

**A STUDY ON
PITHA KAASAM**

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INTRODUCTION

“என்னுடை மனது புத்தி யிந்திரிய சரீர மெல்லாம்
என்னுடை யறிவி னாலே யிரவிமுன் னிமமே யாக்கி
என்னுடை நீயு நானு மேகமென் றைக்கியஞ் செய்ய
என்னுடை குருவாய்த் தோன்று மீசனை யிறைஞ்சி னேனே”

- கைவல்ய நவநீத வசனம்

Life is a divine. It's our duty to achieve the goal of life by healthy way to living. The siddha system of medicine well known for its simplicity and credibility speaks much of healthy life style by promoting physical and mental well being.

“அண்டத்தி லுள்ளதே பிண்டம்
பிண்டத்தி லுள்ளதே அண்டம்
அண்டமும் பிண்டமும் ஒன்றே
அறிந்துதான் பார்க்கும் போதே”

- சட்டமுனி ஞானம்

So the changes that occur in the universe will affect the physical body also. Hence the body will get upset (or) alter from normal, if there is any adverse change in the universe. Since both of them are formed by the same elements in different proportions.

The origin of the siddha system of medicine is on the ancient lemorian continent and it was invented by the great ancient tamil scientist the siddhars. They developed this unique system of medicine by their supernatural powers from time immemorial.

“பார்ப்பா பூதமைந்து மண்நீர் தேயு
பரி வாயு வாகாயம் ஐந்தினாலேயே
சேர்ப்பா சடமாச்சே”

- சதக நாடி நூல்

The fundamental principle of the siddha science involves the five elements namely Mann, Neer, Thee, Kattru and Aagayam. Which are present in both beings –the microcosm and universe – the macrocosm. Therefore all created or evolved in this world fall with in the five elemental categories. Of these, the constituents of air, fire and water in the body from the three humours viz. Vaatham, Pitham and Kabam. The three fundamental principles on which the constitution of the human being is based.

The three humors are supposed to be in proportion of in healthy

Vaatham	1
Pitham	½
Kabam	¼

individual, and then they are known as ‘Muthathus’ But when this equilibrium is altered or their proportion are deranged, these are known as ‘Mukkutram’, which ultimately causes illness or disease.

“மெய்யளவு வாத மொன்று
மேல் பித்த மோரரையாம்
ஐயம் காலென்றே அறி”

Thus for the maintenance of these three humours in a state of equilibrium a reasonable knowledge in the physiology of the body is essential.

But in the given circumstances the high level of environmental degradation, westernised life styles and scant regard for social and moral values, it is highly impossible to maintain a healthy life. Hence to revert the deranged three humors to its state of equilibrium, material medica plays an important role. In the siddha science, the material medica consists of herbs, minerals and animal products, which are used in 64 types of medicines, of which 32 varieties are internal and 32 varieties, are external forms. There are lakhs of formulations of siddha medicines in literatures and the siddhars are considered to be the pioneers in the use of metal and minerals in the treatment of disease.

The knowledge of material medica loses its significance and value, if the quality and quantity of the deranged mukkutram cannot be assessed or in other words, the disease is not diagnosed accurately. Thus the science of NOI NAADAL, which deals with the approach to the process of diagnosis, plays a monumental role in realising the paramount aim and objective of siddha science, which is to assume a full span of hundred years of healthy life.

Noi Naadal means approach to the disease and Noi Mudhal Naadal denotes the determination of the etiology of the disease. The basic pathology of a disease lies in the alteration of the quality and quantity of the thathus, and the assessment of their various dimension forms the essential part of diagnosing a disease. An effect line of treatment can be formulated, only when the uniqueness of the individual and exact nature of the illness, to the level of their sub classification are understood.

The siddhar's devised and utilised a special, effective and cost efficient techniques of diagnosis known as "Envagai thervugal". They are Naadi, Sparism, Naa, Niram, Mozhi, Vizhi, Malam and Moothiram. These eight features play a vital role in finding out the disease and the imblanced life factors.

The author doing her post graduate in the Dept of "NOI NAADAL" attempts a dissertation on the various aspects of Pitha Kaasam with special emphasis on the changes undergone by the Mukkutram and method of diagnosing this disease by using Envagai thervugal.

SIDDHA PHYSIOLOGY

Physiology means the science of the functions of the living organisms and its components and the physical and chemical factors and processes involved.

Udal Thathuvam (physiology) of Siddha aspect

Composed of

- ❖ 96 basic elements – Thathuvas
- ❖ 7 Somatic compounds – Udal Kattukal
- ❖ 14 reflexial functions – Vegams
- ❖ 6 Tastes – Suvaigal
- ❖ 4 body fires – Udal thee
- ❖ 3 immunities – Udal Vanmai etc.

These basic elements are responsible for the creation, protection of life which is mediated through the Panchapootha and Mukkuttra theory.

96 Thathuvas are,

- ❖ The five elements - ஐம்பூதம்
- ❖ The five organs of Senses – ஐம்பொறி
- ❖ The five organs of perception – ஐம்புலன்
- ❖ The five organs of action - கன்மேந்திரியம்
- ❖ The four intellectual faculties – அந்தகரணம்

- ❖ The ten naadai - தச நாடி.
- ❖ The five states of the soul - பஞ்ச அவத்தை
- ❖ The three principles of moral evil - மும்மலம்
- ❖ The three cosmic qualities - முக்குணம்
- ❖ The three regions - மூன்று மண்டலம்
- ❖ The three humours - முப்பிணி
- ❖ The eight predominant passions - எண் விகாரம்
- ❖ The six stations of the soul - ஆறு ஆதாரம்
- ❖ The seven constituted elements of the body - ஏழு வகை தாது
- ❖ The ten vital airs - தச வாயு
- ❖ The five cases of sheaths of the soul - பஞ்ச கோசம்
- ❖ The wisdom - அறிவு
- ❖ The three physical bindings - மூன்று
- ❖ The two deeds - வினைகள்

MUKKUTRAM

(I) Vaatham : -

Vaatham is the kinetic energy that effects all movements.

Location of Vaatham : -

Vaatham is located in abana, faeces, idakalai, spermatic cord, pelvic bone, skin, nerves, joints etc.

Types of Vaatham:-

- 1) Piranan : This controls knowledge mind and five objects of sense which are helpful for breathing and digestion.
- 2) Abanan : This is responsible for all downward movements such as passing of urine, stools, sperms, mensutral flow, ova, foetus etc.
- 3) Viyanan : This responsible for movements of all parts of body.
- 4) Uthanan : This is responsible for all upward visceral movements such as vomiting, eructation and nausea.
- 5) Samanan : This is the neutralizing force for the above four vayus, this aid for proper digestion.
- 6) Naagan : Responsible for opening and closing of eyes and also responsible for yawning and vision.
- 7) Koorman : Responsible for vision yawning and also responsible for higher intellectual function.

- 8) Kirukaran : Responsible for Salivation, nasal secretion and appetite.
- 9) Thevathathan : Responsible for laziness, sleeping and anger.
- 10) Dhananjeyan : Responsible for swelling of body after death, it escape on the third day after death by bursting of cranium.

(II) Pitham : –

Pitham does not essentially mean bile but signifies the function of the thermogenesis of heat production and metabolism. Comprehending in its scope the process of digestion, colouration of blood and formation of various secretion and excretion which are either the mean or the ends of tissue combustion.

Location of Pitham in body: –

Pitham is located in pranana, bladder, molakini, heart, umbilical region, abdomen, stomach, sweat, eyes, saliva, blood etc.

Types of Pitham : –

- 1) Anarpitham : It gives appetite and helps digestion.
- 2) Prasagam : It gives complexion to skin.
- 3) Ranjagam : It is responsible for the colour and content of blood.

- 4) Alosagam : It brightens the eyes.
- 5) Sathagam : It controls the whole body.
It has the property of fulfillment

(III) Kabam :-

Kabam stabilizes, maintains and lubricate all movements.

Location of Kabam : -

Kabam is located in Samanan, Semen, head, tongue, bone marrow, blood, nose, chest, nerves, brain, bones, large intestine, eyes, stomach and pancreas.

Types of Kabam : -

- 1) Avalambagam : Present in lungs, it controls the functions of lungs and heart and other kabas.
- 2) Kilethagam : Lives in stomach, it gives moisture and softness to the ingested food.
- 3) Pothagam : Tongue is the centre of pothagam, and responsible for identifying taste.
- 4) Tharpagam : Present in the head and responsible for coolness of the both eyes.
- 5) Santhigam : Responsible for the lubrication and free movements of the joints which are situated in joints.

UDAL KATTUGAL (SEVEN SOMATIC COMPONENTS)

The seven Physical constituents

They are as follows.

1) Saaram – Chyle : –

It is responsible for the growth and development. It keeps the individual in good spirit and it nourishes the blood.

2) Senneer – Blood: –

Blood imparts colour to the body and nourishes the muscles responsible for the ability intellect of the individual.

3) Oon – Muscle :-

It gives shape of the body according to the requirements for the physical activity,

4) Kozhuppu – Fat: –

It helps in lubricating the different organs and maintains oily matter of the body.

5) Enbu – Bone: –

Support the skeletal system and responsible for the posture and movements of the body.

6) Moolai – Bone marrow: –

It fills the bone cavity, imparts strength and endurance.

7) Sukkilam (or) Suronitham– Sperm (or) Ovum: –

It is responsible for the reproduction.

VEGAMS

In our body, the normal physiology includes 14 urges. They are called Vegangal and it should not be disturbed in any way.

- 1) Vaatham – Flatus
- 2) Thummal – Sneezing
- 3) Siruneer – Urine
- 4) Malam – Stool
- 5) Kotavi – Yawning
- 6) Pasi – Hunger
- 7) Neer vetkai – Thirst
- 8) Kaasam – Erumal
- 9) Elaippu – Fatigue
- 10) Nithirai – Sleep
- 11) Vaanthi – Vomit
- 12) Kanneer – Tear
- 13) Sukkilam or Suronitham
- 14) Suvaasam – Respiration

TASTES

- 1) Ennippu – Sweet
- 2) Pilippu – Sour
- 3) Uppu – Salty
- 4) Kaippu – Bitter

- 5) Karppu – Pungent
- 6) Thuvarppu – Astringent

UDAL THEE

That is body fire, it helps in digestion.

- 1) Samakini – To maintain the normal complete digestion
- 2) Mandhakini – Delayed digestion
- 3) Deekshanakini – Quick fast digestion in an earlier Period.
- 4) Vishamakini – Incomplete digestion leading to toxicity

UDAL VANMAI

It means strength and vitality of the body.

- 1) Eyarkai Vanmai – Inherited immunity
- 2) Kala Vanmai – Age, Season and time
- 3) Cheyarkai vanmai – Improvements of 3 vitality obtained by diet, day today habits and physical exercise.

SIDDHA PATHOLOGY

Pathology = Pathos + logos

Patho = Suffering

Logos = Study

Pathology is the study of disease, that is study of structure and function of the body in disease, it deals with causes, effects, mechanisms and nature of disease.

Disease is opposite of health, but the terms health and disease are difficult to define. Health is a condition when the individual is in complete accord with the surrounding, while disease is loss of ease to the body(dis-ease).

“மதித்திடற் கருமை வாய்ந்த
மாண்பரி கார மெல்லாந்
துதித்திட வுணர்ந்தா னேனுந்
துகளறப் பிணியின் றன்மை
பதித்திட வுணரா னாகிற்
பயனுறா னாக லானே
விதித்திடு பிணித் திறத்தை
விளம்புது முதற்கண் மன்னோ”

- சிகிச்சா ரத்ன தீபம்

Without knowing pathology we cannot do the proper treatment, it is important to understand the complete detail of the disease.

UYIR THATHUKAL

I. Vaatham

Abnormal functions of Vaatham :-

Pain all over the body, piercing pain, inflammation and redness of complex, also roughness of the skin, hardness of the limbs, astringent taste in the mouth, tastelessness, sweating, sleep, contraction and numbness or paralysis of the limb, tremors, muscular wasting, decreased excretion of stools and urine, thirst, blackish discolouration of skin, stool and urine.

In Increased condition: -

- ❖ Distended abdomen
- ❖ Constipation
- ❖ Weakness
- ❖ Insomnia
- ❖ Tremors
- ❖ Breathlessness
- ❖ Blackish discolouration of skin

In Decreased condition:-

- ❖ Body pain
- ❖ Feeble voice
- ❖ Syncope
- ❖ Diminished capability of brain

II. Pitham

Abnormal functions of Pitham:-

Indigestion, acidity, burning sensation in the heart, throat and stomach.

In Increased condition:-

- ❖ Yellowish discolouration of eyes, skin, urine and motion.
- ❖ Polyphagia.
- ❖ Burning sensation all over the body.
- ❖ Sleeplessness

In Decreased condition :-

- ❖ Cold
- ❖ Pallor
- ❖ Decreased appetite
- ❖ Symptoms associated with growth of kabam.

III. Kabam

Abnormal functions of Kabam : -

Whiteness of complexion, cold, itching, dullness, heaviness, oiliness, loss of sensation, a sense of sweetness in the mouth.

In Increased condition : -

- ❖ Loss of appetite
- ❖ Excessive salivation
- ❖ Heaviness
- ❖ Dyspnoea
- ❖ Excessive sleeping
- ❖ Whiteness of complexion
- ❖ Diminished activity

In decreased condition: –

- ❖ Prominence of bony edges
- ❖ Dry cough
- ❖ Lightness
- ❖ Profuse sweating
- ❖ Palpitation
- ❖ Giddiness
- ❖ Dryness of the joints

UDAL KATTUGAL

1) Saaram

Increased conditions – Leads to disease identical to the increase in kaba like loss of appetite, excessive salivation.

Decreased condition – Loss of weight, tiredness, dryness of skin, laziness, diminished activity of the sense organs.

2) Senneer

Increased condition – Boils and tumours in the different parts of the body, splenomegaly, colic pain, increased blood pressure, reddish eye and skin, jaundice, leprosy, haematuria etc.,

Decreased condition – Tiredness, lassitude and pallor.

3) Oon

Increased condition – Tumours or extra growth around the neck, face, abdomen, thigh, genitalia etc.

Decreased condition – Muscle wasting

4) Kozhuppu

Increased condition – Identical to that of increased oon associated with dyspnoea and loss of activity.

Decreased condition – Pain

5) Enbu

Increased condition – Strong bones and teeth.

Decreased condition – Weak bones, teeth, nails and hairs.

6) Moolai

Increased condition – Heaviness, swollen eyes, swollen phalanges, oliguria and non-healing ulcers.

Decreased condition – Osteoporosis and Shunken eyes.

7) Sukkilam or Suronitham

Increased condition – Increased sexual activity and signs identical to urinary calculi.

Decreased condition – Failure to reproduce, pain in genitalia etc.

AIM AND OBJECTIVES

Siddha system is considered to be the most ancient therapeutic science in the world. Siddhars have identified four thousand four hundred and forty eight disease and Scientifically arranged eighty type of Vaatha diseases, forty types of Pitha diseases and twenty types of Kaba diseases and so on.

Among all the forms of treatment Noi Naadal (or) Identification of disease and Noi muthal naadal (or) the determination of the aetiology of the disease are the most important aspects. Once the diagnosis is accurate the treatment may be easily fulfilled.

In “Chikicharathna deepam”

“மதித்திடற் கருமை வாய்ந்த
மாண் பரிகார மெல்லாஞ்
துதித்திட உணர்ந்தா னேணுந்
துகளறப் பிணியின் றன்மை
பதித்திட வுணரா னாகிற்
பயன றானா காலானே
விதித்திடு பிணித்திறத்தை
விளம்புது முதற்கண் மன்னோ”

Super intellectual siddhars, devised and utilized a special cost effective technique for diagnosing a disease know as Envagai thervugal. They are Naadi, Sparisam, Naa, Niram, Mozhi, Vizhi, Malam and Moothiram.

The following specific objectives have been drawn to achieve the above aim,

- ❖ To collect the ancient Siddha literatures about Kaasa disease in general and Pitha Kaasam in particularly.
- ❖ To study the clinical course of the disease Pitha Kaasam with clean observation on the actiology, clinical fetures and diagnosis.
- ❖ To evaluate the siddha basic physiology and Pathology.
- ❖ To make a thorough physical examination of the patient.
- ❖ To find out the changes that occur in Uyirthadukkal, Udalthadukkal and in Naadi.
- ❖ To support the study of Pitha Kaasam by using envagai thervugal, mentioned in siddha literatures with modern parameters.
- ❖ To discuss the clinical features and complications associated with pitha kaasam.

ELUCIDATION ABOUT PITHA KAASAM

According to the literature Yugi Vaithiya Sinthamani, Pitha Kaasam has been mentioned as

“சீரான இருமல்மிகப் புரட்ட லாகித்
தித்தித்து உப்புரைக்குஞ் சர்த்தி யுண்டாம்
தாராகத் தலையுடம்பு தான்வ லிக்கும்
தாகித்துக் குரல்கம் மும்ரத்தம் வீழும்
ஆராக வங்கந்தான் மிகவி னைக்கும்
அன்னந்தான் செல்லாமற் புளித்தேக் காகும்
மாராமயிர் கூச்சுச் சுரமுண் டாம்
மதிமயங்கும் பித்தகா சத்தின் வண்மை”

பாடல் எண் - 697 – Yugi Vaithiya Sinthamani

Meaning of the words : -

இருமல் : -

* காசம் - Cough

** கக்கல்

புரட்டல் :-

*குமட்டுதல்

*கீழ் மேலாகத் திருப்புதல், திரும்புதல் - Repeat

**வயிறு புரட்டல் - A sensation felt in the abdomen as in
vomiting

தித்தித்து : -

*இனித்தல் - To be sweet

**இனிப்பு, குரங்கு

உப்பு :-

*லவணம் - Salt

**சோற்றுப்பு, உவர்க் கடல், உருசி

சர்த்தி:-

*வாந்தியெடுத்தல் - Vomiting

**கக்கல், நெருப்பு, கக்குதல

தலை :-

*சிரம் - Head

*தலைமயிர் – Hair

**ஆகாயம், உடம்பின் மேற்பாகம்.

உடம்பு : -

*சரீரம் - Body

**பொன் - Gold

வலிக்கும் : -

*நோவுண்டாதல், வற்றுதல், பலவந்தப்படுத்தல்

**நோவு – Pain

தாகித்து :-

*நீர் வேட்கை உண்டாதல் - To be thirsty

**தாகங் கொள்ளல், எரியுந்தன்மை – Capabilty of burning.

குரல்கம்மும் :-

*குரலடைப்பு — Sore throat, Hoarseness

*பேச முடியாமல் போதல் - Loss of speech

** A disease of the larynx due to dryness and the consequent inability to talk except with hoarse voice - hoarseness.

ரத்தம் வீழும் :-

*இரத்த வாந்தி – Haemoptysis

[ரத்தம் - Blood] [வீழும் - To come out]

**வீழும் - To descend, to fall.

அங்கம் : -

*உறுப்பு, அடையாளம், எலும்பு.

**உடம்பின் பாகம் - A part of body

**அரையின் மேலுள்ள உடம்பின் பகுதி – The portion of the main body without the limbs.

**உடம்பு, மனம், மூளை, எலும்புக்கோர்வை

இளைக்கும் : -

*கிலேசம் - Distress, dyspnoea, மெலிதல்

**சோர்வு – Lassitude, Loss of Power, To be fatigued

அன்னம் :-

*சோறு – Food, boiled rice

**தங்கம் - Refined gold

புளித்தேக்காகும் : -

*புளித்துப் போதல் - To turn sour, to ferment

**மா முதலியன புளித்துப் போதல்

**தன்மை திரிதல், வெறுத்துப் போதல்

மயிர்க்கூச்சு : -

*மயிர்சிலிர்த்தல் - Rising of the hairs of the body.

**புளகம் - Horripillation.

சுரம் : -

*காய்ச்சல் - Fever

**பாலை நிலம், கள், காடு, இசை.

மதிமயங்கும் : -

*புத்தி மாறாட்டம் - Confusion

**புத்தி மயக்கம்

காசம் : -

*கோழை - Phlegm

**இரைப்பும், இருமலோடும் கூடிய கடின மூச்சு.

[* Denote – Tamil lexicon Dictinoray

** Denote – T.V.Sambasivam pillai Dictionary]

Meaning of the lines

“சீரான இருமல்மிகப் புரட்ட லாகித்”

- இருமல் திரும்ப, திரும்ப அதிகமாக வருதல்
- Repeated cough or persistent cough

“தித்தித்து உப்புரைக்குஞ் சர்த்தி யுண்டாம்”

- இனிப்பு மற்றும் உப்பு சுவை தோன்றல், வாந்தி யுண்டாதல்.
- Sensation of sweet and salt taste in the tongue and vomiting.

“தாராகத் தலையுடம்பு தான்வ லிக்கும்”

- சிரசு மற்றும் உடம்பு வலி உண்டாதல்
- Headache and body pain

“தாகித்துக் குரல்கம் மும்ரத்தம் வீழும்”

- எரியுந்தன்மை, குரல் கம்மல் மற்றும் ரத்தம் வெளிவரல்
- Burning sore throat and Haemoptysis.

“ஆராக வங்கந்தான் மிகவி னைக்கும்”

- மூச்சு திணறல்
- Dyspnoea

“அன்னந்தான் செல்லாமற் புளித்தேக் காகும்”

- உணவு செல்லாமல் மற்றும் புளித்தேக்கம்
- Anorexia with sour taste regurgitation

“மாராமயிர் கூச்சச் சுரமுண் டாம்”

- மயிர்சிலிர்த்தல் மற்றும் சுரம் உண்டாதல்

- Horripillation and Fever

“மதிமயங்கும் பித்தகா சத்தின் வண்மை”

- புத்தி மயக்கம்

- State of Confusion.

The poem clearly depicts,

- ❖ Persistent Cough
- ❖ Sensation of sweet and salt taste in the tongue.
- ❖ Vomiting.
- ❖ Headache
- ❖ Body pain
- ❖ Burning sore throat
- ❖ Haemoptysis
- ❖ Dyspnoea
- ❖ Anorexia with sour taste regurgitation
- ❖ Horripillation
- ❖ Fever and
- ❖ State of Confusion

REVIEW OF LITERATURES

According to many literatures, kaasa noi has calssified in to different types, **Pitha kaasam** has come under this classification. But in some literatures, the pitha kaasam has not been described.

The literatures that describes the pitha kaasam are,

- ❖ Yugi Vaithiya Sinthamani
- ❖ Agathiyar – 2000
- ❖ Thanvanthri Vaithiyam – Part I
- ❖ Pararasasekarn – Part IV
- ❖ Sarabainthra Vaithya Muraigal.
- ❖ Noi Naadal Noi mudal Naadal Thiratu – Part II
- ❖ Anubava Vaithya deva Ragasiyam.
- ❖ Roga Nirnaya Sarum.
- ❖ T.V.Sambasivam pillai Dictionary.

Description about this concept

1) According to Agathiyar – 2000

Inspite of the types of kaasam, only the symptoms of the pitha kaasam have been described.

- ❖ Vaatha Kaasam
- ❖ **Pitha Kaasam**
- ❖ Kaba Manthara Kaasam
- ❖ Pakka Manthara Kaasam
- ❖ Suthika Kaasam
- ❖ Maruntheedu Kaasam

Symptoms of Pitha Kaasam

“பித்தகாச மிருமல் மிகப்புரட்டி முறுக்கியிப்பு ரைக்குஞ் சத்தி யெடுக்கு மிருமலுண்டாந் தலையமுடம்புந் தான்வலிக்குந் குத்தி யிருமும் குரல்கம்மும் குலவுசரீர் மிகவிளைக்குந் தித்தித்திருக்கும் வாயுறல் சிவந்தநீரோ தானாறும்”

- Persistent cough
- Sensation of salt taste in the tongue
- Vomiting
- Headache and body pain
- Sore throat
- Weight loss
- Sensation of Sweet taste in Saliva
- Haemoptysis

2) According to Thanvanthiri Vaithiyam – Part I

Under the heading of Kaasa nithanam 5 types of Kaasam are described.

- 1) Vaatha Kaasam
- 2) Pitha Kaasam
- 3) Kaba Kaasam
- 4) Shatha Kaasam
- 5) Shaya Kaasam

Besides the above 5 types of Kaasam the symptoms of 5 thondha Kaasam, signs of Manthara kaasam, vega kaasam, Jwara kaasam and Pakka manthara lakshanangal are described as 10 types

Symptoms of Pitha Kaasam

“பித்தகா சத்தின் செய்கை பெய்வளை மயிலே கேளாய்
ஓத்தவுட்டிண மிகுந்த தாகும் வாயுலர்தல் நாவு
கைத்தல்சத் தித்தல் பித்தங் கக்கீடலுடம்பு காய்த
லித்தனைக் குணமு முண்டாந் தேகமும் வெளுக்குமென்றே”.

- Dryness of the mouth
- Sensation of bitter taste in the tongue
- Vomiting
- Fever
- Anaemia

3) According to Therayar Vaakadam

“அதியான அதீதம் மார்பில் விழுந்தெழுந்து அஞ்சுவகைக் காசமது
அனுசரிக்கும்”

He described the nature of kuruthi kaasam along with the
medicine for pitha kaasam. Such as ennai and chooranam

4) According to Pararasasekaram – Part I

(Silarpana Roga Nithanum)

Kaasam – 10

- | | |
|---------------------|---------------------------|
| 1) Vatha Kaasam | 6) Ratha Kaasam |
| 2) Pitha Kaasam | 7) Athisara Kaasam |
| 3) Silarpana Kaasam | 8) Soga Kaasam |
| 4) Sura Kaasam | 9) Manthara Kaasam |
| 5) Sanni Kaasam | 10) Pakka Manthara Kaasam |

Symptoms of 10 kaasam are described, in this

Symptoms of Pitha Kaasam

“மத்தமுறு வேகாயுங் கிறுகி றென்னும்
வாய்நீரும் வழுவழுக்கும் வரண்டு நாவும்
சித்தமுற மயக்கமுண்டா மிருமிச் சீறிச்
சிறுநீர்கண் மஞ்சணித்துச் சீயி ரத்தம்
துத்திவிழுந் துரப்பிரைப்புத் தொண்டை கட்டுந்
தோள்புறமு நடுக்குநெஞ்சு துடித்தி டிக்கும்
சத்திசெயுங் கண்குழியுந் தாகந் தாபந்
தான்பித்த காசமெனச் சாற்ற லாமே”.

- Fever
- Dryness of the tongue
- Confusion
- Cough
- Yellowish discolouration of urine and eyes
- Haemoptysis
- Sore throat
- Shoulder & chest pain
- Vomiting
- Thirsty

Kaasam – 5

- 1) Vaatha Kaasam
- 2) Pitha Kaasam
- 3) Silarpana Kaasam
- 4) Suvatha Kaasam
- 5) Shaya Kaasam

The Symptoms of 5 kaasam are described, in this

Symptoms of Pitha Kaasam

“மிஞ்சவே யுட்டணமாய்த் தாக மாய்வாய்
மிகக்கசந்து மிகவுலந்து சுரமு மீறி
அஞ்சவே யுடல்வெளிறிச் சத்தி தோன்றி
லடுத்தபித்த காசமென வறையு நூலே”.

- Thirsty
- Sensation of bitter taste in the mouth
- Dryness of the mouth
- Fever
- Anaemia
- Vomiting

5) According to Sarabainthira Vaithiya Muraigal (Kaasa, Suvasa Sikichai)

Kaasam 5

- 1) Vaatha Kaasam
- 2) Pitha Kaasam
- 3) Kaba Kaasam
- 4) Shatha Kaasam
- 5) Shaya Kaasam

Symptoms of Pitha Kaasam

“பித்தகாச மிருமல் மிகப்
புறட்டி முறுக்கு முப்புறைக்குஞ்
சத்தியெடுக்கு மிருமலு ண்டாந்
தலையு முடம்புந் தான்வலிக்கும்
குத்தியிருமும் குரல் கம்மும்
குலவு சீரீரமிக விளைக்குந்
தித்தித் திருக்கும் வாயூறல்
சிவந்த நீரே தானூறும்”

- Persistent cough
- Sensation of salt taste in the tongue
- Vomiting
- Headache & body pain
- Sore throat
- Weight loss
- Sensation of sweet taste in the saliva
- Haemoptysis

6) According to Noi Naadal Noi Muthal Naadal Thiratu – Part 2

12 types of kaasam under the heading “Erumal”, according to yugi vaithiya sinthamani and 12 types of kaasam under the heading “Kai Ezhuthu Pirathi” are described

Symptoms of Pitha Kaasam

“குத்தி யிருமிக் குரல் கம்மிக்
 கோழை கசந்து மஞ்சளித்துக்
 குடம்பை இளைத்து வாய்கைப்பாய்க்
 கோடு நகங்கள் மஞ்சளித்து
 மெத்தக் கம்மிய பார்வையுமாய்
 மெய்யிற்றலையில் வலி யுண்டாய்
 மேவுஞ் சுவைக ளினிப்புப்பாய்
 மிகுந்த தாக முணவருகிச்
 சித்தம் வேறாய் மயிர்க் கூச்சாய்க்
 செரியாணவு புளித்தேப்பம்
 செந்நீர் வாந்தி யடிக்கடிக் காய்ச்
 சிறுநீரெரிவா யிழிந்து சுரந்

தொத்தி மிகவே வருத்தி வருந்
தோகாய்ப் பித்த காச மெனச்
சொல்லாய்ப் புவியோ ரறிந்திடநீ
சிகிச்சை செய்யத் துணிவாயே”.

- Cough with Haemoptysis
- Yellow colour sputum
- Weight loss
- Sensation of bitter taste in the mouth
- Yellowish discolouration of nail
- Decreased eye vision
- Body pain
- Sensation of sweet and salt taste in the tongue.
- Increased thirst
- Horripillation
- Haemoptysis
- Anorexia with regurgitation
- Fever
- Frequent burning micturation

The 5 types of Kaasam described separately also come under the heading “Erumal” according to yugi Vaithya Sinthamani

7) According to Anubava Vaithiya Deva Ragasiyam – Part IV

– J. Seetharam Prasath

5 Kaasam

- 1) Vaatha Kaasam
- 2) Pitha Kaasam
- 3) Kaba Kaasam
- 4) Ratha Kaasam
- 5) Shaya Kaasam

Symptoms of Pitha Kaasam

Yellowish eyes, Yellow colour sputum, Haemoptysis, Confusion, Thirsty, Sore throat and Persistent cough.

8. According to Roga Nithana Saram

– T.R.Mahadeva Pandither

Kaasam 5

- 2) Vaatha Kaasam
- 2) Pitha Kaasam
- 3) Kaba Kaasam
- 4) Ratha Kaasam
- 5) Shaya Kaasam

Symptoms of Pitha Kaasam

Yellowish eyes, Yellow colour Sputum, Haemoptysis, Thirsty and confusion.

9. According to T.V. Sambasiva Pillai Dictionary

Kaasam 20

- | | |
|------------------------|---------------------------|
| 1) Suvasa Kaasam | 11) Kolai Kaasam |
| 2) Manthara Kaasam | 12) Thontha Kaasam |
| 3) Ratha Kaasam | 13) Pakka Kaasam |
| 4) Neela Kaasam | 14) Pakka Manthara Kaasam |
| 5) Silathuma Kaasam | 15) Sudar Kaasam |
| 6) Pitha Kaasam | 16) Peenisa Kaasam |
| 7) Vaatha Kaasam | 17) Naatha Kaasam |
| 8) Bala Kaasam | 18) Vali Kaasam |
| 9) Virana Kaasam | 19) Adaipu Kaasam |
| 10) Karba Kaasam | 20) Gunma Kaasam |

Pitha Kaasam is given as one of the type among the 20 types of Kaasam. But the symptoms are not given.

10) According to Segarasa Sekara Vaithiyam

Under Kaasa disease,

- ❖ Vala Manthara Kaasam
- ❖ Pakka Manthara Kaasam
- ❖ Manthara Kaasam
- ❖ Ushana Kaasam
- ❖ Elai Kaasam

The Signs and symptoms along with the treatment of above 5 kaasam are described except for pitha Kaasam.

DETAILED PATHOLOGICAL VIEW OF PITHA KAASAM

INTRODUCTION ABOUT DISSERTATION TOPIC

Pitha Kaasam

It is one of the type of Kaasa disease under kaba noigal.

Types of Kaasam

According to yugi vaithya cinthamani, types of kaasm is 12.

“தானான காசமது பன்னிரண் டாகுந்
தாக்கான மந்தார காசத் தோடு
பானான பக்கமந் தார காசம்
பாங்கான சுடர் காசம்வாத காசம்
பேனான பித்தமாங் காசத் தோடு
பேர்பெரிய சுவாசகா சத்தோ டொக்க
ஞானான இரத்தமாங் காசத் தோடு
இரைப்பான சிலேத்மகா சந்தா னமே
ஆகின்ற பீனிசத்தின் சுவாச காசம்
அழிவாத பித்தத் தின்காச மாகும்
போகின்ற பித்த சிலேட்ம காசந் தானே
புகழ்பெரிய சொந்தமாங் காசத்தோடு
தேகின்ற காசமது பன்ரண் டாகுந்
தெளிவாக இதனுடைய செயலைக் கேள்”

– Yugi Vaithiya Chinthamani

The types are

1. Manthara Kaasam
2. Pakka Manthara Kaasam
3. Sundar Kaasam

4. Vatha Kaasam
5. Pitha Kaasam
6. Suvasa Kaasam
7. Ratha Kaasam
8. Kaba Kaasam
9. Peenisa Kaasam
10. Valiazhal Kaasam
11. Azhaliya Kaasam
12. Mukkutra Kaasam

In above, pitha kaasam is one of the fifth type of kaasam.

CAUSES FOR PITHA KAASAM

According to Yugi vaithiya Sinthamani

“வேகின்ற வதிகமாகும் புகையி னாலும்
மீறுகின்ற பாணத்தால் மிகுக்குந் தானே”

“பாணத்தல் பரமாக்கினி மிகுக்கை யாலும்
பாரமா மாமிசங்கள் புசிக்கை யாலும்
தாணத்தாற் சஞ்சாரந் தவிர்க்கை யாலும்
சரிப்படாப் பதார்த்தங்கள் புசித்த லாலும்
தீணத்தாற் பொசியாம லிருக்கை யாலும்
சேயிழையார் மேலின்பஞ் சிதைவ தாலும்
மாணத்தால் மாதுக்க மடைத லாலும்
மதத்தாலுஞ் சுவாசமது மருவுங் காணே”

“காணவே தேவதைக்குப் பிரித்த பண்டம்
களவாடி தின்றாலும் கணவன் றன்னைத்
தோணவே நிந்தரட்சை சொன்ன தாலும்
ருசியான பதார்த்தமெச்சில் பண்ணி னாலும்
வேணவே ஒருவர்செய்த நன்றி தன்னை
மிக மறந்து கொடுமைகடான் விளம்பு வோர்க்கும்
பேணவே சபைதனிலே சொன்ன பேச்சு
பிரண்டோர்க்குங் காசம் வந்து பிறக்குந் தானே”

-Yugi vaithiya Sinthamani

- 1) Environmental Causes
- 2) Food Habits
- 3) Suppression of 14 reflexes
- 4) Activities
- 5) Mental and Social causes

In details,

1) Environmental causes

- ❖ Inhalation of smoke

2) Food habits

- ❖ Intake of cool drinks
- ❖ Excess intake of non-vegetarian food
- ❖ Intake of allergic food

3) Suppression of 14 reflexes

- ❖ Starvation

4) Activities

- ❖ Increased body heat in certain condition

- ❖ Less activity
- ❖ Excess sexual desire

5) Mental and social causes

- ❖ Sorrow
- ❖ Stealing prasatham from God.
- ❖ Psychological factors
- ❖ Forgetting good things done by others

The author consider, the causes for the kaasam given in the literature yugi as the causes for pitha kaasam

Introduction about Kabam: -

“கபத்தினையன்றிக் காசசுவாசங் காணாது”

- தேரையர்

Kaba disease also denotes “Silathuma Noi”

“தானனு மீரேழ் நூறு தன்னிலெண்பத்து மூன்று
 ஊனுயிர் சீதளத்தி னூழ்யீவினை யதிகஞ் செய்தே
 யீனமா முடலும் வற்றி யெழுந்தபின் நோயாதெல்லாஞ்
 தேனமா மொழியாய் வண்ணஞ் சேத்தமஞ் செப்பலுற்றேன்”

- அகத்தியர் 2000

Types of kabam produced diseases are 1483. These are occur due to cooling and poorva kanmam and it produce emaciation of the body.

“சேத்துமந் தண்ணீர்”

So Kabam is “Neer Bootha” amsam.

➤ Enippu = Mann + Neer

➤ Uppu = Thee + Neer

In 6 tastes, Enippu and Uppu are “Neer Bootha” amsam.

Vatham = Aakayam + Kaatru

Pitham = Thee

Kabam = Mann + Neer

Mann and Neer are combined to produce “kaba Thathu”. If any one or two bootha increase, it produces diseases of kaba.

At the same time, increased intake of Enippu or Uppu, it also altered kaba thathu and produce kaba diseases.

In our body. Place of Kabam is neck to head.

Kabam stabilizes, maintains and lubricates all movements.

Locations of Kabam:

Kabam is located in

Samanan	Blood	Bones
Semen	Nose	large intestine
Head	Chest	Eyes
Tongue	Nerves	Stomach
Bone Marrow	Brain	Pancreas

Character of Kabam:

Kabam is responsible for

- 1) Stability
- 2) Smoothness
- 3) Lubrication

4) It fixes the joints

5) It gives ability to cope with hunger, thirst and heat, etc.

Functions of Kabam:

- ❖ Itching, dullness, cold, heaviness, oiliness, loss of sensation.
- ❖ White complexion.
- ❖ Indigestion
- ❖ Excess sleep
- ❖ Sweetness in mouth
- ❖ Whitish discolouration of skin, eyes, urine and motion.

Classification of kabam:

- 1) Avalambagam : Present in lungs, it controls the functions of lungs and heart and other kabas.
- 2) Kilethagam : Lives in stomach, it gives moisture and softness to the ingested food.
- 3) Pothagam : Tongue is the centre of pothagam, and responsible for identifying taste.
- 4) Tharpagam : Present in the head and responsible for coolness of the both eyes.
- 5) Santhigam : Responsible for the lubrication and free movements of the joints which are situated in joints.

In Increased condition

- ❖ Loss of appetite
- ❖ Excessive salivation
- ❖ Heaviness
- ❖ Dyspnoea
- ❖ Excessive sleeping
- ❖ Whiteness of complexion
- ❖ Diminished activity

In decreased condition

- ❖ Prominence of bony edges
- ❖ Dry cough
- ❖ Lightness
- ❖ Profuse sweating
- ❖ Palpitation
- ❖ Giddiness
- ❖ Dryness of the joints

Six qualities of Kabam

- 1) Cold - குளிர்ச்சி
- 2) Heavy - பளுவு
- 3) Immobile - அசைவின்மை
- 4) Sweet - இனிப்பு

5) Unctuous - ஈரம்

6) Viscid - வழுவழப்பு

Seven Udal Kattugal – Kabam (Relation)

Saaram : –

This is the extract of digested food. It keeps the individual in good spirit and it nourishes the body. It is responsible for growth and developments.

Saaram increase condition:

Features identical to those encountered in increased kabam occurs.

(eg) Loss of appetite

Thinai – Kabam (Relation)

In kurunji nilam, Kaba diseases occur.

Kaalam (month) – Kabam (Relation)

Kabam

Accumulation – Pinpani Kaalam – Maasi, Pankuni

Aggravation – Elavenir Kaalam – Chithirai, Vaikasi.

Normal – Muthuvenir Kaalam – Aani, Aadi

In Maasi to vaikasi month, kabam is increased in nature.

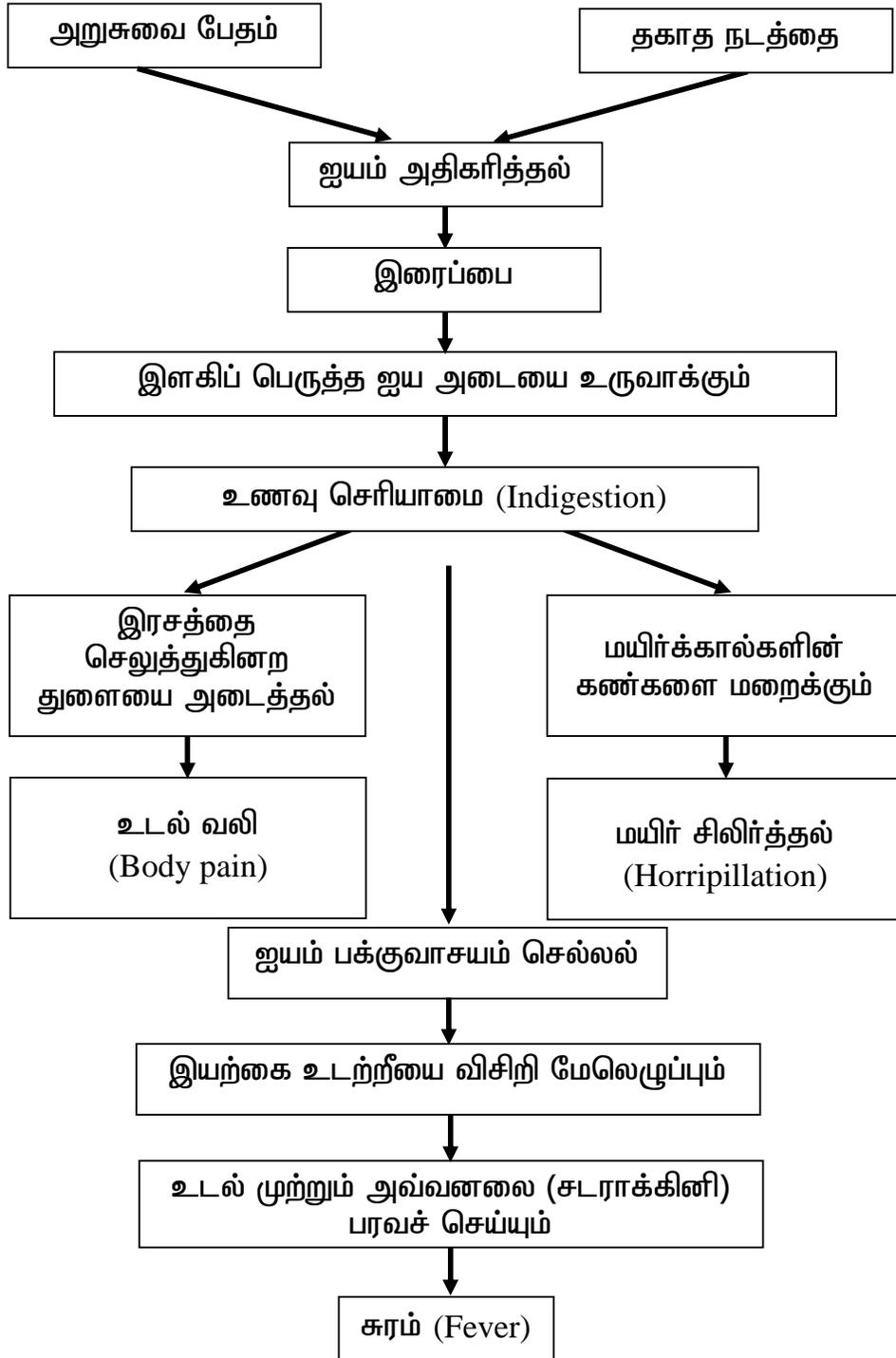
Fourteen vagam – Kasam (Relation)

“காசத்தை யடக்கி னாலோ
கதித்திடு மிருமல் மெத்த
வாசமாஞ் சுவாச முண்டாம்
மருவிடு மிகுந்து நோயும்”

The person who is trying to control the kaasam, increased cough, bad breathe, heart disease will occur.

Pathogenesis of Pitha Kaasam

சித்த மருத்துவத்தின்படி உடலில் பிணி ஏற்படுவதற்கு ஆதி காரணம் வளி-அழல் - ஐயம் என்னும் மூன்று உயிர்தாதுக்களில் ஏற்படும் மாற்றமே (மிகுதல், குறைதல்) ஆகும்.



Any alteration in the food habits (or) seasonal variations (or) changes in the activities affected kaba thathu that produce increased kabam (Thannilai Valarchi), then the kaba kutram affect pitha thathu and produce increased pitham (vetrunilai valarchi), these two kutrams also affect vaatham to decreased in condition respectively, to produce pitha kaasam.

In this disease pitha kaasam following alterations are takes place.

I. Alterations in Mukkutra Nilaigal Iyam

1. **Avalambagam** – Cough with expectoration.
2. **Kilethagam** – Anorexia.
3. **Bothagam** – Sensation of sweet and salt taste in the tongue.
4. **Tharpagam** – Headache
5. **Santhigam** – Pain in the knee joint.

Azhal

1. **Anar pitham** – Anorexia
2. **Ranjaga Pitham** – Pallor of the conjunctiva and tongue.
3. **Sadhaga Pitham** – Difficulty in doing routine works.
4. **Aalosa Pitham** – Decreased vision.

Vali

1. **Pranan** – dyspnoea.
2. **Abanan** – constipation.
3. **Viyanan** – Pain in the knee joints.

4. **Udhanan** – Cough with expectoration, vomiting.
5. **Samanan** – Anorexia.
6. **Nagan** – Horripillation.
7. **Koorman** – Decreased vision.
8. **Kirukaran** – Cough, anorexia.
9. **Devathathan** – Irritability.

Inference

Iyam (Increased) – Avalambagam, Kilethagam, Bothagam and santhigam are affected.

Azhal (Increased) – Anar pitham, Ranjaga pitham, Sadhaga pitham and Aalosaga pitham are affected.

Vali (Decreased) – Pranan, Abanan, Viyanan, Udhanan, Samanan, Nagan, Kooraman, Kirukaran and Devathathan are affected.

II. Alterations in Udal Thathugal

1. **Saaram** – Tiredness.
2. **Senneer** – Pallor in the conjunctiva and tongue.
3. **Oon** – Swelling around the knee joints.
4. **Kozhuppu** – Restricted knee joint movements.
5. **Enbu** – Excess falling of hair in the scalp.
6. **Moolai** – Decreased vision.

Inference

All six Udal Thathugal are affected except Sukkilam/ Suronitham.

சாத்திய, அசாத்திய நிலை

“காணவே சாத்தியத்தைக் கருதக் கேளாய்
கணத்தோர் மந்தார காசத் தோடு
பூணவே பக்கமந் தார காசம்
பொலிவான சுடர்காசம் பித்த காசந்
தோணவே சுவாசகா சத்தி னோடு
சுழியிரத்தக் காசமாம் பீனிச காசம்
தாணவே இதுவேழுந் சாத்திய மாகுஞ்
சாதகமாய்ப் பரிகாரம் பார்த்துச் சாற்றே”

Curable types of kaasam are seven, these are

1. Manthara Kaasam
2. Pakka Manthara Kaasam
3. Sudar Kaasam
4. Pitha Kaasam
5. Suvasa Kaasam
6. Ratha Kaasam
7. Peenisa Kaasam

Pitha Kaasam is one of the curable disease, when the proper treatment is taken along with pathiyam (management).

THEORETICAL VIEW OF DISSERTATION TOPIC

ANATOMY

Respiratory system

The interchange of gases between an organism and the medium in which it lives called respiration.

In human the organs of respiration consists of the respiratory passage and lungs.

Anatomy of the Respiratory System :

For the descriptive purpose, the organs of respiration divided into the upper and lower respiratory tracts. The cricoid cartilage is at the level of the lower border of the 6th cervical vertebra is the dividing line of the upper and lower respiratory passage.

The respiratory system is made up of the nose, pharynx, larynx, trachea, bronchi, lungs and pleura.

The upper Respiratory tract includes → the nose, Pharynx and larynx.

The lower Respiratory tract contains → Trachea, bronchi, lungs and Pleura.

LUNG:

The lungs are a pair of respiratory organs situated in the thoracic cavity.

The right lung weight about 700g, it is about 50 –100g heavier than the left lung.

Features: -

Each lung is conical in shape, it has

- (1) An apex at the upper end.
- (2) A base resting on the diaphragm.
- (3) Three borders ie. Anterior, posterior and inferior
- (4) Two surfaces ie. Costal and medial.

The medial surface is divided in to vertebral and mediastinal parts.

Apex:

Is blunt and lies above the level of the anterior end of the first rib.

Base :

Is semilunar and concave. It rests on the diaphragm.

Anterior border:

Is very thin, is shorter than the posterior border. The anterior border of the left lung shows a wide cardiac notch.

Posterior border:

Is thick and ill defined. It extends from the level of the seventh cervical spine to the tenth thoracic spine.

Inferior border:

Separates the base from the costal and medial surfaces.

Costal surfaces:

Is large and convex. It is in contact with the costal pleura and the overlying thoracic wall.

Medial surfaces:

Is divided into a posterior or vertebral part, and an anterior or mediastinal part.

Fissures and lobes of the lungs:

- ❖ The right lung is divided into 3 lobes (upper, middle and lower) by two fissures (oblique and horizontal).
- ❖ The left lung is divided into 2 lobes (upper and lower) by the oblique fissure.
- ❖ The oblique fissure cuts into the whole thickness of the lung, except at the hilum.
- ❖ In the right lung, the horizontal fissure passes from the anterior border up to the oblique fissure and separates a wedge-shaped middle lobe from the upper lobe.
- ❖ The tongue - shaped projection of the left lung below the cardiac notch is called "Lingula"

Root of the lung:

- ❖ Is short, broad pedicle which connects the medial surface of the lung to the mediastinum.
- ❖ It is formed by structures which either enter or come out of the lung at the hilum.

- ❖ The roots of the lungs lie opposite the bodies of the T₅, T₆ and T₇ vertebrae.

Arterial supply of the lung:

The bronchial arteries supply nutrition to the bronchial tree and to the pulmonary tissue.

Venous drainage of the lung:

- The venous blood from the first one or two division of the bronchi is carried by bronchial veins. The right bronchial veins drain into the azygos vein. The left bronchial veins drain into the left superior intercostal vein or into the hemiazygos vein.
- The greater part of the venous blood from the lung is drained by the pulmonary veins.

Lymphatic drainage of the lungs:

There are two sets of lymphatics, both superficial and deep lymphatics of which drain into the broncho pulmonary nodes.

Nerve supply:

- (1) Para sympathetic nerves are derived from the vagus.
- (2) Sympathetic nerves are derived from second to fifth spinal segments.

Bronchial Tree:

The trachea divides at the level of the lower border of the T₄ into **2 primary principal bronchi**, one for each lung.

The right principal bronchus is 2.5 cm

The left principal bronchus is 5 cm.

Each principal bronchus enters the lung through the hilum and divides into **secondary lobar bronchi**, one for each lobe of the lungs. Thus there are three lobar bronchi on right side and only two on the left side. Each lobar bronchus divides into **tertiary or segmental bronchi**, one for each broncho pulmonary segment, which are 10 on the right side and 10 on the left side. The segmental bronchi divide repeatedly to form very small bronches called **terminal bronchioles**. Still smaller branches are called **respiratory bronchioles**.

Each respiratory bronchiole aerates a small part of the lung known as **pulmonary unit**. The respiratory bronchiole ends in microscopic passages which are termed.

(1) Alveolar ducts

(2) Atria

(3) Air Sacules

(4) Pulmonary alveoli

Gaseous exchanges take place in the alveoli.

Broncho Pulmonary segments:

These are well-defined sectors of the lung, each one of which aerated by a tertiary or segmental bronchus.

Table No : 1

The bronchopulmonary segments						
	Right lung			Left lung		
	Lobes		Segments	Lobes		Segments
A.	Upper		1. Apical	A.	Upper	1. Apical
			2. Posterior		I. Upper division	2. Posterior
			3. Anterior			3. Anterior
					II. Lower division	4. Superior lingular
						5. Inferior lingular
B	Middle	1.	Lateral			
		2.	Medial			
C.	Lower	1.	Superior	B.	Lower	1. Superior
		2.	Anterior basal			2. Anterior basal
		3.	Medial basal			3. Medial Basal
		4.	Lateral basal			4. Lateral basal
		5.	Posterior basal			5. Posterior basal

Histology of Trachea and lung:

Trachea and extra pulmonary bronchi:

- ❖ Have pseudo stratified ciliated columnar epithelium with goblet cells. Lamina propria contains connective tissue and ducts of glands present in sub mucosa.
- ❖ No muscularis mucosa is present.
- ❖ Submucosa contains mucous and serous acini, outer most is musculo cartilaginous layer with 'c' – shaped hyaline cartilage and Smooth muscle fibres joining the two ends of 'c' – shaped cartilage, outer- most is connective tissue.

Intra pulmonary bronchus:

Epithelium is same as in trachea. The epithelium is thrown in to folds. Lamina propria is surrounded on all sides by thin sheet of smooth muscle fibres. Outside the muscle layer are small pieces of cartilage with glands in between these pieces outermost is the connective tissue.

Terminal bronchiole:

Is lined by columnar epithelium with no cilia or goblet cells. Smooth muscles surround it all around. No cartilage or glands are seen. Connective tissue is seen out side.

Respiratory bronchiole:

Is lined by cuboidal cells. No glands or cartilage is seen. Alveoli are lined by squamous cells. Few cuboidal cells producing surfactant are seen. No muscle, no gland, no cartilage seen.

PHYSIOLOGY

MECHANISM OF RESPIRATION:

During normal quiet breathing, inspiration is the active process and expiration is the passive process. During inspiration, thoracic cage enlarges and lung expand. During expiration, the thoracic cage and lungs decrease in size and attain the preinspiratory position.

Movements of the thoracic cage:

Inspiration causes enlargements of thoracic cage. The size of the thoracic cage is increased in all diameters. Increase in anteroposterior and transverse diameters occurs due to the elevation of ribs. The vertical diameter of thoracic cage is increased by the descent of diaphragm.

In general, the change in the size of thoracic cavity occurs because of the movement of four units of structures.

- (1) Thoracic lid
- (2) Upper costal series.
- (3) Lower costal series.
- (4) Diaphragm.

Movements of the lungs:

During inspiration, due to the enlargement of thoracic cage, the negative pressure is increased in the thoracic cavity. This causes expansion of the lungs.

During expiration, the thoracic cavity decreases in size to the preinspiratory position. The pressure in the thoracic cage also comes back to the preinspiratory level. This compresses the lung tissue. So that, the air is expelled out of lungs.

The lungs also have some tendency of recoiling still, the lungs do not collapse.

EXCHANGE OF RESPIRATORY GASES:

The exchange of gases between blood and alveoli occurs only in the **respiratory unit**. It includes respiratory bronchioles, alveolar ducts, atria, alveolar sacs and alveoli. The membrane through which the exchange occur is called the **respiratory membrane**.

DIFFUSION OF OXYGEN:

• From atmosphere to the alveoli:

The partial pressure of oxygen in the atmosphere is 159 mm Hg and in the alveoli, it is 104 mm Hg. Because of the pressure

gradient of 55 mm Hg, Oxygen easily enters the alveoli from atmospheric air.

- **From alveoli in to the blood:**

The partial pressure of Oxygen in the pulmonary capillary is 40 mm Hg and in the alveoli, it is 104 mm Hg. The pressure gradient is 64 mm Hg. This facilitates the diffusion of Oxygen from alveoli in to blood.

In the venous blood, the volume of Oxygen is 14ml%. The content of Oxygen in arterial blood is 19ml%. Thus diffusion of Oxygen from alveoli to blood is 5ml /100 ml of blood.

DIFFUSION OF CARBON DIOXIDE:

- **From blood in to alveoli**

The partial pressure of carbon dioxide in alveoli is 40mm Hg where as in the blood, it is 45mm Hg. The pressure gradient of 5mm Hg is responsible for the diffusion of carbon dioxide from blood into the alveoli.

The carbon dioxide content in the venous blood is 52ml% and in arterial blood, it is 48ml%. So, the diffusion of carbon dioxide from blood to alveoli is 4ml/100ml of blood.

- **From alveoli in to the atmosphere**

In the atmospheric air, the pressure gradient of carbon dioxide is very insignificant and is only about 0.3mm Hg whereas, in the alveoli, it is 40mm Hg. So carbon dioxide leaves alveoli easily.

LUNG DEFENSE MECHANISM:

The normal lung is free from bacteria. A number of potent defense mechanism clear or destroy any bacteria inhaled with air or fortuitously deposited in the airway passages as follows.

(1) Nasal clearance:

Particles, including aerosolized droplets carrying microorganisms deposited near the front of the airway on the non ciliated epithelium, are normally removed by sneezing and blowing, whereas those deposited posteriorly are swept over the mucus-lined ciliated epithelium to the nasopharynx, where they are swallowed.

(2)Tracheobronchial clearance:

This is accomplished by mucociliary action. The beating motion of cilia moves a film of mucus continuously from the lung toward the oropharynx. Particles deposited on this film are eventually either swallowed or expectorated.

(3)Alveolar clearance:

Bacteria or solid particles deposited in the alveoli are phagocytosed by alveolar macrophages. A particle is either digested or carried to the ciliated bronchioles. From here the macrophage is propelled to the oropharynx and then swallowed. Alternatively, the particle - laden macrophage may move through the interstitial space and either re-enter the bronchioles or enter lymphatic capillaries. If the particle load is heavy and macrophages transport to the surface and alveolar pathway is overwhelmed, some particles may eventually reach the regional lymphnodes and, via the blood stream, be carried elsewhere in the body.

PNEUMONIA

Synonym

Pneumonitis

Definition

An acute inflammation of the lung parenchyma, distal to terminal bronchioles which consist of the respiratory bronchiole, alveolar ducts, alveolar sacs and alveoli.

Causes

I) Bacteria

- ❖ Streptococcus Pneumoniae.
- ❖ Staphylococcus Pyogenes.
- ❖ Mycobacterium tuberculosis

II) Mycoplasma

- ❖ Mycoplasma Pneumoniae

III) Viruses

- ❖ Myxo Virus → Influenza
 - Para - Influenza
 - Respiratory syncytial virus
- ❖ Adeno virus
- ❖ Measles virus
- ❖ Picorna Virus

Etiological Classification

A) Bacterial Pneumonia

- 1) Lobar Pneumonia.
- 2) Lobular Pneumonia (Broncho Pneumonia).

B) Viral and Mycoplasmal Pneumonia

(Primary Atypical Pneumonia)

C) Other types of Pneumonias

- 1) Legionella Pneumonia
- 2) Aspiration Pneumonia (Inhalation Pneumonia)
- 3) Hypostatic Pneumonia
- 4) Lipid Pneumonia

Pathogenesis

The microorganisms gain entry in to the lungs by one of the following four routes

- 1) Inhalation of the microbes present in the air.
- 2) Aspiration of organisms from the nasopharynx or oropharynx.
- 3) Haematogenous spread from a distant focus to infection.
- 4) Direct Spread from an adjoining site of infection.

The normal lung is free of bacteria because of the presence of a number of lung defense mechanism at different levels, such as

- ❖ Nasopharyngeal filtering action,
- ❖ Mucociliary action of the lower respiratory airways and,
- ❖ Immunoglobulins.

Failure of these defense mechanisms and presence of certain predisposing factors result in pneumonias. These conditions are as under

1. Altered consciousness

The oropharyngeal contents may be aspirated in states unconsciousness.

E.g. In coma, cranial trauma, seizures, cerebrovascular accidents, drug overdose, alcoholism etc.

2. Depressed cough and glottic reflexes

Depression of effective cough may follow aspiration of gastric contents.

E.g. In old age, pain from trauma or thoraco abdominal surgery, neuromuscular disease, Weakness due to malnutrition, kyphoscoliosis, severe obstructive pulmonary disease and tracheostomy.

3. Impaired Mucociliary transport

The normal protection offered by mucus-covered ciliated epithelium in the airways from the larynx to the terminal

bronchioles is impaired or destroyed in many conditions favouring passage of bacteria in to the lung parenchyma.

E.g. Cigarette smoking, Viral respiratory infections, immotile cilia syndrome, inhalation of hot or corrosive gases and old age.

4. Impaired alveolar macrophage function

Pneumonias may occur when alveolar macrophage function is impaired.

E.g. Cigarette smoking, hypoxia, starvation, Anaemia, pulmonary oedema and viral respiratory infections.

5. Endobronchial obstruction

The effective clearance mechanism is interfered with in endobronchial obstruction.

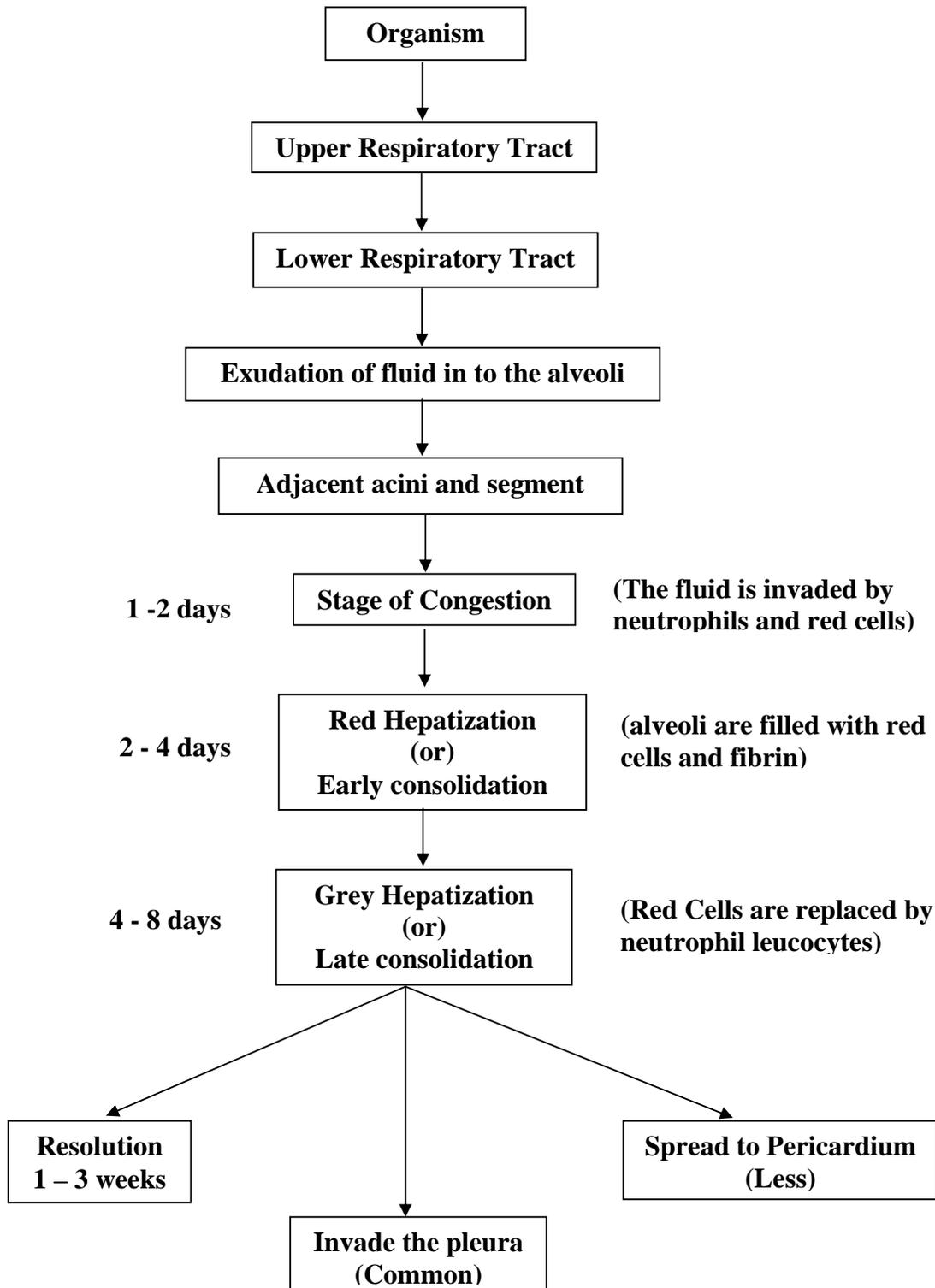
E.g. Tumour, foreign body, cystic fibrosis and chronic bronchitis.

6. Leucocyte dysfunctions

Disorders of lymphocytes including congenital and acquired immuno deficiencies.

E.g AIDS, immuno suppressive therapy and granulocyte abnormalities.

Pathology



The pneumonic process may be confined to a segment or lobe or may be patchy. The distribution is not characteristic of any particular micro-organism. The initial acute inflammatory process may be associated with bacteraemia which is more common with pneumococcal pneumonias than with others.

Pneumonia causes a restrictive defect of ventilation with a reduction in vital capacity and lung compliance. The work of breathing is diminished by a small tidal volume and rapid rate of breathing. This pattern of breathing is encouraged by pleuritic pain if it is present. Ventilation of the alveoli is also grossly impaired by inflammatory oedema. On the other hand, the blood flow is maintained. Physiological shunting ensues and is the cause of the reduction in arterial PO_2 . If this is considerable then the arterial oxygen saturation is reduced with development of cyanosis. The arterial PCO_2 usually remain normal unless the pneumonia complicates a disorder associated with severe airways obstruction.

Clinical features

Symptoms

- Fever with rigor.
- Cough at first is usually dry and irritating and may cause distress because it aggravates the pain.
- Sputum is scanty and tenacious (or) may appear rusty.
- Often frankly blood -stained, (haemoptysis).

- Sleeplessness.
 - Headache.
 - Delirium.
 - Confusion.
- } are manifestations of toxaemia.
- Pleuritic chest pain – dyspnoea.
 - Body pain.
 - Vomiting.
 - Anorexia.

Signs

- Temperature as high as 102° – 105° F (38.9° – 40.6° c)
- The skin tends to be hot and moist and may be pale due to peripheral vasoconstriction with systemic hypotension.
- Central cyanosis. (Due to hypoxaemia)
- Tachycardio and tachypnoea.
- Herpes simplex and jaundice may appear in younger people.
- Diminished chest movement on the affected side.
- Localised crepitaions appear on the affected side.
- An impaired percussion note.
- Bronchial breathing
- Bronchophony.
- Pleural friction rubs.

Complications

1) Pulmonary

- Spread to other lobe.
- Lung abscess
- Delayed resolution.

2) Pleural

- Sterile pleural effusion
- Empyema

3) Cardiovascular

- Peripheral circulatory failure
- Acute pneumococcal endocarditis
- Acute pneumococcal pericarditis.
- Venous thrombosis in the lower limbs.

4) Neurological

- Pneumococcal meningitis.
- Brain abscess.
- Meningism.

5) Others

- Otitis media.
- Mastoiditis.
- Purulent arthritis.

Investigation

- Neutrophilic leucocytosis.
- Blood culture
- Sputum to be examined by microscopy and culture.
- Chest radiograph may reveal consolidation.

Differential diagnosis

- Pulmonary infarction
- Pulmonary tuberculosis
- Acute bronchitis.

EVALUATION OF DISSERTATION TOPIC

MATERIALS AND METHODS

The clinical study on Pitha Kaasam has been taken in the post graduate department of Noi Naadal.

The clinical study was done in 30 cases, of them 21 cases were selected. In which I had selected 21 cases to evaluate typical picture by siddha parameters along with modern parameters.

The detailed history of the present and past illness and family history were observed.

EVALUATION OF CLINICAL PARAMETERS

- ❖ The detailed history and clinical features of the patients were taken carefully.
- ❖ The clinical history.
- ❖ Detail history of present and past illness.
- ❖ Personal and family history.
- ❖ Diet habits.
- ❖ Exposure to cold weather.

Clinical features for Pitha Kaasam are

- ❖ Persistent Cough
- ❖ Sensation of sweet and salt taste in the tongue.
- ❖ Vomiting
- ❖ Headache
- ❖ Body pain

- ❖ Burning sore throat
- ❖ Haemoptysis
- ❖ Dyspnoea
- ❖ Anorexia with sour taste regurgitation
- ❖ Horripillation
- ❖ Fever and
- ❖ State of Confusion

STUDY ON SIDDHA CLINICAL DIAGNOSIS

Siddha diagnosis was also made by the following methods.

1. Poriyal arithal
2. Pulanal arithal
3. Vinathal
4. Mukkutra nilaigal
5. Udal Kattugal
6. Envagai thervugal (Including Neerkuri, Neikuri)
7. Nilam
8. Kaalam

THE CLINICAL INVESTIGATION

For further detailed study about the disease the following laboratory investigation was done in all cases.

Blood

Total count - WBC

Differential count - WBC

Haemoglobin

Erythrocyte Sedimentation Rate

Blood sugar

Blood urea

Urine

Albumin

Sugar

Deposit

Motion

Ova

Cyst

Other test

Chest X-ray

OBSERVATION AND RESULTS

Results were observed with respect to the following aspects.

1. Age and Sex reference
2. Nilam
3. Seasonal variations
4. Socio-economic status
5. Mukkuttram
6. Udal Kattugal
7. Signs and Symptoms
8. Envagai thervugal
9. Laboratory Investigation
10. Chest X-ray

Table 2 : Age reference

Sl.No	Age	No.of cases
1	Upto 10 yrs	10
2	10 – 30 yrs	5
3	30 – 50 yrs	4
4	50 – 70 yrs	2

Out of 21 cases, 10 cases were affected in the age groups of Upto 10 years (48%).

Table 3 : Sex reference

Sl.No	Age	No.of cases
1	Female	2
	Female Children	3
2	Male	8
	Male Children	8

Out of 21 cases, males are more affected.

Table 4: Lung affected

Sl.No	Lung	Lobe	No.of cases
1	Right Lung	Upper	7
		Middle	1
		Lower	5
2	Left Lung	Upper	-
		Lower	8

Left lower lobe lung is more affected (38%).

Table 5 : Nilam

Sl.No	Nilam	No.of cases
1	Kurunji	13
2	Marutham	8

Out of 21 cases, 13 cases were affected under kurunji nilam (61%).

Table 6: Seasonal variation

Sl.No	Paruvakaalam	No.of cases affected
1	Kaarkaalam	5
2	Koothirkaalam	2
3	Munpanikaalam	4
4	Pinpanikaalam	7
5	Ilavenilkaalam	1
6	Mudhuvenilkaalam	2

Out of 21 cases, 7 cases were affected under pinpani kaalam (33%).

Table 7: Socio-economic status

Sl.No	Class	No. of cases
1	Middle	9
2	Poor	12

This disease occur common in poor socio economic status (57%)

Mukutra Nilai

Table 8: Derangement of Iyam

Sl.No	Kabam	No.of cases	Changes
1	Avalambagam	21	Cough with expectoration
2	Kilathagam	21	Anorexia
3	Pothagam	21	Sensation of sweet and salt taste in the tongue
4	Tharpagam	21	Headache
5	Sandhigam	6	Pain in the knee joint

100% of cases are affected in increased Iyam.

Table 9: Derangement of Azhal

Sl.No	Pitham	No.of cases	Changes
1	Anilam	21	Anorexia
2	Ranjagam	10	Pallor in conjunctiva and tongue
3	Saadhagam	21	Difficulty in doing routine work
4	Aalosagam	5	Diminished vision

100% of cases are affected in increased azhal.

Table 10: Derangement of Vali

Sl.No	Vadham	No.of cases	Changes
1	Pranan	15	Dyspnoea
2	Abanan	5	Constipation
3	Viyanan	6	Pain during walk
4	Udhanan	21	Vomiting, expectoration
5	Samanan	21	Anorexia
6	Nagan	21	Horripillation
7	Koorman	5	Diminished vision
8	Kirugaran	21	Anorexia, cough
9	Thevathathan	11	Irritability
10	Dhananjayan	-	-

100% of cases are affected in decreased vaatham.

Table 11 : Udal Kattugal

Sl.No	Udal Kattugal	No.of casses	Changes
1	Saaram	21	Tiredness
2	Senneer	10	Pallor in conjunctiva and tongue
3	Oon	6	Pain in the knee joints
4	Kozhuppu	6	Restricted movements
5	Enbu	6	Excess falling of hair in the scalp
6	Moolai	5	Diminished vision
7	Sukkilam / Suronitham	2	Decreased sexual desire

Table 12: Clinical Features

Sl.No	Clinical Features	No.of casses
1	Fever	21
2	Cough with Expectoration	21
3	Haemoptysis	7
4	Dyspnoea	15
5	Headache	21
6	Body pain	21
7	Vomiting	7
8	Loss of appetite	21
9	Sweet and Salt taste in the tongue	21
10	Sore throat	10
11	Horripillation	21
12	State of Confusion	4

Table13 : Envagai thervu

Sl.No	Envagai thervu	No.of casses affected
1	Naa	10
2	Niram	-
3	Mozhi	10
4	Vizhi	5
5	Sparisam	21
6	Malam	5
7	Naadi Kaba pitham	21
8	Neerkuri Enjal Neikuri Look like pearl,	20 21

Table 14: Envagai Thervugal

Case No	Naa	Niram	Mozhi	Vizhi	Sparisam	Malam	Moothiram					Neikuri	Naadi
							Niram	Manam	Nurai	Edai	Enjal		
1	A	NA	NA	NA	A	NA	NA	NA	NA	NA	A	Pearl	KP, RP
2	A	NA	A	NA	A	A	NA	NA	NA	NA	A	Pearl	KP, RP
3	NA	NA	NA	NA	A	NA	NA	NA	NA	NA	NA	Pearl	KP, RP
4	NA	NA	A	A	A	NA	NA	NA	NA	NA	A	Pearl	KP, RP
5	NA	NA	NA	NA	A	NA	NA	NA	NA	NA	A	Pearl	KP, RP
6	NA	NA	NA	NA	A	NA	NA	NA	NA	NA	A	Pearl	KP, RP
7	NA	NA	NA	NA	A	NA	NA	NA	NA	NA	A	Pearl	KP, RP
8	A	NA	A	NA	A	NA	NA	NA	NA	NA	A	Pearl	KP, RP
9	A	NA	NA	NA	A	NA	NA	NA	NA	NA	A	Pearl	KP, RP
10	A	NA	A	A	A	A	NA	NA	NA	NA	A	Pearl	KP, RP
11	NA	NA	NA	NA	A	NA	NA	NA	NA	NA	A	Pearl	KP, RP
12	NA	NA	A	NA	A	NA	NA	NA	NA	NA	A	Pearl	KP, RP
13	A	NA	A	A	A	A	NA	NA	NA	NA	A	Pearl	KP, RP
14	A	NA	A	NA	A	A	NA	NA	NA	NA	A	Pearl	KP, RP
15	A	NA	A	NA	A	NA	NA	NA	NA	NA	A	Pearl	KP, RP
16	NA	NA	NA	NA	A	NA	NA	NA	NA	NA	A	Pearl	KP, RP
17	NA	NA	A	A	A	A	NA	NA	NA	NA	A	Pearl	KP, RP
18	NA	NA	NA	NA	A	NA	NA	NA	NA	NA	A	Pearl	KP, RP
19	A	NA	A	A	A	NA	NA	NA	NA	NA	A	Pearl	KP, RP
20	NA	NA	NA	NA	A	NA	NA	NA	NA	NA	A	Pearl	KP, RP
21	A	NA	NA	NA	A	NA	NA	NA	NA	NA	A	Pearl	KP, RP

A – Affected

RP – Rapid pulsation

NA – Not affected

KP – Kabapitham

Table 15: Laboratory investigation

Case No	TC Cells/ Cu.mm	DC %			ESR mm		Hb g %	B. Sugar mg%	B.Urea mg%	Urine			Motion		Mantoux Test	Sputum for AFB	Chest X-ray
		P	L	E	½ hr	1 hr				Alb	Sug	Dep	Ova	Cyst			
1	26800	80	20	-	30	75	6.6	-	-	Nil	Nil	5-7 puscells	Nil	Nil	- ve	-	RULP
2	15200	72	25	3	15	40	8	93(R)	23	Nil	Nil	2-3 puscells	Nil	Nil	- ve	- ve	LLL
3	21000	77	23	-	80	120	12.7	-	-	Nil	Nil	NAD	Nil	Nil	-	-	RLLC
4	23700	77	23	-	40	95	12.3	120(PP)	22	Nil	Nil	2-3 puscells	Nil	Nil	- ve	- ve	RLLC
5	13600	73	24	3	25	65	12.2	-	-	Nil	Nil	0-2 puscells	Nil	Nil	- ve	-	LLL
6	14300	60	39	1	50	105	12.9	-	-	Nil	Nil	1-3 puscells	Nil	Nil	-	-	RLLC
7	19400	77	23	-	80	120	13.3	-	-	Nil	Nil	3-10 puscells	Nil	Nil	- ve	-	RULC
8	16400	71	24	5	10	30	11.8	-	-	Nil	Nil	0-3 puscells	Nil	Nil	- ve	- ve	RMLC
9	20500	85	15	-	110	135	5.7	-	-	Nil	Nil	5-15 puscells	Nil	Nil	- ve	-	RLLC
10	18800	74	23	3	5	20	7.6	100(R)	32	Nil	Nil	1-3 puscells	Nil	Nil	- ve	- ve	RULC
11	14000	61	39	-	80	120	12.3	-	-	Nil	Nil	2-5 puscells	Nil	Nil	- ve	-	RULC
12	23400	95	5	-	20	80	13.9	85(R)	20	Nil	Nil	1-3 puscells	Nil	Nil	- ve	-	RULP
13	20400	81	19	-	15	30	8.9	98(R)	30	Nil	Nil	Occasionally seen	Nil	Nil	- ve	- ve	RULP
14	18300	86	14	-	25	85	11.7	86(R)	23	Nil	Nil	2-4 puscells	Nil	Nil	- ve	-	RLLP
15	25800	68	30	2	25	50	9.6	90(R)	32	Nil	Nil	0-2 puscells	Nil	Nil	- ve	-	LLL
16	26600	72	26	2	50	115	13	-	-	Nil	Nil	Occasionally seen	Nil	Nil	- ve	-	LLL
17	16100	60	35	5	20	55	12	85(R)	35	Nil	Nil	2-3 puscells	Nil	Nil	- ve	- ve	LLL
18	21000	69	30	1	50	110	12.6	-	-	Nil	Nil	Occasionally seen	Nil	Nil	-	-	RULP
19	24800	92	8	-	30	60	7.3	97(R)	32	Nil	Nil	1-5 puscells	Nil	Nil	- ve	- ve	LLL
20	19700	67	31	2	40	80	13.2	-	-	Nil	Nil	Occasionally seen	Nil	Nil	- ve	-	LLL
21	27300	88	12	-	7	15	8.2	-	-	Nil	Nil	0-3 puscells	Nil	Nil	- ve	-	LLL

RLL – Right lower Lobe

RUL- Right upper Lobe

RML – Right middle lobe P – Pneumonitis

LLL – Left lower lobe C – Consolidation

DIFFERENTIAL DIAGNOSIS

மந்தாரகாசம்

“தானான தூயதோர் நாசி தன்னில்
சலநோய் நீர் தான்விழுந்து தும்ம லுண்டாம்
மானான மார்புநெஞ் சடைத்து மூச்சு
வலுவாகப் பாம்புபோல் சீற லாகும்
கானான கண்டமொடு முகமுங் காதும்
காயமதுங் கசிவாகி வியர்வை யாகும்
ஏனான இருமலொடு கோழை கம்மல்
இரைப்பாகு மந்தாரக் காச மாமே”

– Yugi Vaithiya Chintamani

In manthara kaasam, even though rhinitis, sneezing, discomfort in the chest, added sounds, body pain, cough with expectoration, associated with sweating are present, but the special symptoms of pitha kaasam such as fever and haemoptysis are not present.

சுவாசகாசம்

“வண்மையாய்க் கோழைகட்டி இருமி வீழும்
மாநாகம் போலவே வாங்குஞ் சுவாசம்
திண்மையாய்ச் செருமலுண்டா மடிக்க டிக்குச்
சிரணமில்லா மலே வயிறு ஊதும்
நண்மையாய் நாசியது தணல்போ லாகும்
நளுந்துடம்பு வற்றிவருங் குரலுங் கம்மும்
உண்மையா யுண்ணாக்கி லூறுங் கேணி
உழற்றுமே சுவாசகா சத்தி னொப்பே”

– Yugi Vaithiya Chintamani

In suvasa kaasam, even though cough with expectoration, added sounds, indigestion with abdominal distension, burning sensation in the nose, weight loss, sore throat, associated with excessive salivation are present, but the special symptoms of pitha kaasam such as fever and haemoptysis are not present.

பித்தஷயம்

“என்றதோர் விலாக்கழுத்து மிகச்சு ருங்கி
இசைக்குமே இருமலொடு கோழை யுண்டாம்
குன்றதோர் குளுமையுண்டா யிரத்த வாந்தி
கொடிதான மூர்ச்சைகுரல் கம்ம லாகும்
தின்றதோர் தீபனந்தான் செரிகெ டாது
தேகமெங்கும் வெளுத்துமே மஞ்ச ளாகும்
மென்றதோர் மூத்திரமூ மஞ்சள் காணும்
மீறுபித்த ஷயமென்றே மொழிய லாமே”.

– Yugi Vaithiya Chintamani

In pitha shayam, even though intercostal and neck muscle wasting and emaciation, added sounds, cough with expectoration, chills, haemoptysis, dyspnoea, hoarseness of voice, indigestion, yellowish white body colour associated with yellowish urine are present, but the special symptoms of pitha kaasam such as fever and state of confusion are not present.

Diseases	Positive Symptoms	Negative Symptoms
Manthaara Kaasam	Cough Expectoration Body Pain	Rhinitis, Sneezing Added sound, Sweating
Suvaasa Kaasam	Cough Expectoration Dyspnoea Sore throat	Weight Loss, Sneezing, Flatulance
Pitha Shayam	Cough Expectoration Haemoptysis Dyspnoea Sore Throat	Whiteness of the body, Yellowish Urine Emaciation

DISCUSSION

The functional units of our body are the three vital forces, which are Vali, Azhal and Iyam. Any disturbance in the vital humour will affect the function of the organ. In chronic condition, it may lead to pathological changes in the affected organ.

“சேடம் சீதமாய் துடைத்து”

In normal condition (suharana nilai), the kabam gives Vanmai (strength) to the body, and act as a protective mechanism, and also plays a role of removing the unwanted thing from the body.

In the kuharana nilai, when kabam is vitiated, it leads it's protective mechanism and does harm to the body

The clinical studies on all selected cases were undergone investigation by both siddha as well as modern allied parameters.

INTERPRETATION OF CLINICAL HISTORY

1. Family history

No positive family history of this disease.

2. Age group

Out of 21, 10 cases are below 10 years of age (48%)

3. Sex

Out of 21, 16 cases are males (76%).

4. Occupation

Occupational history was not related to this disease.

5. Clinical features

All the patients depicted the clinical features mentioned in the poem “Pitha Kaasam” in the text book of Yugi Vaithiya Chinthamani.

6. History of previous illness

Out of 21, 11 Pitha Kaasam patients had past history of repeated respiratory disease.

7. Nilam

Out of 21, 13 cases were affected in kurunji Nilam (61%)

INTERPRETATION OF SIDDHA PARAMETERS

I. Interpretation of Envagai thervugal

1. Naadi

Out of 21, 21 cases having iyaazhal (100%).

2. Sparisam

Out of 21, 21 case were affected (100%)

3. Naa

Out of 21, 10 cases were affected (48%).

4. Niram

On observations the body colour of 21 cases having their own colour (100%).

5. Mozhi

Out of 21, 10 cases were affected (48%)

6. Vizhi

Out of 21, 5 cases were affected (24%)

7. Moothiram

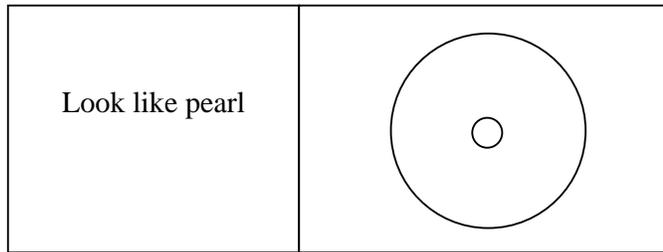
Niram - Out of 21, 21 cases were having normal colour (100%)

Manam - No abnormal odour.

Enjal - Out of 21, 20 cases were affected (95%).

Neikuri

Out of 21, 21 patients Neikuri exhibited as the oil, it's look like pearl (Muthothu nitral) (100%).



III. Interpretation of Mukkutra Nilaigal

Iyam

4. Avalambagam

Out of 21, 21 cases were affected (100%).

5. Kilethagam

Out of 21, 21 cases were affected (100%).

6. Pothagam

Out of 21, 21 cases were affected (100%).

7. Tharpagam

Out of 21, 21 cases were affected (100%).

8. Santhigam

Out of 21, 6 cases were affected (28%).

Azhal

4. Anar pitham

Out of 21, 21 cases were affected (100%).

5. Ranjaga Pitham

Out of 21, 10 cases were affected (48%).

6. Sadhaga Pitham

Out of 21, 21 cases were affected (100%).

7. Aalosa Pitham

Out of 21, 5 cases were affected (24%).

Vali

1. Pranan

Out of 21, 15 cases were affected (71%)

2. Abanan

Out of 21, 6 cases were affected (28%).

3. Viyanan

Out of 21, 2 cases were affected (10%).

4. Udhanan

Out of 21, 21 cases were affected (100%).

5. Samanan

Out of 21, 21 cases were affected (100%).

6. Nagan

Out of 21, 21 cases were affected (100%).

7. Koorman

Out of 21, 5 cases were affected (24%).

8. Kirukaran

Out of 21, 21 cases were affected (100%).

9. Devathathan

Out of 21, 11 cases were affected (52%).

IV. Interpretation in Udal Thathugal

1. Saaram

Out of 21, 21 cases were affected (100%).

2. Senneer

Out of 21, 10 cases were affected (48%).

3. Oon

Out of 21, 6 cases were affected (28%).

4. Kozhuppu

Out of 21, 6 cases were affected (28%).

5. Enbu

Out of 21, 6 cases were affected (28%).

6. Moolai

Out of 21, 5 cases were affected (24%).

7. Sukkilam/Suronitham

Out of 21, 2 cases were affected (10%).

INTERPRETATION OF ALLIED PARAMETERS

Suspected cases were subjected to screening test of haemotology.

Total count WBC – Out of 21, 21 cases having increased TC (100%)

Differential count for WBC – Out of 21, 21 cases having increased lymphocytes (100%)

ESR – Out of 21, 21 cases having raised ESR (100%)

Hb – Out of 21, 10 cases having decreased Hb (48%)

X-Ray chest

Out of 21, 13 cases having consolidation in the lung (61%), 8 cases having pneumonitis in the lung (38%).

HIGH LIGHTS OF THE DISSERTATION TOPIC

The disease is characterized by

- Cough with expectoration is due to irritation of respiratory tract result in stimulation of vagal nerve endings.
- Vomiting is due to mechanical stimulation of pharynx.
- Dyspnoea is due to pulmonary insufficiency (inadequately functioning alveolar tissue).
- Anorexia is due to acute fibrile illness.
- Headache and body pain is due to fever.
- Sore throat is due to infection of the larynx.
- Haemoptysis is due to erosion of capillaries in a lung.
- Fever is due to infection of lung parenchyma, Horripillation is due to chill.
- State of confusion is due to cerebral hypoxia, result from filling of alveoli with fluid.

All of these symptoms correlate with “Pitha Kaasam” explained by our great siddhar Yugimuni.

CONCLUSION

Identification of disease and its pathogenesis are pre requisite for medical practice. A detailed history taking, clinical examinations as per siddha guidelines is necessary to arrive at precise diagnosis.

The study on Pitha Kaasam was carried out in the dissertation, giving importance to the characteristics of the disease like Persistent Cough, Sensation of sweet and salt taste in the tongue, Vomiting, Headache, Body pain, Burning sore throat, Haemoptysis, Dyspnoea, Anorexia with sour taste regurgitation, Horripillation, Fever and State of Confusion.

Diagnosis can be carried out by detailed history taking, classical clinical examination of siddha system, Via, Envagaithervugal including Naadi and Neerkuri, and changes in seven physical constituents and three humours.

Whether this disease is curable or not is carried out by examination of siddha system, via, Neikuri and Manikkadai nool.

This study on **Pitha Kaasam** may be correlates with Pneumonia, which has given relevance to modern clinical entity.

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