Siddha Diagnostic Methodology of *Envagai thervu* for *Gunmam* Patients at Government Siddha Medical College & Hospital, Palayamkottai

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Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

Original Research Article

ABSTRACT

Introduction: Siddha Medicine is a system of traditional medicine originating in ancient Tamil Nadu in South India and Sri Lanka. Traditionally, it is taught that the *siddhars* laid the foundation for this system of medicine. Siddha system has a unique diagnostic method to identify the diseases and their causes. According to the Saint *Theraiyar,* there are eight tools of diagnosis: symptoms of the body, the colour, the voice, the eyes, the tongue, stools, urine and the pulse.
Aim: The aim of this study was to study the siddha diagnostic methodology of *envagaithervu* for *gunmam* patient sat government siddha medical college & hospital, palayamkottai.
Study Setting: Government Siddha Medical College, Palayamkottai from April to August 2019.
Methodology: It is an observational study. After identifying the eligible subjects, Data will be collected by using the interview administrated questionnaire & relevant data will be collected by measurement. Collected data were processed and statistically analysed by a simple statistical method using Microsoft Excel.
Results and Discussion: Majority of the *gunmam* subjects were females (60%) and age group within 41-60 & 51-60 years. The maximum number of subjects were observed in Pitha Kaalam. Majority of the *gunmam* subjects had Abdominal pain, eructation, generalized body weakness. *Vali*

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azhalnaadi (38%) and *azhalvalinaadi* (32%) were observed in majority of the *gunmam* subjects. Neikuri was observed as valiazhal & azhalvali in *gunmam* subjects.

Conclusion: This study has given quite evidence for literatures. These collected information are helpful for further studies in *gunmam*.

1. INTRODUCTION

1.1 Background of Study

Siddha Medicine is a system of traditional medicine originating in ancient Tamil Nadu in South India and Sri Lanka. Traditionally, it is taught that the *siddhars* laid the foundation for this system of medicine. *Siddhars* were spiritual adepts who possessed the *ashta siddhis* or the eight supernatural powers. Agastyar is considered the first *Siddhar* & the guru of all *siddhars,* the Siddha system is believed to have been handed over to him by Shiva [1]. Siddha system considers the human body as a collection of tri-humors & seven basic elements. *Vatham, Pitham* & *Kapham* are the tri-humors which are the life constituents of the human body. The equilibrium of humors is consider as health & its disturbance or imbalance leads to disease [2].

Gunmam is a gastrointestinal disorder. It is characterized by indigestion, epigastric pain, heartburn, nausea, vomiting, eructation, belching, body weakness, loss of body weight, flatulence and mental disturbances. Commonly it is classified into eight types.

Siddha system has a unique diagnostic method to identify the diseases and their causes. The diagnosis is made by observing the five sense organs: Nose, Tongue, Eyes, Ear and the skin; the five senses: Smell, Taste, Vision, Touch and Sound & by interrogation. The primary importance should be given for physical examination of the five sense organs of the patient using that of the physician. According to the Saint *Theraiyar,* there are eight tools of diagnosis: symptoms of the body, the colour, the voice, the eyes, the tongue, stools, urine and the pulse.

> *Meikkuri niram thoni vizhi naa Irumalam*
> *Kaikkuri   (Theraiyar)*

The examination of the stools and urine has a great significance in diagnosis [2]. Siddha system not only tells diagnosis of diseases and shows prognosis condition also. Various Siddha diagnostic methods are followed in Siddha system.

1.2 Justification

Gunmam is a one of the disease condition. It is clearly mentioned in the Siddha text so I have to study the siddha diagnostic methodology of *envagaithervu* for *gunmam* patients at government siddha medical college & hospital, palayamkottai.

2. AIM AND OBJECTIVE

Aim: The aim of this study was to study the siddha diagnostic methodology of *envagai thervu* for *gunmam* patients at government siddha medical college & hospital, palayamkottai.

2.1 Secondary Objectives

1. To study the socio demographic pattern of subjects.
2. To study the *gunmam* according to the siddha diagnostic methodology of *envagai thervu.*

3. METHODOLOGY

3.1 Study Design

This is an observational study.

3.2 Study Setting

This study will be carried out in OPD (Out Patient Department) & IP at Government Siddha Medical College, Palayamkottai.

3.3 Study Duration

This study will be carried out from April – August 2019.

3.4 Study Population

3.4.1 Inclusion criteria

Age above 20 and below 65
Both sexes
Loss of appetite

Nausea / Vomiting
Belching
Eructation
Pain in the abdomen
Flatulence
Abdominal distension
Indigestion
Generalized weakness

3.4.2 Exclusion criteria

Age below 19 to above 80
GIT disorders other than *Gunmam*

3.4.3 Sample size

According to the inclusion & exclusion criteria, 50 *Gunmam* subjects will be selected for this study.

3.5 Data Collection

3.5.1 Selection of the subjects

The selection will be made for all suitable *Gunmam* subjects who will come to the OPD & IPD in the study period.

3.5.2 Sampling techniques and randomization process

The subjects will be selected by simple random method.

3.6 Study Instrument

3.6.1 Questionnaire

Questionnaire was prepared based on the specific objectives.

3.7 Study Procedure

Subjects who were diagnosed as *Gunmam* will be examined by researcher in the OPD& IPD. All relevant information will be collected by interrogation & clinical examinations. In addition, diagnostic cards or earlier medical records will be looked to get more information.

After identifying the eligible subjects, relevant information will be collected by using the interview administrated questionnaire.

3.8 Data Analysis

Data will be entered and analysed with the usage of Microsoft Excel. Collected literature review information also will be compare with the results.

Finally, the research report will be obtained from this present study.

3.9 Statistical Analysis

All collected data will be entered into computer using MS Excel software by the investigators. Necessary tables/graphs generated to understand the profile of patients by using MS excel.

4. RESULTS AND OBSERVATION

Out of 50 *gunmam* subjects 60% (30) were female and 40% (20) were male.

Table 1. Percentage of distributions of subjects by gender

Gender	Number of patients	Percentage
Male	20	40%
Female	30	60%

Table 2. Percentage of distributions of subjects by age

Age	Number of patients	Percentage
0 - 20	0	0%
21 - 30	13	26%
31 - 40	3	6%
41 - 50	13	26%
51- 60	14	28%
61 - 70	7	14%

Out of *gunmam* 50 subjects, 26% (13) were in age between 21 to 30 years. 6% (3) were in age between 31 to 40 years. 26% (13) were in age between 41 to 50 years. 28% (14) were in age between 51 to 60 years.14% (7) were in age between 61 to 70 years.

Table 3. Percentage of distributions of subjects by *Kaalam*

Kaalam	No of patients	Percentage
Piththa Kaalam	35	70%
Vatha Kaalam	15	30%

Out of 50 *gunmam* subjects, 70% (35) were in *Piththakaalam*. 30% (15) were in *vathakaalam*.

Out of 50 *gunmam* subjects, 54% (27) were taken Milk, 76% (38) were taken tea and 44% (22) were taken Coffee.
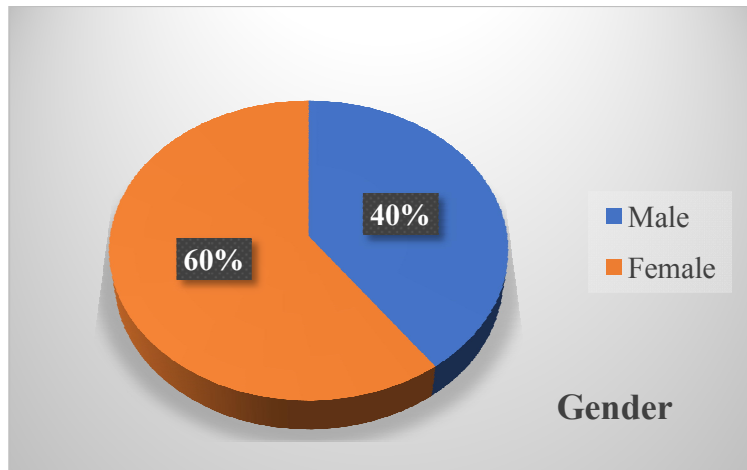
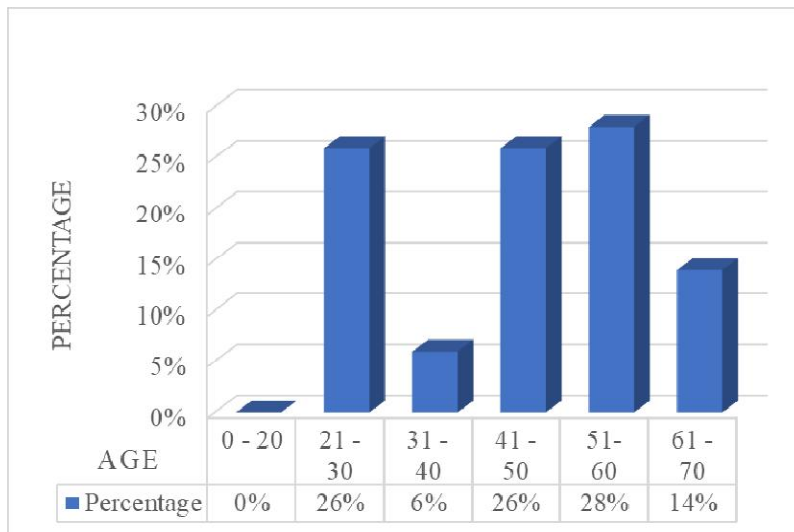**Fig. 1. Pie chart for the distributions of gender**
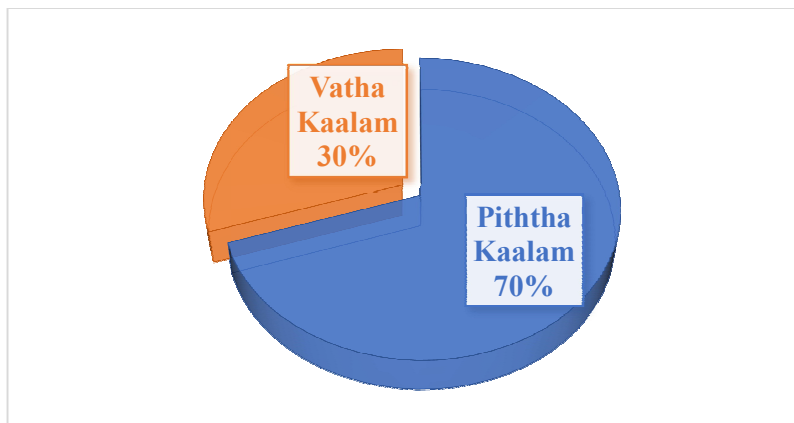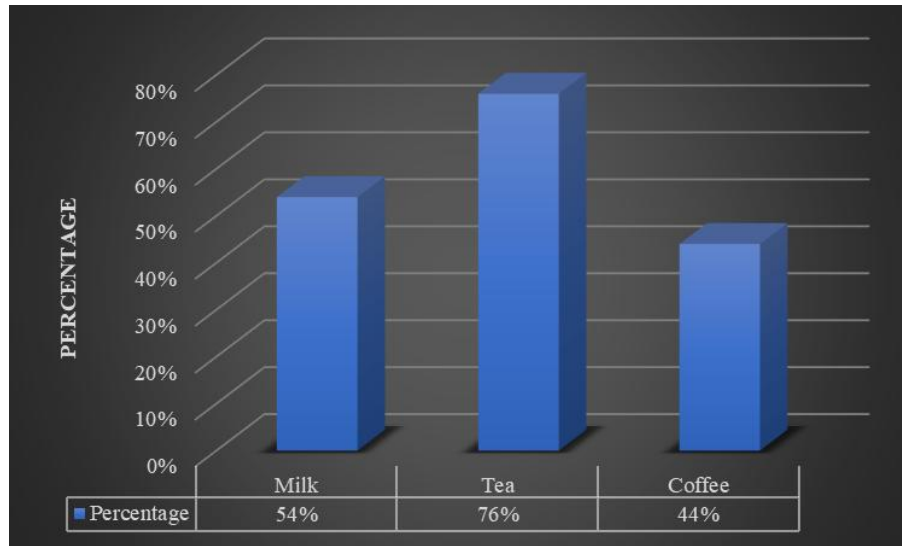

Fig. 2. Bar chart for distribution of age

Fig. 3. Pie chart for the distribution of *Kaalam*

Table 4. Distribution of intake of milk, tea and coffee

	No of patients	Percentage
Milk	27	54%
Tea	38	76%
Coffee	22	44%

Fig. 4. Bar chart for the distribution of intake of milk, tea and coffee

Table 5. Distribution of diet

Diet	No of patients	Percentage
Vegetarian	8	16%
Non – Vegetarian	0	0%
Mixed diet	42	84%

Out of 50 *gunmam* subjects, 84% (42) were taken Mixed Diet. 16% (8) were taken Vegetarian.

Out of 50 *gunmam* subjects, 66% (33) were in Middle Socio-economic status. 30% (15) were in Lower Socio-economic status. 4% (2) were in Higher Socio-economic status.

Out of 50 *gunmam* subjects, 58% (29) were in Normal BMI. 28% (14) were in Overweight. 8% (4) were in Obese. 6% (3) were in Underweight.

Out of 50 *gunmam* subjects, 60% (30) not observed pallor on examination. 40% (25) observed pallor on examination.

Out of 50 *gunmam* subjects, 90% (45) had pain in the abdomen. 88% (44) had eructation.80% (40) had generalized body weakness.66% (33) had flatulence. 64% (32) had belching. 60% (30) had indigestion. 56% (28) had abdominal distension. 52% (26) had loss of appetite. 32% (16) had nausea/vomiting.

Table 6. Distribution of socio-economic status

Socio economic status	No of patients	Percentage
Lower	15	30%
Middle	33	66%
Higher	2	4%

Table 7. Percentage of distributions of subjects by BMI

BMI	No of patients	Percentage
Under Weight	3	6%
Normal	29	58%
Over weight	14	28%
Obese	4	8%

Table 8. Distribution of pallor

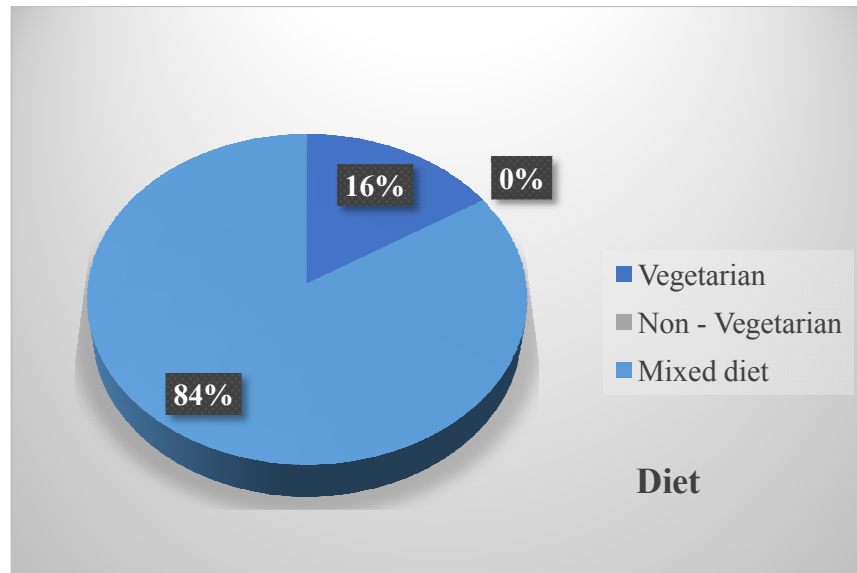|	Pallor	Percentage
Present	20	40%
Absent	30	60%

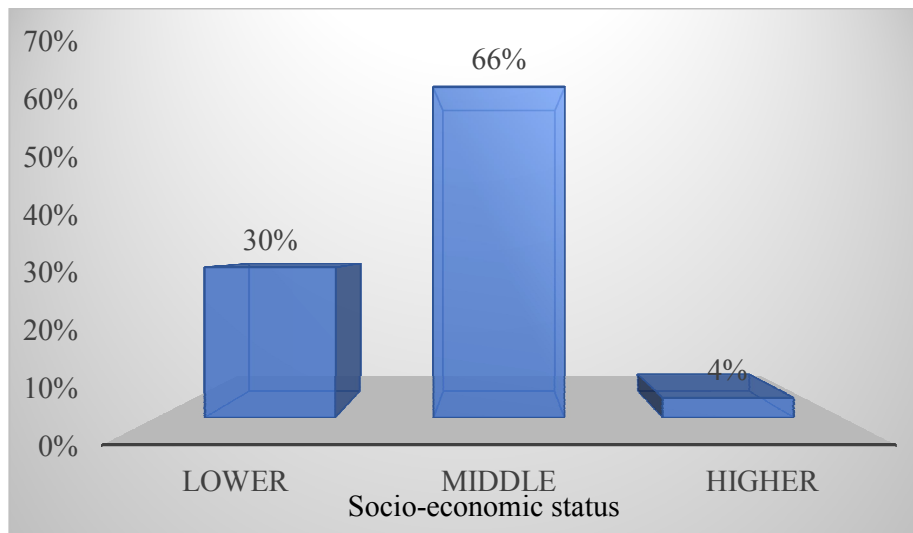**Fig. 5. Pie chart for the distribution of diet**

Fig. 6. Bar chart for the distribution of socio-economic status

Table 9. Distribution of symptoms among the subjects

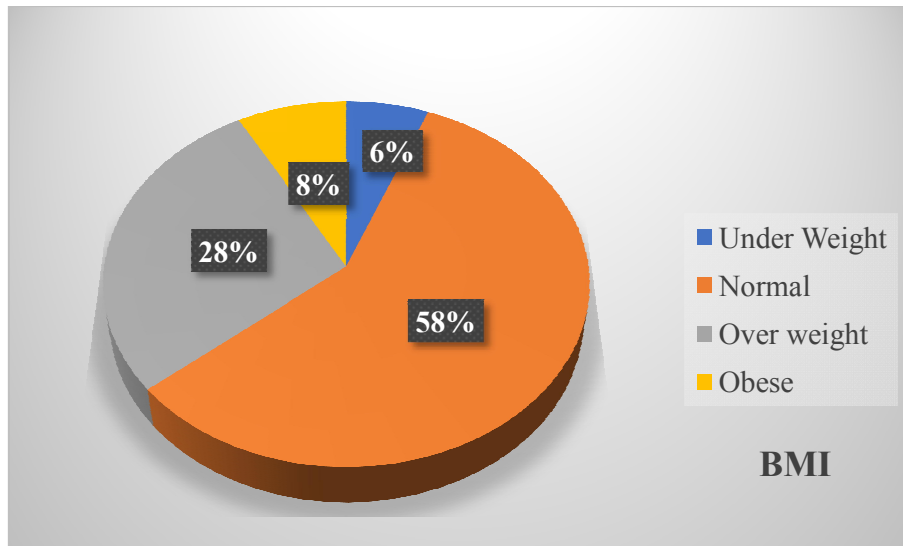| Symptoms [3-11]	No of patients	Percentage
Loss of appetite	26	52%
Nausea/ Vomiting	16	32%
Belching	32	64%
Eructation	44	88%
Pain in the abdomen	45	90%
Flatulence	33	66%
Abdominal Distension	28	56%
Indigestion	30	60%
Generalized weakness	40	80%

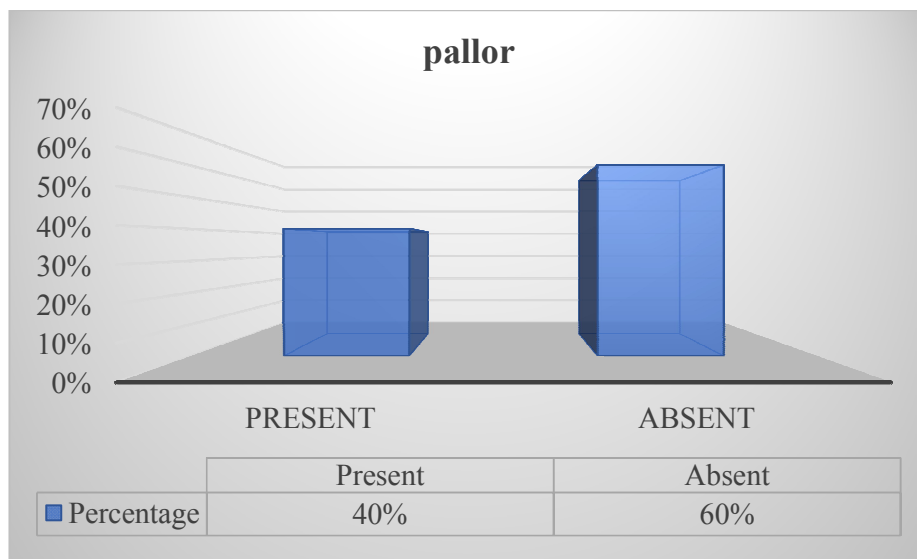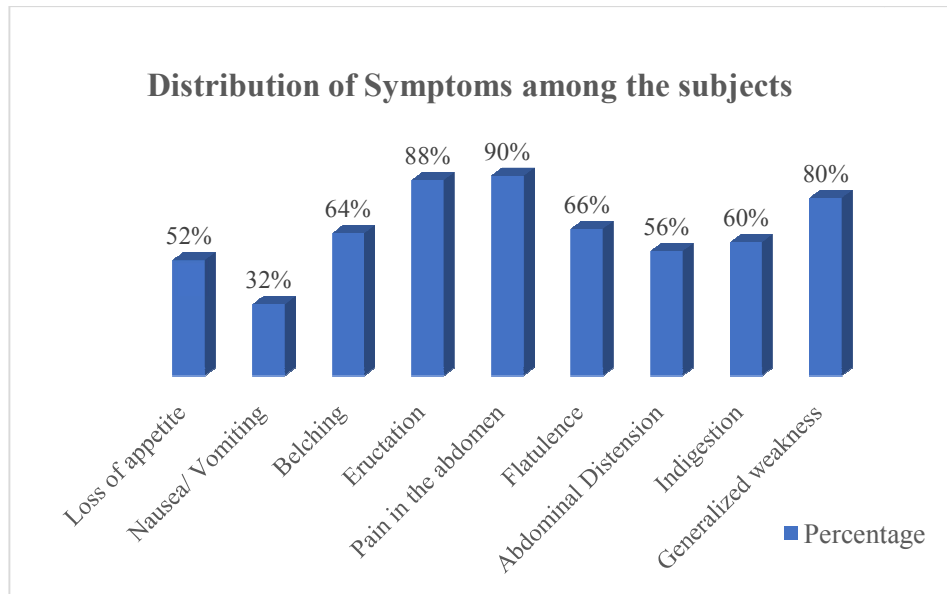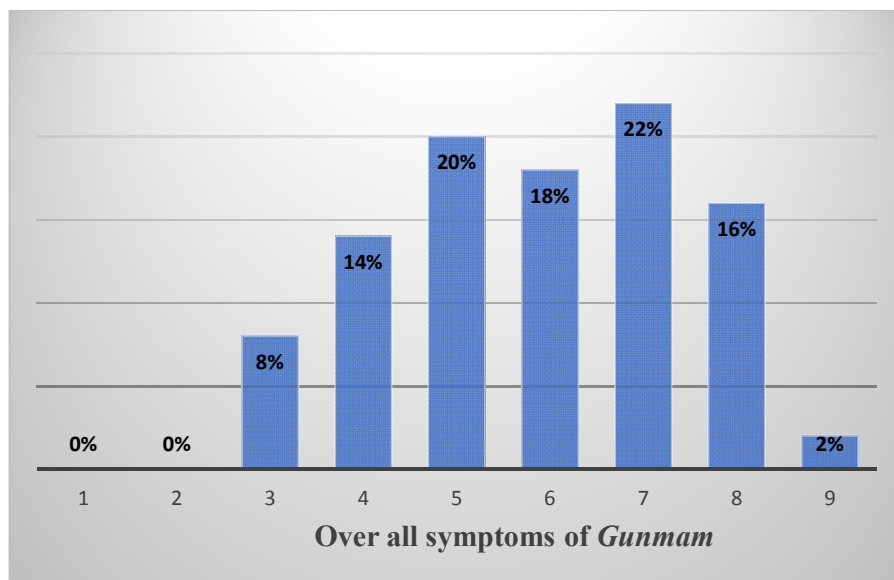**Fig. 7. Pie chart for the distribution of BMI**

Fig. 8. Bar chart for distribution of pallor

Table 10. Distribution of overall symptoms of *Gunmam*

Symptoms	Number of patients	Percentage
1	0	0%
2	0	0%
3	4	8%
4	7	14%
5	10	20%
6	9	18%
7	11	22%
8	8	16%
9	1	2%

Fig. 9. Bar chart for distribution of symptoms of *Gunmam*

Fig. 10. Bar chart for distribution of chronicity

Out of 50 *gunmam* patients, 22% had 7 symptoms of *Gunmam.* 20% had 5 symptoms of *Gunmam.* 18% had 6 symptoms of *Gunmam.* 16% had 8 symptoms of *Gunmam.* 14% had 4 symptoms of *Gunmam.* 8% had 3 symptoms of *Gunmam.* 2% had 9 symptoms of *Gunmam.*

Out of 50 *gunmam* subjects, 70% (35) had *Gunmam* for 3 years. 18% (9) had *Gunmam* for years between 3.1 to 6.6% (3) had *Gunmam* for years between 9.1 to 12.4% (2) had *Gunmam* for years between 6.1 to 9.2% (1) had *Gunmam* for years between 21.1 to 25.

Out of 50 *gunmam* subjects, 2% (1) was affected their *piranan*. 34% (17) was affected their *abanan*. 94% (47) was affected their *uthanan*. 100% (50) was affected their *Samanan* and *anal piththam*. 36% (18) was affected their *Ranjakapiththam*.
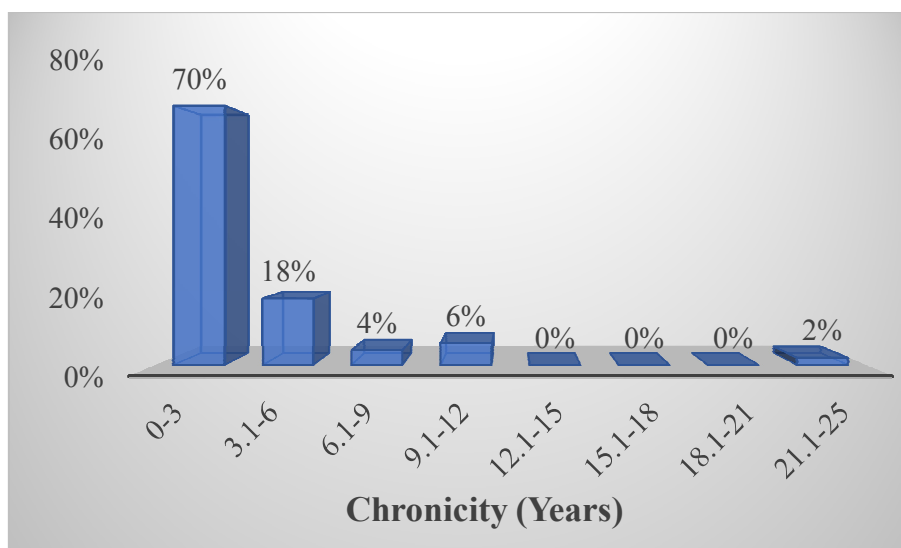
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Fig. 11. Bar chart for distribution of chronicity

Table 11. Distribution of chronicity

Chronicity (Years)	No of patients	Percentage
0-3	35	70%
3.1-6	9	18%
6.1-9	2	4%
9.1-12	3	6%
12.1-15	0	0%
15.1-18	0	0%
18.1-21	0	0%
21.1-25	1	2%

Table 12. Details about disturbance of *Vali, Azhal* and *Aiyam*

	No of subjects	Percentage
Pranan(Vali)	1	2%
Abanan (Thee)	17	34%
Uthanan(Prithivi)	47	94%
Samanan(Appu)	50	100%
Analpiththam (Gastric juice)	50	100%
Ranjakam(Hb)	18	36%

Out of 50 *gunmam* subjects, 38% (19) were observed *valiazal* naadi on examination. 32% (16) were observed *azalvali* naadi on examination. 16% (8) were observed *azalnaadi* on examination. 12% (6) were observed *valinaadi* on examination. 2% (1) were observed *azaliyamnaadi* on examination.

Out of 50 *gunmam* subjects, 32% (16) were observed *azalvali* in *neikuri* examination. 30% (15) were observed *valiazal*in*neikuri* examination. 24% (12) were observed *azal*in *neikuri* examination. 8% (4) were observed *vali*in*neikuri* examination. 4% (2) were observed *iyam*in *neikuri* examination. 2% (1) were observed *iyaazhal* in*neikuri* examination.

5. DISCUSSION

Out of 50 *gunmam* subjects, 60% (30) were female and 40% (20) were male. 26% (13) were in age between 21 to 30 years. 6% (3) were in age between 31 to 40 years. 26% (13) were in age between 41 to 50 years. 28% (14) were in age between 51 to 60 years, 14% (7) were in age between 61 to 70 years. 70% (35) had *Gunmam*

for 3 years. 18% (9) had *Gunmam* for years between 3.1 to 6.6% (3) had *Gunmam* for years between 9.1 to 12.4% (2) had *Gunmam* for years between 6.1 to 9.2% (1) had *Gunmam* for years between 21.1 to 25. According to this study, Majority of the *gunmam* subjects were females, age group within 41-60 & 51-60 years and

chronicity of *Gunmam* for 3 years. According to *Noi Nadal Noi Mudhal Naadal Part* II, *Gunmam* usually appears between age 25 to 45 and are more common in men than women. It tends to occur late in life [3]. The age range stated in the literature is slightly consistent with the age limit obtained at the end of this study.
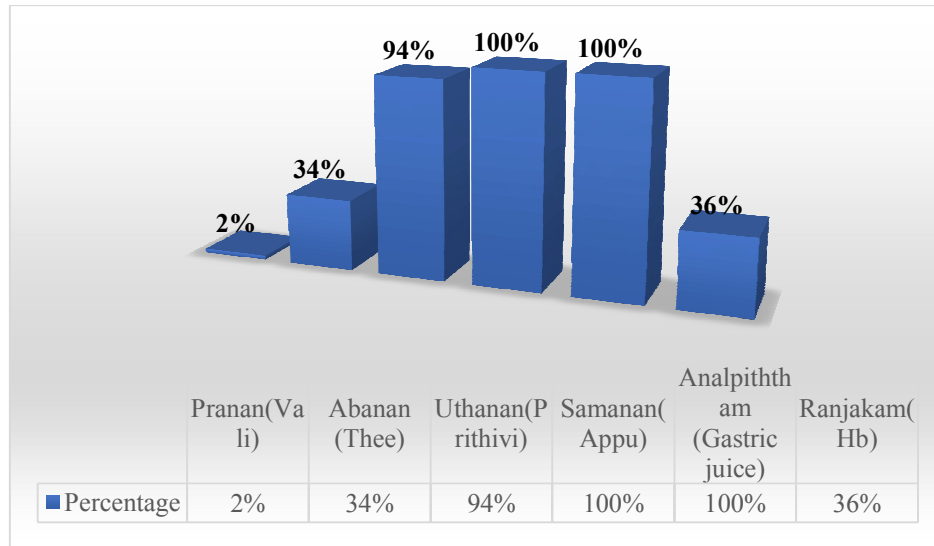

	Pranan(Vali)	Abanan (Thee)	Uthanan(Prithivi)	Samanan(Appu)	Analpiththam (Gastric juice)	Ranjakam(Hb)
■ Percentage	2%	34%	94%	100%	100%	36%

Fig. 12. Bar chart for details about disturbance of types of *Vali, Azhal* and *Aiyam*

Table 13. Distribution of *Naadi*

Naadi	No of patients	Percentage
Vali	6	12%
Vali Azhal	19	38%
Vali Iyam	0	0%
Azhal	8	16%
Azhal Vali	16	32%
AzhalIyam	1	2%
Iyam	0	0%
IyaVazhi	0	0%
IyaAzhal	0	0%
Mukkuttam	0	0%

Table 14. Distribution of *Nei Kuri*

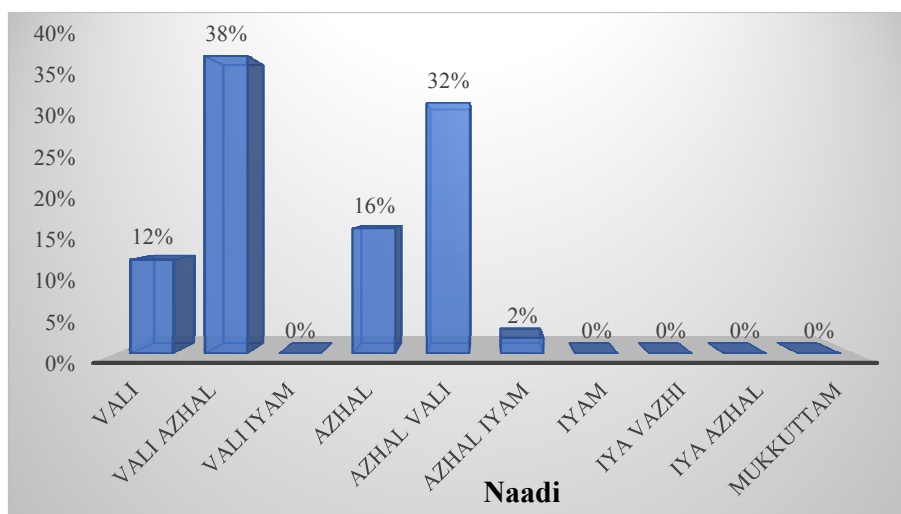| Neikuri	No of patients	Percentage
Vali	4	8%
Vali Azhal	15	30%
Vali Iyam	0	0%
Azhal	12	24%
Azhal Vali	16	32%
AzhalIyam	0	0%
Iyam	2	4%
IyaVazhi	0	0%
IyaAzhal	1	2%
Mukkuttam	0	0%

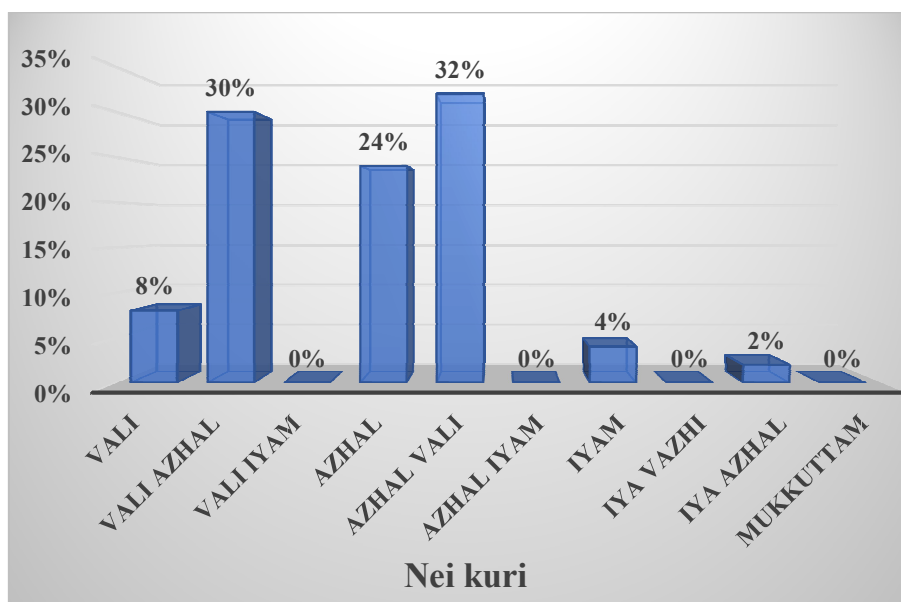**Fig. 13. Bar chart for distribution of *Naadi***

Fig. 14. Bar chart for distribution of *Nei Kuri*

Out of 50 *gunmam* subjects, 70% (35) were in *Piththakaalam*. 30% (15) were in *vathakaalam*. The maximum number of subjects were observed in *PithaKaalam*. According to *Noi Naadal Noi Muthal Naadal* Part II, *Gunmam* usually appears between age 25 to 45. The period of *Piththakalam* is 30 years to 60 years [3]. So, the age range stated in the literature is consistent with the *Kaalam* obtained at the end of this study.

Out of 50 *gunmam* subjects, 54% (27) were taken Milk, 76% (38) were taken tea and 44%

(22) were taken Coffee. 84% (42) were taken Mixed Diet. 16% (8) were taken Vegetarian. 66% (33) were in Middle Socio-economic status. 30% (15) were in Lower Socio-economic status. 4% (2) were in Higher Socio-economic status. According to this study, Majority of patients were taken tea & Mixed diet. The maximum number of patients are in Middle Socio – economical status.
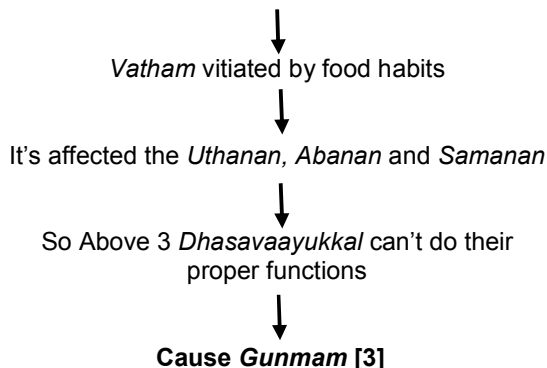
Out of 50 *gunmam* subjects, 58% (29) were in Normal BMI. 28% (14) were in Overweight. 8% (4) were in Obese. 6% (3) were in Underweight. 60% (30) observed pallor on examination. 40%

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(25) not observed pallor on examination. According to this study, Majority of patients are in Normal BMI & observed pallor.

Out of 50 *gunma m*subjects, 90% (45) had pain in the abdomen. 88% (44) had eructation. 80% (40) had generalized body weakness. 66% (33) had flatulence. 64% (32) had belching. 60% (30) had indigestion. 56% (28) had abdominal distension. 52% (26) had loss of appetite. 32% (16) had nausea/ vomiting. 22% had 7 symptoms of *Gunmam.* 20% had 5 symptoms of *Gunmam.* 18% had 6 symptoms of *Gunmam.* 16% had 8 symptoms of *Gunmam.* 14% had 4 symptoms of *Gunmam.* 8% had 3 symptoms of *Gunmam.* 2% had 9 symptoms of *Gunmam.* 70% (35) had *Gunmam*for 3 years. 18% (9) had *Gunmam* for years between 3.1 to 6.6% (3) had *Gunmam*for years between 9.1 to 12.4% (2) had *Gunmam* for years between 6.1 to 9.2% (1) had *Gunmam* for years between 21.1 to 25. Majority of the *gunmam* subjects had Abdominal pain, eructation, generalized body weakness. Majority of the patients have been found to have the sign and symptoms described in the literature thus the data reported in the literature can be taken as true statements [3-11].

Out of 50 *gunmam* subjects, 2% (1) was affected their *piranan*. 34% (17) was affected their *abanan*.94% (47) was affected their *uthanan*.100% (50) was affected their *Samanan*and *anal piththam*. 36% (18) was affected their *Ranjakapiththam*. *Samanan, anal piththam* was affected in all subjects. According to *Noi Naadal Noi Muthal Naadal* Part II, Pathogenesis of *Gunmam,*

"Thodar vatha panthamilathu gunmam varathu"

↓

Vatham vitiated by food habits

↓

It's affected the *Uthanan, Abanan* and *Samanan*

↓

So Above 3 *Dhasavaayukkal* can't do their proper functions

↓

Cause *Gunmam* [3]

The results obtained in this study are consistent with the data reported in the literature.

Out of 50 *gunmam* subjects, 38% (19) were observed *valiazalnaadi* on examination. 32% (16) were observed *azalvali* naadi on examination. 16% (8) were observed *azalnaadi* on examination. 12% (6) were observed *valinaadi* on examination. 2% (1) were observed *azaliyamnaadi* on examination. *Vali azhal naadi* (38%) and *azhalvali naadi* (32%) were observed in majority of the *gunmam* subjects. "*Thodar vatha panthamilathu gunmam varathu*" [3] According to the statement, *Vatham* is affectedby the *Gunmam.* So *Vathanaadi*is palpable when observing the pulse. The results obtained in this study are consistent with the data reported in the literature.

Out of 50 *gunmam* subjects, 32% (16) were observed *azalvali*in *neikuri* examination. 30% (15) were observed *valiazal* in*neikuri* examination. 24% (12) were observed *azal*in*neikuri* examination. 8% (4) were observed *vali*in*neikuri* examination. 4% (2) were observed *iyam*in*neikuri* examination. 2% (1) were observed *iyaazhal* in*neikuri* examination. *Neikuri* was observed as *valiazhal* & *azhalvali* in *gunmam*subjects.

6. CONCLUSION

Majority of the *gunmam*subjectswere females (60%) and age group within 41-60 & 51-60 years. The maximum number of subjects were observed in *PithaKaalam*. Majority of the *gunmam* subjects had Abdominal pain, eructation, generalized body weakness. *Vali azhalnaadi* (38%) and *azhalvalinaadi* (32%) were observed in majority of the *gunmam* subjects. *Neikuri* was observed as *valiazhal* & *azhalvali* in *gunmam* subjects. This study has given a quite evidence for literatures. These collected information are helpful for further studies in *gunmam* [3-11].

CONSENT

Informed concerned form was prepared by the researcher and written consent will be obtained from selected subjects before the commencement of the study.

ETHICAL APPROVAL

Ethical approval has obtained from Institutional Ethical Committee (IEC).

COMPETING INTERESTS

Author has declared that no competing interests exist.

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