Essential lesion in The spine

Inflammatory granulation tissue at the junction of the annulus fibrosus of the disc cartilage and the margin of vertebral bone
Outer annular fibers are eroded
Syndesmophyte
Bamboo spine
Other lesions
Diffuse osteoporosis, erosion of vertebral bodies at the disc margin
“Squaring” of vertebra
Inflammation and destruction of the disc-bone border

- Joints of the vertebral Column
- Vertebral ligaments
- Intervertebral discs
Complications

- Spinal Fracture
- Involvement of cervical spine leads to quadriplegia
- Cauda equino syndrome
- Anterior uveitis.
- Conjunctivitis.
- Prostatitis.
- Amyloidosis.
- Slowly progressive upper pulmonary lobe fibrosis.
- Cardiac conduction disturbances

Diagnosis

- Diffuse pain in the spine
- Limitation of all spinal movements
- Diminished chest expansion.

Investigation

- Blood
  - Raised ESR and Anaemia
- X-ray
  - Spine – Squaring of vertebra or Bamboo Spine
- CT
- MRI
EVALUATION OF DISSERTATION TOPIC

MATERIALS AND METHODS

The Disease Thenda Vaatham has been dealt in the book of “Yugi Vaidhya Chinthamani”.

Selection of patients

For this clinical study 20 patients of both sex at different age groups suffering from Thenda Vaatham were selected in the out patients department of Government Siddha Medical College, Palayamkottai and guided under the supervision of professor and Lecturer.

A detailed clinical history was taken from the patients are

- Pain and Stiffness in the back
- Nature of occurrence
- Mode of onset and
- Severity

In this study, detailed history was taken on

- Occupation
- Personal history
- Family history
- Repeated past history and
- Diet habits

Special attention was made to enquire about

- Trauma and
- Psychological stress

The following “Siddha Methods” of diagnosis were also employed. They are

- Nilam
- Paruvakaalam
- Poriyalarithal
- Pulanalarithal
In all patients of Thenda Vaatham, the following modern laboratory investigations available at the Government Siddha Medical College, Palayamkottai were done.

**BLOOD**
- Total White Blood Corpuscles (WBC)
- Differential WBC count
- Erythrocyte sedimentation Rate.
- Haemoglobin Estimation.
- Blood sugar
- Blood Urea
- Serum cholesterol

**URINE**
- Albumin
- Sugar
- Deposits

**MOTION**
- Ova
- Cyst

**RADIOLOGICAL FINDINGS**
In all the patients clinically diagnosed as Thenda Vaatham, X-ray of Sacro iliac joint, Lumbo-sacral (Antero-posterior and Lateral views) and cervical (Lateral view) were taken and the opinion of the Radiologist was obtained.
OBSERVATION AND RESULTS

1. Sex distribution

2. Age distribution

3. Kaalam

4. Paruvakaalam

5. Thinai

6. Occupational status

7. Socio economic status

8. Precipitating factors

9. Mode of onset

10. Clinical manifestations

11. Conditions of Mukkutram – Vaatham, Pitham and Kabam

12. Conditions of Udal thathukkal

13. Conditions of Envagai thervugal
1. Table 1: Illustrates SEX DISTRIBUTION and its relative percentage.

<table>
<thead>
<tr>
<th>S. No</th>
<th>SEX</th>
<th>No. OF CASES</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Male</td>
<td>12</td>
<td>60</td>
</tr>
</tbody>
</table>

For this dissertation study, 20 patients were selected, out of these, twelve patients (60%) were males. From the above table, it is clear, Males were mostly affected.

2. Table - 2 illustrates the AGE DISTRIBUTION and its relative percentage

<table>
<thead>
<tr>
<th>S.NO</th>
<th>AGE GROUP IN YEARS</th>
<th>NO.OF CASES</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>31-40</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>41-50</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>51-60</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>Above 60</td>
<td>4</td>
<td>20</td>
</tr>
</tbody>
</table>

Among 20 patients,

- 50% of cases were observed in the age group between 31-40 Years.
- 15% of cases were observed in the age group between 41-50 Years.
- 15% of cases were observed in the age group between 51-60 Years.
- 20% of cases were observed above 60 Years.

The above table makes clear that 60% of cases were between 31-50 years and 40% of cases were above 50 years.
3. **Table – 3** - Illustrates “KAALAM”

<table>
<thead>
<tr>
<th>S.NO</th>
<th>KAALAM</th>
<th>NO. OF PATIENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pitha Kaalam</td>
<td>17</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>(34-66 Years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Kaba Kaalam</td>
<td>3</td>
<td>15</td>
</tr>
</tbody>
</table>

It is obviously seen that most of cases (85%) were in the “Pitha Kaalam”.

4. **Table – 4** Illustrates the **SEASONAL INCIDENCE** of the disease.

<table>
<thead>
<tr>
<th>SL.NO</th>
<th>PARUVA KAALAM</th>
<th>MONTHS</th>
<th>NO. OF PATIENTS</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Muthuvenil Kaalam</td>
<td>Aani, Aadi</td>
<td>14</td>
<td>70</td>
</tr>
<tr>
<td>2</td>
<td>Kar Kaalam</td>
<td>Aavani, Purattasi</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>Elavenil Kaalam</td>
<td>Chithirai, Vaikasi</td>
<td>3</td>
<td>15</td>
</tr>
</tbody>
</table>

- 70% of cases were admitted in Muthuvenil Kaalam.
- 15% of cases were admitted in Kar kaalam.
- 15% of cases were admitted in Elavenil Kaalam.

5. **Table – 5** Illustrates the “THINAI”

<table>
<thead>
<tr>
<th>SL.NO</th>
<th>THINAI</th>
<th>NO. OF CASES</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Marutham</td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td>2</td>
<td>Kurinji</td>
<td>5</td>
<td>25</td>
</tr>
</tbody>
</table>

- 75% of cases from Maruthanilam.
- 25% of cases from Kurinji
6. Table – 6 Illustrates the patient’s OCCUPATION,

<table>
<thead>
<tr>
<th>SL.NO</th>
<th>OCCUPATION</th>
<th>NO.OF CASES</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>House Wife</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>2</td>
<td>Coolies</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>Drivers</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>Others</td>
<td>3</td>
<td>15</td>
</tr>
</tbody>
</table>

From the above table, it was observed

❖ 40% of cases were House Wife.
❖ 25% of cases were coolies.
❖ 20% of cases were Drivers.
❖ 15% of cases were others.

7. Table – 7 Illustrates the SOCIO-ECONOMIC status

<table>
<thead>
<tr>
<th>SL.NO</th>
<th>SOCIO-ECONOMIC STATUS</th>
<th>NO.OF CASES</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Poor</td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td>2</td>
<td>Middle Class</td>
<td>5</td>
<td>25</td>
</tr>
</tbody>
</table>

From the above, it is clear that poor class were mostly affected.

8. Table – 8 Illustrates the PRECIPITATING FACTORS.

<table>
<thead>
<tr>
<th>SL.NO</th>
<th>PRECIPITATING FACTORS</th>
<th>NO.OF CASES</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Occupation</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>3</td>
<td>Age Factor</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>2</td>
<td>Trauma</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>Idipathic</td>
<td>4</td>
<td>20</td>
</tr>
</tbody>
</table>
9. Table -9 Illustrate the MODE OF ONSET

<table>
<thead>
<tr>
<th>SL.NO</th>
<th>MODE OF ONSET</th>
<th>NO.OF CASES</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gradual</td>
<td>12</td>
<td>60</td>
</tr>
<tr>
<td>2</td>
<td>Acute</td>
<td>8</td>
<td>40</td>
</tr>
</tbody>
</table>

Most of the cases had gradual onset of Thenda vaatham.

10. Table – 10 Illustrates the CLINICAL MANIFESTATIONS.

<table>
<thead>
<tr>
<th>SL.NO</th>
<th>SIGNS AND SYMPTOMS</th>
<th>TOTAL NO.OF CASES</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Diffuse pain in the back</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Tenderness over the sacroiliac joints</td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td>3</td>
<td>Constipation</td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td>4</td>
<td>Whole spinal movements limited</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>Diminished chest expansion</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>6</td>
<td>Curvature of spinal deformities</td>
<td>3</td>
<td>15</td>
</tr>
</tbody>
</table>

- 100% of cases had diffuse pain in the back.
- 75% of cases had tenderness over the sacroiliac joints and constipation.
- 50% of cases had limited whole spinal movements to bend forward and backward and diminished chest expansion.
- 15% of cases had curvature of spinal deformities,
11. CONDITIONS OF MUUKUTRAM

Table 11: VAATHAM - Increased

<table>
<thead>
<tr>
<th>SL.NO</th>
<th>VAATHAM</th>
<th>NO.OF CASES</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Praanan</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Abaanan</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>Viyaanan</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>Samaanan</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>Devathathan</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>6</td>
<td>Uthaanan</td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td>7</td>
<td>Kirukaran</td>
<td>15</td>
<td>75</td>
</tr>
</tbody>
</table>

Derangement of Praanam, Abaanan, Viyaanan, Samaanan and Devathathan were found in 100% of cases.

Derangement of Uthaanan and Kirukaran were found in 75% of cases.

Table 12: KABAM – Increased

<table>
<thead>
<tr>
<th>SL.NO</th>
<th>KABAM</th>
<th>NO.OF.CASES</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Avalambagam</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Kilethagam</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>Santhigam</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>Pothagam</td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td>4</td>
<td>Tharpagam</td>
<td>15</td>
<td>75</td>
</tr>
</tbody>
</table>

Avalambagam, Kilethagam Santhigam were affected in 100% of cases.

Pothagam and Tharpagam were affected in 75% of cases,
Table 13: PITHAM – Decreased

<table>
<thead>
<tr>
<th>SL.NO</th>
<th>PITHAM</th>
<th>NO.OF CASES</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Anila Pitham</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Saathaga Pitham</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>Ranjaga Pitham</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>4</td>
<td>Aalosaga Pitham</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>Prasaga Pitham</td>
<td>10</td>
<td>50</td>
</tr>
</tbody>
</table>

- Anila Pitham and Saathaga Pitham were affected in 100% of cases.
- Ranjaga pitham, Aalosaga Pitham and Prasaga pitham were affected in 50% of cases.

12. CONDITIONS OF UDAL THATHUKKAL

Table – 14

<table>
<thead>
<tr>
<th>SL.NO</th>
<th>UDAL THATHUKKAL</th>
<th>NO.OF CASES</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Saaram</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Senneer</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>Oon</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>Kozhuppu</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>Enbu</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>6</td>
<td>Moolai</td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td>7</td>
<td>Sukkilam / Suronitham</td>
<td>15</td>
<td>75</td>
</tr>
</tbody>
</table>

- Saaram, Senneer, Oon, Kozhuppu and Enbu were affected in 100% of cases.
- Moolai and Sukkilam / Suronitham were affected in 75% of cases.
13. CONDITIONS OF ENVAGAI THERVUGAL:

Table – 15 illustrates the conditions of Envagai Thervugal.

<table>
<thead>
<tr>
<th>SL.NO</th>
<th>ENVAGAI THERVUGAL</th>
<th>NO.OF CASES</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Naa</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>Niram</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>Mozhi</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Vizhi</td>
<td>13</td>
<td>65</td>
</tr>
<tr>
<td>5</td>
<td>Sparisam</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>6</td>
<td>Malam</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>7</td>
<td>Moothiram</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>8</td>
<td>Naadi - Vaathakabam</td>
<td>20</td>
<td>100</td>
</tr>
</tbody>
</table>

- Naa was affected in 50% of cases,
- Niram was affected in 50% of cases,
- Vizhi was affected 65% of cases,
- Sparisam was affected in 100% of cases,
- Malam was affected in 50% of cases,
- Moothiram was affected in 45% of cases,
- In 100% of cases, Naadi was vaathakabam.

Neikuri showed that the oil dropped into the urine spreaded like a snake with muthu indicating the predominance of vaathakabam
### Table-16 Laboratory Investigations

<table>
<thead>
<tr>
<th>Case. No</th>
<th>TC Cells cu.mm</th>
<th>Haematological Report</th>
<th>Bio Chemical</th>
<th>Urine Analysis</th>
<th>Stools Examination</th>
<th>Radiological findings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>DC %</td>
<td>Hb %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>P %  L %  E %</td>
<td>½ hr mm 1hr mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>7600</td>
<td>54 32 4</td>
<td>20 40</td>
<td>63</td>
<td>110 25</td>
<td>Nil Nil NAD</td>
</tr>
<tr>
<td>2</td>
<td>8600</td>
<td>54 30 2</td>
<td>6 12</td>
<td>74</td>
<td>110 32</td>
<td>Nil Nil NAD</td>
</tr>
<tr>
<td>3</td>
<td>8800</td>
<td>56 35 4</td>
<td>45 85</td>
<td>65</td>
<td>100 30</td>
<td>Nil Nil NAD</td>
</tr>
<tr>
<td>4</td>
<td>9400</td>
<td>65 32 3</td>
<td>10 21</td>
<td>66</td>
<td>100 34</td>
<td>Nil Nil NAD</td>
</tr>
<tr>
<td>5</td>
<td>8300</td>
<td>60 38 2</td>
<td>9 18</td>
<td>68</td>
<td>110 19</td>
<td>Nil Nil NAD</td>
</tr>
<tr>
<td>6</td>
<td>8400</td>
<td>54 49 3</td>
<td>2 5</td>
<td>62</td>
<td>110 34</td>
<td>Nil Nil NAD</td>
</tr>
<tr>
<td>7</td>
<td>8500</td>
<td>56 32 4</td>
<td>10 20</td>
<td>65</td>
<td>90 32</td>
<td>Nil Nil NAD</td>
</tr>
<tr>
<td>8</td>
<td>8400</td>
<td>56 38 2</td>
<td>10 20</td>
<td>68</td>
<td>120 25</td>
<td>Nil Nil NAD</td>
</tr>
<tr>
<td>9</td>
<td>8200</td>
<td>54 34 4</td>
<td>8 16</td>
<td>70</td>
<td>100 27</td>
<td>Nil Nil NAD</td>
</tr>
<tr>
<td>10</td>
<td>9200</td>
<td>60 32 4</td>
<td>60 130</td>
<td>75</td>
<td>100 28</td>
<td>Nil Nil NAD</td>
</tr>
<tr>
<td>11</td>
<td>7800</td>
<td>60 36 2</td>
<td>5 10</td>
<td>76</td>
<td>100 30</td>
<td>Nil Nil NAD</td>
</tr>
<tr>
<td>12</td>
<td>9400</td>
<td>58 38 4</td>
<td>5 10</td>
<td>74</td>
<td>90 26</td>
<td>Nil Nil NAD</td>
</tr>
<tr>
<td>13</td>
<td>7400</td>
<td>58 34 4</td>
<td>18 36</td>
<td>70</td>
<td>95 28</td>
<td>Nil Nil NAD</td>
</tr>
<tr>
<td>14</td>
<td>8400</td>
<td>54 30 2</td>
<td>6 12</td>
<td>70</td>
<td>100 27</td>
<td>Nil Nil NAD</td>
</tr>
<tr>
<td>15</td>
<td>8800</td>
<td>58 34 8</td>
<td>5 10</td>
<td>82</td>
<td>95 30</td>
<td>Nil Nil NAD</td>
</tr>
<tr>
<td>16</td>
<td>7900</td>
<td>62 34 4</td>
<td>6 12</td>
<td>68</td>
<td>120 28</td>
<td>Nil Nil occ. epi. cells</td>
</tr>
<tr>
<td>17</td>
<td>8600</td>
<td>58 36 4</td>
<td>22 24</td>
<td>68</td>
<td>95 28</td>
<td>Nil Nil NAD</td>
</tr>
<tr>
<td>18</td>
<td>8600</td>
<td>56 34 2</td>
<td>6 12</td>
<td>68</td>
<td>80 38</td>
<td>Nil Nil NAD</td>
</tr>
<tr>
<td>19</td>
<td>8800</td>
<td>58 49 3</td>
<td>2 5</td>
<td>85</td>
<td>120 32</td>
<td>Nil Nil occ. puscells</td>
</tr>
<tr>
<td>20</td>
<td>9600</td>
<td>54 38 2</td>
<td>9 18</td>
<td>68</td>
<td>90 36</td>
<td>Nil Nil NAD</td>
</tr>
</tbody>
</table>

AS – Ankylosing spondylitis  
WDS – Widening of the disc space  
S – Scoliosis  
LS – Lambar Spondylosis  
SI – Sacroilitis  
SC – Spondylytic changes  
AS with BS - Ankylosing spondylitis with Bamboo spine  
DP – Disc prolapse  
LC – Ligamental calcification  
61
Differential Diagnosis

In Asuvathamba vaatham, eventhough pain in the spine, body stiffness and body ache are associated with pallor of the body, giddiness, cough with expectoration, fever and chillness are present. The special symptoms of Thenda Vaatham such as inability to walk, restricted chest movements are not present.
In Vathasthambam, eventhough pain in the spine, body stiffness and body ache are associated with pain in the posterior upper part of the leg and swelling are present. The special symptoms of Thenda Vaatham such as inability to walk, restricted chest movements are not present.

<table>
<thead>
<tr>
<th>Disease</th>
<th>Positive symptoms</th>
<th>Negative symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asuvathamba vaatham.</td>
<td>Pain in the spine</td>
<td>Cough Fever</td>
</tr>
<tr>
<td></td>
<td>Body stiffness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pallor of the body</td>
<td></td>
</tr>
<tr>
<td>Vathasthambam</td>
<td>Pain in the spine</td>
<td>Pain in the posterior</td>
</tr>
<tr>
<td></td>
<td>Body stiffness</td>
<td>upper part of the leg.</td>
</tr>
<tr>
<td></td>
<td>Bodyache</td>
<td>Oedema</td>
</tr>
</tbody>
</table>
DISCUSSION

Yugi muni has classified the diseases into two types. They are

1. Functional disorders
2. Organic invasions

The functional units of our body are the three vital humours which are vaatham, pitham and kabam. Any disturbances in the vital humours will affect the function of the organs.

Vaatham is the initiator of all activities of our body. It is important in the communication network of the body, from sense organ to brain and tissue to tissue and cell to cell.

Thendavaatham is one of the vaatha diseases affecting the vertebrae. It is characterized by diffuse back pain with stiffness and involves sacroiliac joints and ascends to involve the entire vertebral column.

The research evidence of this disease is found in Yugi’s classification of vaatha diseases in the Yugi vaidhya chinthamani, in which the aetiology and the clinical features are dealt with. This dissertation work includes a research collection of views both Siddha and Modern Science.

Among 20 cases diagnosed clinically in the out patient department as Thedavaatham, as per the symptomatology and the “Envagai Thervu” and other siddha methods of diagnosis and also modern radiological findings.
Age and sex distribution:

Among the 20 cases, 60% were males and 40% females and they belong to different age groups from 30-70 and the highest incidence of onset of a disease occurs between 30-40 yrs.

Kaalam:

According to this concept 85% of cases were noted in the pithakaalam (34 to 66 years).

Paruvakaalam:

15% of cases were affected in kaarkaalam, 15% of cases were affected in Elavenil Kaalam, 70% of cases were affected in Muthu Venilkaalam.

According to Siddha System

As said in the literatures, maximum number of Thenda vaatham patients were affected in muthuvenil kaalam (Aani and Aadi).

Thinai:

75% of cases were from maruthanilam and 25% of cases from kurinji. Marutham is the area, where the severity of the disease is less,
but this incidence may be due to the alteration in the food, habit and other activities.

**Socio- Economic Status:**

75% of cases were belonging to poor class. 25% of cases were belonging to middle class family. Poor patients were mostly affected because of unhygeine and lack of nutritious food.

**Aetiology:**

Most of the patients were affected by HLA B27 antigen. Some patients were affected by trauma, physical strain and age factor.

**Clinical manifestations:**

Cent percent of patients had diffuse back pain, 75% cases had tenderness over the sacro iliac joints, 75 of cases had constipation, 50% of cases had whole spinal movement’s limitation, 15% of cases had curvature of spinal deformities and 50% of cases diminished chest expansion.

**Uyir thathukkal:**

Uyir thathukkal constitute three vital humours mentoend in siddha system namely vaatham, pitham and kabam.

**Disturbances in vaatham :**

- **Praanan** was affected in 100 % of cases and produces dyspnoea.
❖ Abaanan was affected in 100% of cases and produces loss of appetite.
❖ Viyaanan was affected in 100% of cases and produces fatigue and difficulty in walking.
❖ Udhaanan was affected in 75% of cases and produces dyspnoea.
❖ Samanan was affected in 100% of cases and produces loss of appetite.
❖ Kirukaran was affected in 75% of cases and produces altered sense of taste and excessive salivation.
❖ Devathathan was affected in 100% of cases and produces fatigue.

Disturbances in kabam:
❖ Avalambagam was affected in 100% of cases and produces dyspnoea.
❖ Kilethagam was affected in 100% of cases and produces fatigue and loss of appetite.
❖ Pothagam was affected in 75% of cases and produces altered sense of taste.
❖ Tharpagam was affected in 75% of cases and produces sweating in head.
❖ Santhigam was affected in 100% of cases and produces pain in the spine and restriction of the movements.

Disturbances in pitham:
❖ Anilam was affected in 100% of cases and produces loss of appetite.
- **Ranjagam** was affected in 100% of cases and produces pallor of the skin.
- **Alosagam** was affected in 50% of cases and produces disturbances in forward vision.
- **Prasagam** was affected in 50% of cases and produces dryness of the skin.
- **Saathagam** was affected in 100% of cases and produces difficulty in walking.

**Udal thathukkal / Udal kattugal:**

Saaram, Senneer, Oon, Kozhuppu, Enbu, Moolai and Sukkilam or Suronitham are the 7 udal thathukkal.

1. **Saram** was affected in 100% cases and produces fatigue.
2. **Senneer** was affected in 100% cases and produces pallor of the skin.
3. **Oon** was affected in 100% of cases and produces pain in the spine.
4. **Kozhuppu** was affected 100% of cases and produces emaciation.
5. **Enbu** was affected in 100% of cases and produces pain in the spine and restriction of the movements.
6. **Moolai** was affected in 75% of cases and produces erosion and sclerotic changes in the disc.
7. **Sukkilam / Suronitham** was affected in 75% cases and produces decrease sexual desire.
**Envagai thervugal**

The important criteria for the diagnosis of the disease are envagai thervugal. This constitutes Naadi, Naa, Niram, Mozhi, Vizhi, Sparism, Malam and Moothiram.

- **Naadi**
  20 patients showed vaathakabam naadi.

- **Naa**
  Naa was affected in 50% of cases. Tongue was coated and pale in colour due to constipation and anaemia respectively.

- **Niram**
  Niram was affected in 50% of cases, due to anaemia.

- **Mozhi**
  Mozhi was normal.

- **Vizhi**
  Vizhi was affected in 75% of cases due to anemia.

- **Sparism**
  Sparism was affected in 100% of the cases, which show joint tenderness and warmthness over the inflamed joints.

- **Malam**
  Malam was affected in 50% of cases and constipation was present in some cases.

- **Moothiram**
  Moothiram was affected in 45% of cases which produces incontinence of urine.

  Neerkuri and neikuri were noticed in all the 20 cases and neerkuri was found to be normal.
Neikuri showed that the oil dropped into the urine was spreading like a snake with muthu.

**Laboratory investigations:**

Routine examination of blood, urine and stools were done. Examination of stools showed no abnormalities.

In the blood 50% of cases had increased ESR and 50% of cases had decreased Hb%.

Blood sugar, Blood urea, Serum cholesterol were also done. The patients were also subjected to radiological investigations.

**X-ray findings:**

In all the patients clinically diagnosed as Thenda Vaatham.

X-ray of sacro iliac and lumbo sacral joint (Antero - posterior view and Lateral view). Patients had different abnormalities. i.e sacro ilitis, erosions and sclerosis, widening of joint space and bony ankylosis supervene.

In mild cases, sacro iliac abnormalities were present. Computed tomography (CT) and Magnetic Resonance imaging (MRI) can detect early stage abnormalities of Ankylosing Spondylitis.
CONCLUSION

❖ The disease Thenda vaatham was taken for the clinical study with reference in Yugi Vaidhya Chinthamani. The disease is correlated with Ankylosing Spondylitis in allopathic view. The clinical diagnosis was done on the basis of clinical features described in “Yugi vaidhya chinthamani – 800”.

❖ The aetiology, pathology, pathogenesis, clinical features, classification and prognosis of the disease were collected from a number of literatures both in Siddha System as well as in modern system of medicine.

❖ For this study twenty cases were diagnosed clinically in the out patients and inpatients ward.

❖ The selection of cases was carried out under the supervision of professor, and Lecturers of Post Graduate Noi Naadal Department.

❖ A case sheet proforma was prepared with particular reference to focusing Siddha and modern clinical parameters.

❖ Separate case sheets were maintained for each patient and monitoring of vital signs, symptoms and signs and they are recorded in data.
From this study the following datas were clear, that the disease was more common in males (60%).

Maximum incidence of age was between 3rd and 5th decade. i.e in Pithakaalam (85%). The incidence of the disease was higher in summer (Muthuvenil column- 70%).

Routine blood examination, Estimation of Blood Sugar, Blood Urea, Serum Cholesterol and investigation of urine, motions were also considered for diagnosis.

Siddha diagnosis was made with the help of Envagai thervugal especially with Naadi and Neikuri.
NEIKURI

Case No : 17

Case No : 6
PROTOCOL

“A STUDY TO DIAGNOSE THENDA VAATHAM THROGUH SIDDHA DIAGNOSTIC METHODOLOGY”

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1. BACKGROUND

THENDA VAATHAM

Thenda Vaatham is one of the vali disease in which the vali humour is abnormally changed.

According to the literature Yugi Vaithiya Sinthamani, Thenda Vaatham has been mentioned as.

“அமர்க்களை வலையுண்டு ஓராயம் ப்புது
மாலிகைம் வேறு நிழல் பெரும்பானைத்
செழுந்தை விளக்கி வன்வலி வலையுண்டு
மாலிகை வேறு நிழல் பெரும்பானை
பல்லதை அமர்ந்தையுண்டு பெரும்பானை
மாலிகைம் வேறு நிழல் பெரும்பானை
செழுந்தை விளக்கி வன்வலி
அமர்ந்தை வேறு நிழல் பெரும்பானை
பல்லதை அமர்ந்தையுண்டு
மாலிகைம் வேறு நிழல் பெரும்பானை
செழுந்தை விளக்கி வன்வலி
அமர்ந்தை வேறு நிழல் பெரும்பானை
பல்லதை அமர்ந்தையுண்டு
மாலிகைம் வேறு நிழல்
பெரும்பானை
செழுந்தை
லெக்கு
பல்லதை
அமர்ந்தை
It shows symptoms such as pain which surges up from the sacroiliac region and ascends to involve the entire vertebral column, Sweating, Bodyache, Pallor, Yellow coloured stool and urine, Aggressive expulsion of urine and faeces due to repeatedly controls urged urine and faeces. It affects the nerves, bones and the chest.

2. AIMS

a. Primary Aim

To diagnose the Thenda Vaatham through Envagai thervu along with abnormalities of Mukkutram and Udalthathukkal.

b. Secondary Aim

To evaluate the etiology, Pathology and to analyse the state of curability in Thenda Vaatham through Age, Naadi, Nilam, Kaalam, Neerkkuri, Neikkuri, Manikkadai Nool and Sothidam.

3. POPULATION AND SAMPLE

Thenda Vaatham (as explained above the poem) patients, satisfying the inclusion and exclusion criteria mentioned below.

The sample consists of Thenda vaatham Patients attending the O.P department of Government Siddha Medical College, Palayamkottai, under the guidance of Faculties and Head of the Department of Post Graduate, Noi Naadal Department.

4. SAMPLE SIZE

A sample size of 30 patients will be taken for detailed study.

5. INCLUSION CRITERIA

- Complaints – more than 1 year.
- Willing to give Blood, Urine specimen and X-ray for investigation whenever required.

6. EXCLUSION CRITERIA

- Lumbar Spondylosis
• Ankylosing spondylitis associated with T.B.Spine.

7. CONDUCT

Thenda Vaatham patients satisfying the inclusion and exclusion criteria will be included in this study. Envagai thervu, Nilam, Kaalam, Sothidam and Manikkadai Nool of the Patients will be noted.

8. FORM

Form – Diagnostic Proforma for Thenda Vaatham
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