

A STUDY ON
VATHA GUNMAM

(DISSERTATION SUBJECT)

*For the Partial fulfillment of the requirements
to the Degree of*

DOCTOR OF MEDICINE (SIDDHA)
Branch - I, Maruthuvam (Pothu)



GOVERNMENT SIDDHA MEDICAL COLLEGE
(Affiliated to the Tamilnadu Dr.M.G.R. Medical University, Chennai)

Palayamkottai – 627 002

SEPTEMBER - 2007

ACKNOWLEDGEMENT

I am extremely grateful to my lord almighty that empowered me with his blessings and grace to complete my dissertation work successfully.

I acknowledge my dept to the **Vice Chancellor**, the Tamil Nadu **Dr.M.G.R. Medical University**, Chennai for giving me permission to undertake this dissertation work.

I express my whole hearted thanks to **Dr.M.Dhinakaran M.D(S)**., Principal, Government Siddha Medical College, Palayamkottai for permitting me to make use of the facilities available in the institution for my dissertation work. I also thank **Dr.R.Devarajan M.D(S)**., Vice Principal Government Siddha Medical College, Palayamkottai for his guidance.

I am really indepted to **Dr.K.R.Revathy M.D(S)**., Former Vice Principal & Head of the Department, Post Graduate, Department of Pothu Maruthuvam, Government Siddha Medical College, Palayamkottai for his valuable guidance and encouragement in selecting this topic.

It is my privilege to record my deep sense of gratitude to **Dr.A.Prema M.D(S)**., Head of the Department,Post Graduate, Department of Pothu Maruthuvam, Government Siddha Medical College for her devoted guidance and for providing basic infrastructural needs for use patients

admitted in the ward, without her constant and authentic support, this study would not have seen the light of day.

I express my thanks to **Dr.S.Mohan M.D(S)**., Lecturer, P.G.Maruthuvam Branch for his valuable guidance.

I express my gratitudes to **Dr.S.Chitra M.D(S)**., Assistant Lecturer, P.G.Maruthuvam Branch for his valuable guidance

My sincere thanks to **Dr.S.Justus Antony M.D(S)**., for his guidance and support during this study.

I express my sincere thanks to **Dr.K.Sankar Ganesh M.D(S)**., & **Dr.P.Shanmugam M.D(S)**., Government Siddha Medical College, Palayamkottai and also thanks to **Dr.Muthu Krishnan M.B.B.S., M.S.**, for his timely guidance.

I owe special gratitude to **Dr.M.R.Vairamuthu Raja M.B.B.S., M.D.**, Former Professor and **Dr.Arumuga Pandian @ S.Mohan.M.B.B.S., M.D.**, Professor, Modern Medicine Department, Government Siddha Medical College for his valuable guidance in modern aspect of approach to this study.

I express my thanks to **Dr.J.Joseph Doss M.B.B.S., P.hd.**, Former Head of the Department and **Mr.M.Kalaivanan M.Sc.,M.Phil.**, Lecturer and

staffs of Pharmacology Department for their keen cooperation in eliciting the Pharmacological evaluation of the trial medicine.

I also thanks to **Mrs.N.Nagaprema M.Sc., M.Phil.** Head of the Department and staffs of Biochemistry Department for their cooperation in eliciting the Biochemical analysis of the trial medicine.

I express my thanks to librarian **Mrs.T.Poonkodi M.A., M.L.I.S.**, for permitting me to utilize the college library for my dissertation work and I also thanks to **Mrs.M.Sasikala**, Assistant Librarian.

I sincerely thank my colleagues and other staff members who helped me during this whole study period.

I remember with gratitude the love, affection and innumerable sacrifices showered upon me by **my parents** & also by my sister **Dr.G.Amutha Devi M.B.B.S, Ms.G.Anitha Devi M.Sc., B.Ed.**, and my brother **G.Arun D.C.E.** without whom my effects would not have crystallized.

Above all its is my responsibility and duty to register my thanks to my Better half **Er. N. Ragavan M.Sc, M.Tech., B.Ed., M.Phil.**, for giving full support behind my in my studies & this dissertation works.

Finally I express my deep thanks to **Broad Band Net Cafe & staffs** of this centre their kind cooperation.

Abstract

ABSTRACT

Since being the commonest disease in the society, number of sufferers increasing day by day, the author has chosen the disease, '**Vatha Gunmam**' for her dissertation work. The evidence of the disease '**Vatha Gunmam**' is derived from '**Yugi Vaidhya Chinthamani – 800**'. The signs and symptoms mentioned in Yugi Vaidhya Chinthamani closely resembles with that of '**Peptic Ulcer**' in Modern Medicine. Its increased occurrence in recent times is due to stress, strain and abnormal dietary habits.

20 Inpatients & 20 Outpatients of either sex were selected. They were administered with the trial medicines, **Ayilpattai Chooranam 1gm B.D with hot water**, during the whole study period. **Ayilpattai Chooranam** was chosen for this study with reference from '**Agasthiyar Attavanai Vagadam**'.

The trial medicines were subjected to bio-chemical and pharmacological analysis.

At the end of the trial study, the majority of the cases showed good results.

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Introduction

INTRODUCTION

Siddha system is one of the ancient systems of medicine in India. This system has been developed with 'Philosophy' or 'Thathuvam' as its base. Siddhars had given equal importance to '**Vedanta**' and '**Siddhanta**'.

It may surprise one to know that the fundamental principles of siddha system are not to be found in any other medical system of the world.

This system is said to have been developed by 18 siddhars. The siddha system flourished in south and ayurveda in north. According to tradition it was lord Shiva who unfolded the knowledge of siddha system of medicine to his consort parvathi who handed in down to nandhi deva and he to the siddhars.

They were able to diagnose and cure disease through their '**Aanma Shakthi**' which they attained through the worship of the supreme power.

Siddhar is a Tamil word that is derived from its root '**chit**' which means perfection in life or heavenly bliss. It generally refers to eight kinds of supernatural powers attainable by man. The person who had attained such miraculous power in life is known as '**siddhar**'.

In siddha medicine, the physiological function in the human system is mediated by three substances **thathus**.

1. vatham
2. pitham
3. kabam

Which are made up of the five elements (Bhutas)

- | | |
|---------|-----------|
| 1. Mann | 4. Vayu |
| 2. Neer | 5. Akasam |
| 3. Thee | |

If these three thus function normally normal health is maintained. The normal order of vatham, pitham and kabham are in the proportion of 4:2:1 respectively. Any change in these proportions will lead to disease.

Natural forces working in the several organs of the human body are related to the corresponding forces acting through the five elements of the world. Ninety six thatthuvam (fundamental principles) regulate the functions of the human body.

Siddha medicine emphasizes the use of herbs-roots-stem and leaves. There is not effectively gradual use of metals and mineral is suggested.

”வேர் பாரு தழைபாரு மிஞ்சினக்கால்
மெல்ல மெல்ல பற்ப செந்தூரம் பாரே”

- அகத்தியர் பிணி 80

In our siddha system of medicine siddhars have insisted to use the herbal medicines to cure a disease. If the prognosis of the disease is not good, then try with metallic preparation. This is the reason for selecting the herbal medicine for this disease by the author namely “**Ayilpattai chooranam**”.

”உணவே மருந்து மருந்தே உணவு”

- திருமூலர்

Thirumoolar is a famous sage, which advocates the importance of diet.

Siddha systems of health care lay a great emphasis on understanding the properties of food. Food and nutrition are more important than medicines in maintaining good health and in restoring the body to a healthy condition.

As in the words of Thiruvalluvar the great tamil sage,

”மருந்தென வேண்டாவா யாக்கைக்கு

அருந்தியது அற்றது போற்றியுணின்”

”அற்றாள வறிந்துண்க அ/துடம்பு

பெற்றான் நெடி துய்க்குமாறு”

”மாறு பாடில்லாத உண்டி மறுத்துண்ணின்

ஊறு பாடில்லை உயிர்க்கு”

-திருக்குறள்

All the above kural are given under the heading ‘**marunthu**’ (Medicine) which explains the importance of dietary habits.

Siddhars have classified the disease into 4448 types. For all these types they have given clearly the aetiology, symptom, pathology, diagnosis, treatment and diet restriction which show the knowledge about disease and treatment. Out of these 4448 disease the author selected ‘**Gunmam**’.

The evidence of the disease ‘**Vatha Gunmam**’ is derived from ‘**Yugi Vaidhya Chinthamani – 800**’. The signs and symptoms mentioned in yugi vaidhya chintamani closely resembles with that of “**peptic ulcer**” in modern medicine.

“**Ayilpattai chooranam**” was choosen for this study with reference from ‘**Agasthiyar Attavanai Vagadam**’.

Bio-chemical & Pharmacological analysis for the above said medicines should be ruled out.

Aim and Objectives

AIM AND OBJECTIVE

In the present world about 80% of population suffers from Gastro Intestinal tract disorders due to excessive stress, strain and irregular diet.

Reportedly about 150 persons per lakh of people suffer from peptic ulcer in Tamil Nadu state alone. The incidence is reportedly high in Calcutta and low in Punjab. The incidence of peptic ulcers recorded high in south India.

The main aim of this dissertation work is to do a scientific review on **'Vatha Gunmam'**.

The main aim of present study is to analyse in detail the aetiology, pathology, symptomatology and diagnostic methods of **'Vatha Gunmam'** and make it acceptable and scientifically approachable in this modern world.

So most of the people are prone to suffer from Vatha Gunmam. Hence that induces the author to find out better remedy for this disease. The author desire to conduct a detailed study on the clinical course of **'Vatha Gunmam'** and its response to siddha way to treatment with a specific formula known as **'Ayilpattai Chooranam'**.

To establish these aims, the following objectives have been drawn.

1. To collect both siddha and modern literary evidences.
2. To have an idea of the incidence of the disease with reference to sex, age, occupation, socio-economic status, habits etc.
3. To have clinical trial on **'Vatha Gunmam'** with the known specific formula **'Ayilpattai Chooranam'**.

4. To analyse the aetiology, classification and symptomatology of Gunma rogam.
5. To know in detail the specific aetiological factor of 'Vatha Gunmam'.
6. To analyse the clinical symptoms and pathology of 'Vatha Gunmam'.
7. To compare and study the pathology of **Vatha Gunmam** with modern concepts of **Peptic Ulcer**.
8. To discuss the complication of Vatha Gunmam.
9. To study the diagnostic methods (Envagai Thervugal etc.) and compare with modern investigation technique with respect to Vatha Gunmam.
10. To utilize the modern parameters for the confirmation of diagnosis.
11. To know the role of diet control, medical advices in attaining good results along with the trial medicine.
12. To find the changes in three humours and their thannilai valarchi and vetrunilai valarchi in case of Vatha Gunmam.
13. To study the bio-chemical analysis and pharmacological actions tried on this disease 'Vatha Gunmam'.

Siddha Aspects

SIDDHA ASPECTS

“மாறுபாடில்லாத உண்டி மறுத்துண்ணி
ஹாறுபாடில்லை யுயிர்க்கு”

- திருக்குறள்

Nowadays, the industrialization and development of house hold electronic equipments have changed the life style of this society. The changes has main role in the development of many diseases like obesity, **peptic ulcer**, diabetes mellitus, hypertension. Eventhough these have genetic predisposition siddha system has variety of etiological factors for the development of peptic ulcer. Here, the author is discussing the peptic ulcer are Guma rogam from siddha literature.

The siddha system of medicine is one of the indigenous systems of medicine. It was systematically developed by siddhars. According to siddha system all the living and non living things in the world consist of five elements namely,

1. Mann
2. Neer
3. Thee
4. Vayu
5. Akayam

Like the above human body is also composed of the same five elements. These five elements are the fundamental principles of creation, protection and destruction. The forces behind the three are

1. Vatham
2. Pitham
3. Kabam

In healthy individual the ratio between the three remain 1, ½, ¼. Any imbalances in the three causes diseases. This is what saint thiruvalluvar says,

”மிகினும் குறையினும் நோய் செய்யும் நூலோர்
வளி முதலா எண்ணிய மூன்று”

- திருக்குறள்

Formation of three humours

Human body is made up of 5 basic elements known as **pancha bootham**. The major part of human body is built by **prithivi bootham**, other boothas namely **appu**, **theyu** and **vayu** work together means that appu takes the kabam from our food. They taken the pitham and vayu taken the vatham; since these three boothas suits the 3 thathus; these three thathus could be taken as the 3 types of energy in our body namely **idakalai**, **pinkalai** and **sulumunai** respectively; when these three naadies activate the praanavayu through the nasal opening the 3 vayus namely **abaanan**, **praananar** vayu and **samaanan** act with the respective 3 naadies namely **idakalai**, **pinkalai** and **sulumunai**, thereby generating **Vatham**, **pitham** and **kabam**.

GUNMAM

Definition

Gunmam is the genetic name for the gastro intestinal disorder pertaining to the stomach, characterized by indigestion, epigastric pain, gastric eructation, nausea and vomiting etc.,

The disease not only affects the physical health of a person but also the mental health. The characteristic excruciating pain in the abdomen drives one to the extent of committing suicide. In short Gunmam means reduced state of metabolic and mental activities.

Aetiology

According to the siddha concept, Gunmam occurs due to the vitiation of vatham saint Therayar says that

“தொடர்வாத பந்தமலாது குன்மம் வராது”

When the vayu permanently accumulates in the intestine, it impairs the pitha and kaba kutram leading to Gunmam.

One should not restrict his deep sorrow by preventing the tears. Such a restricted emotion will result in Gunmam.

“விழியினில் நீரடக்கில்

விதமான யிருத்ரோகம்

வழிபடு பீநசங்கள்

வந்திடு நேத்ர ரோகம்

அழுகிடும் சிரசில் ரோகம்

அதனுடன் வாதங் கூடில்

பழுதுடல் பண்ணிக் குன்மம்

பற்றிடும் குணமுண்டோ ”

- சித்த மருத்துவாங்கச் சுருக்கம்

YUGI VAITHYA CHINTHAMANI 800

The saint yugi says that there are two main reasons for Gunmam.

1. Personal habit
2. Mental make up

”செய்யான குன்மத்தினுள் பத்தி தன்னைச்

செப்பிடவே துவர்ப்பான புசிப்பினாலும்

மையான மங்கையுடன் மார்க்கத்தாலும்

வகையாக கிழங்குவகை யிருந்தலாலும்

உய்யான மிளகுகா யுரைப்பினாலும்
உறுபசியை யடக்கிடினு மந்தத்தாலும்
தையான சண்டாள கோபத்தாலும்
சலிப்பாலும் குன்மம் வந்து தாக்கும் பாரே”

- யுகி வைத்திய சிந்தாமணி

According to yugi, the following factors will cause Gunma rogam.

1. Excessive intake of astringent.
2. Excessive sexual intercourse.
3. Excessive intake of tubers, capsicum and spices.
4. Suppression of appetite and mental upset.
5. Excessive anger.

”பார்க்கவே குருநிந்தை பண்ணினோர்க்கும்
பால்கரை சிசுவை பட்டினிவைத் தோர்க்கும்
மார்கமாம் மாதாவை பிதாவை நிந்தை
வஞ்சனை தான் செய்தோர்க்கும் மடந்தைதனை
கார்க்கவே கற்பழித்த காழுகர்க்கும்
கருதியே சிவநிந்தை பண்ணினோர்க்கும்
ஆர்க்கவே யட்டகுன்மம் மனுகு மென்று
அறன் சொல்ல தேவிசொன்னாளறிந்து பாரே”

-யுகி வைத்திய சிந்தாமணி

The saint yugi says that guilty mindedness, disobedience of teacher, antisocial activities like starvation of young children, raping etc., are the factors which can cause Gunmam.

AGASTHIYAR KANMA KANDAM

According to agasthiyar kanma kandam – yoga kandam

”குன்மம் வந்த காரணந்தா னேதோவெனில்

குடிகெடுத்து வயிற்றெரிச்சல் கொண்ட பாவம்

நன்மையில்லா மனக்கவடு பெருத்த பாவம்

நல்லோரை மனம் நோக பழித்த பாவம்

தன்மையில்லா பிறர் பசிக்க உண்ட பாவம்

சண்டாள தத்துவமே செய்த பாவம்

இம்மையில் இப்பாவம் வந்து சுற்றி

அதனாலே குன்மமென வெகுத்த வாறே”

- அகத்தியர் கன்ம காண்டம்

The disease of a person is predetermined in his earlier birth and he will be suffering onslaught of previous deeds. The occurrence of disease is represented in one's chromosomes.

AGASTHIYAR GUNA-VAHADAM

”தானான குன்ம வகை எட்டு மிந்த

தரணியிலுண்டான விதத்தைக் கேளாய்

ஊணான அசீரணத் தாலிந்த ரோகம்

உற்பத்தியாகு மென்றே உறுதி சொல்லு”

- அகத்தியர் குணவாகடம்

According to the great physician of Tamil land Agasthiyar. The eight types of Gunmam are used by indigestion. It is one of the causative factors.

PADARTHA GUNA CHINDAMANI

”ஊனுக்கு முன் நீருண்டாற் பசிபோம்

வீனுக்கு குன்மம் விளையும் காண”

- பதார்த்த குண சிந்தாமணி

According to Padartha Guna Chindhamani intake of water before food will subside the appetite consequently leading to Gunmam.

PARARASASEKARAM

”கயமான குடலிலுள்ளே கல்லுமி நெல்லுமாமே
கல்லொடு மயிராயுள்ள கசடது குடலிற் பற்றி
வல்லுபாய் கதுவாய் அன்னம் செரியாத மாசினாலே
மெல்லிய கிருமி கொண்டு **குன்ம நோய்** மருவுங்கானே”

- பரராசசேகரம்

Pararasaekaram says that the food substances containing rice husks, stones, and indigested food particles. Excessive cellulose contents, hairs and other unwanted materials can cause Gunman by producing micro organism in the stomach.

THIRUMOOLAR VAIDHYAM (KARUKKADI)

”ஏற்றிய **குன்மு** மெழுந்த விதங்கேள்
தோற்றிய பித்தமும் வாயுவும் தொந்திக்கில்
சேற்றி வன்னம் செரிக்கில் வலிப்பேறும்
மாற்றிய நீருறி வாந்தியுமாமே”

- திருமூலர் கருக்கடை வைத்தியம்

According to Thirumoolar Karukkadai Vaidhyam, Gunman occurs when the pitham combines with vayu and cause pain in the stomach during digestion.

SIMITTU RATHNA SURUKKAM

”ஏதநாங்கி துசட்டுடன் குன்மமே
போதவே கெண்டை புரட்டுமே வாய்வது
எதமிலாம லியம்பிய மாமுனி
சூது செய்வோர் பட்சந் தோன்றிடு **குன்மமே”**

- சிமிட்டு ரத்ன சுருக்கம்

According to Simittu Rathna Surukkkam, the important causative factor for the eight types of Gunmam is iniquitous.

ASTROLOGICAL CAUSES

”சொல்லிய ஐந்தினுக்கு இறைவர் தூர்பலமே ஆகிதி

சொல்லு மதிபாலர் வதயம் சென்றிருக்க ஆளுமையோன்
வல்லுறுவே ரேம் பார்க்க வன்சன் ஏழிவில் நிற்க

கொல்லும் நமனைப் போலாகக் குன்மம் ரோகந் தோன்றும்”

- மணிமந்தர வைத்திய ரோகம்

The astrologer has found out the intimate relationship between human body and the planetary movements and the disease like Gunmam. The above planetary movements are mentioned to have produced Gunmam.

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”குன்மமது தானெழுப்பும் விபரமென்னில்

குடல்தனிலே கல்லுமி னெல்லுமுக்கும்

யின்னமுடன் வயிறுப்பிச் சோரைப் சார்ந்தாக்கால்

புரளுவது குடலோடே மாடு பற்றும்

அன்னமது செரிக்காது மாசினாலே

அதுவுயரம் உமிழுக்குக் கிருமிபுக்கும்

வன்னமனைக்குயிலாளே குன்மரோகம்

மாசற்றால் குன்மமறு வகைதான் பாரே”

- அகஸ்தியர் குருநாடி சாஸ்திரம் 235

The sage Agasthiyar said that the food substances mined with rice, husks, stones will produce gastric upset and indigestion. This will lead to Gunmam.

AGASTHIYAR ANGATHIPATHAM

”நியமான குடலிலுள்ளே நெல்லுமிகல் நுந்தாமே
கல்லோடு மயிர்நெல்லின்வால் கசடது குடலிற்பற்றில்
வல்லமா சதுவாயன்னஞ் செரியாதம் மாசினாலே
புல்லிய கிருமிசேர்ந்து குன்மநோய் பொருந்துமென்க”

- அகஸ்தியர் அங்காதிபாதம்

According to Angathipatham, indigestible materials like stone, rice - husks, hairs will produce indigestion and eventually cause Gunmam.

CLASSIFICATION OF GUNMAM

According to siddha literatures, Gunmam noi is classified into eight varieties.

YUGI VAIDHYA CHINDAMANI

“செய்யவே எண்குன்ம செயலைக் கேளாய்

செயலான வாயு குன்மம் வாத குன்மம்

எய்யவே பித்த குன்மம் எரிசுன்மமா கும்

ஏலான வலிகுன்ம சத்தி குன்ம

தையவே சன்னி குன்மஞ் சேட்ப குன்ம

சாகசமாங் குன்ம மெட்டு மாகும்

கொய்யவே யிதனுடைய குணங்களெல்லாம்

குறிப்பறிந்து ஒவ்வொன்றாய் கூர்ந்து பாரே”

- யுகி வைத்திய சிந்தாமணி

Saint Yugi is classified the Gunmam into eight types.

They are,

1. Vayu Gunmam
2. Vatha Gunmam
3. Pitha Gunmam
4. Eri Gunmam
5. Vali Gunmam
6. Saththi Gunmam
7. Sanni Gunmam
8. Silethuma Gunmam

THIRUMOOLAR THIRUMANTHIRAM

Saint Thirumoolar also classified the Gunmam into eight varieties. Further he grouped the eight into three main headings as follows

A. Due to the derangement of Vatham

1. Vatha Gunmam
2. Vayu Gunmam
3. Vali Gunmam

B. Due to the derangement of pitham

1. Eri Gunmam
2. Saththi Gunmam
3. Pitha Gunmam

C. Due to the derangement of kabam

1. Silethuma Gunmam
2. Sanni Gunmam

DHANVANDRI VAIDHYAM

”திருந்திய வுதரந்தன்னிற் சேரும் நோயொறு நூற்றெட்டிற்
பொருந்திய குன்ம மெட்டின் பெயர்குணம் புகல் லுற்றா
மருந்தினாற் நீருங் குன்மமொரு நான்கு மற்ற நான்கு
மருந்திய மருந்தாற் நீரா தசாத்திய மென்னலாமே”

- தன்வந்திரி வைத்தியம்

Saint Dhanvandri says that 108 diseases arise from the abdomen, 8 among them are Gunmam as follows.

”என்றதில் வாதகுன்ம வலிகுன்மம் சத்தி குன்மம்
துன்றிய சூலகுன்மம் சொல்லுமி தசாத்தியந்தான்
கன்றிய பித்தகுன்மங் கபகுன்மங் குன்மசூரை
யொன்றெரி குன்மம் நான்கு முண்மையாய் தீருங்கானே”

-தன்வந்திரி வைத்தியம்

- | | |
|-------------------|-----------------|
| 1. Vatha Gunmam | 5. Pitha Gunmam |
| 2. Vali Gunmam | 6. Surai Gunmam |
| 3. Saththi Gunmam | 7. Kaba Gunmam |
| 4. Soolai Gunmam | 8. Eri Gunmam |

Among the eight, Vatha Gunmam, Saththi Gunmam, Soolai Gunmam are incurable and Pitha Gunmam, Kaba Gunmam, Eri Gunmam, Surai Gunmam and Vali Gunmam are the curable varieties by the treatment.

AGASTHIYAR GUNAVAGADAM

” தானான குன்மவகை எட்டுமிந்தத்
தரணியி லுண்டான விதத்தைக் கேளாய்
.....”

- அகத்தியர் குணவாகடம்

PATHARTHA GUNA CHINDAMANI

” மல்லாரும் அட்ட குன்மம்
.....”

- பதார்த்த குண சிந்தாமணி

ATHMA RAKSHAMIRTHAM

”செப்பினோங் குனம் மெட்டுந் தெனிலே மானிடர்க்கு
ஒப்பிலா பல நூலாய்ந்து ஒழுங்குடன் பிணிகள் நீங்க”

-ஆத்ம ரக்ஷாமிர்தம்

According to the above the verse, eight types of Gunman has been described

- | | |
|-----------------------|---------------------------|
| 1. Vatha Gunmam | 5. Vatha silethuma Gunmam |
| 2. Pitha Gunmam | 6. Trithosha Gunmam |
| 3. Silethuma Gunmam | 7. Raththa Gunmam |
| 4. Vatha pitha Gunmam | 8. Vali Gunmam |

KANNUSAMIYAM SIKICHAH RATHNA DEEPAM ENUM

VAIDHYA CHINTHAMANI – PART II

According to Sikichah Rathna Deepam Gunmam is classified in to eight types.

- | | |
|---------------------|-------------------|
| 1. Vatha Gunmam | 5. Soolai Gunmam |
| 2. Pitha Gunmam | 6. Eri Gunmam |
| 3. Silethuma Gunmam | 7. Saththi Gunmam |
| 4. Sanni Gunmam | 8. Vali Gunmam |

Further he says two types of Gunmam namely

1. Raktha vatha Gunmam
2. Raktha pitha Gunmam

AGASTHIYAR MANAKKOLAM

”பண்ணிய வாதபித்தம் பகரைய குன்மமோடு
சன்னியே யெரிவு குன்மம் கனத்துடல் பிரட்டுங் குன்மம்
நன்னியே சத்தி குன்மம் நாடிடுஞ் சூலை குன்மம்
குன்னியே வலித்த குன்மம் குதித்தோட ...”

- அகஸ்தியர் மணக்கோலம்

Most of the authors described about the classification of Gunmam as ‘Atta Gunmam’.

SIGNS AND SYMPTOMS OF VATHA GUNMAM

It is evident from above literary collection, Gunma rogam has many classification and specific aetiological factors. Vatha Gunmam, a clinical condition which is commonly encountered in our clinical side has been chosen as a subject for this dissertation.

The main aim of dissertation is to give a clear picture of pathology of Vatha Gunmam towards accurate diagnosis.

SIGNS & SYMPTOMS

”விகுத்தமாம் வாதகுன்மம் விளம்பக் கேளாய்

மிகத்தானும் நடைகுறையும் மலம் விடாது

உகுத்தமா முடல்தானு மிகக்க கடுக்கும்

உரக்கமொடு தியக்கமா யுடலை யாகும்

தகுத்தமாஞ் சரீரமது கனத்துத் தோன்றும்

சங்கையா யசனமிகத் தானுஞ் செல்லா

மிகுத்தமாம் பெலக்கேடாம் கைகா லோயும்

பேசொனா நாவரளுந்த லையு நோமே”

-யுகி வைத்திய சிந்தாமணி

According to Yugi, the symptoms of Vatha Gunmam are,

1. Fatigue & weakness
2. Constipation
3. General body pain
4. Tiredness – Drowsiness
5. Heaviness of Body
6. Loss of appetite
7. Loss of strength
8. Dryness of the tongue
9. Headache

DHANVANTHIRI VAITHIYAM

”உடம்பு கால் கரமுமோயு முதையா லுதரம் விம்ம

நுடங்கிடை மயிலே யீரல் நுதல் தனிற் நிரண்டுகோ வா

மிடம்பட விலாவிரண்டு மேறிவே தனையு முண்டாந்

திடம்பட வாதகுன்மந் செய்குண் மறிந்து கொள்ளே”

”ஈரலும் நெஞ்சும் பற்றி யெரித்திடு முளையும் பக்கங்

கார்செறி கபாலந்தானுங் கனத்திடுங் குடற் புரட்டும்

நேர்படக் கிறுகிறுக்கும் நினைவரக் குடல் வலிக்கு

வார்முலைமானே! வாத குன்மத்தின் மகிமை தானே”

- தன்வந்திரி வைத்தியம்

According to Dhanvanthiri, the symptoms of Vatha Gunmam are

- | | |
|---------------------------|----------------------|
| 1. Weakness of four limbs | 5. Heaviness of head |
| 2. Flatulence | 6. Nausea |
| 3. Pain in the flanks | 7. Giddiness |
| 4. Heart burn | 8. Colic pain |

THIRUMOOLAR KARUKKADAI VAITHIYAM – 600

”பாருமே வாதமும் வாயுவும் கூட்டில்
ஒருமே கும்பியில் உழன்று மிக நோகும்
கோருமே குத்தும் குடலை முறுக்கிடும்
வாருமே வாதத்தில் வழங்கிய குன்மமே”

- திருமூலர் கருக்கடை வைத்தியம் 600

According to Thirumoolar, the symptoms of Vatha Gunmam are pain in gastrium & intestine.

AGASTHIYAR AYULVEDHAM – 1200

”மேல்வயிறுவலி தளர்த்தியிளைப்புமுண்டா
மிக்கான பாதங்களுளைந்து பின்னுந்
சாலவே கீழ்வயிறு தனிலடங்கிச்
சத்தியே தோன்றிடுதல் தானுமுண்டா
மாவிட்டுக்குத்து போலக்கண் வெளுத்தே
யதிகதுயருண்டாகு மதனைத் தானே
சீலமுடன் மனதிலே தெளிந்து கொண்டு
தெளிவாத குன்மமெனச் செய்யலாமே”

- அகஸ்தியர் ஆயுள்வேதம் 1200

According to Agasthiyar, the symptoms of Vatha Gunmam are

- | | |
|---------------------|----------------------------|
| 1. Epigastric pain | 4. Vomiting |
| 2. Tiredness | 5. Paleness of conjunctiva |
| 3. Pain in the foot | |

” காலுடநெஞ் சுவற்றிக் கணன்றெரித் துளையும் பக்கஞ்
சாலவே தெறிகபாலஞ்சற்றுடல் மிரட்டிக் குத்தும்
நேலவே கிறுகிறுக்கும் நிரைகுடல் மிக வலிக்கும்
வாலகோகிலமே மாணே வாத குன்மங்களாமே”

- அகஸ்தியர் ஆயுள்வேதம் 1200

- | | |
|---------------|--------------------|
| 1. Tiredness | 4. Body pain |
| 2. Flatulence | 5. Giddiness |
| 3. Headache | 6. Intestinal pain |

§ÅÛ áð ,Ççð Å;¼ İÿÃò¼çÿ İÈçİ½ı ,û

உயிர்காக்கும் சித்த மருத்துவம்

வாதகுன்மத்தின் இயல்பு

ஈரலும், நெஞ்சும், வற்றும்; ஒரு பக்கத்தைப் பற்றி வயிறு எரிந்து உளையும்; குடலைப் புரட்டி வலிக்கும்; சத்திக்கும்; சிறுநீர் சிறுத்து சந்து கால், கை பொருத்துகள் உளையும்; இரவில் வலி அதகிரித்து உறக்கம் சற்றும் வராது.

சிகிச்சாரத்ன தீபம்

நடைகுறைதல், மலச்சிக்கல், தேகங்கருத்தல், உறக்கம், தியக்கம், தேகம் கனத்தல், உழலை, அற்பவண்டி, சக்திக் குறைவு, கைகாலோச்சல், தலைவலி முதலிய குறிகுணங்கள் உடையது வாதகுன்மம்.

இராஜ வைத்திய போதினி

வாதநாடியானது துடித்து பித்தத்தில் உறைந்து சாரையைப் போல் நடக்கில் மலஞ்சிக்குதல், நடைகுறைதல், தேகங் கருத்தல், சரீரம் பளுவாய் தோன்றல், தியங்கல், அன்னஞ்செல்லாமை, கை, கால் உளைச்சல், நா வரட்டல், தலை நோக்காடு ஆகிய குறிகுணங்களோடு வரும் வாத குன்மம்.

அனுபவ வைத்திய தேவ ரகசியம்

கழுத்து, சிரசு நரம்புகளில் நோதல், சுரம், குடலில் இரைச்சல், வயிற்றில் ஊசியால் குத்துதல் போலிருத்தல், மலபந்தம், மூச்சுத் திணறல், தேகமிளைத்தல், சருமம் சப்த தாதுக்கள் உலரலுடன் கறுத்தல், மயக்கம், வயிற்றில் அதிக வலி எனும் குறிகுணங்களை உடையது **வாத குன்மம்**.

ஜீவரக்ஷாமிர்தம்

கழுத்து நரம்புகளிலும், சிரசு நரம்புகளிலும் நோதல், சுரம், பீலிகஸ்தானத்திலும், குடலிலும் இரைச்சல், வயிற்றில் ஊசியால் குத்துதல் போலிருத்தல், மலபந்தம், திணறலான மூச்சு, தேகம் இளைத்தல், முகச்சுருக்கம், சருமம், சப்த தாதுக்கள் உளைந்து கறுத்தல் முதலியன.

PATHOGENESIS OF VATHA GUNMAM

In the pathogenesis of Vatha Gunmam, the changes in three humours plays major role in the development of diseases which causes changes in udal thathukkal affects the udal vanmai and these pathological changes can be seen by the 8 types of examination that is Envagai Thervugal.

SYMPTOMATOLOGY (YUGI)

Sl. No	Type of Gunmam	GIT	CNS	RS	CVS	Others
1	Vatha Gunmam	Loss of appetite, Constipation, dryness of the tongue, disphagia.	General body pain, headache, confusion, drowsy.	Restlessness.	Heaviness of the body.	Tiredness, Fever, confusion, loss of strength.
2	Pitha Gunmam	Nausea, vomiting, constipation, salivation, excessive thirst, anorexia.	Burning sensation of the extrimities, body pain, lethargy.	Dyspnoea.	Pallor of the face, giddiness.	Burning micturation, general debility.
3	Silethuma Gunmam	Anorexia, diarrhoea, borborygmous, ptylism.	Tremor, heaviness of head, phobias, hallucination.	Dry cough.	Anaemia.	Loss of strength, dryness of the skin, swelling.
4	Sanni Gunmam	Anorexia, borborygmus, diarrhoea, ptylism, astringent taste.	Rigor, tremor, hallucination, chillness of the body, phobias.	Dyspnoea.	Giddiness.	fever, general debility.

5	Eri Gunmam	Burning sensation, nausea, ptylism, borborygmus, loss of appetite, diarrhoea.	Giddiness, perspiration.	Heaviness of head.	---	Emaciation, headache.
6	Saththi Gunmam	Pain in the stomach, vomiting, broborygmus, constipation, anorexia.	Giddiness, bizzare state, drowsiness.	Cough.	Dyspnoea.	Burning sensation, pain, tiredness, fever.
7	Vali Gunmam	Abdominal bloating, borborygmus, loss of appetite, pain in the hypochondrium, false appetite.	Mental confusion, disturbed sleep.	---	---	Dryness of skin, pain over the body especially in back and hip.
8	Vayu Gunmam	Loss of appetite, indigestion, borborygmus, tiredness, diarrhoea, excessive thirst, epigastric pain, halitosis.	---	---	---	Malaise, general debility, fever, vaginal discharge.

MUKKUTRA THEORY

Generally the human body is divided into three portions namely,

Vatha Portion

Pitha Portion

Kaba Portion

Vatha Portion - From foot to umbilicus

Pitha Portion - From umbilicus to neck

**Kaba Portion - From the neck up to the
Vertex of the head**

Five basic elements are essential for the formation of universe namely,

1. Mann (Earth)
2. Neer (Water)
3. Thee (Fire)
4. Vayu (Air)
5. Akayam (Ether)

This is called **pancha bootha** principle. The five bootha principle is also mingled with the vatha, pitha, kaba kaalam. The six taste variation and the seven body elements were also related with mukkutra theory. The three thathus and tastes are formed by the different combination of five elements.

The combinations of five elements in three thathus are as follows

1. Vatham → Vali + Agayam

2. Pitham → Thee

3. Kabam → Neer + Mann

The elemental combination of taste as follows

Mann + Neer	-	Sweet
Mann + Thee	-	Sour
Mann + Vali	-	Astringent
Neer + Thee	-	Salt
Vali + Thee	-	Pungency
Agayam + Vali	-	Bitter

Knowledge of this combination will be helpful to know which dosha has been disturbed and which are the tastes should be given to correct the deranged dosha.

Gnaenthiryangal

The five Gnaenthiryangal are,

1. Mei – Feels all types of sensation
2. Vai – For knowing taste
3. Kann – Meant for vision
4. Mookku – For knowing the smell
5. Sevi – For hearing

Kanmenthiryangal

The five Kanmenthiryangal are,

1. Kai – Majority of normal works done by
2. Kaal – For walking
3. Vai – For speaking
4. Eruvai – For defaecation
5. Karuvai – For reproduction

VATHAM

The quality of vatham can be described as dry, light, mobile, expansible, quick, cold, rough, clear and astringent in taste.

Vatham is responsible for respiration and control of movement.

Classification of vatham

It can be classified into **ten types**. This has been same in yugimuni 800 as follows

“முறையாம் பிராணணோ யானன் வியானன்
மூர்க்கமா முதானனொடு சமானாகும்
திறமையாய் கூர்மனொடு கிருகரன் தான்
தேவதத்த னொடுதனஞ் சயனுமாகும்”

- யூகி வைத்திய சிந்தாமணி

10 types

- | | |
|-------------|-----------------|
| 1. Piraanan | 6. Naagan |
| 2. Abaanan | 7. Koorman |
| 3. Viyaanan | 8. Kirukaran |
| 4. Uthaanan | 9. Devathathan |
| 5. Samaanan | 10. Dhananjayan |

1. Piraanan

It is responsible for respiration and digestion.

2. Abaanan

It lies below the umbilicus responsible for the downward expulsion of stools, urine and constriction of anal sphincter.

3. Viyaanan

It is responsible for the actions of all organs sensation and absorption of food.

4. Uthaanan

It is responsible for the absorption and distribution of food.

5. Samaanan

It is responsible for the activities of the other vayus, nutrition and water balance of the body.

6. Naagan

It is responsible for the movements of eyelids.

7. Koorman

It is responsible for the closing of eyelids, yawning and closure of mouth.

8. Kirukaran

It is responsible for the restriction of mouth and nose, appetite, sneezing, cough.

9. Devathathan

It aggravates the emotional behaviours like anger, fighting, frustration, quarreling, argument etc.

10. Dhananjayan

It escapes from the head on the third day after death.

In **Vatha Gunmam**, piraanan, abaanan, uthanan, kirugaran, koorman are affected and the products symptoms as follows.

1. Affected piraanan produces Indigestion.
2. Affected abaanan produces Constipation.
3. Affected uthaanan produces Nausea, Vomiting.
4. Affected koorman produces Tiredness.
5. Affected kirukaran produces Loss of appetite.

PITHAM

The qualities of pitham are,

1. Hot
2. Penetrating
3. Slightly foul smelling
4. Liquid
5. Sour and pungent in taste

Pitham is responsible for maintenance of body heat.

The pitha thosham is further divided into **five** as follows,

1. Anar Pitham
2. Ranjaga Pitham
3. Saathaga Pitham
4. Aalosaga Pitham
5. Praasaga Pitham

1. Anar Pitham

Its action is characteristics of theyu. This is responsible for dryness and digestion of food.

2. Ranjaga Pitham

It is responsible for the colour and contents of the blood.

3. Saathagam

It lies in the heart. It is responsible for the action in accordance to our thinking.

4. Aalosagam

It is responsible for the vision.

5. Praasagam

It is responsible for the complexion of skin.

In **Vatha Gunmam** Anar pitham, Ranjagam, Saathagam are affected.

1. Affected Anar pitham produces indigestion.
2. Affected Ranjaga pitham produced anaemia.

KABAM

The qualities of kabam are,

Greasy	Dense
Smooth	Slow
Soft	Rigid
Sweet	Cold
Stable	Clear

Kaba is responsible for maintenance of body form and structure.

Kabam is classified into **five types**. They are,

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

1. Avalambagam

Heart is the seat of Avalambagam. It controls all other kabam.

2. Kilethagam

Stomach is the seat of kilethagam. It gives moisture and softness to the injected food.

3. Pothagam

Tongue is the seat of Pothagam and it is responsible for the sense of taste.

4. Tharpagam

Head is the seat of Tharpagam. It cools the eyes.

5. Santhigam

It lies in the joints and responsible for the action of joints. The above function may be altered when ever the mukkuttram is altered.

In **Vatha Gunman**, Avalmbagam, Kilethagam are affected.

1. Affected Kilethagam produces loss of appetite.

1. Increased Vatha

Emaciation, desire to hot food, shivering, abdominal bloating, constipation, fatigue, sleeplessness, giddiness and laziness.

2. Decreased Vatha

Pain all over the body, low voice, loss of attentiveness, unconsciousness and other disease of increased kaba.

3. Increased Pitha

Yellowishness of eye, stools, urine and skin. Excessive thirst and appetite, burning sensation of the body and sleeplessness.

4. Decreased Pitha

Hypothermia, loss of skin complexion and also causes derangement of kaba.

5. Increased Kaba

Increased salivation, inactiveness, heaviness of the body, impaired joint movements, dyspnoea, coughs and increased sleep.

6. Decreased Kaba

Giddiness, flattening of chest, increased sweating and palpitation.

Factors which promotes the Vatham

Diet habits

According to pararasasekram

”தொழில் பெறு கைப்புக் கார்த்தல் துவர்த்தல் வஞ்சுஞ் சோறும்
பழயதாம் வரகு மற்றைப் பைந்தினை யருந்தினாலும்
எழில் பெற பகலுறங்கி இரவினிலுறங்காத தாலும்
மழை நிகற் குழலினாலே வாதங் கோபிக்கும் காணே”

Excessive intake of spicy, pungent, astringent, unhealthy food habits, sleeping, loss of sleep in the night.

”காணவே மிகவுண்டாம் கருது பட்டினி விட்டாலும்
மானனையார் கண் மோகமிறக்கினு மிகுந்திட்டாலும்
ஆணவ மலங்கடம்மை யங்கனே விடாததாலும்”

-பரராசசேகரம்

“Excessive food or starvation

Excessive indulgence of sex and ego”

”காலங்கள் மாறியுண்ணும் காரியத் தாலுந் தண்ணீர்
சாலவே மருந்தினாலும் சந்தியலுட் கார்ந்தாலும்
கோலமாய் புளிப்பு நெய்யை குறைவற வருந்தினாலும்
வாலவார் முலை நல்லாளே வாத முற்பவிக்கும் காணே”

- பரராசசேகரம்

Irregular time of diet, excessive intake of water, excessive intake of sour and ghee.

”புளிதுவர் விஞ்சுங்கறி யாற்பூரிக் கும்வாதம்”

Denotes apart from sour, astringent and pungent taste holds its part in raising the vatha dosha.

Pitha promotes

Astringent, chilly and salt are taste which increases pitha kuttram.

Kaba Promotes

Sweet, astringent the taste which promotes kaba kuttram.

In **Vatha Gunmam** vatha kuttram is predominately vitiated.

“தொடர்வாத பந்தமலாது குன்மம் வராது”

The vitiation of vatham is due to irregular food habits and physical activities etc. As a result of vitiated vatham three important vayus uthaanan, abaanan and samaanan are vitiated.

The vitiation of the above vayus resulted in indigestion, pain in the abdomen, bloating, increased peristalsis and vomiting etc., which are the signs and symptoms of Vatha Gunmam. The persistence of the above results in debilitation of udal kattugal.

SEVEN UDAL KATTUGAL

There are seven primary tissues which constitute the entire human body and all the organs of the various systems.

1. Saaram

It is the end product of digestive process. It gives strength to the body and mind.

2. Senneer

The saram after absorption is converted in to senneer. It is responsible for knowledge strength and health complexion.

3. Oon

It gives figure and shape to the body. It is responsible for the movements of the body.

4. Kozhuppu

It lubricants the organs and facilitates their function.

5. Enbu

Gives shape to the body helps locomotion and protects vital organs.

6. Moolai

Present in the care of the bone and it gives strength maintains the normal condition of the bone.

7. Sukkilam / Suronitham

Responsible for reproduction.

In **Vatha Gunmam** saaram, senneer are affected

1. Affected saaram produces Tiredness, Loss of appetite.
2. Affected senneer produces Anaemia, Loss of appetite.

MUKKUTRA VERUPAADUGAL (PATHOGENESIS)

1. By any one or other etiological factors vatha is vitiated first.
2. Then it affects the other thathus pitha and kaba which are in a state of equilibrium.
3. And then the ten vayus, seven udal kattugal and other structure are also affected according to the severity of the illness.
4. By the affection of "**Piraanan**" wheezing, cough, dyspnoea, nasal congestion and indigestion may occur.
5. By the vitiation of "**Abaanan**" constipation, oliguria and menstrual disorders may occur.
6. By the affection of "**Uthaanan**" heart, chest, mouth and eyes are affected and hiccup, vomiting and heart burn are formed.

7. By the vitiation of “**Viyaanan**” muscle wasting, loss of sensation, giddiness, coma, bodyache, numbness, itching and tingling sensation are formed.
8. By the affection of “**Samaanan**” disturbances of other vayus, abdominal distension, anorexia, malnutrition and indigestion may occur.
9. When “**Pitha**” is affected anorexia, anaemia, indigestion, blurring of vision, dryness and darkness of skin, vomiting, giddiness, burning sensation of the body and difficulty to do works are formed.
10. When “**Kaba**” is affected respiratory disorders, indigestion, tastelessness, burning sensation of eyes and joint diseases may occur.
11. When “**Saaram**” is affected anorexia, laziness, weakness and dryness of skin are formed.
12. When “**Senneer**” is affected nerve weakness, dryness, mental disorders, haematuria, jaundice, anaemia, anorexia, splenomegaly and skin diseases may occur.
13. When “**Oon**” is affected muscle wasting, dropsy, bodyache, oedema and weakness of fire, sensory organs are formed.
14. When “**Kozhuppu**” is affected debility, bodyache, joint pain, splenomegaly and tiredness may occur.
15. When “**Enbu**” is affected arthritis, joint pain, osteophytes formation and other bone diseases are formed.
16. When “**Moolai**” is affected blurring of vision, ulcers, heaviness of the body and bone diseases may occur.
17. When “**Sukkilam**” is affected urinary calculus, bleeding during coiter, Orchitis and disease of genitalia are formed.

PINIYARI MURAIMAI (DIAGNOSIS METHODS)

The diagnosis to find out the disease in siddha system is known as **“Piniyari Muraimai”**.

It is very important part of the treatment. It is helpful to select the correct line of treatment and good prognosis.

It is based on the following principles

1. Poriyal Arithal
2. Pulanal Arithal
3. Vinathal

I. Poriyal Arithal

Poriyal arithal means the art of perception five organs viz.

1. Nose
2. Tongue
3. Eyes
4. Ears
5. Skin

II. Pulanal Arithal

It is an art of knowing objective series Viz.

1. Smell
2. Taste
3. Vision
4. Hearing
5. Touch

III. Vinathal (Interrogation)

The physician should interrogate about the patients name, age, sex, occupation, native, Socio-Economic status, dietary habits, prone to any allergens, complaints, history of previous illness, history of habits and

frequency of attacks. If the patient is in the stage of inability to speak or a child physical should interrogate the details with his immediate relatives who are taking care of him.

ENVAGAI THERVUGAL

The important method adopted to diagnose the disease is by means of **Envaigai Thervugal**. The value of Envaigai Thervugal is very important for diagnosing purpose, which is the unique and special method describing in siddha system of medicine.

An **Agasthiyar Vaidhya Vallathi 600**, Envaigai Thervugal has been mentioned as “**Attavitha paritchai**”.

”தொகுக்கலுற்று அட்டவித பரிட்சைதன்னை
துலக்கமுறும் பண்டிதரே தெளிவாகப்
பகுக்கரிய நாடியை நீ பிடித்துப்பாரு
பகர்கின்ற வார்த்தைப் பார் நாவைப் பாரு
வகுக்கரிய தேகமெனத் தொட்டுப் பாரு
வளமான சரீரத்தின் நிறத்தைப் பாரு
சகிக்கரிய மலத்தைப் பார் சலத்தைப் பாரு
சார்ந்த விழிதனைப் பார்த்து தெளிவாய் காணே”

-அகஸ்திய வைத்திய வல்லாதி 600

The Envaigai Thervugal are,

”நாடி ஸ்பரிசம் நா நிறம் மொழி விழி
மலம் மூத்திரமிவை மருத்துவ ராயுதம்”

-தேரையர்

Envaigai Thervugal Constitute

- | | |
|------------|--------------|
| 1. Naadi | 5. Mozhi |
| 2. Sparism | 6. Vizhi |
| 3. Naa | 7. Malam |
| 4. Niram | 8. Moothiram |

1. NAADI (PULSE)

The study of '**Naadi**' is the important factor in Envagai Thervugal which gives almost the correct diagnosis. The unique factor which is responsible for the soul in the body is known as '**Naadi**'. Naadi may be studied at ten places in the body, which are heel, genital organ, abdomen, chest, ear, nose, neck, hand, eyebrow and vertex. But the study of naadi at hand is the best because the radial artery is located superficially.

Naadi must be studied in right hand for men and left hand for women. The three uyir thathukkal are formed by use combination of,

Edakalai + Abaanan	→	Vatham
Pinkalai + Piraanan	→	Pitham
Suzhumunai + Samaanan	→	Kabam

They can be felt one inch below the wrist in the radial side by means of palpation and percussion with the tip of the index, middle and ring finger, corresponding to vadha, pitha, kaba respectively.

The three humours exist in the ratio of **1: ½ : ¼** normally. Derangement of this ratio leads to various disease.

“ கரிமுகனடியை வாழ்த்திக்
கைதனில் நாடிபார்க்கில்
பெருவிரலங் குலத்தில்
பிடித்தடி நடுவே தொட்டால்

ஒரு விரலோடில் வாதம்
உயர் நடுவிரலிற் பித்தம்
திருவிரல் மூன்றிலோடில்
சேத்தும நாடிதானே ”

- அகத்தியர் 2000

In the Gunma noi, the following naadi can be felt, commonly Vatha Nadi, Pitha Vatha Nadi.

Vatha Naadi

“வாதமெனும் நாடியது தோன்றில்
சீதமந்தமொடு வயிறு பொருமல் திரட்சிவாய்வு
சீதமுறுங் கிராணி மகோதரம் நீரமை
திரள்வாய்வு சூலை வலி கடுப்புத தீரை
நீதமுறுங் கிருமி குன்மம் அண்டவாதம்
நிலையும் நீர்க் கிரிச்சரங்கள் தந்துமேகம்
பேதகமா முதரப்பிணி மூல ரோகம்
பேசவெகு பிணிகளுமே பொருள தாமே”

- சதகநாடி

Pitha Vatha Naadi

” சிறப்பான பித்தத்தில் வாத நாடி
சேரிலுறுதாது நட்டமுதர பீடை
உறைப்பாகச் செரியாமைக்குன் மந் சூலை
யுற்ற சுரங்கிராணி வயிற்றிரைச்சல் மந்தம்
அறைப்பான ஓங்கார புறநீர்க்கோவை
ஆயாசமிரக்க மொடு மயக்க மூர்ச்சை
முறைக்காய்வு விஷ வீக்கம் மூலவாய்வு
முரடான நோய் பலவு முடுகும் பண்பே”

-சதகநாடி

பித்த மிகுதியுடன் உட்டிணம் சேர்ந்ததாலுண்டாம் குறிகுணங்கள்

”தழைப்பான பித்தத்திலுட்டிணங் கொண்டால்
சயமத்தி சுரம் வெதுப்பு சத்திகுணம்
களைப்பான பொருத்து னைவுவதிசாரங்கள்
கடுப்புடனே வயிற்றுவலி மூலவாயு
இறைப்பாகி யூண்மறுத்தல் நாக்கசப்பு
இரவில் கனவுடனே சங்கார தோடம்
பழைப்பான பயித்திய நோயெரிவுதாகம்
வந்தணுகில் பல பிணிக்கும் வகையதாமே”

- சதக நாடி

ஐய மிகுதியுடன் வாயு சேர்ந்ததாலுண்டாம் குறிகுணங்கள்

”தொந்தித்த சேத்துமத்தில் வாயு கூடித் தொடர்ந்த
குன்மம் நெஞ்சடைப்பு சுவாசகாசம்
வந்தித்த குரல்தனியே உறுத்தலீளை
வழுவழுப்பு நீருறல் மலத்தில் சீதம்
வெந்தித்தல் கொழுத்தல் குத்துந் திமிர்வியாதி
வீச்சுடனே வலி யெட்டுந்திரட்சி பாண்டு
அந்தித்த கிறுகிறுப்பு மயக்கம் விக்கல்
ஆனபல பிணிகளுமே வந்தட ருந்தானே”

- சதக நாடி

”வாதந்தான் உதறி நிற்கில்
வலி குன்மம் வந்து சேரும்”

- குணவாகடம்

”வாதத்தால் வலி குன்மம் சூலை
குன்மம் வளி குன்ம முண்டாம்”

”வளிநாடி இடத்திலிசைந்தால் வளி குன்மமாம்”

”பித்தநாடி இடத்திலிசைந்தால் பித்த குன்மமாம்”

”ஐயநாடி இடத்திலிசைந்தால் ஐய குன்மமாம்”

2. SPARISM (PALPATION)

By sparism the temperature of skin (heat and cold) smoothness or roughness, sweat, dryness, hard patches, swelling, growth of abdominal organs, tenderness and nourishment can be felt.

In **Vatha Gunmam**, Tenderness was present in the epigastric region.

3. NAA (TONGUE)

By the examination of tongue its colour, coating, dryness, deviation, movements, variation in taste, ulcer and the condition of teeth and gums ability to appreciate the taste can be noted.

In **Vatha Gunmam** the tongue may be coated. If anaemia is present the tongue is pale.

4. NIRAM (COLOUR)

By the examination of niram the type of thegam (body) cyanosis, redness, pallor, yellowish discoloration can be noted.

Vatha Thegi	→	Dark colour
Pitha Thegi	→	Yellow or red colour
Kaba Thegi	→	White or yellow colour

5. Mozhi (Speech or voice)

In the examination of mozhi, the pitch of voice (low or high) slurring and speech in hallucination can be noted.

6. VIZHI (EYE)

By the examination of vizhi, pallor, redness, yellowishness, dryness, lacrimation, sharpness of vision must be noted.

7. MALAM (STOOLS)

By the examination of malam its nature, colour, quantity, presence of blood or mucous can be noted.

In **Vatha Gunmam** constipation may be present.

8. MOOTHIRAM (URINE)

The examination of urine is classified in to two types,

1. Neerkuri
2. Neikuri

இயற்கை நீர் இலக்கணம்

“மிகத்தடிப்பும் மிகத் தேறலும் இன்றெனில்

சுகத்தைத் தரும் மெய்சுபாவ நீர் நன்றே”

I. Neerkuri

1. Niram - Niram indicates the colour of the urine voided.
2. Edai - Edai indicates the specific gravity of urine.
3. Manam - Manam indicates the smell of the urine voided.
4. Nurai - Nurai indicates the frothy nature of the urine voided.
5. Enjal - Enjal indicates the quantity (increased or decreased) of urine voided.

In addition, frequency of micturition and sediments are noted.

“அருந்து மாறிரதமும் அவிரோத மதாய்
அ/கல் அலர்தல் அகாலவூண் தவிர்ந்தழற்
குற்றளவருந்தி உறங்கி வைகறை
ஆடிக் கலசத் தாவி யே காது பெய்
தொரு முகூர்த்தக் கலைக்குட்படு நீரின்
நிறக்குறி நெய்க்குறி நிருமித்தல் கடனே ”

- தேரையர்

Preparation of patient

Prior to the day of urine examination for neerkuri and neikuri. The patient is advised to take the balanced diet and the quantity of food must be proportionate to his appetite. He should have a good sleep.

Neikuri

“நிறக்குறிக் குரைத்த நிருமான நீரிற்
சிறக்க வெண்ணெய் யோர் சிறுதுளி நடுவிடுத்
தென்னுறத் திறந்தொலி யேகாத மைத்ததி
னின்றதிவலை போம் நெறி விழியறிவும்
சென்றது புகலுந் செய்தியை யுணரே”

- தேரையர்

Method

After waking up in the early morning urine was collected in glass contains and examined with 1.30 hours. A drop of gingelly oil is added through the side of the vitreous without any disturbing. The nature of spread of oil should be noted in direct sunlight.

Observation

If drops of oil

Lengthens like a snake → **Vatha neer**

Spread like a ring → **Pitha Neer**

Appears like a pearl → **Kaba Neer**

Spreads like,

Snake in ring

Ring in pearl

Snake in pearls etc

- Thontha Neer

The Character of Vatha Neer

“அரவென நீண்டின/தே வாதம்”

When the drop of oil spreads like a snake, it indicates vatha neer.

The Character of Pitha Neer

“ஆழிபோல் பரவின் அ/தே பித்தம்”

When the drop of oil spread like a ring, it indicates pitha neer.

The character of Kaba Neer

“முத்தொத்து நிற்கின் மொழிவதென் கபமே”

When the drop of oil remain as that of a pearls it indicates kaba neer.

The character of Thontha Neer

“அரவிலாழியும், ஆழியில் அரவும்

அரவின் முத்தும் ஆழியில் முத்தும்

தோற்றில் தொந்த தோடங்களாமே”

-நோய் நாடல் நோய் முதனாடல்

When the drop of oil shown two shapes enclosed within one another, it indicates thontha neer.

The Character of Mukkutra Neer

When the drop of oil drawn in to the urine, it indicates mukkutra neer.

The facts regarding Envagai Thervugal suggests that it is monthly used as diagnostic tool in siddha system of medicine and more concentration should be emphasised to earn proficient knowledge.

Beside Envagai Thervugal a disease can also be diagnosed by means of other methods namely Kanmenthriyangal, Gnaenthiriyangal, uyir thathukkal, ezhu udal thathugal, paruvakaalangal and thinaigal.

Hence a through knowledge about the disease can be studied out systematically and properly in siddha system of medicine.

THINAIGAL

Nilam is classified into **five types**. They are,

1. Kurinji

Mountain and its surroundings kaba noigal and liver diseases are common.

2. Mullai

Forests and its surroundings pitha noigal, vatha noigal, liver diseases are common.

3. Marutham

Field and its surroundings safest place to maintain good health.

4. Neithal

Sea and its surroundings vatha diseases and liver enlargements are common.

5. Paalai

Desert and its surroundings vatha, pitha, kaba noigal are common.

Studies of five lands are very much needed as same diseases are common in the particular lands.

Each region has its own characters which influences the inhabitation, physical, mental, economic, occupational and cultural activities. In each region same ailments are endemic based on the climatic features. Prevention and curative measures for these ailments are stated in medical literatures.

Vatha Gunmam is common in **Marutham** and **Neithal**.

PARUVAKAALANGAL

A year is classified into **six** seasons each constituting two months.

They are,

- | | | | | |
|---------------------|---|---------------------|---|-------------|
| 1. Karkaalam | - | Avani & Purattasi | - | Aug & Oct |
| 2. Koothirkaalam | - | lyppasi & Karthigai | - | Oct & Nov |
| 3. Munpanikaalam | - | Margali & Thai | - | Dec & Jan |
| 4. Pinpanikaalam | - | Masi & Panguni | - | Feb & March |
| 5. Elavenilkaalam | - | Chithirai & Vaikasi | - | April & May |
| 6. Muthuvenilkaalam | - | Aani & Aadi | - | June & July |

Some of the diseases are commonly prevalent during a particular season and study of its will also be useful for diagnosis.

UDALVANMAI

It means strength and vitality of the body and classified into three types.

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

KAALAM (AGE AND DISTRIBUTION)

In siddha text, the normal human life is 100 years. It is divided into 3 stages based on dominant humors.

Stage	Years	Dominant Humors
First Stage	33 years and 4 months	Vatha Period
Second Stage	33 years and 4 months	Pitha period
Third Stage	33 years and 4 months	Kaba Period

DIFFERENTIAL DIAGNOSIS

1. VAYU GUNMAM

“பார்க்கவே வாயுகுன்மம் பகரக் கேளாய்
பருகியதோர் பதார்த்தங்கள் செரித்திடாது
தோர்க்கவே யசனந்தான் செல்லா தாகும்
துருத்திகொள் காற்றது போல் வயிறுமுப்பும்
ஊர்க்கவே உள்பெலனும் கெடுப்பதாகும்
உடலுலரும் நடைகுறையும் ஓய்ச்சலாகும்
வேர்க்கவே யடிவயிறு தனியே வந்து
மிகப்புரண்டு வில்லுப் போல் விசுத்தலாமே”

Indigestion, loss of appetite, borborygmus, malaise, tiredness, general debility, lower abdominal pain.

In **Vatha Gunmam**, there is no lower abdominal pain.

2. PITHA GUNMAM

“நோம்பித்த குன்மத்தி னுட்பங் கேளாய்
நுனி மஞ்ச ணிறம்போல முகமு மாகும்
வாஞ் சத்தி வாந்தியுண்டாய் மனம றுக்கும்
மயக்கமாய் நெஞ்சனிற் கோழை கட்டும்

காம நெருப்பாய்த் தானிருக்குங் கைகா லோயும்
கடும் வெய்யிற் கண்டவுடன் தலைசு ழற்றும்
மூத்திரஞ் சிவந்திருக்குந் தாகம் காணும்
முக்கியே மலம் வீழும் மூச்சுண் டாமே”

Yellowish discolouration of the face, Nausea, Vomiting, Excessive sputum, Hyperpyrexia, Pain in the upper & lower limbs, Giddiness, Haematuria, Excessive thirst, Constipation and Dyspnoea.

In **Vatha Gunmam** there is no yellowish discolouration of the face, haematuria and excessive sputum.

3. VALI GUNMAM

“ திமிராக வயிறூறுந் திரையு மேனி
செடமுலைந்து கருத்தழியுஞ் சிதறுந்தூக்கம்
வமிராக வயிறிரைந்து முன் போலாகும்
வருத்தமா யசனமிகத் தானுஞ் செல்லா
முமிராக விலாவதனிற் சொருகலாகும்
முதுகுதண்டு வலி காணு மிடுப்பு நோவாம்
கமிராக காயமது கடுப்பு காணும்
கணசுரமாய் பொய்ப்சியுங் காணுங் காணே”

Abdominal bloating, dryness of the skin, mental confusion, disturbed sleep, loss of appetite, pain in the hypochondrium, pain in the vertebral coloumn & hip, hyperpyrexia and false appetite.

In **Vatha Gunmam** there is no pain in the vertebral coloumn & hip, hyperpyrexia and false appetite.

FINAL DIAGNOSIS

After the confirmation of diagnosis as Gunmam, the type of Gunmam is confirmed by comparing the identifies and differences of the signs and symptoms and the results obtained by Envagai Thervugal, Naadi and Mukkutram.

SATHAGA NAADI

“தானான பிரமேகம் ஊத சூலை

சார்வான நீரிழிவு குன்ம ரோகம்

- - - - -

ஊண்டாக்கி யசாத்தியமா முறுதிதானே”

“ உறுதிகொண்ட வலுவீச்சு சந்திதோடம்

உரத்த கரம் விடசோபை, உள்ளு ரோகம்

மறதியுள்ள இராணி யதிசாரங் குன்மம்

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தோன்றுடுகில் மரணமென்று தொகுத்த சொல்லே”

“சொல்லுகின்ற விடபாகம் வீக்கஞ் சோகை

- - - - -

வீறான குன்ம மத்தி சுரம் காமாலை

- - - - -

வந்தணுகில் மரணமென்று வசனிப்பாயே”

- சதகநாடி

குன்ம ரோகத்தில் உண்டாகும் தோடக்குறிகள்

“புகலுவதுகேள் அத்திவாயு வாகா

பொருந்துவதோற் வாயுவதில் குன்ம மாகா

தகைமை பெறும் குன்மத்தில் பேதியாகா

- - - - -

தோன்றிடுகில் மரணம் வந்து தொடருந்தானே”

- சதகநாடி

According to the Sathaganadi, the Gunmam which is associated with hiccough, dyspnoea, diarrhoea, unconsciousness are the signs of bad prognosis and leads to death.

TREATMENT (PINI NEEKAM / MANAGEMENT)

The aim of pini neekam is based on

1. To bring the thirithosha in equilibrium.
2. Treatment of the disease signs and symptoms.
3. Pathiyam.

Siddha system of medicine is based on the mukutra theory and hence the treatment is mainly aimed to bring down the thirithosha to its equilibrium state and thereby restoring the physiological condition of various thathus.

“விரேசனத்தால் வாதம் தாமும்

வமனத்தால் பித்தம் தாமும்

நசிய அஞ்சனத்தால் கபம் தாமும்”

- நோய் நாடல் நோய் முதனாடல்

Vatha disease can be brought down by **viresanam**, pitha disease can be brought down by **vamanam**, kaba disease can be brought down by **anjanam** and **nasiyam**.

“தொடர்வாத பந்தமலாது குன்மம் வராது”

Since the **Vatha Gunmam** occurs due to the vitiation of Vatha it can be set right by giving viresanam.

For viresanam strong purgatives containing nervalam are usually avoided and laxatives like

Nilavagai chooranam – 5 to 10 gm with hot water at bed time is given for this study.

Any one of the following purgative may also given.

1. **Sanjeevi mathirai** – 2 to 4 pills (100 mg) with sufficient amount of extract.
2. **Mehanatha kuligai** – 1-2 tablets at bed time with chukku decoation.
3. **Vellai ennai** – 15 to 30 ml early in the morning (3 to 5 days).
4. **Merugulli ennai** – 8 to 15 ml early in the morning.

According to the patient's body built and severity of the disease the selection of the medicine and dosage may be altered.

TREATMENT OF DISEASE

After the thirithosha are brought down to its equilibrium state the signs and symptoms of disease should be treated properly for this study.

Ayilpattai chooranam – 1 to 2 gms BD with hot water.

PREVENTION OF DISEASE

Tiruvalluvar says that when a patient approaches a physician for a disease, the physician should follow some important points.

1. Diagnosis of disease
2. Causes of disease
3. Treatment of disease

“நோய்நாடி நோய் முதல்நாடி அதுதணிக்கும்
வாய்நாடி வாய்ப்பச் செயல்”

- திருக்குறள்

Thiruvalluvar also says some preventive measures

“மருந்தென வேண்டாவாம் யாக்கைக்கு அருந்தியது
அற்றது போற்றி உணின்”

“அற்றது அறிந்து கடைபிடித்து மாறல்ல
துய்க்க துவரப் பசித்து”

“மாறுபாடு இல்லாத உணவு மறுத்துண்ணின்
ஊறுபாடு இல்லை உயிர்க்கு”

“இழிவறிந்து உண்பான்கண் இன்பம்போல் நிற்கும்
கழிபே ரிரையான்கண் நோய்”

“தீயள வன்றித் தெரியான் பெரிதுண்ணின்
நோயள வின்றிப் படும்”

-திருக்குறள்

PATHIYAM

During the course of the treatment all the patients were given uniform hospital diet. The patients also advised to follow certain precaution and physical activities. Advised to get rid of spicy foods, alcohol, stress and strainful condition, roughage diet, semi cooked and unhygienic diet. Patient were advised to avoid non-vegetarian diet. Advised to take regular meals.

HABITS

Patients were advised to get rid off the smoking, alcohol, chewing tobacco etc., advised to have timely diet.

YOGASANA TREATMENT

Yogasana according to Thirumanthiram is the basic principle science for achieving salvation during life itself. As the body is said to be the residence of divinity the siddha saint Thirumoolar has advised each and every individual who aspires for self realization to build up his physical body and mind to practice yogasana.

In yogam, asanam is the first step in practice. By practicing yogasana the physical body and the mind are brought under control aiding. Perfect meditation and concentration which will enable to achieve vivegam, essential for self realization. The concise aim for yogam is to possess sound body and sound mind to achieve longevity for attaining salvation, if the body falls pray to several diseases, constantly the mind gets perverted leading to last prejudice misunderstanding or ignorance.

Asanas are nothing but a sort of yogic exercise, which differs from physical exercise. Tirumoolar in his Thirumanthiram, describes the uses of yogasana under the heading “**Attanga yoga**”.

The asanas are strongly advocated for controlling Vatha Gunman. The technique of practicing it is to be learnt under the guidance of a yogasana specialist who has the knowledge of disease process.

The following asanas are useful to treat the abdominal disorders.

1. Uthanapada asana
2. Pavanarnukta asana
3. Bhujanga asana
4. Shalabha asana
5. Patchimoota asana
6. Shava asana

Modern Aspects

MODERN ASPECTS

ANATOMY

Anatomy of the Stomach

The stomach is a muscular bag. It is the most dilated part of the gastrointestinal system. It has both digestive and not digestive functions. It's development is in the foregut. It is situated in the upper abdomen, left hypochondriac, epigastric and umbilical regions.

It is normally **J shaped**.

Capacity

New born → 30 ml

At puberty → 1000 ml

Adult → 1500 ml

Shape

When empty the stomach is somewhat J shaped. When partially it becomes piriform in shape. In obese persons it is more horizontal.

Size

It is about 10 inches long and the mean capacity is one Ounce (30 ml) at birth, one litre at puberty and 1.5 - 2 litres or more in adults.

External Features

The stomach has

1. 2 openings or ends.(orifices)
2. 2 borders.
3. 2 surfaces
4. 2 peritoneal sacs are related.
5. 2 Omenta are attached to it.

Openings of the Stomach

Cardiac end

This is the upper opening of the stomach. This is not an anatomical sphincter. The Oesophagus opens in to the stomach at the level of T₁₁ vertebra.

Pyloric end

This is the lower opening of the stomach. It is situated 1.25 cm to the right of the midline at the transpyloric line. It opens into the duodenum. It has a well defined anatomical pyloric sphincter. Pyloric groove separates it from the duodenum. The pyloric end is greenish as it is stained by the bile.

Borders of the stomach

It has 2 borders

1. Lesser Curvature.
2. Greater Curvature.

Lesser Curvature

It is the right upper border. It is the direct continuation of the right border of angularis. Lesser curvature gives attachment to the lesser Omentum. A peptic ulcer commonly occurs along or nearer to the lesser curvature.

Greater Curvature

It is the lower and left border of the stomach. It is 5 times longer than the lesser Curvature. Between the Oesophagus and greater curvature the cardiac notch is situated.

To the greater curvature the following peritoneal folds are attached,

1. Gastrophrenic ligament.
2. Gastro Splenic ligament.
3. Greater Omentum

Surface of the Stomach

It has two surfaces,

1. The antero superior surface.
2. The postero inferior surface.

Structures forming the stomach bed

1. The diaphragm (left crus)
2. Left kidney.
3. Left supra renal gland.
4. Splenic artery and spleen.
5. Body of the Pancreas.
6. Transverse Mesocolon.
7. Left colic flexure.

Parts of the Stomach (Fig.1)

1. Fundus
2. Body
3. Pyloric Antrum
4. Pyloric canal.

Fundus

It is the highest part of the stomach. Usually it is filled with gas.

Body

It is situated below the fundus.

Pylorus

It is situated along the right side of the body of the stomach.

BLOOD SUPPLY

ARTERIAL SUPPLY (Fig. 2)

Along the lesser Curvature

1. Left gastric artery from coeliac artery.
2. Right gastric artery from hepatic artery.

Along the greater Curvature

1. Right gastroepiploic artery from the gastroduodenal artery.
2. Left gastroepiploic artery from the splenic artery.

Fundus of the stomach

5-6 short gastric arteries from splenic artery.

Venous Drainage

Among the lesser Curvature

1. Left gastric vein.
2. Right gastric vein – into portal vein.

Among the greater Curvature

1. Left gastroepiploic vein into splenic vein.
2. Right gastroepiploic vein into superior mesenteric vein.

Fundus of the Stomach

5-6 short gastric veins into splenic vein.

Nerve supply

Parasympathetic supply

1. Right and left vagus nerves via anterior and posterior gastric nerves.
2. Oesophageal plexus.

Sympathetic Supply

The greater splanchnic nerve (T₅ – T₉) joins the coeliac ganglion. From the ganglion post – ganglionic fibres continues to form the coeliac flexus.

STRUCTURE OF THE STOMACH

1. Serosa or Peritoneum which envelops the stomach completely except along the greater and lesser curvatures.
2. Musculosa of stomach are arranged as follows;
 - a. Outer longitudinal
 - b. Intermediate circular.
 - c. Inner Oblique.
3. The submucous layer has only loose connective tissue.
4. The Mucosa is the innermost layer.

The glands of the stomach are situated in the mucous membrane.

- a. The gastric glands are mainly mucous secreting.
- b. The glands of the fundus and most parts of the body contain 3 types of cells.
 - ❖ The mucous neck cells.
 - ❖ The chief cells of zymogenic or peptic cells.
 - ❖ The parietal or oxyntic cells.

LYMPHATIC DRAINAGE (Fig.3)

The stomach can be divided into 4 lymphatic territories.

1. Area A or pancreatosplenic nodes lying along the splenic artery.
2. Area B drains into the left gastric nodes.
3. Area C drains into the right gastroepiploic nodes.
4. Area D drains in different directions into the pyloric, hepatic and left gastric nodes.

ANATOMY OF THE DUODENUM

The duodenum is the shortest, widest, thickest, most fixed, supra umbilical, infra hepatic, posterior abdominal, proximal part of small intestine. It is developed from the foregut and midgut. Its length is about 25 cm . It commences at the continuation of the pyloric end of the stomach at the level of L₁ vertebra.

Course

The duodenum passes upwards, backwards and to the right side to the level of the neck of gall bladder. It forms the superior duodenal flexure. It then runs vertically downwards along the right side of the lumbar vertebral column, to the level of lower border of the L₃ vertebra. It terminates by becoming the jejunum at the duodenojejunal flexure at the level of body L₂ vertebra.

Parts of the duodenum (Fig.4)

It is divided into 4 parts,

1. First part or the Superior part 5cm long
2. Second part or the Descending part 7.5cm long.
3. Third part or the horizontal part 10cm long.
4. Fourth part or the ascending part 2.5cm long.

First part of duodenum (Superior part)

Its length is 5 cm. It is situated at the pyloric end of stomach to the superior duodenal flexure, on the right side of body of L₁ vertebra. It is greenish due to bile staining.

Second part of duodenum (Descending part)

Its length is 7.5 to 8 cm. It extends from superior duodenal flexure to the inferior duodenal flexure in the right side of the lumbar vertebral

column from the lower border of L₁ to the lower border of L₃ Vertebra. It is slightly convex to the right side.

Third part of Duodenum

This is the longest part of the organ. It crosses the midline just above the umbilicus. Its length is about 10 cm. It extends from right surface of body of L₃ vertebra to the left surface of the body of L₃ vertebra.

Fourth part of duodenum

Its length is 2.5 cm. It extends from the level of anterior surface of abdominal aorta to the duodenojejunal flexure at the left surface of L₂ Vertebra.

Blood Supply (Fig.5)

I. Part

1. Supra Duodenal artery of Wilkie
2. Retro duodenal artery

These both are branches of the gastro duodenal artery.

3. Infra duodenal artery – branch of right gastroepiploic artery.

II, III & IV parts

1. Superior Pancreatico duodenal Artery.
2. Inferior Pancreatico duodenal Artery.

Venous drainage

Veins accompany the arteries and ends in the superior mesenteric vein.

Sympathetic drainage

I part

1. Hepatic nodes.
2. Sub pyloric nodes.

II, III & IV parts

Pancreatico Splenic lymph nodes.

Nerve Supply

I part

Sympathetic Supply

By greater splanchnic nerve through the coeliac plexus.

Parasympathetic Supply

Posterior gastric nerve.

II, III & IV parts

Sympathetic Supply

Superior mesentric plexus.

Parasympathetic Supply

Vagus.

PHYSIOLOGY

Gastro intestinal functions are ingestion, digestion and absorption of food. Food provides necessary materials for tissue growth and repair and energy for doing work.

Food consists of carbohydrates, proteins, fats, vitamins, minerals and water. Most of these are made up of molecules, which cannot be utilized as such by our body cells.

Digestion is to process by which more complex food substances are broken down into simpler forms which are easily absorbed and assimilated by the cells.

The digestion can be classified as

1. Chemical digestion
2. Mechanical digestion.

The chemical digestion is effected by the enzymes present in the digestive juices secreted by the digestive glands namely,

- | | | |
|----------------------|---|------------------|
| a. Salivary glands | - | saliva |
| b. Gastric glands | - | gastric juice |
| c. Intestinal glands | - | Intestinal Juice |
| d. Pancreas | - | pancreatic juice |
| e. Liver | - | bile |

GASTRO INTESTINAL SECRETION

Gastro intestinal secretion has both exocrine and endocrine secretions. The endocrine cells have a wide spread heterogenous distribution in the mucosa of the digestive tract. Secretion is effected by active transport against electro chemical gradient.

The mechanical digestion is effected by the movement of the alimentary canal. The movements are

- a. Mastication or chewing occurring in the mouth
- b. Deglutition
- c. Gastric movement
- d. Small intestinal movements and movements of villi
- e. Large intestinal movements
- f. Defaecation

DIGESTION IN THE MOUTH SALIVARY GLANDS

Digestion in the mouth is carried out by the digestive juice saliva which is secreted by the salivary glands.

SALIVA

The volume of saliva secreted in 24 hours is 1000 – 1500ml during meal time the secretory rate is highest. During sleep it is less. It is colourless, cloudy and slimy. Reaction is slightly acidic. pH varies from 5.75 to 7.05. The pH of saliva is dependent on the relative concentration of free and combined CO₂

Forced breathing causes a decrease in the CO₂ and increased pH. Specific gravity of the mixed saliva is between 1.002 and 1.012.

COMPOSITION OF THE MIXED SALIVA

Water	99 to 99.5%
Solids	0.5 to 1.1%
Inorganic Salts	0.4 to 0.6%
Organic Substances	0.1 to 0.4%

Ptyalin is the salivary amylase. The optimum pH for amylase activity is 6.97 lingual lipase secreted by lingual glands initiates fat digestion. Immuno globulins founds in the saliva are IgA, IgG + IgM.

These act as antibodies against normal and abnormal organisms found in the mouth and the lumen of the gut.

Parotin is a hormone secreted by parotid and submaxillary gland.

Other organic substances present in the saliva are kallikrein. It has lubricating function, solvent and cleaning action. Mercury, Potassium, Iodide and lead are excreted in the saliva. Morphine, Penicillin, Streptomycin and Chlortetracycline are also excreted in the Saliva. Ptyalin acts on boiled starch and converts it into maltose.

Digestion in the mouth is helped by the mechanical process namely mastication or chewing. This enables proper mixing of food with saliva and facilitates enzyme activity. The muscles of mastication are Masetar, Temporalis and Pterygoid muscles. These are supplied by the mandibular division of the trigeminal nerve.

Deglutition or swallowing movements occur about 600 times during the day. Deglutition takes place in three stages, the first stage in the mouth, second stage in the pharynx, and the third stage in the oesophagus.

FIRST OR ORAL STAGE

During the first stage, the food passes from the mouth into the pharynx. By the act of mastication, the food is softened and lubricated and the food bolus is placed over the dorsal surface of the tongue. The back of the tongue is elevated and retracted against the hard palate. The movement forces the food into the pharynx.

SECOND OR PHARYNGEAL STAGE

It begins as a reflex and is completed in a second. The food bolus is transmitted into the pharynx by the downward and backward movement of the base of the tongue. The entrance of food bolus into the pharynx gives rise to a strong peristaltic pushing the food into oesophagus.

THIRD OR OESOPHAGEAL STAGE

This is reflux in nature. The primary peristaltic waves arriving at the oesophagus from the pharynx continue into the oesophagus sweeping the bolus downward into the stomach. During the third stage these are pressure variations in the oesophagus.

The pressure pattern consists of an initial negative wave followed by the three positive pressure components. The 3 positive waves are due to subsequent increase in the intra oesophageal pressure due to secondary peristaltic contractions and presence of food contents.

LOWER OESOPHAGEAL SPHINCTER

At the junction of oesophagus with the stomach, the musculature is well organized and constitutes the lower oesophageal sphincter. This is made up of three components.

- ❖ The oesophageal Stomach
- ❖ Gural part of diaphragmatic skeletal muscle
- ❖ Oblique or sling fibres of the stomach

The lower Oesophageal sphincter remains tonically contracted during the period in between meals and relax upon swallowing. The LES is under neural control. Vagal stimulation and release of acetyl choloric causes contraction of the intrinsic sphincter.

RECEPTIVE RELAXATION OF THE STOMACH

As the oesophageal peristaltic wave passes towards the stomach, a wave of relaxation preceeds the constriction. Further the entire stomach and to a less extent duodenum becomes relaxed as this wave reaches the lower end of the Oesophagus.

DIGESTION IN THE STOMACH AND DUODENUM

Digestive juice in the stomach is the gastric juice, secreted by the gastric glands.

GASTRIC GLANDS

Tubular glands which extend from the bottom of the gastric foveola to the muscularis mucosa. On the basis of their location, the gastric glands are divided into cardiac glands which are short and tortuous and the fundic glands which are straight slender glands with narrow lumen and made up of Mucous cells, pepsinogen or chief cells and parietal or oxyntic cells. The pyloric glands in the pyloric region of the stomach are short and tortuous. Stimulation of parasympathetic vagus gives rise to secretion of the gastric juice rich in acid and enzymes. It also increases gastric secretion. The secretion is mediated through release of acetylcholine.

GASTRIC JUICE AND THE SECRETION

The gastric juice is the product of surface epithelium and the various glands. The volume of the gastric juice secreted in man is 1200 – 1500ml per day, pH become 2-3 when the gastric juice mixes with the food. Specific gravity is 1.002 – 1.004.

The major constituents are water, HCl, enzymes – pepsin, rennin, gastric lipase, gelatinase and mucus, electrolytes as sodium, potassium, calcium, phosphate, bicarbonate and sulphate.

HCl SECRETIONS

Hydrochloric acid is secreted by oxyntic cells parietal cells or secreting cells. These contain small channels called canaliculi which communicate with the lumen of the gastric gland. The HCl is secreted by the membrane of these canaliculi. It is an active process involving expenditure of energy, O₂ utilization, CO₂ evolution and enzymes systems

participation. Secretion of 1gm molecular weight of HCl requires expenditure of 10,000 gram calories of energy. The source for hydrogen ions is water and the source for chloride ions is NaCl of blood. Hydrogen ions are formed by dissociation of water into hydrogen and Hydroxyl ions. This is the main source of hydrogen ions. The hydrogen ions combines with OH ions H_2O and HCO_3 ions are released into the interstitial fluid and blood.

In a simple way, the reactions involved are,



CONTROL OF GASTRIC SECRETION

There are 3 Phases in gastric secretion – Cephalic, gastric and intestinal phase; the gastric secretion is regulated by both nervous and hormonal mechanism. The Parasympathetic vagus promotes gastric secretion. The hormone gastrin stimulates gastric secretion and the hormone entero gastrone inhibits gastric secretion.

CEPHALIC PHASE

Sight, smell, taste of food and even the thought of food brings about gastric secretion. Both conditioned and unconditional reflexes are involved. This is also called psychic phase.

GASTRIC PHASE

The entry of food into the stomach brings about secretion of gastric juice. Distension of the stomach wall initiates local reflexes and brings about release of gastric from 'G' cells. This phase accounts for more than 2/3 of the total gastric secretion and it lasts for several hours.

INTESTINAL PHASE

Entry of food into the duodenum brings about gastric secretion. This is mainly through the release of gastric hormone from the duodenal mucosa. There is only small quantity of secretion during this phase.

INHIBITION OF GASTRIC SECRETION

The entry of food into the small intestine initiates an enterogastric reflex through intrinsic nerve plexuses. This reflex inhibits gastric secretion. The inhibitory hormones of gastric secretion are enterogastrone, Secretin and cholecystokinis, gastric inhibitory peptide (GIP) and vasoactive intestinal peptide (VIP).

GASTRIC DIGESTION

Inactive pepsinogen is converted into active pepsin by HCl. This acts on proteins and polypeptides and cleave peptide bonds adjacent to aromatic aminoacids. Fats in the emulsified state are digested and converted into fatty acids and glycerol, For example egg fat.

FUNCTIONS OF THE STOMACH

1. Secretion of HCl – Kills many of the ingested bacteria and maintains sterility in the stomach.
2. Stomach as a storage organ – Resting volume is 50 -100ml. In the filled state the volume is 1500ml.
3. The parietal cells of gastric mucosa secrete intrinsic factor, promoting absorption of vitamin B₁₂ from the small intestine.

PEPTIC ULCER

DEFINITION

The term peptic ulcer refers to an ulcer in the lower oesophagus, stomach or duodenum, in the jejunum after surgical anastomosis to the stomach or rarely in the ileum adjacent to a Meckel's diverticulum.

Ulcers in the stomach or duodenum may be acute or chronic, both penetrate the muscularis mucosal but acute ulcer shows no evidence of fibrosis, erosions do not penetrate the muscularis mucosa. **(Fig.6)**

EPIDEMIOLOGY

The incidence of peptic ulcer is decreasing in many western communities, Asian countries, it still affects, at sometime approximately 10% of all adult males. The male to female ratio for duodenal ulcer varies from 4:1 to 2:1 in different communities whilst that for gastric ulcer is 2:1 or less. Variations in the incidence of gastric and duodenal ulcer occur between different countries and between different parts of the same country; the incidence of peptic ulcer is becoming more common in many developing countries. There is growing evidence that cigarette smoking prevents healing of gastric and duodenal ulcers and may be a factor contributing to their development.

The male to female ratio varies geographically, for example from 1:1 in USA, to 18:1 in India. The duodenal ulcer ratio varies widely from place to place for example from 0:8 in Japan to 19:1 in Africa and 32:1 in India.

The incidence is reportedly high in Calcutta and low in Punjab, the incidence of peptic ulcer is recorded high in South India.

AETIOLOGY - ETIOPATHOGENESIS

HEREDITY

Patients with peptic ulcer often have a family history of the disease. This is particularly the case with duodenal ulcers which develop below the age of 20 yrs.

ACID – PEPSIN THEORY : VERSUS MUCOSAL RESISTANCE

The gastric mucosa has an extraordinary capacity to secrete acid. Peptic cells (or) chief cells which present in fundus of the stomach secrete pepsin. Parietal cells scattered along the course of body and fundus secrete HCl by a process involving oxidative phosphorylation.

The estimated concentration of HCl secreted by parietal cells is approximately 160mm. Each secreted hydrogen ion (H^+) is accompanied by a chloride ion (Cl^-). For each hydrogen ion secreted into the gastric human, one bicarbonate ion is released into the gastric venous circulation, accounting for so called alkaline tide, bicarbonate is released from carbonic acid generated from carbon dioxide by parietal cell carbonic anhydrase.

Several mechanisms protect the gastric mucosa from hydrogen ions secreted into the lumen of the stomach. The surface epithelial cells secrete bicarbonate which creates an alkaline tide at the surface of the mucosa. This bicarbonate secretion is under the influence of mucosal prostaglandins. The tight junctions between the epithelial cells and their surface lipoprotein layer provide a mechanical barrier. The normal turnover of epithelial cells and gastric mucus also has a protective function. Collectively all these mechanisms can be described as the '**Gastric mucosal barrier**'.

Peptic ulcer disease is thought to result from an imbalance between gastric acid, pepsin and protective factors (mucosal barrier).

“NO ACID NO ULCER”

FACTORS REDUCING MUCOSAL RESISTANCE & NSAIDS

Several drugs, particularly those used in rheumatoid arthritis, will disrupt the gastric mucosal barrier. When as a pH below 3.5 it is undissociated and fat soluble, so that it is absorbed through the lipoprotein membrane of the surface epithelial cells, during absorption it damages the membrane and the tight junctions. It also inhibits prostaglandin synthesis thus reducing bicarbonate secretion by the surface epithelial cells. Aspirin has been shown to be an important etiological factor in gastric ulcer in Australia, and this may also be so in other countries where is a high consumption of aspirin.

HELICOBACTER PYLORI INFECTION IN PEPTIC ULCER (Fig.7,8 & 9)

In 1979 Robin Warren, an Australian pathologist, accidentally invented the curved spiral shaped bacteria that invades the gastric mucosa and causes ulcer. He named it as **Campylobacter pyloridis**. Later it was renamed as **Helicobacter pylori**. Nearly it was renamed as Helicobacter pylori. H.pylori is found primarily in deep portion of the mucous gel layer.

The Helicobacter pylori infection is strongly associated with chronic superficial gastritis leading to peptic ulcer. H.pylori reduces the resistance of gastric mucosa against acid and gastric ulcer result. It stimulates the gastrin secretion which in turn stimulates the acid production leading to the exposure of first part of duodenum to the excessive acidity producing duodenal ulcer. The formation of gastric metaplasia may also occur in the

first part of the duodenum in response to the excessive acid. This gastric metaplasia allows the conclusion of *H. pylori* in the duodenum.

OCCUPATIONAL FACTOR

Peptic ulcer is common in South Indian agriculturists. It is also common in executives, doctors and industrialist.

SOCIO – ECONOMIC FACTORS

Poor social economical factor may be one of the factors in incidence of duodenal and gastric ulcers. In South India, duodenal ulcer is particularly prevalent among the poor people.

DIET

Peptic ulcer is associated with high consumption of refined, as compared with unrefined cereal and carbohydrate. The lack of protein deficient diet and untimely meals in these refined food resulting in a failure to buffer gastric acid. **Mr.Henry jones** has described that ingestion of refined cereals is the promino factor in the increased incidence of duodenal ulcer.

SMOKING, ALCOHOL AND DRUGS

Incidence of peptic ulcer is high among smokers than in among non smokers. Gastric ulcers tend to heal more rapidly in patients who stop smoking than in those who do not. Gastric ulcer commonly occurs in association with alcoholic cirrhosis. There is much suggestive evidence that and treatment with aspirin, phenylbutazone etc., may aggravate peptic ulcer incidence.

CONSTITUTIONAL FACTORS

Sex incidence male to female ratio for duodenal ulcer varies from 4:1 to 2:1 in different communities whilst that for gastric ulcer in 2:1 or less.

BLOOD GROUPS

Peptic ulcer tends to be more common in people with **blood group “O”**.

ASSOCIATION WITH ANXIETY AND PERSONALITY

Chronic anxiety, frustration physical fatigue of personality traits.

ASSOCIATION WITH OTHER DISEASES

Peptic ulcers in association with almost all diseased, the incidents is noted in patient with achlorhydria namely pernicious anaemia and atrophic gastritis, gastric carcinoma, duodenal stasis, emphysema, corpulmonale, rheumatoid disease, cirrhosis of liver and tuberculosis.

PATHOLOGY

Chronic gastric ulcer is nearly always single, 90% are situated on the lesser curve within the antrum or at the junction between body and antral mucosa.

Chronic duodenal ulcer is usually situated in the **first part of the duodenum** just distal to the junction of pyloric and duodenal mucosa 50% are on the anterior wall. More than one peptic ulcer is found in 10-15% of case. Acute ulcers or erosions are frequently multiple and are more widely distributed.

Types of peptic ulcer

1. Acute peptic ulcer
2. Chronic peptic ulcer

ACUTE PEPTIC ULCER

Acute peptic ulcers developing after head injury, burns, severe sepsis, surgery or trauma are termed stress ulcers. Gastric hyper secretion is the usual cause of acute ulcer after head injury, while the reflux of duodenal contents and mucosal ischemia may be responsible factors after burns or shock.

CHRONIC PEPTIC ULCER

1. Chronic gastric ulcer (GU)
2. Chronic duodenal ulcer (DU)

GASTRIC ULCER (GU) (Fig. 10)

Incidence of GU peaks in the 6th decade, approximately 10 yrs later than for DU. Slightly more than half of GUs occurs in males. The precise incidence of GU is not known, since many GUs are asymptomatic. Although DU is identified clinically more frequently than GU, most autopsy studies show an equal or greater proportion of GUs.

GUs is deep, penetrating beyond the mucosa of the stomach and are similar histologically to DUs, but usually with more extensive gastritis surrounding the ulcer. Almost all benign GUs are found immediately distal to the junction of the antral mucosa and the acid secreting mucosa of the body of the stomach. The location of this junction is variable. In general, antral mucosa extends approximately two thirds of the way up the lesser curvature and one-third of the way up the greater curvature of the stomach. Benign GUs is rare in the fundus of the stomach.

DUODENAL ULCER (Fig.11)

Duodenal ulcer is characteristically a chronic and recurrent disease. It is usually deep and sharply demarcated. More than 95% of DUs occur in the first portion of the duodenum and approximately 90% of those are located within 3 cm of the junction of the pyloric and duodenal mucosa.

DUs are usually less than 1 cm in diameter, rarely they are extremely large 3-6 cm in diameter (giant DUs).

DUs now appear to be approximately as common in males.

CLINICAL FEATURES

DUODENAL ULCER – SYMPTOMS

1. EPIGASTRIC PAIN

Epigastric pain is the most frequent symptom in duodenal ulcer. The pain is often described as sharp burning or gnawing. However, it may be ill defined, boring or aching or may be perceived as abdominal pressure or fullness or as a hunger sensation.

In approximately 10% of patients the pain is located to the right of the epigastrium. The pain of DU characteristically occurs 90 min to 3 hrs after taking food and frequently awakens the patient at night. It is usually relieved within a few minutes by food (hunger pain) or antacids. Episodes of pain may persist for periods of several days to weeks or months.

Pain is aggravated by coarse foods, alcohol, nervous tension and undue fatigue.

Pain is episodic in nature occurring regularly each day for days of week at a time, then disappearing to recur weeks or months later. Between attacks, the patient feels perfectly well, and may eat and drink with impunity. Bouts of pain may at first last only a day or so at a time, and occur only once or twice a year. As the natural history evolves, however episodes begin to last longer and occur more frequently, so that in severe cases remissions of pain may be short lived and pain or discomfort becomes more or less persistent. The cause for those relapses is difficult to establish.

2. DISTENSION

Such individuals may complain of other symptoms such as a feeling of distension in the epigastrium or a poorly defined sense of unease after eating.

3. OTHER COMPLAINTS INCLUDE EPISODIC

Nausea, anorexia always relieves pain and when it is persistent may result in weight loss. Persistent vomiting in an ulcer subject usually indicates some degree of gastric out flow obstruction.

SIGNS

1. POINTING SIGN

Ulcer pain is typically referred to the epigastrium, in the midline or to the right, it is usually localised so that the patient can indicate the site with one finger known as the “**pointing sign**”.

2. MUSCLE GUARDING OR RIGIDITY

May be present with active ulcer or deeply penetrating ulcer.

3. PERISTALTIC WAVES

May be observed in presence of obstruction gastric splash may suggest gastric retention due to duodenal ulcer near pylorus.

Obstruction due to,

- a. Inflammation.
- b. Scarring due to surgeries.

4. OCCULT BLOOD IN STOOLS

GASTRIC ULCER

1. EPIGASTRIC PAIN

As with duodenal ulcer, epigastric pain is the most common symptom, but the pattern is less characteristics. The pain may be precipitated or accenuated by food and symptom relief with food or antacids is less consistent than with duodenal ulcer.

2. NAUSEA & VOMITING

In duodenal ulcer patient nausea and vomiting almost always indicate gastric outlet obstruction; in patients with GU they may occur in the absence of mechanical obstruction.

3. WEIGHT LOSS

Weight loss may occur due to anorexia or aversion to food developing from the discomfort produced by eating.

GUs tends to heal but then recur, often in the same location.

DIFFERENCE BETWEEN CHRONIC GASTRIC ULCER AND CHRONIC DUODENAL ULCER

Sl.No		CHRONIC DU	CHRONIC GU
1	Age	Usually 30-40 yrs.	Usually 40-60 yrs.
2	Sex	Males dominate.	Females dominate.
3	Mechanism	Excess gastric secretion due to ↑parietal cell mass.	↓Mucosal resistance due to deficient mucus (or) mucosal metaplasia.
4	Blood groups	Usually blood group 'O'.	Less common.
5	Stress	Possibly more related.	Not so.
6	Site of ulcer	First part of the duodenum in the anterior wall.	Within 6 cms of the pylorus close to the lesser curvature.
7	Site of Pain	Epigastric region more towards right side.	Epigastric region more towards left side.
8	Onset of pain	1-3 hrs after food.	Immediately after intake of food.
9	Character of pain	Burning.	Dull aching or stiching.

10	Radiation of pain	Upwards in the chest.	Backwards over the paravertebral region.
11	Hunger pain	Present.	Absent.
12	Periodicity of pain	Present.	Absent.
13	Penetration into the pancreas	Rare.	Common.
14	Perforation	Common.	Rare.
15	Haematemesis	Melaena common.	Hematemesis Common.
16	Vomiting	Induced.	Spontaneous.
17	General nutrition	Good.	Poor.
18	Abdominal signs	Pointing sign on right side.	On the left side.
19	Barium meal X-ray and screening	Hypermobility, tender duodenal, bulb and deformity of duodenal bulb rarely ulcer crater.	Ulcer crater and niche and opposite wall.
20	Endoscopy	Duodenoscopy may reveal the ulcer.	Gastrosocopy may reveal the ulcer.
21	Gastric outlet obstruction	Very common.	Not so.
22	Malignant change	Doesn't occur.	May occur.

COMPLICATION

Complications of peptic ulcer are haemorrhage, perforation and gastric outlet obstruction and cancer.

1. GASTRO DUODENAL HAEMORRHAGE

Gastroduodenal haemorrhage is recognised by haematemesis (vomiting of blood) or melaena (passage of blood in the stools) and usually there are symptoms of hypovolaemia. Gastroduodenal haemorrhage carries a mortality that may reach 30% in elderly and shocked patients. A history of significant blood loss within the previous 48 hours should lead to immediate admission to hospital.

Aetiology

The common causes of bleeding are chronic gastric and duodenal ulcers (50%) ulcers erosions (15-30%) oesophageal varices (10%) and mucosal lacerations at the cardia due to vomiting (Mallory-Weiss syndrome 7%). Less frequent causes are cancer of the stomach and other tumours such as leiomyoma, oesophagitis, stress ulcer and bleeding disorders.

Erosions are usually caused by ingestion of aspirin either alone or in combination with alcohol or by corticosteroids or non-steroidal anti-inflammatory drugs. In some patients the stomach shows petechiae, multiple erosions and areas of confluent mucosal bleeding, this appearance is called **acute hemorrhagic gastritis**. The usual presentation of stress ulcer, caused by means of burns or head injury is with haematemesis and melaena.

Clinical Features

In severe bleeding from whatever cause, the patient complains of weakness, faintness, nausea and sweating these symptoms are followed by the vomiting of blood (haematemesis and melaena occur) with a sudden large bleed whereas melaena alone indicates that bleeding is slower and less in amount. If blood remains in the stomach it becomes partially digested and appears brown and granular in the vomit or gastric aspirate, like 'coffee grounds'. Blood passing through the intestinal canal is also altered in appearance, show that the faeces become black and sticky, a tarry stool. But in severe bleeding, transmit may be so-rapid that the blood in the rectum is bright red.

On examination, the patient may be shocked or restless and disorientated because of cerebral anoxia. These signs may be absent in the young patient in whom compensatory mechanism are more effective.

2. ACUTE PERFORATION OF A PEPTIC ULCER

When free perforation occurs, the contents of this stomach escape into the peritoneal cavity. It perforation occurs without loss of contents, as in the accidental perforation of the empty stomach at gastroscopy, few symptoms are produced and the accident may even pass unnoticed. It follows that the symptoms of perforation of those of peritonitis, and they are in proportion to the extend of peritoneal soiling. Occasionally the symptoms of perforation appear and rapidly subside, presumably the perforation has then closed spontaneously or more commonly the ulcer has perforated locally into an area confined by adhesions to adjacent structures. Perforation occurs more commonly in duodenal than in gastric ulcer and usually in the ulcer on the anterior wall. About one quarter of all perforation occur in acute ulcers.

Acute perforation carries a mortality of about 5%. The outlook is poorest in elderly patients, when a large perforation results in extensive peritonitis or when operation is delayed.

3. GASTRIC OUTLET OBSTRUCTION

An ulcer in the region of the pylorus may result in gastric outlet obstruction. This may be due to fibrous stricture or to oedema or spasm produced by the ulcer frequently it is a combination of all three. Long standing obstruction may lead to severe retention gastritis or even to secondary gastric ulcer.

In addition to chronic duodenal ulcer or benign gastric ulcer at or near the pylorus, gastric outlet obstruction may be caused by carcinoma of the antrum and by a rare condition known as adult hypertrophic pyloric stenosis.

The syndrome of gastric outlet obstruction is loosely described as “**pyloric stenosis**”. Even when the cause is chronic duodenal ulcer and the stenosis is distal to the pylorus, thus in ‘pyloric’ obstruction due to duodenal stenosis, the pylorus itself may be seen radiologically to be greatly dilated.

Clinical features

Symptoms of obstruction are usually preceded by a long history of duodenal ulceration. Without such symptoms, a patient with gastric outlet obstruction is likely to have a pyloric carcinoma. When there has been an ulcer, the symptoms change so that vomiting becomes a prominent feature and nausea replaced normal appetite. Vomiting produces such stringing relief that a patient may start to eat immediately after the stomach has been emptied. If the obstruction progresses the stomach dilates so that eventually, surprisingly large, amounts of gastric content may be vomited.

Articles of food which have been eaten 24 hours or more previously may be recognized in vomit. An earlier symptom is a sense of repletion soon after eating a relatively small amount of food. The loss of gastric contents results in water and electrolyte depletion. The blood urea may be raised because of dehydration. Alkalosis develops if large amounts of hydrochloric acid are lost, as occurs particularly in obstruction due to duodenal ulcer.

4. DUMPING SYNDROME

Following peptic ulcer surgery, some patients experience a spectrum of vasomotor symptoms after eating. These include palpitation, tachycardia, light headedness, diaphoresis and less frequently postural hypotension. Abdominal discomfort and vomiting also may occur. This constellation of symptoms called the **early dumping syndrome** within 30 min after eating.

The late dumping syndrome is a symptom complex of dizziness, light headedness, palpitation, diaphoresis, confusion and rare instances, syncope occurring 90 min to 3 hrs after eating.

Both forms of the dumping syndrome are treated by dietary measures including limitation of simple sugar-containing liquids and solids, elimination of liquids at mealtime and eating of frequent small meals.

5. TEAPOT DEFORMITY / “HANDBAG STOMACH” (Fig.12)

A long standing lesser curve gastric ulcer causes shortening of the lesser curvature due to fibrosis. Such stomach resembles a teapot. As a result of this, pylorus becomes non-dependent. Hence, stasis occurs.

Treatment: Partial Gastrectomy Followed By Billroth I Anastomosis.

6. HOURGLASS CONTRACTURE OF STOMACH (Fig. 13)

- When a saddle-shaped ulcer in the lesser curvature gets cicatrised, it involves both surfaces of stomach resulting in conversion of stomach into two compartments.
- Features of stasis such as fullness, distension.
- Persistent vomiting is present.
- Females are affected more often.
- Weight loss is present. Appetite is decreased.

Treatment: Billroth I Partial Gastrectomy with Removal of 2nd Pouch.

7. PENETRATION INTO PANCREAS

A posterior gastric ulcer can penetrate into pancreas, resulting in severe referred pain to the back resembling pancreatic pathology. However, this type of pain is relieved on lying down.

8. CARCINOMA OF THE STOMACH (Fig.14)

It is complication of benign gastric ulcer. Incidence is around 2%.

LATE COMPLICATIONS FOLLOWING GASTRIC SURGERY

Although most operations carried out for the relief of peptic ulcer are successful, 10% of patients will develop complications months or years, afterwards. Some of these such as anaemia and nutritional impairment develop insidiously; stomach should be reviewed atleast once or year.

Recurrent ulcer, after surgery for duodenal ulcer, is usually due to insufficient reduction of the secretory capacity of the stomach because of incomplete vagotomy or inadequate gastrectomy. A jejunal ulcer develops just distal to the jejunogastric anastomosis, because the jejunal mucosa is more susceptible to acid-pepsin digestion than gastric or duodenal mucosa. About 15% of selective vagotomy but the operation has the virtue

of being free from the side effects associated with resection, truncal vagotomy or drainage procedures.

Anaemia is a common sequel to operations on the stomach, particularly partial gastrectomy due to inadequate absorption of iron or to recurrent minor blood loss from gastritis or oesophagitis.

Nutritional impairment and osteomalacia. In a small proportion of patients there is some nutritional impairment following gastric surgery severe weight loss is its most common manifestation.

DIFFERENTIAL DIAGNOSIS

1. CHRONIC INTESTINAL AMEBIASIS

There is history of recurrent dysentery, caecum and pelvic colon are tender and cord like liver may be palpate and tender. Stool may show cysts of entamoeba histolytica.

2. CHRONIC CHOLECYSTITIS

There may be history of biliary colic and jaundice in the past murphy's sign is positive. Rarely gall bladder may be palpating cholecystography settles the diagnosis by showing dysfunction of the gall bladder with or without store.

3. CHRONIC APPENDICITIS

There may be history of acute appendicitis in the past, **mcburney's point** is tender, FTM and barium meal X-ray of stomach show normal finding but barium meal X-ray of appendix may show irregularity or no filling.

4. CHRONIC GASTRITIS

There is anorexia, discomfort in the upper abdomen without any definite tenderness, FTM shows low acid but excess of mucus in all samples, barium meal X-ray shows coarse or fine gastric rugae.

5. CHRONIC PANCREATITIS

There may be history of acute pancreatitis in the past, pain radiating to the back may be present without definite relation with food, steatorrhea and diabetes mellitus may be present. Straight X-ray of the abdomen may reveal pancreatic calcification.

6. ZOLLINGER ELLISON SYNDROME

This is a rare disorder in which severe peptic ulceration occurs due usually to an adenoma or hyperplasia of the islets of the pancreas secreting large amounts of gastrin which stimulates the parietal cells of the stomach excessively. The acid output may be so great that the acid tide may reach the upper small intestine, reducing the luminal pH to 2 or less, at this pH, pancreatic lipase is inactivated and bile acid may be precipitated, causing diarrhea and steatorrhea. Excessive gastric secretion results in large volumes on aspiration under 'basal' conditions. Pentagastrin does not increase the secretory rate much above basal values. Since the stomach is already continuously secreting at or near maximal rates.

The ulcers are often multiple and severe and may occur in unusual sites such as the jejunum or the oesophagus. The history is usually short and bleeding and perforations are common. The syndrome may present in the form of severe recurrent ulceration following a standard operation for peptic ulcer, the underlying cause not having been recognised. The diagnosis should be suspected in all patients with unusual

or severe peptic ulceration, especially coarse barium meal examination shows abnormally coarse gastric mucosal folds. It may be confirmed by finding very high level of gastric in the circulation.

INVESTIGATIONS

1. ENDOSCOPE IN GASTRO – ENTEROLOGY

Kusmaul who had witnessed sword swallows at country fairs, felt that it should be possible to pass a tube down the oesophagus for direct visualisation of the interior of the oesophagus and stomach. **Mucouliez** studied gastro scope in 1881. By 1911, **elsmer** reported the use of gastroscope. In 1928, **Schindler** decided to build a flexible instrument. In about four years with help of optical from be devised the flexible gastro scope which was first demonstrated in may 1932. This flexible instrument may be said to have revolutionised gastroscopy. **Benedict, tomenius** and others added biopsy forceps or suction cups. **(Fig.15 & 16)**

In recent years endoscopic photography still and motion, has become possible and gives excellent pictures. The flexible fibroscope now enables one to examine the oesophagus, stomach and duodenum and at the same time obtain biopsics and material for cytological examination.

It is used diagnosis purpose for the oesophagitis, oesophagial ulcer, gastirc ulcer, duodenal ulcer, duodenitis, maligant cancer, biopsy can also be obtained to find out in gastric ulcer is benign or malignant.

FRACTIONAL TEST MEAL

The patient who was on starvation during the previous night is asked to swallow the ryles tube at 5 a.m and the entire stomach contents a fasting juice are aspired with a 20 ml record syringe. The patient is then given a pint of warm gruel to drink. The gruel is prepared by boiling two

table spoonfuls of the oatmeal in two pints of water until the quantity is reduced to one pint. Every 15 minutes not more than 15 ml of gastric content is now aspirated until 2½ hours have elapsed or until such time as 15ml can no longer be aspirated. These samples are examined for,

- 1.
2. Total activity
3. Free HCL
4. Bile
5. Blood
6. Mucus
7. Starch and sugar
8. Lactic acid
9. Combined activity
10. Presence of pepsin
11. Total chloride

In a gastric ulcer, the curves of free HCl, and total activity are highly normal or just above the normal limit. Blood may be present some of the specimen. The climbing curve is due to pyloric spasm which prevents regurgitation of bile or allows the acidity to rise continuously. Besides carcinoma, achlorhydria is found in pernicious anaemia, gastritis, chronic appendicitis etc., but association of blood in all the specimens is strongly suggestive of a carcinoma. Sometimes cancer cells and be demonstrated into washing after gastric levage.

This test is no more needed to make correct diagnosis of peptic ulcer except to exclude the role of vagotomy during surgical management.

EXAMINATION OF STOOL

Black and tarry stool (Melaena) is well known in peptic ulcer when the haemorrhage is large small haemorrhage need special chemical test for deduction (Motion for occult blood).

RADIOLOGICAL FEATURES OF PEPTIC ULCER (BARIUM MEAL SERIES) (Fig. 17&18)

Peptic ulceration only occurs in those parts of the alimentary canal which are bathed in the acid and pepsin secretions. The radiological features of peptic ulcer vary from a mild mucosal erosion to a malignant ulcer.

- a. Sites of gastro duodenal ulcers – Acute gastric ulcer.
- b. Acute duodenal ulcer.
- c. Benign ulcers.
- d. Malignant.

Although in clinical experience duodenal ulcer are far more frequent than gastric ulcer in the ratio of 10 or 20:1 they are approximately equal.

ROENTGEN SIGNS OF ULCERATION

The presence of a 'fleck' or crater. This sign represents the presence of barium and is regarded as essential for the diagnosis.

CHANGES IN THE NEIGHBOURING RUGAE

These are oedema, irregularity and the cart wheel appearance in which the rugae radiate from the fleck or crater.

Functional changes such as spasm, increase in peristalsis or irritability are common.

CHARACTERISTICS ASSOCIATED WITH THE SITE OR ULCERATION

Ulcers in the body of the stomach are more prevalent along the lesser curvature. Ulcers of the greater curvature are rare.

MUCOSAL RELIEF WITH SMALL AMOUNT OF BARIUM SHOWS

1. Barium sport or fleck.
2. Edematous mucosa at base.
3. Radiating rugae.

4. Coarse rugae often there.
5. When seen in profile it is an out pouching with a broad base. Most often on lesser curvature. But requires fluoroscopy in every degree of obliquity for demonstration.

RADIOLOGICAL FEATURES OF MALIGNANT GASTRIC ULCER

1. Irregularity in mucosa adjoining ulcer niche.
2. No peristalsis here.
3. The niche does not extend beyond line of stomach.
4. Associated duodenal ulcer usually indicated the gastric ulcer is benign.
5. Ulceration of greater curvature is usually malignant.

A less common site for ulcers is the pyloric but even here it tends to occur along the lesser curvature. This ulcer produces a gastric stasis.

DUODENAL ULCER

The common site for duodenal ulcer is in the duodenal cap and they may occur on either cap and they may occur on either the anterior or posterior walls. Less frequently post bulbar area.

Radiological features are

A. Acute penetrating or erosive stage

1. Ulcer niche.
2. Edematous mucosal halo.
3. Thick pyloric rugae.
4. Spastic.

B. Beginning scar formation

1. Ulcer niche.
2. Thickened surrounding mucosa.
3. Rugae converging like chart wheel spokes.
4. Pseudo diverticulum formation.
5. Bulb may appear fragmented on compression.

C. Late scarring stage

1. Niche or pseudo diverticulum.
2. Contracted deformed fibrotic bulb rigid walls.
3. Thick pyloric rugae.

Post bulbar ulcers shows deformed bulb.

Materials and Methods

MATERIALS AND METHODS

The clinical study on the disease 'Vatha Gunmam' was carried out all the Post Graduate, department of Pothu Maruthuvam in Government Siddha Medical College, Palayamkottai.

Selection of the patients

For this study 20 Inpatients and 20 outpatients of both sexes were carried out in the Post Graduate Pothu Maruthuvam Department.

The selection of patients for clinical study was carried out under the supervision and monitoring by professor. Reader, Lecturer and Asst. Lecturer of the Post Graduate, Pothu Maruthuvam Department. All the cases were thoroughly examined and routine investigations performed at the time of admission.

For the patients in Inpatient ward, individual case sheet proforma was maintained. After discharge all the patients were advised to undergo regular check up and further follow up at the outpatient ward.

Clinical Evaluation

In this study, the detailed clinical history, occupation, personal history, related past history, habits were taken from the patients.

Special entitles were made to evaluate clinical parameters by the detailed history taking of symptoms include epigastric pain, hyphocondric pain, nausea, vomiting, belching, burning sensation of the chest, diarrhoea, constipation, weakness, tiredness, nocturnal pain etc.,

For this purpose, the case sheets were prepared based on both siddha and modern diagnostic parameters.

Siddha Diagnosis

Siddha diagnosis was made with the help of following parameters,

1. Nilam
2. Paruvakaalam
3. Thegam
4. Gunam
5. Poriyal arithal
6. Pulanal arithal
7. Vinaathal
8. Mukkutram
9. Seven udalthathukkal
10. Envagai Thervugal

and the diagnosis etc., '**Vatha Gunmam**' which correlates '**Peptic Ulcer**' was made by physical examination of the patient as well as laboratory and radiological investigations.

Laboratory Investigations

I Haematological Investigations

Total Count	Blood Sugar
Differential Count	Blood Urea
Erythrocyte Sedimentation Rate	Blood Grouping & Rh type

II Urine Analysis

- Albumin
- Sugar
- Deposit

III Stools Examination

- Occult Blood
- Ova
- Cyst

Radiological Investigation

- USG – Abdomen
- Endoscopy
- X – ray – Barium Meal study

Selection of the trial medicines

To neutralize trithosha laxatives were given initially. For this, the universal laxative **Nilavagai chooranam** 10 gm with hot water at bed time was recommended. Then the specific treatment was given.

Trial Medicines

Ayilpattai Chooranam 1 – 2 gms B.D. with hot water was given as internal medicines after meals.³³

The trial medicines were prepared in the Post Graduate practical hall, under the guidance of staffs of the Post Graduate Maruthuvam Department.

Evaluation of Trial Medicines

The trial medicines were subjected to pharmacological and biochemical analysis, in the respective laboratories of Government Siddha Medical College, Palayamkottai.

The observations were made from both Inpatients and Outpatients from the clinical improvement and the results. This results and observations were properly recorded in the proforma.

At the time of discharge all the patients were advised to follow the diet restrictions, personal habits, excessive water intake and mental relaxation by Yoga, Meditation etc., then they were advised to follow further treatment in the Outpatients Department of P.G-I Maruthuvam for the follow up study.

Results and Observations

RESULTS AND OBSERVATION

The results were observed regarding the following criteria by clinical study on **20 Inpatients and 20 Outpatients.**

1. Sex Distribution
2. Age Distribution
3. Kaalam
4. Constitution of Body
5. Gunam
6. Religion
7. Paruvakaalam
8. Thinai
9. Socio-Economic Status
10. Aetiological Factors
11. Food Habits
12. Family History
13. Clinical Manifestation
14. Mode of Onset
15. Duration of Disease
16. Kosam
17. Kanmenthiriyam
18. Mukkutram
 - a. Derangement of Vatham
 - b. Derangement of Pitham
 - c. Derangement of Kabam
19. Seven udal kattugal

- 20. Envagai Thervugal
- 21. Neer Kuri
- 22. Nei kuri
- 23. Examination of Abdomen
- 24. Blood Grouping
- 25. Radiological Findings
- 26. Endoscopy Investigation
- 27. Gradiation of Results

1. SEX DISTRIBUTION

Table 1 illustrates the distribution of sex.

TABLE 1

SI.No	Sex	No of cases		Percentage%	
		OP	IP	OP	IP
1.	Male	8	7	40%	35%
2.	Female	12	13	60%	65%

For this dissertation study 20 patients were selected in out patients.

Out of these,

8 patients (40%) were male.

12 patients (60%) were female.

20 patients were selected in Inpatients. Out of these,

7 patients (35%) were male.

13 patients (65%) were female.

2. AGE DISTRIBUTION (Fig. a)

Table 2 illustrates the distribution of age.

TABLE 2

Sl. No	Age groups in years	No of cases		Percentage %	
		OP	IP	OP	IP
1.	20 to 30	3	2	15%	10%
2.	31 to 40	12	1	60%	5%
3.	41 to 50	2	6	10%	30%
4.	51 to 60	2	7	10%	35%
5.	61 to 70	-	2	-	10%
6.	71 to 80	1	2	5%	10%

Among the 20 outpatients,

15% of cases were observed in age group between 20-30 years.

60% of cases were observed in age group between 31-40 years.

10% of cases were observed in age group between 41-50 years.

10% of cases were observed in age group between 51-60 years.

5% of cases were observed in age group between 71-80 years.

among the 20 Inpatients,

10% of cases were observed in age group between 20-30 years.

5% of cases were observed in age group between 31-40 years.

30% of cases were observed in age group between 41-50 years.

35% of cases were observed in age group between 51-60 years.

10% of cases were observed in age group between 61-70 years.

10% of cases were observed in age group between 71-80 years.

3.KAALAM (Fig. b)

Table 3 illustrates the distribution of kaalam.

TABLE 3

Sl.no	Kaalam	No of cases		Percentage%	
		OP	IP	OP	IP
1.	Vatham	4	2	20%	10%
2.	Pitham	15	16	75%	80%
3.	Kabam	1	2	5%	10%

Among 20 cases,

In op,

20%of cases were in vatha kaalam.

75% of cases were in pitha kaalam.

5% of cases were in kaba kaalam.

In Ip,

10% of cases were in vatha kaalam.

80% of cases were in pitha kaalam.

10% of cases were in Kaba kaalam.

4. CONSTITUTION OF BODY

Table 4 illustrates the distribution of thegi.

TABLE 4

Sl.no	Constitution of body	No of cases		Percentage%	
		OP	IP	OP	IP
1.	Vatha thegi	-	-	-	-
2.	Pitha thegi	-	-	-	-
3.	Kaba thegi	-	-	-	-
4.	Thontha thegi	20	20	100%	100%

In both op and Ip study, cent percentage belongs to **thontha thegi**.

5. GUNAM

Table 5 illustrates the distribution of Gunam

TABLE: 5

Sl.no	Gunam	No of cases		Percentage %	
		OP	IP	OP	IP
1.	Sathuva Gunam	-	-	-	-
2.	Rajo Gunam	20	20	100%	100%
3.	Thamo Gunam	-	-	-	-

In both Op and Ip study cent percentage belongs to **Rajo Gunam**.

6. RELIGION

Table 6 illustrates the distribution of Religion.

TABLE 6

Sl. No	Religion	No of cases		Percentage%	
		OP	IP	OP	IP
1.	Hindu	17	15	85%	75%
2.	Christian	1	3	5%	15%
3.	Muslim	2	2	10%	10%

In OP study,

85% of cases belongs to Hindu Religions.

5% of cases belongs to Christian Religions.

10% of cases belongs to Muslim Religions.

In IP study,

75% of cases belongs to Hindu Religions.

15% of cases belongs to Christian Religions.

10% of cases belongs to Muslim Religions.

7. PARUVAKAALAM

Table 7 illustrates the distribution of the disease among the Paruva Kaalam.

TABLE 7

Sl. No	Paruva Kaalam	No of cases		Percentage%	
		OP	IP	OP	IP
1.	Kaarkaalam	-	-	-	-
2.	Koothirkaalam	8	1	40%	5%
3.	Munpanikaalam	11	4	55%	20%
4	Pinpanikaalam	1	15	5%	75%
5	Elavenilkaalam	-	-	-	-
6	Muthuvenilkaalam	-	-	-	-

In OP Study,

40% were observed during koothirkaalam.

55% were observed during Munpanikaalam.

5% were observed during Pinpanikaalam.

In IP Study,

5% were observed during koothirkaalam.

20% were observed during Munpanikaalam.

75% were observed during Pinpanikaalam.

8. THINAI (Fig. c)

Table 8: illustrates the distribution of the disease among the Thinais.

TABLE 8

Sl. No	Thinai	No of cases		Percentage%	
		OP	IP	OP	IP
1.	Kurinji	-	-	-	-
2.	Mullai	-	-	-	-
3.	Marutham	18	16	90%	80%
4	Neithal	2	4	10%	20%
5	Paalai	-	-	-	-

In OP study,

90% were from Marutham.

10% were from Neithal.

In IP study,

80% were from Marutham.

20% were from Neithal.

9. SOCIO – ECONOMIC STATUS (Fig. d)

Table 9 : illustrates the Socio – Economic Status of the patients.

TABLE 9

Sl. No	Socio – Economic Status	No of cases		Percentage%	
		OP	IP	OP	IP
1.	Poor	5	4	25%	20%
2.	Middle Class	11	16	55%	80%
3.	Rich	4	-	20%	-

In OP study,

25% belongs to Poor.

55% belongs to Middle Class.

20% belongs to Rich.

In IP Study,

20% belongs to Poor.

80% belongs to Middle Class.

10. AETIOLOGICAL FACTORS (Fig. e)

Table 10: illustrates the Aetiological Factors for disease.

TABLE 10

Sl. No	Aetiological Factor	No of cases		Percentage %	
		OP	IP	OP	IP
1.	Alcohol	4	6	20%	30%
2.	Smoking	5	7	25%	35%
3.	Irregular Diet	17	12	85%	60%
4	Stress and strain	5	4	25%	20%
5	Occupational	16	6	80%	30%
6	Drug (NSAID)	10	15	50%	75%

In op study,

20% of patients alcohol as their aetiological factor.

25% of patients of smoking as their aetiological factor.

85% of patients of irregular diet as their aetiological factor.

25% of patients of stress and strain as their aetiological factor.

30% of patients of Occupational as their aetiological factor.

50% of patients of Drug as their aetiological factor.

In IP study,

30% of patients alcohol as their aetiological factor.

35% of patients of smoking as their aetiological factor.

60% of patients of irregular diet as their aetiological factor.

20% of patients of stress and strain as their aetiological factor.

30% of patients of Occupational as their aetiological factor.

75% of patients of drug as their aetiological factor.

11. FOOD HABITS (Fig. f)

Table 11 : illustrates the distribution of diet among the patients.

TABLE 11

SI. No	Food Habits	No of cases		Percentage %	
		OP	IP	OP	IP
1.	Mixed diet	16	20	80%	100%
2.	Vegetarian	4	-	20%	-

In OP study,

80% had a mixed diet.

20% had a vegetarian diet.

In IP study,

100% had a mixed diet.

12. FAMILY HISTORY

Table 12 : illustrates the distribution of Family History.

TABLE 12

Sl. No	Family History	No of cases		Percentage %	
		OP	IP	OP	IP
1.	Positive	-	-	-	-
2	Negative	20	20	100%	100%

In both OP and IP study, 100% have **no family history**.

13. CLINICAL MANIFESTATION

Table 13 : illustrates the distribution of Clinical Manifestation.

TABLE 13

Sl. No	symptoms	No of cases		Percentage%	
		OP	IP	OP	IP
1.	Epigastric Pain	17	18	85%	90%
2.	Indigestion	20	20	100%	100%
3	Nausea	17	18	85%	90%
4	Vomiting	13	15	65%	75%
5	Loss of appetite	20	20	100%	100%
6	Heart burn	14	7	70%	35%
7	Abdominal Discomfort	20	20	100%	100%
8	Nocturnal pain	5	6	25%	30%
9	Constipation	12	17	60%	85%
10	Weakness / Tiredness	4	5	20%	25%

In OP Study,

- 85% were affected with Epigastric pain.
- 100% were affected with indigestion.
- 85% were affected with Nausea.
- 65% were affected with vomiting.
- 100% were affected with Loss of appetite.
- 70% were affected with Heart burn.
- 100% were affected with Abdominal discomfort.
- 25% were affected with nocturnal pain.
- 60% were affected with Constipation.
- 20% were affected with Weakness/Tiredness.

In IP Study,

- 90% were affected with Epigastric pain.
- 100% were affected with indigestion.
- 90% were affected with Nausea.
- 75% were affected with vomiting.
- 100% were affected with Loss of appetite.
- 35% were affected with Heart burn.
- 100% were affected with Abdominal discomfort.
- 30% were affected with nocturnal pain.
- 25% were affected with Constipation.
- 25% were affected with Weakness/Tiredness.

14. MODE OF ONSET

Table 14 : illustrates the distribution of Mode of onset of the disease.

TABLE 14

SI. No	Mode of Onset	No of cases		Percentage %	
		OP	IP	OP	IP
1.	Acute	-	-	-	-
2	Gradual	20	20	100%	100%

In both IP and OP study, 100% were **gradual onset**.

15. DURATION OF ILLNESS

Table 15 : illustrates the distribution of duration of illness.

TABLE 15

SI. No	Duration of Illness	No of cases		Percentage%	
		OP	IP	OP	IP
1.	6 months to 1 year	-	-	-	-
2.	1 year to 6 years	15	16	75%	80%
3	6 years to 12 years	2	1	10%	5%
4	12 years to 18 years	3	2	15%	10%
5	18 years and above	-	1	-	5%

In OP study,

75% of the cases were affected with 1 year to 6 years duration.

10% of the cases were affected with 6 year to 12 years duration.

15% of the cases were affected with 12 year to 18 years duration.

In IP study,

80% of the cases were affected with 1 year to 6 years duration.

5% of the cases were affected with 6 year to 12 years duration.

10% of the cases were affected with 12 year to 18 years duration.

5% of the cases were affected with 18 year to above duration.

16. KOSAM (Fig. g)

Table 16 : illustrates the distribution of Kosam.

TABLE 16

SI. No	Kosam	No of cases		Percentage%	
		OP	IP	OP	IP
1.	Annamaya Kosam	20	20	100%	100%
2.	Piranamaya Kosam	20	20	100%	100%
3	Manomaya Kosam	5	4	25%	20%
4	Vinjanamaya Kosam	-	-	-	-
5	Aanathamaya Kosam	20	20	100%	100%

In both OP and IP study, 100% had affected Annamaya Kosam, Piranamaya Kosam and Aanathamaya Kosam.

In OP, 25% had affected Manomaya Kosam.

In IP, 20% had affected Manomaya Kosam.

17. KANMENTHIRIYAM

Table 17: illustrates the distribution of disease with Kanmethiriyam.

TABLE 17

Sl. No	Kanmenthiriyam	No of cases		Percentage %	
		OP	IP	OP	IP
1.	Kai	-	-	-	-
2.	Kaal	8	12	40%	60%
3	Vai	-	-	-	-
4	Eruvai	12	17	60%	85%
5	Karuvai	-	-	-	-

Among the 20 OP,

40% had affected Kaal.

60% had affected Eruvai.

Among the 20 IP,

60% had affected Kaal.

85% had affected Eruvai.

18. MUKKUTRAM

a. Derangement of Vatham

Table 18.a : illustrates the distribution of vatham in the diseases.

TABLE 18.A

Sl. No	Vatham	No of cases		Percentage%	
		OP	IP	OP	IP
1.	Piraanan	20	20	100%	100%
2.	Abaanan	14	16	70%	80%
3	Viyaanan	10	15	50%	75%
4	Uthaanan	18	19	90%	95%
5	Samaanan	20	20	100%	100%
6	Naagan	-	-	-	-
7	Koorman	5	6	25%	30%
8	Kirukaran	20	20	100%	100%
9	Devaththan	-	-	-	-
10	Dhanajayan	-	-	-	-

In OP study,

100% had affected Piraanan, Samaanan, Kirukaran.

70% had affected Abaanan.

50% had affected Viyanan.

90% had affected uthaanan.

25% had affected Koorman.

In IP study,

100% had affected Piraanan, Samaanan, Kirukaran.

80% had affected Abaanan.

75% had affected Viyaanan.

95% had affected Uthaanan.

30% had affected Koorman.

18.b. Derangement of Pitham

Table 18.b : illustrates the distribution of pitham in the diseases.

TABLE 18.B

Sl. No	Pitham	No of cases		Percentage %	
		OP	IP	OP	IP
1.	Anarpitham	20	20	100%	100%
2.	Ranjagam	1	8	5%	40%
3	Sathagam	20	20	100%	100%
4	Prasagam	-	-	-	-
5	Aalosagam	-	-	-	-

In both OP and IP study, 100% had affected Anarpitham and Sathaga Pitham.

In OP, 5% had affected Ranjaga Pitham.

In IP 40% had affected Ranjaga Pitham.

18.c. Derangement of Kabam

Table 18.c : illustrates the distribution of kabam in the diseases.

TABLE 18.C

Sl. No	Kabam	No of cases		Percentage%	
		OP	IP	OP	IP
1.	Avalambagam	20	20	100%	100%
2.	Kilethagam	20	20	100%	100%
3	Pothagam	-	-	-	-
4	Tharpagam	-	-	-	-
5	Santhigam	8	14	40%	70%

In both IP and OP study, 100% had affected Avalambagam and Kilethagam.

In OP Study, 40% had affected Santhigam.

In IP study, 70% had affected Santhigam.

19. SEVAN UDAL KATTUGAL

Table 19 : illustrates the distribution of derangements Sevan Udal Kattugal in the disease.

TABLE 19

Sl. No	Sevan Udal Kattugal	No of cases		Percentage%	
		OP	IP	OP	IP
1.	Saaram	20	20	100%	100%
2.	Senneer	20	20	100%	100%
3	Oon	2	4	10%	20%
4	Kozhuppu	8	14	40%	70%
5	Enbu	8	14	40%	70%
6	Moolai	8	14	40%	70%
7	Sukkilam / Suronitham	-	-	-	-

In both IP and OP study, 100% had affected Saaram and Senneer.

In OP study,

40% had affected Kozhuppu, Enbu and Moolai.

10% had affected Oon.

In IP study,

70% had affected Kozhuppu, Enbu and Moolai.

20% had affected Oon.

20. ENVAGAI THERVUGAL

Table 20 : illustrates the distribution of Envagai Thervugal in the disease.

TABLE 20

Sl. No	Envagai Thervugal	No of cases		Percentage %	
		OP	IP	OP	IP
1.	Naadi (Thontha naadi)	20	20	100%	100%
2.	Sparism	-	-	-	-
3	Naa	4	4	20%	20%
4	Niram	-	2	-	-
5	Mozhi	-	-	-	-
6	Vizhi	-	3	-	15%
7	Malam	12	17	65%	85%
8	Moothiram	-	-	-	-

In OP study,

100% had Thontha Naadi.

20% had affected Naa.

60% had affected malam.

In IP study,

100% had Thontha naadi.

20% had affected Naa.

15% had affected Vizhi.

85% had affected Malam.

21. NEER KURI

Table 21 : illustrates the distribution of Neer kuri in the disease.

TABLE 21

Sl. No	Neer kuri	No of cases		Percentage %	
		OP	IP	OP	IP
1.	Niram	-	-	-	-
2.	Manam	-	-	-	-
3	Edai	-	-	-	-
4	Nurai	-	-	-	-
5	Enjal	-	-	-	-

In both OP and IP study, Neer Kuri found to be normal in colour, frequency, smell and froth.

22. NEIKURI

Table 22 : illustrates the distribution of Neikuri in the disease.

TABLE 22

Sl. No	Nei Kuri	No of cases		Percentage%	
		OP	IP	OP	IP
1.	Vatha Neei	-	-	-	-
2.	Pitha Neer	-	-	-	-
3	Kaba Neer	10	12	50%	60%
4	Thontha Neer	10	8	50%	40%

In OP study,

50% had affected in Kaba Neer.

50% had affected in Thontha Neer.

In IP study,

60% had affected in Kaba Neer.

40% had affected in Thontha Neer.

23. EXAMINATION OF ABDOMEN

Table 23 : illustrates the Examination of Abdomen.

TABLE 23

SI. No	Examination of Abdomen	No of cases		Percentage %	
		OP	IP	OP	IP
1.	Tenderness of Epigastrium	17	18	85%	90%
2.	Pointing sign	20	20	100%	100%
3	Rigidity of Rectus abdomines	-	-	-	
4	Visible gastric peristalsis	-	-	-	-
5	Palpable Mass	-	-	-	-

In OP study,

85% had tenderness of Epigastrium.

100% had pointing sign.

In IP study,

90% had tenderness of Epigastrium.

100% had pointing sign.

24. INVESTIGATION

Examination of blood Group

In Out Patients

S.No	OP No	Name	Age	Sex	Blood group and Rh type
1	65814	Mrs. Bramu	40	F	O ^{+ve}
2	64107	Mr. Abdul Rasak	74	M	O ^{+ve}
3	66033	Mr. Chella Durai	23	M	O ^{+ve}
4	65186	Mrs. Annammal	35	F	O ^{+ve}
5	65799	Mrs. Amirtha Valli	33	F	O ^{+ve}
6	66549	Mrs. Ponmuthu	27	F	B ^{+ve}
7	66673	Mrs. Mahumidha	46	F	O ^{+ve}
8	66663	Mrs. Selvi	33	F	B ^{+ve}
9	66234	Mr. Viaya Ram	55	M	O ^{+ve}
10	76665	Mr. Balasubramaniyan	56	M	O ^{+ve}
11	66834	Mrs. Janaki	34	F	A ₁ ^{+ve}
12	68730	Mrs. Parvathy	50	F	O ^{+ve}
13	67058	Mrs. Pappa	40	F	O ^{+ve}
14	71053	Mrs. Julie	38	F	O ^{+ve}
15	70922	Mrs. Rajam	38	F	O ^{+ve}
16	67516	Mr. Vijay	24	M	O ^{+ve}
17	65774	Mr. Natarajan	39	M	O ^{+ve}
18	66330	Mrs. Sundari	39	F	B ^{+ve}
19	74770	Mr. Marriyappan	40	M	A ₁ B ^{+ve}
20	74833	Mr. Sankara lingam	58	M	O ^{+ve}

In In-Patients

S.No	IP No	Name	Age	Sex	Blood group and Rh type
1	2524	Mr. Subramaniyan	24	M	O ^{+ve}
2	2627	Mrs. Poomani	45	F	O ^{+ve}
3	2992	Mr. Murugan	65	M	A ₁ ^{+ve}
4	199	Mrs. Jesintha	48	F	O ^{+ve}
5	480	Mr. Kanthasamy	38	M	B ^{+ve}
6	189	Mrs. Reeta	58	F	O ^{+ve}
7	311	Mr. Pandaram	60	M	O ^{+ve}
8	273	Mrs. Eswari	80	F	B ^{+ve}
9	185	Mr. Veera pandian	70	M	O ^{+ve}
10	286	Mrs. Azhagammal	45	F	B ^{+ve}
11	328	Mr. Ramachandran	51	M	O ^{+ve}
12	86	Mrs.Valliammal	55	F	A ₁ B ^{+ve}
13	117	Mr. Duraisamy	65	M	O ^{+ve}
14	284	Mrs. Kanagamani	45	F	O ^{+ve}
15	529	Mrs. Pitchumani	55	F	B ^{+ve}
16	399	Mrs. Kaliaamma	50	F	O ^{+ve}
17	545	Mrs. Shanmugathai	60	F	B ^{+ve}
18	315	Mrs. Panimary	47	F	O ^{+ve}
19	475	Mrs. Kaja beevi	60	F	A ₁ B ^{+ve}
20	394	Mrs. Mariyam Beevi	30	F	O ^{+ve}

I. BLOOD GROUPING (Fig. h)

Sl. No	Blood group Rh type	No of cases		Percentage %	
		OP	IP	OP	IP
1.	O ^{+ve}	15	12	75%	60%
2.	B ^{+ve}	3	5	15%	25%
3	A ₁ ^{+ve}	1	1	5%	5%
4	A ₁ B ^{-ve}	1	-	5%	-
5	A ₁ B ^{+ve}	-	2	-	10%

In OP study,

75% belongs to O^{+ve}.

15% belongs to B^{+ve}.

5% belongs to A₁^{+ve}.

5% belongs to A₁B^{-ve}.

In IP study,

60% belongs to O^{+ve}.

25% belongs to B^{+ve}.

5 % belongs to A₁^{+ve}.

10% belongs to A₁B^{+ve}.

25. RADIOLOGICAL FINDINGS

a. X-ray Barium meal

In Out Patients

S.No	OP No	Name	Age	Sex	X-ray-Barium meal Result before treatment
1	67058	Mrs. Pappa	40	F	Duodenal ulcer
2	70922	Mrs. Rajam	38	F	Gastric ulcer

In In-Patients

S.No	IP No	Name	Age	Sex	X-ray-Barium meal Result before treatment
1	2524	Subramaniyan	24	M	Gastric ulcer

In OP study, barium meal series infestation was done in 2 cases. One case was diagnosed as duodenal ulcer. Another one was diagnosed as gastric ulcer.

In IP study, barium meal series investigation was done in 1 case. The case was diagnosed gastric ulcer.

B. USG – ABDOMEN

In both OP and IP cases USG-Abdomen was **normal study**.

26. ENDOSCOPY EXAMINATION

In Out – Patients

S. No	OP No	Name	Age	Sex	Endoscopy results before treatment
1	65814	Mrs. Bramu	40	F	Antral Gastritis.
2	66033	Mrs. Chelladurai	23	M	Chronic Superficial, Antral gastritis.
3	65186	Mrs. Annammal	35	F	Chronic Superficial, Antral Gastritis.
4	66234	Mr. Vijaya Ram	55	M	Chronic superficial, Antral gastritis and Mild activity
5	76665	Mr. Balasubraminayan	56	M	Antral gastritis with duodenitis.
6	66673	Mrs. Mahumidha	46	F	Mild Antral gastritis.
7	66834	Mrs. Janaki	34	F	Chronic superficial, Antral Gastritis.
8	71053	Mrs. Julie	38	F	Chronic superficial , Antral gastritis.
9	67516	Mr. Vijay	24	M	Chronic Superficial, Antral gastritis.
10	74833	Mr. Sankaralingam	58	M	Chronic Antral gastritis.

In OP cases endoscopic examination was done in 10 cases at the private laboratory and confirmed as peptic ulcer disease.

In In-Patients

S. No	IP No	Name	Age	Sex	Endoscopy results before treatment
1	199	Mrs. Jesintha	48	F	Antral gastritis
2	311	Mr.Pandaram	60	M	Chronic superficial, Antral gastritis
3	286	Mrs.Azhagammal	45	F	Chronic Superficial, Antral Gastritis
4	480	Mr.Kanthasamy	38	M	Antral gastritis
5	328	Mr.Ramachandiran	51	M	Chronic Superficial, Antral Gastritis

In IP cases, endoscopic examination was done in 5 cases at the private laboratory and was confirmed as peptic ulcer disease.

27. GRADATION OF RESULTS (Fig. i)

TABLE 27

Sl. No	Gradation of Results	No of cases		Percentage%	
		OP	IP	OP	IP
1.	Good	17	15	85%	75%
2.	Fair	3	5	15%	25%
3	Poor	-	-	-	-

In OP study,

85% of cases showed Good response.

15% of cases showed Fair response.

In IP study,

75% of cases showed Good response.

25% of cases showed Fair response.

Discussion

DISCUSSION

Twenty patients of **Vatha Gunmam** were admitted in Inpatients and 20 patients in Outpatients section of Post Graduate Department, Pothu Maruthuvam. The above patients were diagnosed as Vatha Gunmam on the basis of literature **Yugi Vaidhya – Chinthamani 800** written by saint Yugi. The description were clinical identical with peptic ulcer.

The patients were examined on the basis of both siddha as well as modern aspects and all the necessary investigation was made. During this study it is noticed that all the patients came from rural areas and poor Socio - Economic status.

Sex variation

Among the 20 cases studied in Inpatients 7 cases were male and 13 cases were female.

Among the 20 cases in Outpatients 8 cases were male and 12 cases were female. This indicated that females were mostly affected by the disease than the males because of irregular eating behaviour.

Age variation

Among the 20 cases in Inpatients 10% of cases were between 20-30 years, 5% of cases were between 31-40 years, 30% of cases were between 41-50 years, 35% cases were between 51-60 years, 10% of cases were between 61-70 years, 10% cases were 71-80 years.

Among the 20 cases in Outpatients 15% of cases were between 20-30 years, 60% cases were between 31-40 years, 10% of cases were between 41-50 years, 10% of cases were 51-60 years, 5% of cases were between 71-80 years.

From this study maximum incidence occurred between 41-50 years and 51-60 years. In outpatient department maximum incidence occurred in between 31-40 years. Thus the disease had no age dependent occurrence.

Kaalam

Out of 20 cases in Inpatients 10% of cases were in Vathakaalam, 80% of cases were in Pithakaalam, 10% of cases were in Kabakaalam.

Out of 20 cases in Outpatients 20% of cases were in Vathakaalam, 75% of cases were in Pithakaalam, 5% of cases were in Kabakaalam.

According to the above observation most of the cases were in Pithakaalam.

Constitution of body

Constitution of body is Vatha thegi, Pitha thegi and Kaba thegi.

In both OP and IP studies cent percentage belongs to Thontha thegi.

Gunam

In both OP and IP studies cent percentage belongs to Rajo Gunam.

Religion

In Outpatients studies, 85% of cases belong to Hindu religion, 5% of cases belong to Christian religion, 10% of cases belongs to Muslim religion.

In Inpatients study, 75% of cases belong to Hindu religion, 15% of cases belong to Christian religion, 10% of cases belongs to Muslim religion.

Paruvakaalam

In Outpatients study, 40% were observed during Koothirkaalam, 55% were observed during Munpanikaalam, and 5% were observed during Pinpanikaalam.

In Inpatients study, 5% were observed during Koothirkaalam, 20% were observed during Pinpanikaalam.

In this study most of the cases were in Munpanikaalam in outpatient cases & Pinpanikaalam in Inpatients cases.

Thinai

In outpatient study, 90% were from Marutham, 10% were from Neithal.

In inpatient study, 80% were from Marutham, 20% were from Neithal.

In this study, most of the cases were from Marutham.

Marutha nilam is the area where the severity of disease is less but this incidence may be due to the alteration in food habits and their activities.

Socio - Economic factors

In Outpatients study, 25% belongs to poor, 55% belongs to middle class, and 20% belongs to rich.

In inpatient study, 20% belongs to poor, 80% belongs to middle class.

In this study, most of the cases belong to middle class. It may due to,

1. Stress and Strain
2. Improper diet habits

Aetiological factors

In outpatient study, 20% of cases had alcohol as their aetiological factors. 25% cases were affected by smoking, 50% of cases were affected by NSAIDS, 85% cases had diet irregularity as their aetiological factors. 25% cases were affected by stress and strain.

In Inpatients study, 30% of cases had alcohol as their aetiological factors. 35% cases were affected by smoking, 75% of cases were affected

by NSAIDS, 60% of cases had diet irregularity as their aetiological factors 20% cases were affected by stress and strain.

Literary evidence indicates that the disease Vatha Gunmam is common in patients with intake of NSAIDS and irregular diet.

Food habits

In Outpatients study, 80% patients were on mixed diet and the remaining were vegetarians.

In Inpatients study, cent percentage patients were on mixed diet.

So, Vatha Gunmam may affect both categories of people but predominant among the mixed diet groups.

Family history

In this study, in both OP and IP studies cent percentage have no family history.

Clinical Manifestation

In Outpatient study, 85% patients had epigastric pain and nausea, 100% patients had indigestion, loss of appetite and abdominal discomfort, 65% had vomiting, 70% had heart burn, 25% had nocturnal pain, 60% had constipation, 20% had lassitude.

In Inpatient study, 100% with indigestion, loss of appetite and abdominal discomfort, 90% had epigastric pain and nausea, 75% had vomiting, 35% had heart burn, 30% had nocturnal pain, 85% had constipation and 25% had lassitude.

Mode of onset

In both OP and IP studies cent percentage of the patients had a gradual onset of disease.

Duration of illness

In OP study, 75% were affected with the duration of 1-6 years. 10% were 6-12 years duration, 15% were 12-18 years duration.

In IP study, 80% were affected with the duration of 1-6 years, 5% were 6-12 years duration, 10% were 12-18 years duration, and 5% were 18 years and above duration.

In this study most of the cases were affected between 1-6 years duration.

Kosam

In both OP and IP studies cent percentage had affected Annamayakosam, Piranamaya kosam and Aananthamayakosam.

In OP, 25% had affected Manomayakosam.

In IP, 20% had affected Manomayakosam.

Annamayakosam produced general debility. Piranamayakosam produced indigestion, constipation and difficulty to walk. Aananthamayakosam produced indigestion.

Uyir Thathukkal

Uyir Thathukkal constitute three vital humours mentioned in siddha system namely Vatha, Pitha, Kabha. Disturbances in Uyir Thathukkal leading to disease entities are discussed here.

(i) Disturbances of Vatha

In OP study, 100% had disturbed Piraanan, Samaanan, Kirukaran, 70% had disturbed Abaanan, 50% had disturbed Viyaanan, 90% had disturbed Uthaanan, 25% had disturbed Koorman.

In IP study, 100% had disturbed Piraanan, Samaanan, Kirukaran, 80% had disturbed Abaanan, 75% had disturbed Viyaanan, 95% had disturbed Uthaanan, 30% had disturbed Koorman.

Affected Piraanan produced indigestion. Affected Abaanan produced constipation. Affected Viyaanan produced difficulty in flexion and extension of the upper and lower extremities. Affected Samaanan produced indigestion. Affected Uthaanan produced nausea and vomiting. Affected Koorman produced weakness and tiredness. Affected Kirukaran produced loss of appetite.

(ii) Disturbances of Pitha

In both IP and OP studies, 100% had disturbed Anarpitham and Sathaga pitham.

In OP, 5% had disturbed Ranjaga Pitham.

In IP, 40% had disturbed Ranjaga pitham. Affected Anarpitam produced indigestion. Affected Ranjagam produced Anaemia.

(iii) Disturbances of Kaba

In both OP and IP studies, cent percentage had disturbed Avalambagam and Kilethagam.

In OP study, 40% had disturbed Santhigam.

In IP study, 70% had disturbed Santhigam.

Affected Kilethagam produced indigestion.

Seven Udai Kattugal

In both OP and IP studies, 100% had affected Saaram and Senneer.

In OP study, 40% had affected Kozhuppu, Enbu and Moolai, 10% had affected Oon.

In IP study, 70% had affected Kozhuppu, Enbu and Moolai, 20% had affected Oon.

Affected Saaram produced general debility. Affected Senneer produced Anaemia, loss of appetite. Affected Kozhuppu, Enbu, Moolai produced pain in the joints.

Envagai Thervugal

The important criteria for the diagnosis of the disease in Envagai Thervugal. This constitute naadi, sparisam, naa, niram, mozhi, vizhi, malam and moothiram.

All the patients should Thontha naadi.

In OP study, 20% had affected Naa, 60% had affected Malam.

In IP study, 20% had affected Naa, 15% had affected Vizhi, 85% had affected Malam.

In this study, most of the cases had affected Malam.

Neerkuri

In both OP and IP studies Neerkuri found to be normal viz., colour, frequency smell and froth.

Neikuri

Neikuri showed that oil dropped into the urine was spreading like Thontha neer and Kaba neer.

In OP study, 50% had Kaba neer, 50% had Thontha neer.

In IP study, 60% had Kaba neer, 40% had Thontha neer.

Investigations

Routine investigations of blood and urine were done during the admission and at the end of the treatment for every case.

Blood sugar, urea and serum cholesterol were found to be in normal range before and after treatment.

Grouping of blood

In OP study, 75% belongs to 'O'+ve, 15% belongs to 'B'+ve, 5% belongs to 'A1'+ve and 5% belongs to 'A1B'+ve.

In IP study, 60% belongs to 'O'+ve, 25% belongs to 'B'+ve, 55 belongs to 'A1'+ve, 10% belongs to 'A1B'+ve. In this study most of the cases belongs to 'O' blood group.

Radiological findings

X-Ray Barium meal

In OP study, Barium meal series was done in 2 cases. One case was diagnosed as duodenal ulcer. Another one was gastric ulcer.

In IP study, Barium meal series investigation was done in one case was diagnosed as gastric ulcer.

Endoscopy

In OP cases endoscopic examination was done in 10 cases at the private laboratory and confirmed as peptic ulcer disease. Most of the cases were antral gastritis.

In IP cases endoscopic examination was done in 5 cases at the private laboratory and was confirmed as peptic ulcer disease.

USG – Abdomen

In both OP and IP cases USG abdomen showed normal study.

Examination of abdomen

In OP study, 85% had tenderness in epigastric region. 100% had pointing sign.

In IP study, 90% had tenderness in epigastric region. 100% had pointing sign.

Biochemical and Pharmacological analysis

Biochemical analysis showed the presence of sulphate, chloride, ferrous iron, unsaturated compound, reducing sugar & amino acid in the trial medicine '**Ayilpattai chooranam**'.

Pharmacological analysis revealed that the trial medicine. '**Ayilpattai chooranam**' had **good spasmodic activity** and **significant "anti-ulcer activity"**.

Modern Medicine comparison

According to modern medicine the main aetiological factors for the disease are irregularity in diet intake and intake of NSAIDS. In our literature Yugi said more or less the same reasons for the disease.

The signs and symptoms of the disease peptic ulcer are closely matched with Vatha Gunmam as explained by Yugi Muni.

Treatment

On the previous day of treatment laxative Nilavagai chooranam 5 gm with hot water at the bed time before starting the internal medicine.

On the first day, the trial medicine Ayilpattai chooranam 1-2 gm twice daily with hot water was prescribed and was given till the end of their treatment.

Diet regimen

1. Patients were advised to avoid spicy foods, smoking, drinking alcohol, coffee, very hot food stuffs, gas formation food substances, citrus foods and tobacco.
2. Patients were recommended to take easily digestible food substances and green leaves.

Medical Advice

Patients were advised to take medicines regularly and to avoid stress and irregular diet.

Summary

SUMMARY

Vatha Gunmam was elaborately collected with the literary evidence of various siddhars. The signs and symptoms stated by them are closely identical with modern aspects also. Hence the author undoubtedly says that Vatha Gunmam resembles with **peptic ulcer** in modern medicine.

All the essential parameters in siddha as well as system were used to confirm the diagnosis.

20 cases with Vatha Gunmam were diagnosed clinically and admitted in the In-patients ward and treated with the trial medicine. Another 20 cases were treated as outpatients. All of the Inpatients were followed in the outpatient department after discharge.

The clinical diagnosis was done on the basis of clinical features described in “**yugi vaidhya chindhamani – 800**”.

Twenty Vatha Gunmam patients in Inpatient ward and 20 patients in outpatient’s ward of both sexes of various age groups were selected and treated with trial medicine “**Ayilpattai chooranam**”.

Trial Medicine

Ayilpattai chooranam

1 to 2 gms twice daily with hot water after food. The various siddha aspects of examinations of this disease were carried out.

Signs and symptoms along with various other factors mentioned in the case sheets were elaborately discussed in previous chapters.

Routine blood examinations, urine, stools and radiological investigation were also considered for diagnosis and to follow the progress of the patients.

Siddha diagnosis was made with the help of Ezhu udal Thathukkal, Envgai thervugal.

Clinically the medicines were free from side effects, pharmacological studies showed that the trial medicines had **significant “Anti-ulcer activity”** and good **“Anti-spasmodic activity ”**.

All the patients were advised to avoid vayu porutgal and spicy foods which are the precipitatory factors of the disease.

Conclusion

CONCLUSION

- ❖ The well known common gastro intestinal disorder “**Vatha Gunman**” were studied in all aspects.
- ❖ All the cases were treated with trial medicine “**Ayilpattai chooranam**”.
- ❖ The trial medicine contains only the herbal ingredients and the author is very much obliged to say it is free from side effects and it's also cheaper than any other drug.
- ❖ The trial drugs were excellent pharmacological action. Further follow up of all these patients showed excellent relieved of their symptoms.

The trial medicine has the taste of kaarppu and kaippu.

Suvai : Kaarppu & Kaippu

Thanmai : Veppam

Pirivu : Kaarppu

Ayilpattai chooranam has taste of **Kaarppu** and **Kaippu**.

Kaarppu suvai has its function of relieving Indigestion, Flatulence, Constipation, Ulcer and Decrease in excessive acidity & appetite.

Kaippu suvai has its function of Anorexia, Anthelmintic & Antidote.

- ❖ Thus the trial medicine **Ayilpattai chooranam**, which has the taste of kaarppu & kaippu can act as **Anti-ulcer activity**.

So Ayilpattai chooranam yield **good** prognosis in **Vatha Gunmam**.

ANNEXURE - I
PREPARATION OF TRAIL MEDICINE

Preparation of Ayilpattai chooranam

Ingredients

- | | | |
|-----------------|---|-----------------|
| 1. Ayilpattai | - | ஆயில்பட்டை |
| 2. Sharanai | - | சாரணை வேர் |
| 3. Mukkarattai | - | மூக்கரட்டை வேர் |
| 4. Chukku | - | சுக்கு |
| 5. Milagu | - | மிளகு |
| 6. Vellai Pundu | - | வெள்ளைப்பூண்டு |
| 7. Omam | - | ஓமம் |

Methods

All these ingredients are dried and purified then nicely powdered and filtered through cloth.

Dose

1 to 2 gms B.D

Adjuvant

Hot water

Indication

Vatha Gunmam, vali gunmam, pitha gunmam, eri gunmam.

Expiry

3 months from the date of preparation.

Reference

Agasthiyar attavanai vaghadam – page 70.

PROPERTIES OF THE INDIVIDUAL COMPONENTS

1. ஆயில் பட்டை

1. **COMMON NAME** : Aya
2. **SYNONYMS** : Ayil, Avilthol, Poothigam, Aavil pungu
3. **BOTANICAL NAME** : *Holoptelia integrifolia*
4. **FAMILY** : Ulmacea
5. **PARTS USED** : Stem bark
6. **CHARACTERS** :
- Suvai : Kaippu
- Thanmai : Veppam
- Pirivu : Kaarppu

7. CHEMICAL CONSTITUENTS

Stem bark contains friedelin, freidelin-3- β -01, triterpenoid fatty acids, esters holoptelin, A & B; Heart wood contains β -sitosterol, hederagenin; leaves contain hexocosamol β - sitosterol, B-amyrin.

8. THERAPEUTICAL ACTIONS

Stomachic, laxative, carminative, digestive and febrifuge.

9. USES

Abdominal diseases, piles, disease of vatham, polyuria, vomiting, TB, fistula.

2. சாரணை வேர்

1. COMMON NAME : Sharanai
2. SYNONYMS : Sharadai, Viruchigam
3. BOTANICAL NAME : *Trianthema portulacastrum*
4. FAMILY : Aizoaceae
5. PARTS USED : Root
6. CHARACTERS :
 Suvai : Kaippu
 Thanmai : Veppam
 Pirivu : Kaarppu

7. CHEMICAL CONSTITUENTS

It contains an alkaloid 'trianthemine' (C₃₂ H₄₆ O₆ N₂). It also contains ecdysterone (0.01 g/kg) a potential chemosterilant.

8. THERAPEUTICAL ACTIONS

Laxative, Diuretic, Expectorant.

9. USES

”சீதஞ் சலதோஷந் தேமல் தழும்பு குன்மம்
வாதஞ் சிறுசிரங்கு வன்மேக - மோதரிய
காசமுதல் நோயெல்லாங் காஞ்சா றடைக் கிழங்கால்
நாசமுறு மென்றே நவில்”

-பதார்த்த குண விளக்கம்

”சாரண வேர்முதற் சமூலச் சூரணம்
பாரணர் செய்மல பந்தம் தேகுமே”

-தேரன் காப்பியம்

3. மூக்கரட்டை வேர்

1. **COMMON NAME** : Mukkaratai
2. **SYNONYMS** : Putpagam, Mukkuratai, Ratha putpiga
3. **BOTANICAL NAME** : Boerhaavia diffusa
4. **FAMILY** : Nyctaginacea
5. **PARTS USED** : The herb and Root
6. **CHARACTERS** :
- Suvai : Kaippu
- Thanmai : Veppam
- Pirivu : Kaarppu

7. CHEMICAL CONSTITUENTS

It contains a alkaloid "Punarvine"

8. THERAPEUTIAL ACTIONS

Stomachic, Laxative, Diuretic, Refrigerant, **Anthelmintic**,
Expectorant.

4. சக்ஞ

- 1. COMMON NAME** : Chukku
- 2. SYNONYMS** : Ubakullam, Chundi, Kadupathiram, Vidham moodiya amirtham
- 3. BOTANICAL NAME** : Zingiber officinalis
- 4. FAMILY** : Zingiberaceae
- 5. PARTS USED** : The scraped and dried rhizome zingeberis.
- 6. CHARACTERS** :
- | | | |
|---------|---|---------|
| Suvai | : | Kaippu |
| Thanmai | : | Veppam |
| Pirivu | : | Kaarppu |

7. CHEMICAL CONSTITUENTS

A Volatile oil 2 PC, Fat, A crude liquid oleo resin → gingerol or gingerin; starch 20 PC.

The volatile oil contains camphene and phellandrene, zingiberine, cineol and Borneol.

Gingerol and active principle extracted from ginger.

8. THERAPEUTICAL ACTIONS

Carminative, stimulant to the gastro intestinal tract and stomachic also sialagogue and digestive.

It produce a sensation of warmth at the epigastrium and expels flatus.

As a carminative it is given in colic.

9. USES

It also given in atonic dyspepsia, loss of appetite to correct flatulence in colic and diarrhoea.

”சூலைமந்தம் நெஞ்செரிப்பு தோடமேப் பம்மழலை
மூலம் இரைப்பிருமல் மூக்குநீர் - வாலகப்
தோமதி சாரம் தொடர் வாத குன்ம நீர்த்
தோடம் ஆமம் போக்குஞ் சுக்கு”

- அகத்தியர் குணவாகடம்

5. மிளகு

- 1. COMMON NAME** : Milagu
- 2. SYNONYMS** : Kalinai, Kolagam, Thirangal, Miriyal, Sarumapantham, Malaiyali.
- 3. BOTANICAL NAME** : piper nigrum
- 4. FAMILY** : piperaceae
- 5. PARTS USED** : The dried unripe fruit.
- 6. CHARACTERS** :
- Suvai : Kaippu, Kaarppu
 - Thanmai : Veppam
 - Pirivu : Kaarppu

7. CHEMICAL CONSTITUENTS

- i. A volatile alkaliod – piperine or pipirine – 5 to 6 PC – piperidine or piperidin -5PC
- i. A balsamic volatile essential oil – 1 to 2 PC
- ii. Fat – 7 PC
- iii. Masocarp contains chavicin
- iv. Starch, lignin, gum.

8. THERAPEUTICAL ACTIONS

Carminative, stimulant, antidote, antivatha

9. USES

An a gastric stimulant it is chiefly used in flatulence, dyspepsia and a tony of the stomach.

”சீதசுரம் பாண்டு சிலேத்மங் சிராணி **குன்மம்**
வாதம் அருசிபித்தம் மாமூலம் - ஓதுசன்னி
யாசமபஸ் மாரம் அடன்கேமம் காசமிவை
நாசங் களிமிளகினால்”

(அ.கு)

”கோணுகின்ற பக்கவலி குய்யவுரோ கம்வாத
கோணிதங்க முத்திற்குள் தோன்றுநோய் - காணரிய
காதுகேளாய் மாதர் **குன்மங்** காமாலை மந்நமென்றீர்
ஏதுநோய் காயிருக்கில் ஈங்கு”

(தே.கு)

6. ஓமம்

1. **COMMON NAME** : Omam
2. **SYNONYMS** : Asamthagam, Thippium
3. **BOTANICAL NAME** : Carum copticum
4. **FAMILY** : Umbelliferae
5. **PARTS USED** : Seed
6. **CHARACTERS** :
 Suvai : Kaarppu
 Thanmai : Veppam
 Pirivu : Kaarppu

7. CHEMICAL CONSTITUENTS

It contains essential oil and thymol – (45 to 55%)

8. THERAPEUTICAL ACTIONS

Stmachic, **Antispasmodic**, Carminative, Sialogogue, Stimulant, Tonic, Vermifuge, Astringent.

9. USES

”சீதகரங் காசஞ் செரியாமந் தம் பொருமல்
பேதியிரைச்சல் கடுப்ப பேராமம் - ஒதிருமல்
பல்லொடுபல் மூலம் பகமிவைநோ னெய்செயு மோர்
சொல்லொடுபோம் ஓமமெனச் சொல்”

7. வெள்ளைப்பூண்டு

1. **COMMON NAME** : Vellaipundu
2. **SYNONYMS** : Zhazunam, Kayam, Pundu
3. **BOTANICAL NAME** : Allium sativum
4. **FAMILY** : Alliaceae
5. **PARTS USED** : Bulb
6. **CHARACTERS** :
 Suvai : Kaarppu
 Thanmai : Veppam
 Pirivu : Kaarppu

7. CHEMICAL CONSTITUENTS

It contains oil of garlic

oil of garlic – a volatile oil, obtained by distillation, it contains allyl, propyl disulphide, diallyl disulphide and other sulphur compounds.

It has a antibiotic – Allicin, Allicetion I, Allicetion II.

8. THERAPEUTICAL ACTIONS

Carminative, Stomachic, **Anthelminitic**, Stimulant, Tonic, Alternative, Diuretic..

9. USES

As a gastric stimulant, it aids digestion and is given in flatulence.

ANNEXURE - II

BIO-CHEMICAL ANALYSIS

BIO-CHEMICAL ANALYSIS OF AYILPATTAI CHOORANAM

PREPARATION OF THE EXTRACT

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

QUALITATIVE ANALYSIS

S.NO	EXPERIMENT	OBSERVATION	INFERENCE
1.	<u>TEST FOR CALCIUM</u> 2 ml of the above prepared extract is taken in a clean test tube. 2 ml of 4% Ammonium oxalate solution is added to it	No White precipitate is formed.	Absence of calcium.
2.	<u>TEST FOR SULPHATE:</u> 2 ml of the extract is added to 5% barium chloride solution.	A white precipitate is formed.	Indicates the presence of sulphate.
3.	<u>TEST FOR CHLORIDE</u> The extract is treated with silver nitrate solution.	A white precipitate is formed.	Indicates the presence of chloride.

4.	<u>TEST FOR CARBONATE</u> The substance is treated with concentrated HCL.	No brisk effervescence is formed.	Absence Of Carbonate.
5.	<u>TEST FOR STARCH</u> The extract is added with weak iodine solution.	No blue colour is formed.	Absence of starch.
6.	<u>TEST FOR IRON-FERRIC</u> The extract is treated with concentrated Glacial acetic acid and potassium ferro cyanide.	No blue colour is formed.	Absence of ferric iron.
7.	<u>TEST OF IRON FERROUS:</u> The extract is treated with concentrated Nitric acid and ammonium thio cynate.	Blood red colour is formed.	Indicates the presence of ferrous iron.
8.	<u>TEST FOR PHOSPHATE</u> The extract is treated with ammonium Molybdate and concentrated nitric acid.	No yellow precipitate is formed.	Absence of phosphate.
9.	<u>TEST FOR ALBUMIN</u> The extract is treated with Esbach's reagent.	No yellow precipitate is formed .	Absence of Albumin.

10.	<u>TEST FOR TANNIC ACID</u> The extract is treated with ferric chloride.	No blue black precipitate is formed.	Absence of Tannic acid.
11.	<u>TEST FOR UNSATURATION</u> Potassium permanganate solution is added to the extract.	It gets decolourised.	Indicates the presence of unsaturated compound.
12.	<u>TEST FOR THE REDUCING SUGAR</u> 5 ml of Benedict's qualitative solution is taken in a test tube and allowed to boil for 2 mts and added 8-10 drops of the extract and again boil it for 2 mts.	colour change occurs.	Indicates the presence of Reducing Sugar.
13.	<u>TEST FOR AMINO ACID:</u> One or two drops of the extract is placed on a filter paper and dried it well. After drying, 1% Ninhydrin is sprayed over the same and dried it well.	Violet colour is formed.	Indicates the presence of Amino acid.

ANNEXURE III
PHARMACOLOGICAL ANALYSIS

(a) Anti Ulcer Activity of the Ayilpattai Chooranam

Aim

To study the anti ulcer activity of the **Ayilpattai Chooranam** by **Pyloric ligation method**.

Instruments

Syringe, Needles, scissors, forceps, cork board, 10 ml pipette, 500 ml volumetric flask, suturing thread, medicine.

Preparation of the test medicine

1 gm of the test medicine was dissolved in 10 ml of water. 1 ml contains 100 mgs.

Procedure

Six adult female albino rat weighing 100 gms each were taken. It was fasted for about 48 hours. Then the abdomen was opened under the ether anesthesia and the pylorus of the stomach was ligated. At the time of ligation 2 rats were given 2 ml of the prepared test medicine solution directly into the stomach, another 2 rats were given distilled water at the same dose in the same manner. The incision was closed and the rats were allowed to recover. Then they were sacrificed 18 hours after the pylorus ligation and the stomach contents were collected. The stomach was opened by cutting along the greater curvature and mounted on a moist cork board. The ulcers were examined and graded as follows. The free acid, and total acid level of gastric juice were also analysed by using 0.01N Sodium hydroxide with **Topfer's reagent** as indicator.

The results of the above experiments are shown in the table. Effects of **Ayilpattai Chooranam** on gastric acid secretion are as follows.

Sl. No	Name of medicine /groups.	Dose / 100 gm body weight.	Volume of gastric secretion.	Free HCL in units.	Total HCL in units .	Degree of ulceration.
1	Control (water)	1 ml	7 ml	87	205	80%
2	Standard (Ranitidine)	20 mg/1 ml	8 ml	10	20	10%
3	Medicine (Ayilpattai Chooranam)	100 mg/1 ml	7.5 ml	23	65	15%

Ulcer grades

0 Grade – Normal.

I Grade – Scattered haemorrhagic spots.

II Grade – Deeper haemorrhagic spots.

III Grade – Hemorrhagic spots and ulcers.

IV Grade – Restoration spots and ulcers.

Inference

From the above tabulation the degree of ulceration has shown in the photographs. We came to know that the medicine Ayilpattai Chooranam protects the gastric mucosa by neutralizing the excessive gastric acid and the test medicine has got a **significant anti ulcer** activity.

(b) Anti Spasmodic effect on “Ayilpattai Chooranam”

Aim

To study the Anti Spasmodic effect on “AyilpattaiChooranam”.

Preparation of the trial medicine

1 gm of the Ayilpattai Chooranam was taken and mixed with 5 ml of water and 5 ml of honey and filtered.

Procedure

A rabbit weighing about 350 gm was starved for 48 hours and only water.

It was killed by stunning with a sharp blow on the head and cutting its throat to bleed to death. The abdomen was quickly opened and the viscera inspected and loops of intestine identified using the patch as a landmark. Then the ileum was removed and placed in a shallow dish containing warm tyrode solution (37°C) and continuously aerated. The contents of the lumen of the ileum were washed and utmost care was taken to avoid any damage. It was cut into segments of 4 cm in a fully relaxed state and suture were made with needle and tied on either side and the segment was suspended in an isolated organ bath. It was suspended in an isolated organ bath. It was aerated by an oxygen tube immersed in tyrode solution. Drugs were given to study the inhibitory effect of acetyl chloride.

Inference

The test drug “AyilpattaiChooranam” had **good effect**.

ANNEXURE - IV

PROFORMA OF CASE SHEET

GOVERNMENT SIDDHA MEDICAL COLLEGE AND HOSPITAL
DEPARTMENT OF POST GRADUATE POTHU MARUTHUVAM
PALAYAMKOTTAI - TIRUNELVELI - 627002

CASE SHEET PROFORMA FOR "VATHA GUNMAM" – O.P

O.P. No :	Occupation :
Name :	Income :
Age/sex :	Treatment Starting Date :
Address :	End of the Treatment Date :
	Total No.of Days Treated :
	Result : Good/Fair/Poor
	Diagnosis : "Vatha Gunmam"
	Medical Officer :

COMPLAINTS AND DURATION

1. Pain :
 - a. Epigastric region :
 - b. Rt hypochondrium :
2. Indigestion :
3. Flatulence :
4. Nausea :
5. Vomiting :
6. Heart burn :
7. Belching :
8. Loss of appetite :
9. Diarrhoea :
10. Constipation :
11. Insomnia :
12. Abdominal Discomfort :
13. Weakness :
14. Nocturnal Pain :

DURATION OF ILLNESS

PAST HISTORY

GENERAL EXAMINATION

Consciousness :	Temperature :
Decubitus :	Pulse rate :
Nutrition :	Heart rate :
Anaemia :	Respiratory rate :
Cyanosis :	Blood Pressure :
Jaundice :	
JVP :	
Pedal oedema :	
Lymphadenopathy:	
Koilonychia :	
Clubbing :	

ENVAGAI THERVUGAL

Naadi :
Sparism :
Naa :
Niram :
Mozhi :
Vizhi :
Malam :
Moothiram:
a) Neerkuri :
 i. Niram :
 ii. Manam:
 iii. Edai :
 iv. Nurai :
 v. Enjal :
b) Neikuri:

EXAMINATION OF ABDOMEN

Inspection:

Palpation:

Percussion:

Auscultation :

RELEVANT OTHER SYSTEMIC EXAMINATION

- ◆ Cardio Vascular system :
- ◆ Respiratory system :
- ◆ Central Nervous system :

LAB INVESTIGATION

Blood:	BT	AT
TC :		
DC :	P:	
	L:	
	E:	
ESR		
Hb:		
Blood Sugar (R):		
Blood Urea :		
Serum Cholesterol:		
Urine :		
Albumin :		
Sugar :		
Deposit :		
Motion:		
Ova :		
Cyst :		
Occult Blood :		
Blood Group :	<div style="border: 1px solid black; width: 150px; height: 30px; margin: 0 auto;"></div>	

OTHER INVESTIGATIONS

a)USG Abdomen :

b) UGI Endoscopy :

c) X-ray : BARIUM MEAL STUDY :

TREATMENT

MEDICINE	DOSE	ADJUVANT
Ayilpattai Chooranam	1 – 2 gm.B.D	Hot Water

DIET

தவிர்க்க வேண்டியவை

- ✦ காரமான உணவுப்பொருட்கள்.
- ✦ மிகுதியும் சூடான உணவுப் பொருட்கள்.
- ✦ புளிப்பான பழங்கள், உணவுப்பொருட்கள்.
- ✦ வாயு பதார்த்தங்கள்.
- ✦ பீடி, சிகரெட், மதுபானம், தேநீர், புகையிலை, சுருட்டு, பொடி போடுதல்.

சேர்க்க வேண்டியவை

- ✦ எளிதில் செரிக்கக் கூடிய உணவுப் பொருட்கள்.
- ✦ கீரை வகைகள் முக்கியமாக மணத்தக்காளி கீரை.
- ✦ பச்சை காய்கறிகள்.

மருத்துவ அறிவுரை

- ✦ பட்டினியிருத்தல் கூடாது.
- ✦ அதிகமாக கோப்படுதல், கவலைபடுதல் கூடாது.
- ✦ தரப்பட்ட மருந்தினை தவறாது உட்கொள்ள வேண்டும்.
- ✦ காலந்தவறாது உணவு உட்கொள்ள வேண்டும்.

**GOVERNMENT SIDDHA MEDICAL COLLEGE & HOSPITAL
PALAYMAKOTTAI
DEPARTMENT OF POST GRADUATE – POTHU MARUTHUVAM
CASE SHEET PROFORMA FOR “VATHA GUNMAM” – (IP)**

Ward :	Nationality :
I.P. No :	Religion :
Bed No :	Date of admission :
Name :	Date of discharge :
Age/Sex :	Result : Good/Fair/Poor
Address :	Diagnosis : ‘VATHA GUNMAM’
	Medical officer :

Occupation:
Income :

COMPLAINTS AND DURATION

HISTORY OF PRESENT ILLNESS

HISTORY OF PAST ILLNESS

PERSONAL HISTORY

FAMILY HISTORY

HABITS

**Veg / Non- veg / Mixed diet / irregular diet /
Smoker / Alcoholic / Tobacco – Chewer.**

GENERAL EXAMINATION

Consciousness :
Decubitus :
Nutrition :
Anaemia :
Cyanosis :
Jaundice :

VITAL SIGNS

Temperature :
Pulse Rate :
Heart Rate :
Respiratory Rate:
Blood Pressure :

JVP :
Pedal Oedema :
Lymphadenopathy:
Koilonychia :
Clubbing :

❖ IN SIDDHA ASPECTS

NILAM

Kurinji :
Mulai :
Marutham :
Neithal :
Palai :

PARUVAKAALAM

Kaar :
Koothir :
Munpani :
Pinpani :
Elavenil :
Muthuvenil :

MUKKUNAM

Sathuvam :
Rajogunam :
Thamogunam:

THEGI

Vatham :
Pitham :
Kabam :
Thontham:

IMPORIGAL & IMPULANGAL

Mei :
Vai :
Kann :
Mooku:
Sevi :

KANMENTHIRIYAM & KANMAVIDAYAM

Kai :
Kal :
Vai :
Eruvai:
Karuvai:

KOSAM

Annamayakosam:

(Ezhu udal kattugal)

Praanamayakosam:

(Praanan & Kanmenthiriyam)

Manomayakosam:

(Manam & Ganenthiriyam)

Gnanamayakosam :

(Puththi & Ganenthiriyam)

Aananthamayakosam:

(Praanan & Suluthi)

UYIR THATHUKKAL

VATHAM

Praanan :
Abaanan :
Viyaanan :
Uthaanan :
Samaanan :
Nagan :
Koorman :
Kirugaran :
Devathathan:
Dhananjayan:

PITHAM

Anarpitham :
Ranjagam :
Sathagam :
Alosagam :
Prasagam :

KABAM

Avalambagam:
Kilethagam :
Tharpagam :
Pothagam :
Santhigam :

UADAL KATTUGAL

Saram :
Senneer :
Oon :
Kozhuppu :
Enbu :
Moolai :
Sukkilam / Suronitham:

ENVAGAI THERVUGAL

Naadi :
Sparism :
Naa :
Niram :
Mozhi :
Vizhi :
Malam :
Moothiram :

(a) Neerkuri

- i. Niram:
- ii. Manam:
- iii. Edai:
- iv. Nurai:
- v. Engal:

(b) Neikuri

IN MODERN ASPECTS

SYSTEMIC EXAMINATION

- 1. Cardio Vascular System:
- 2. Respiratory System:
- 3. Central Nervous System:

ANY OTHER ASSOCIATED DISEASE WITH SPECIAL REFERENCE TO

- Cirrhosis
- Chronic Renal failure
- Hyper Parathyroidism
- Renal Stones
- Chronic Pancreatitis.

ALIMENTARY SYSTEM

SYMPTOMS AND SIGNS

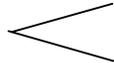
Symptoms	Before Treatment	Duration	After Treatment Days				
			7 th	14 th	21 st	28 th	35 th
I. PAIN : RELATED TO FOOD							
A. Any Gastric discomfort 1. Before Meals 2. 1-2 hrs after meals 3. 2-4 hrs after meals 4. Constant							
B. Pain Occasional 1. Before Meals 2. 1-2 hrs after meals 3. 2-4 hrs after meals 4. Constant							
C. Burning Sensation 1. Before Meals							

<ul style="list-style-type: none"> 2. 1-2 hrs after meals 3. 2-4 hrs after meals 4. Constant 							
D. Radiation of Pain <ul style="list-style-type: none"> 1. No Radiation 2. Left shoulder 3. Back 4. Sides of chest 							
E. Pain Nocturnal <ul style="list-style-type: none"> 1. 10 – 12 pm 2. 1 – 3 pm 3. 2 – 4 am 							
F. Pain relieved by <ul style="list-style-type: none"> 1. Food 2. Antacids 3. Bed rest 4. Siddha drugs 5. Vomiting 6. Not relieved by any of the above. 							
G. Nausea <ul style="list-style-type: none"> 1. Frequent: 2. Occasional 3. Associated with Vomiting 							
H. Vomiting <ul style="list-style-type: none"> 1. Frequent 2. Occasional 3. Stained with blood 							
II. HEART BURN <ul style="list-style-type: none"> 1. Occasional 2. Constant 3. Before Meals 4. After and Before meals 							
III. EXCESSIVE SALIVATION <ul style="list-style-type: none"> 1. Occasional 2. With or between meals 3. Often 4. Constant 							
IV. APPETITE <ul style="list-style-type: none"> 1. Very poor 2. Moderate 3. Normal 							

SIGNS
EXAMINATION OF ABDOMEN

- Inspection:
- Palpation:
- Percussion:
- Auscultation:

LAB INVESTIGATION

Blood:		BT	AT
TC :			
DC :	P:		
	L:		
	E:		
ESR 			
Hb:			
Blood Sugar (R):			
Blood Urea :			
Serum Cholesterol:			
Urine :			
Albumin	:		
Sugar	:		
Deposit	:		
Motion:			
Ova	:		
Cyst	:		
Occult Blood	:		
Blood Group	:	<input style="width: 100%; height: 20px;" type="text"/>	

OTHER INVESTIGATIONS

a)USG Abdomen :

b) UGI Endoscopy :

c) X-ray : BARIUM MEAL STUDY :

TREATMENT

MEDICINE	DOSE	ADJUVANT
Ayilpattai Chooranam	1 – 2 gm.B.D	Hot Water

DIET

தவிர்க்க வேண்டியவை

- ✦ காரமான உணவுப்பொருட்கள்.
- ✦ மிகுதியும் சூடான உணவுப் பொருட்கள்.
- ✦ புளிப்பான பழங்கள், உணவுப்பொருட்கள்.
- ✦ வாயு பதார்த்தங்கள்.
- ✦ பீடி, சிகரெட், மதுபானம், தேநீர், புகையிலை, சுருட்டு, பொடி போடுதல்.

சேர்க்க வேண்டியவை

- ✦ எளிதில் செரிக்கக் கூடிய உணவுப் பொருட்கள்.
- ✦ கீரை வகைகள் முக்கியமாக மணத்தக்காளி கீரை.
- ✦ பச்சை காய்கறிகள்.

மருத்துவ அறிவுரை

- ✦ பட்டினியிருத்தல் கூடாது.
- ✦ அதிகமாக கோப்படுதல், கவலைபடுதல் கூடாது.
- ✦ தரப்பட்ட மருந்தினை தவறாது உட்கொள்ள வேண்டும்.
- ✦ காலந்தவறாது உணவு உட்கொள்ள வேண்டும்.

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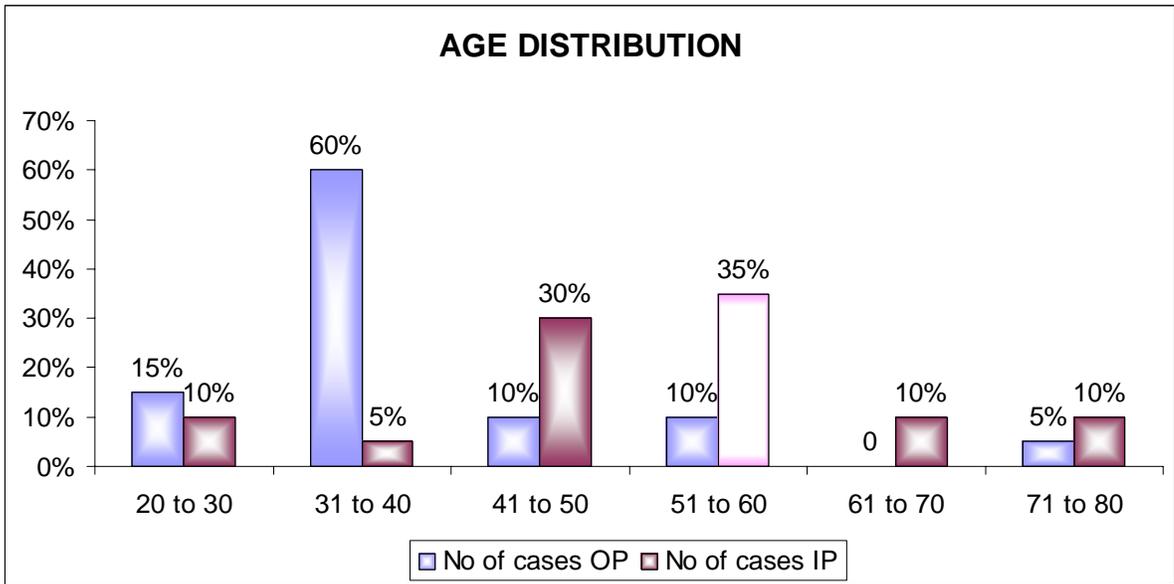


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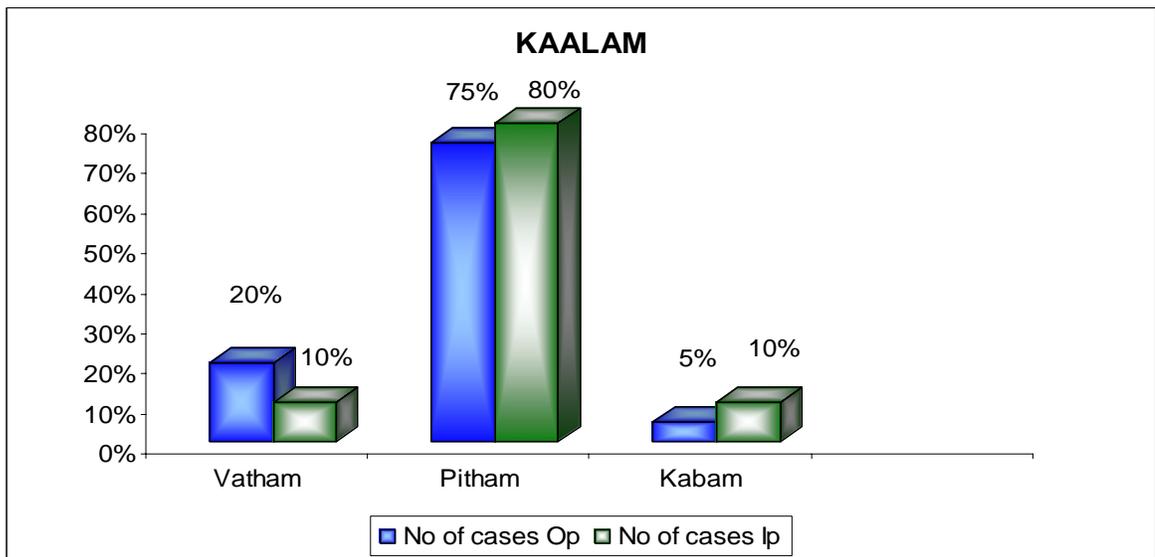


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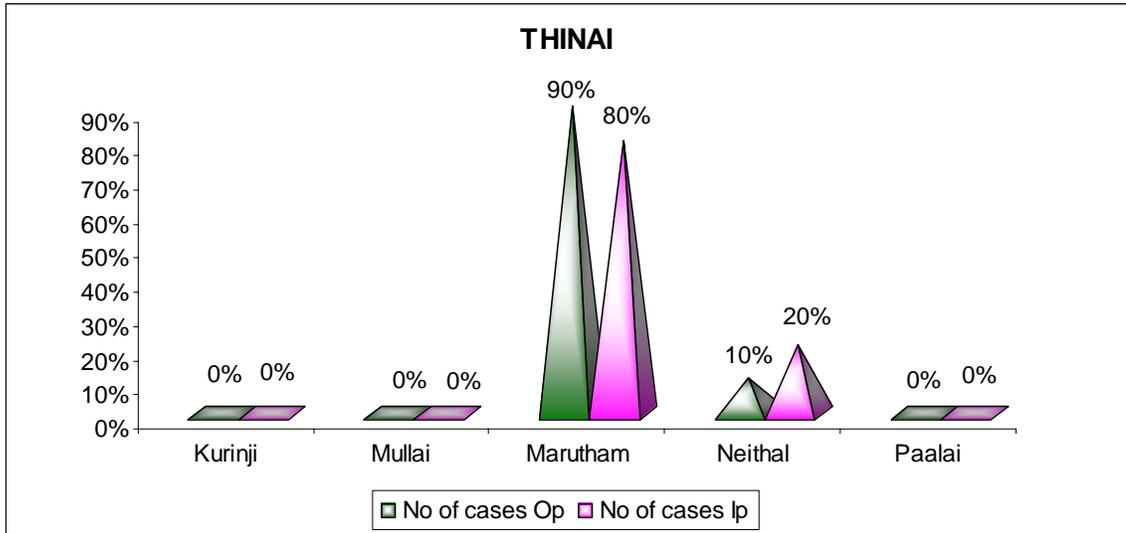


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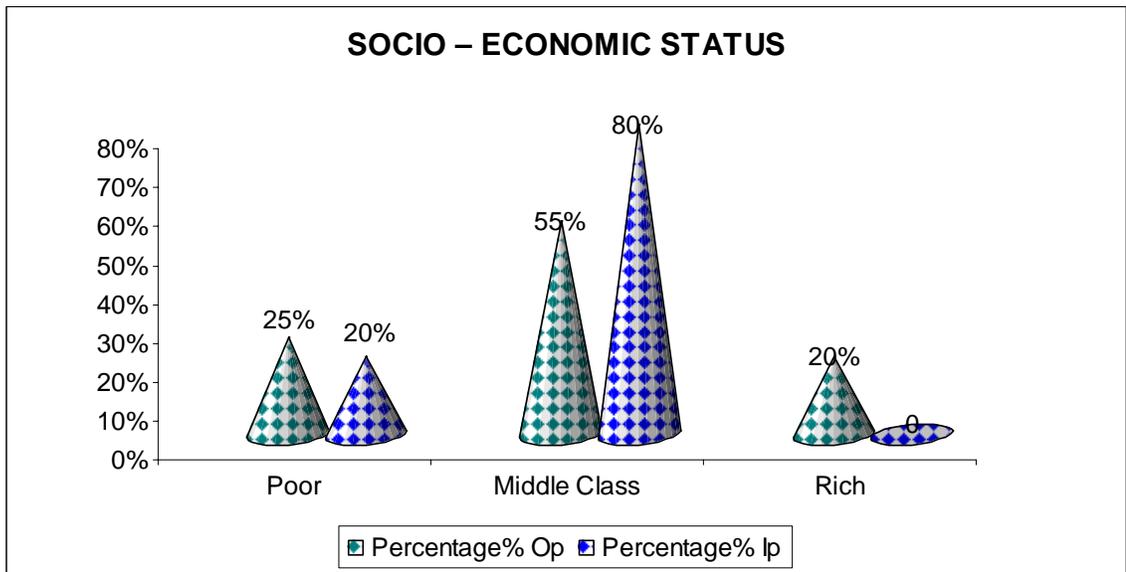


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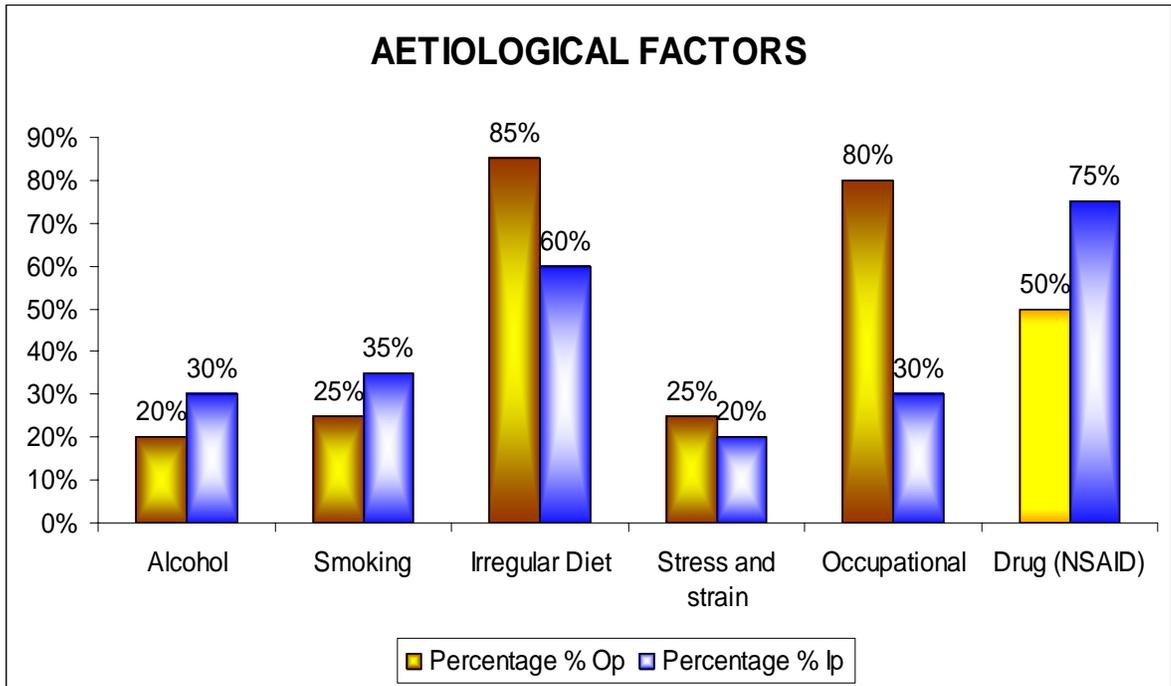


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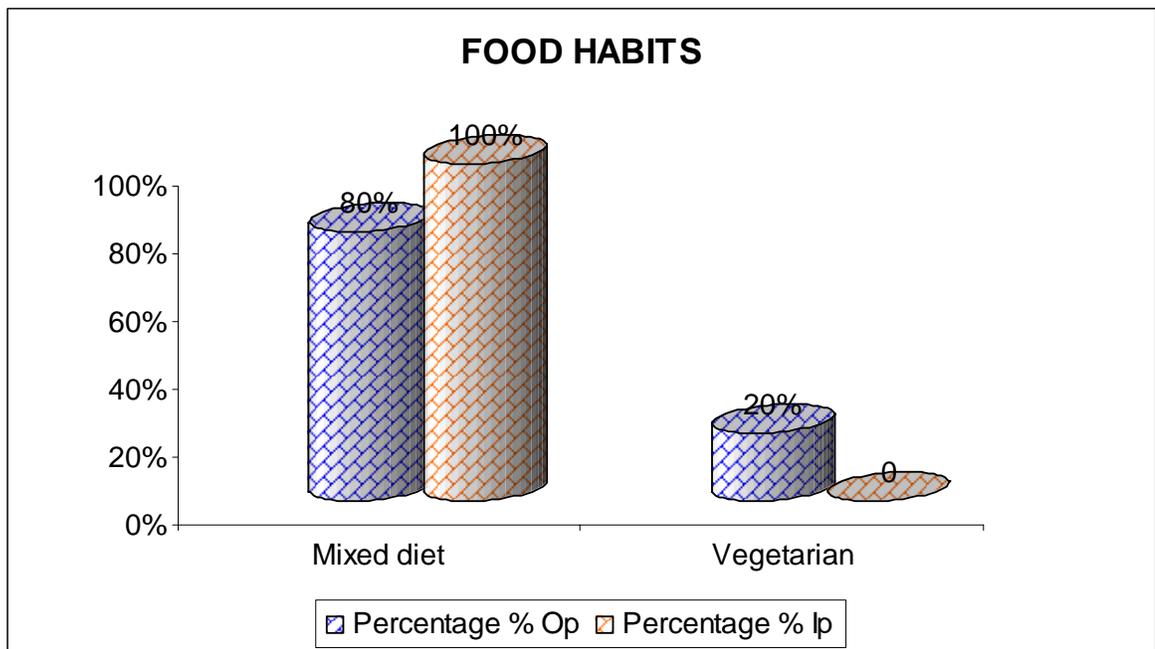


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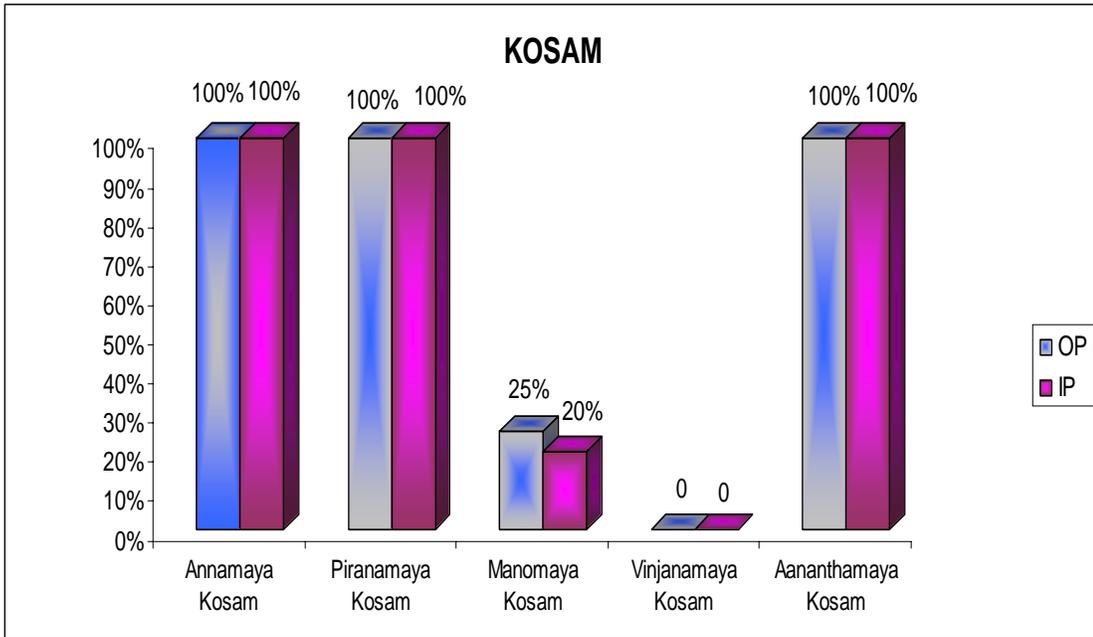


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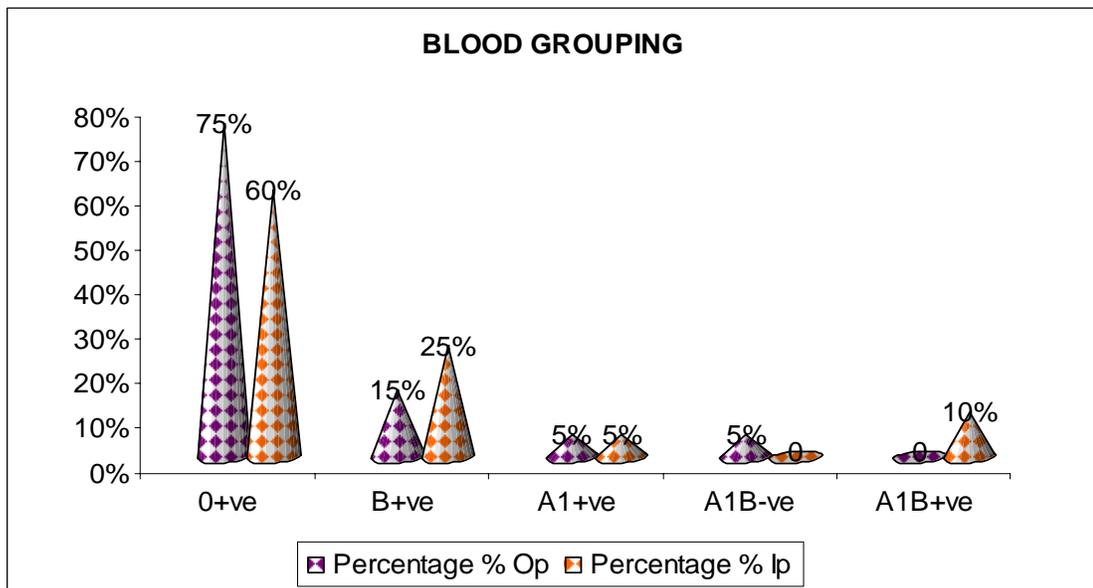


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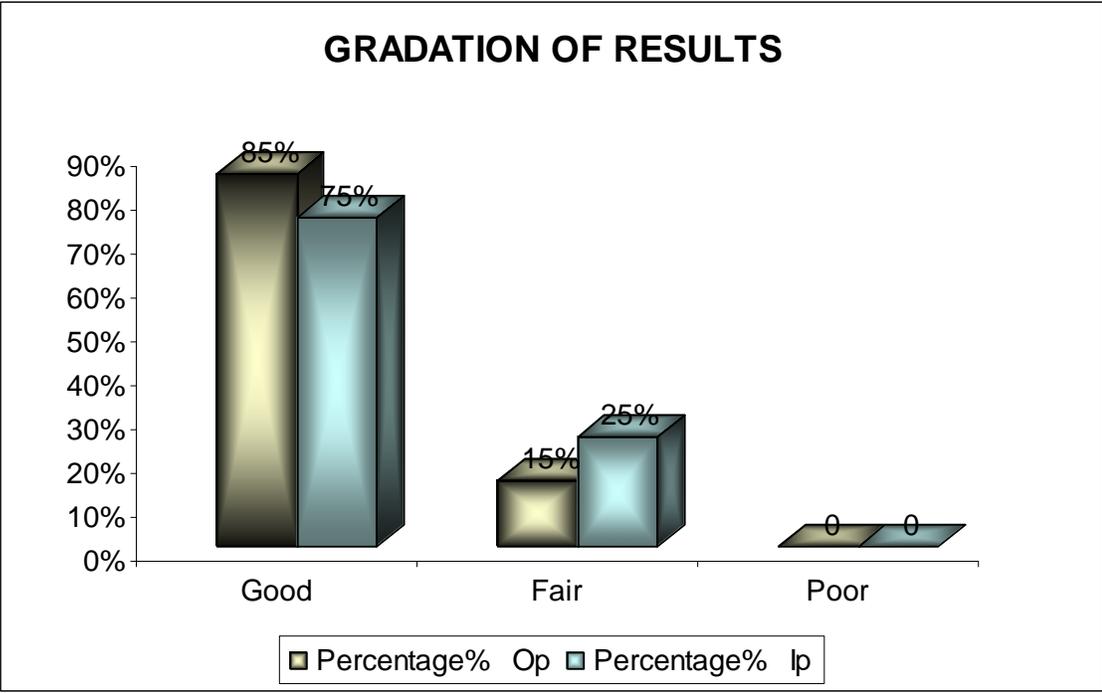


fig : i

Blood Investigation										Urine Analysis						Stools Examination										
S.No	OP No	Before Treatment							Blood Group	After Treatment						Before Treatment			After Treatment							
		Tc cells/cu	DC %			ESR mm hrs		Hb%		Tc cells/cu	DC %			ESR mm hrs		Hb%	Alb	Sug	Dep	Alb	Sug	Dep	Ova Cyst	Occult Blood	Ova Cyst	Occult Blood
			P	L	E	1/2	1			P	L	E	1/2	1												
1	65814	9400	58	34	8	12	26	71	0+ve	9200	55	34	2	5	7	72	Nil	Nil	1-2 Pus Cell/hpc	Nil	Nil	NAD	Nil	- ve	Nil	- ve
2	64107	8900	60	38	2	5	13	75	0+ve	8500	60	36	2	5	13	75	Nil	Nil	NAD	Nil	Nil	NAD	Nil	- ve	Nil	- ve
3	66033	9200	40	56	4	5	10	70	0+ve	9200	30	50	2	5	10	72	Nil	Nil	NAD	Nil	Nil	NAD	Nil	- ve	Nil	- ve
4	65186	7900	68	28	4	20	40	78	0+ve	8500	60	30	2	10	20	78	Nil	Nil	NAD	Nil	Nil	NAD	Nil	- ve	Nil	- ve
5	65799	8900	38	50	5	10	20	68	0+ve	8500	30	50	2	10	20	70	Nil	Nil	3-4 Epithidal	Nil	Nil	NAD	Nil	- ve	Nil	- ve
6	66549	8500	35	55	2	4	15	72	B+ve	8500	55	35	2	4	15	72	Nil	Nil	NAD	Nil	Nil	NAD	Nil	- ve	Nil	- ve
7	66673	8400	52	44	4	2	18	72	0+ve	8500	60	30	2	8	18	75	Nil	Nil	1-2Epi cells	Nil	Nil	NAD	Nil	- ve	Nil	- ve
8	66663	8800	58	30	4	20	42	70	B+ve	9500	58	38	2	10	20	72	Nil	Nil	NAD	Nil	Nil	NAD	Nil	- ve	Nil	- ve
9	66234	8700	56	40	4	15	30	72	0+ve	9500	60	34	4	15	20	75	Nil	Nil	0-1 Epi cells	Nil	Nil	NAD	Nil	- ve	Nil	- ve
10	66834	9000	58	34	8	15	25	71	0+ve	9500	60	34	4	5	11	74	Nil	Nil	NAD	Nil	Nil	NAD	Nil	- ve	Nil	- ve
11	68730	9800	52	22	6	30	58	66	A1+ve	9500	60	35	2	10	20	70	Nil	Nil	NAD	Nil	Nil	NAD	Nil	- ve	Nil	- ve
12	67058	9100	34	55	10	9	23	69	0+ve	9500	34	50	2	9	15	70	Nil	Nil	NAD	Nil	Nil	NAD	Nil	- ve	Nil	- ve
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20	76665	9500	60	32	2	5	11	71	0+ve	9500	60	32	2	5	11	71	Nil	Nil	NAD	Nil	Nil	NAD	Nil	- ve	Nil	- ve

Table - 3

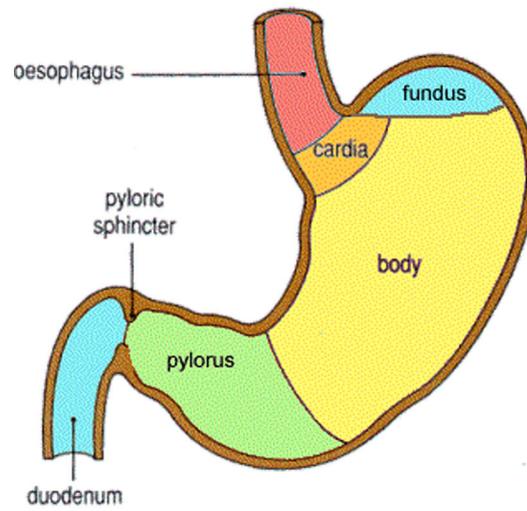


Fig.1. Parts of the Stomach.

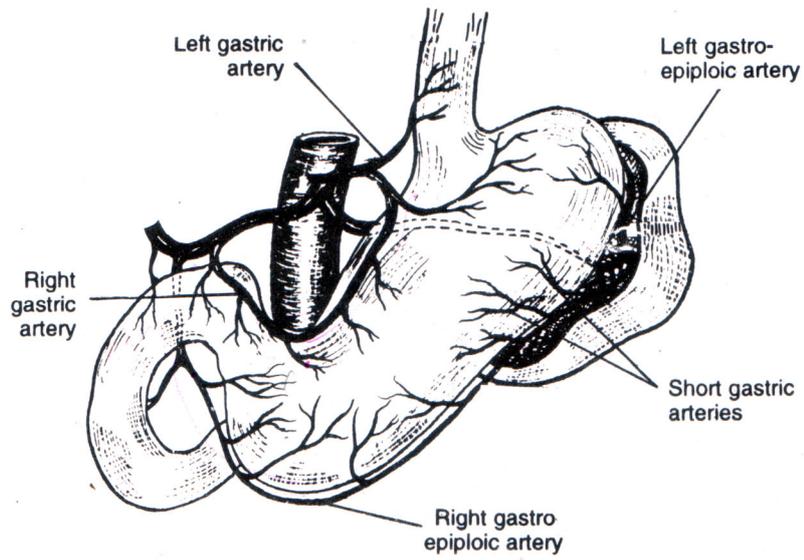


Fig.2. Blood Supply of the Stomach.

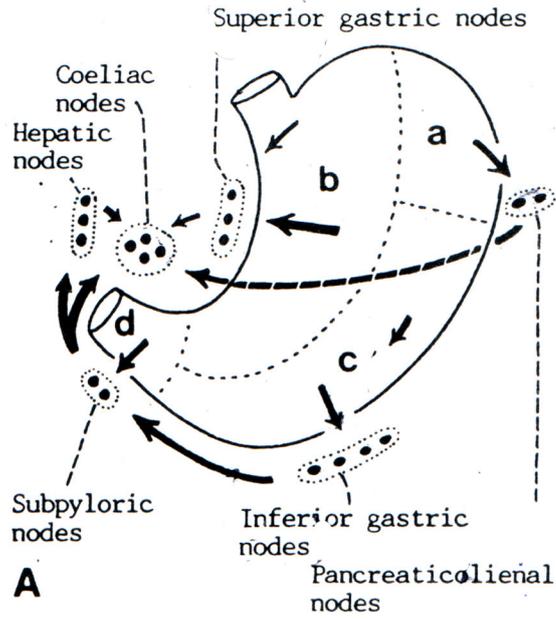


Fig.3. Lymphatic drainage of the Stomach.

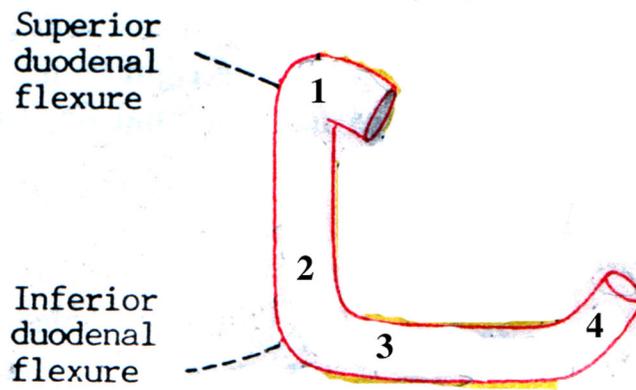


Fig.4. Parts of the deodenum.

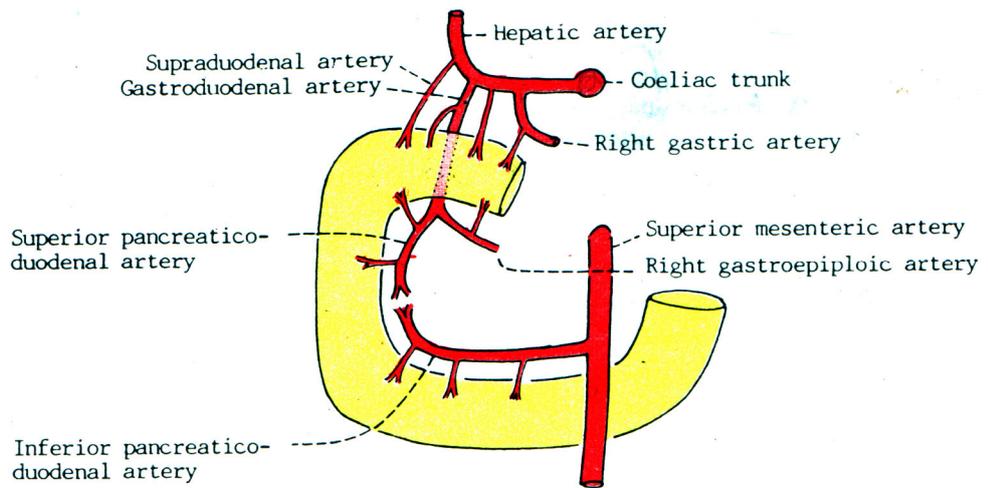


Fig.5. Blood Supply of the deodenum.

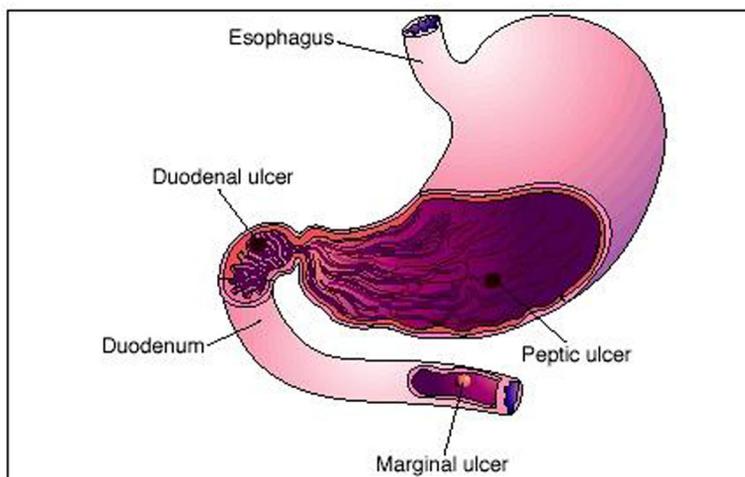


Fig.6. Peptic Ulcer.



Fig.7. Helicobacter pylori.



Fig.8. H.pylori induced gastric ulcer.

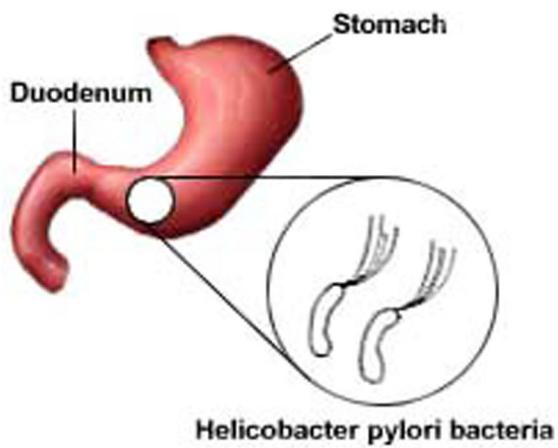


Fig.9. Stomach and duodenal ulcer.

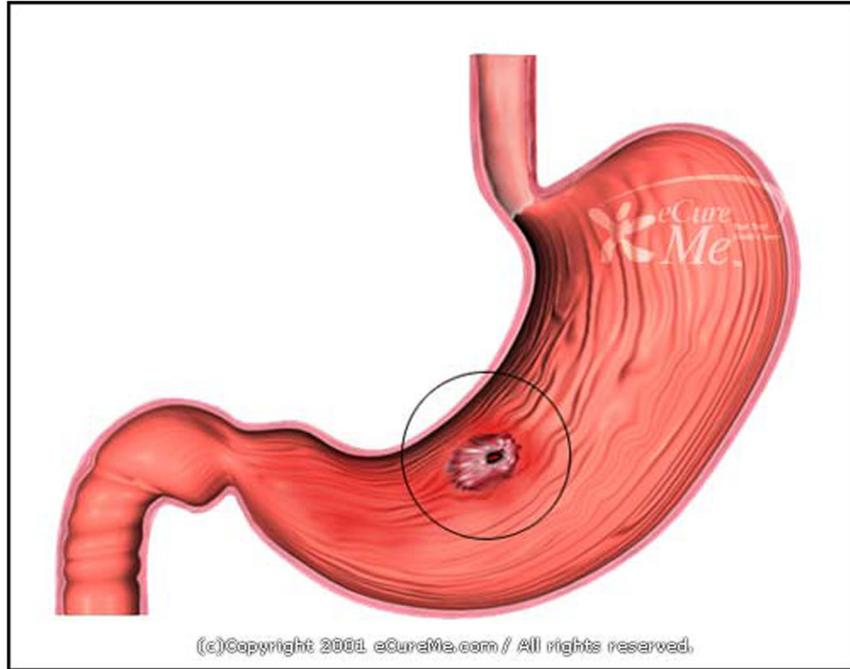


Fig.10. Gastric Ulcer.

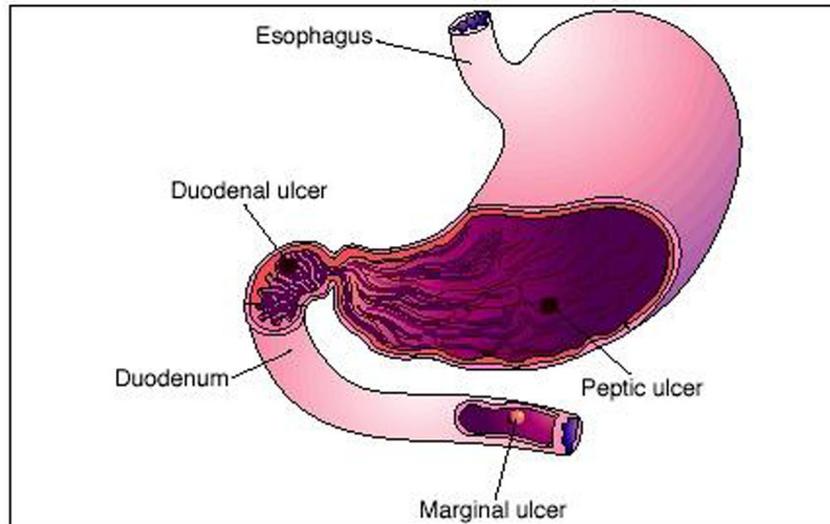


Fig.11. Duodenal ulcer.

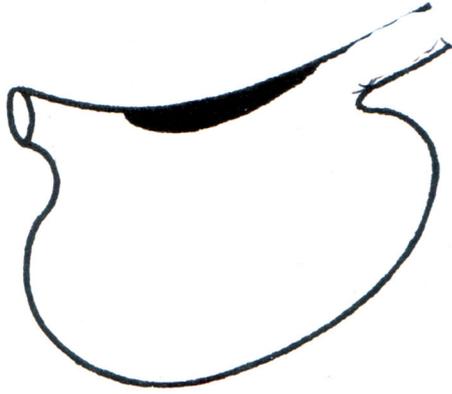


Fig.12. Tea - pot deformity.

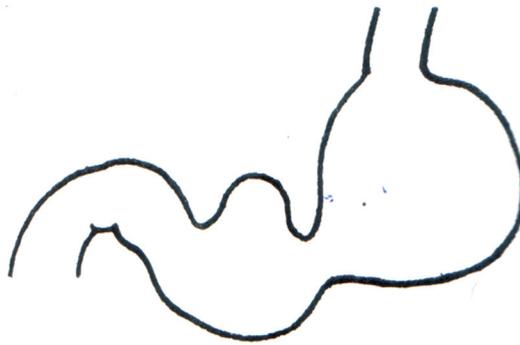


Fig.13. Hourglass contracture of the Stomach.

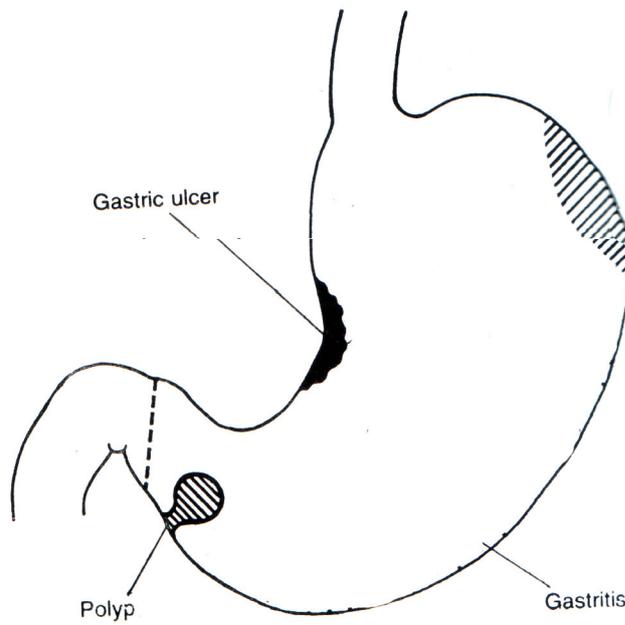


Fig.14. Carcinoma of the Stomach.

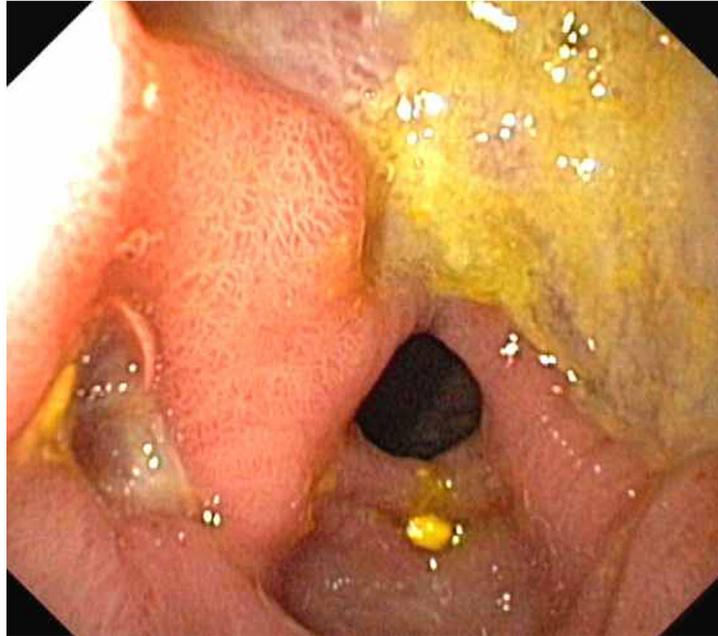


Fig.15. Gastric Prepyloric Ulcers.



Fig.16. Endoscopy duodenal ulcer.

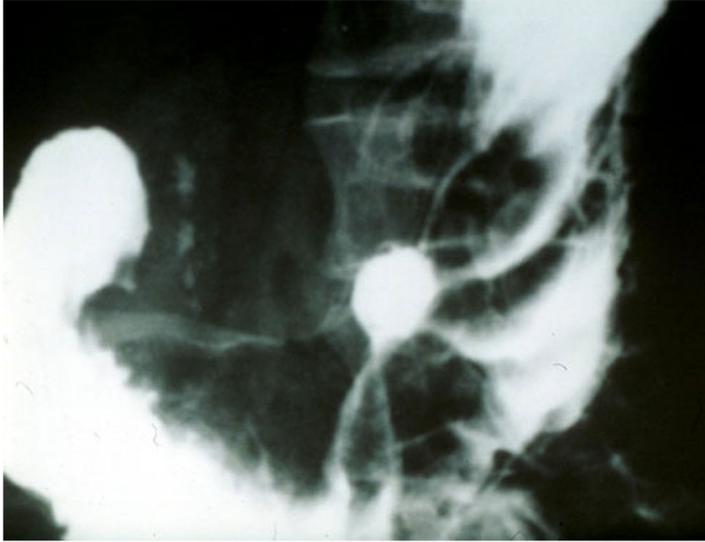


Fig.17. X-ray Barium meal in Gastric ulcer.

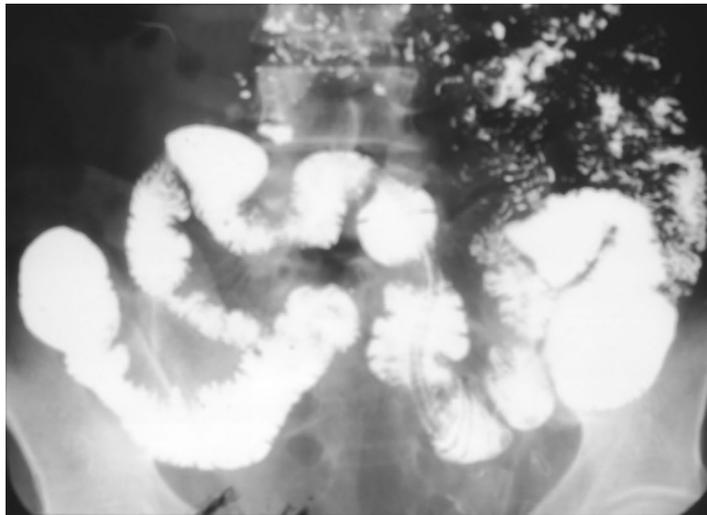


Fig.18. X-ray Barium meal in Duodenal ulcer.