JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

AN OBSERVATIONAL STUDY TO ANALYSE THE SYMPTOMATOLOGY OF *URDHVAGA AMLAPITTA* WITH ENDOSCOPIC FINDINGS

Keerthi P V [1], Babita Radhakrishnan [2]

1. MD scholar, Department of Roganidana, Govt Ayurveda College, Kannur,Kerala

2. Assistant Professor, Department of Roganidana, Govt Ayurveda College, Kannur,Kerala

ABSTRACT

Background and Objectives: *Urdhvaga Amlapitta* comprises a group of clinical features that extend from mild symptoms like belching to severe symptoms like blood on vomitus. Endoscopy is widely recognized as an essential tool for the identification, treatment and monitoring of many benign, premalignant, and malignant disorders. A detailed picture of the gastrointestinal issues is provided by the real-time evaluation and interpretation of the endoscopy results. In Ayurveda, a diagnosis is made by assessing the symptoms. The difference in the severity of the *lakshana* might be due to the change in the severity of the underlying pathology. Understanding the pathology is crucial since the proper therapy focuses on the etiology and reversal of the *samprapti*. So there is a need to explore the *lakshanas* of *Urdhvaga Amlapitta* with the endoscopic findings. This study mainly aims to analyse the symptomatology of *Urdhvaga Amlapitta* with the endoscopic findings.**Materials and Methods:** Participants were selected as per inclusion and exclusion criteria. The preliminary details of 28 participants were collected initially. Then a detailed interrogation was performed using a prepared questionnaire about *Urdhvaga Amlapitta* and endoscopic findings. **Results and discussion:** From the study, it was observed that *daha* (burning sensation),*udgara* (belching),*klama*(fatigue),*utklesa*(nausea) and *sirasoola*(headache) were the most common *lakshanas*. Endoscopic findings showed a greater percentage of abnormalities in the esophagus, stomach fundus , body and antrum and less in the stomach pylorus and duodenum. Some of the associations between *Urdhvaga Amlapitta lakshana* and endoscopic findings were significant.**Conclusion**: Some of the *lakshana*s with some extent of severity showed normal endoscopic findings.

Keywords: *Urdhvaga Amlapitta*, Endoscopy

I. INTRODUCTION

In the current environment, GI illnesses are on the rise regardless of age or sexual preference due to changed eating habits and lifestyle patterns. Disease-causing factors include refined, processed, hot and spicy food, alcohol, smoking, mental stress and others .Abdominal discomfort, heartburn, nausea, vomiting, changes in bowel habits, dysphagia, anorexia, and weight loss are the most typical symptoms of the gastrointestinal tract. Therefore, it is essential to approach these illnesses from an Ayurvedic viewpoint, since Ayurveda can preserve mental, physical and spiritual balance.

The most common digestive ailment in Ayurveda is *Amlapitta*. The *nidana, poorvaroopa, roopa, upasaya, samprapti* and *cikitsa* of *Amlapitta* were discussed in the *Kasyapa Samhita, Madhava nidana* and *Cakradutta*. The sourness of *pitta dosha* is the word meaning of *Amlapitta*. *Aharaja, viharaja ,manasika nidana* and other contributing factors cause the qualitative and quantitative changes in the *pitta dosha*. It further leads to the manifestation of *Amlapitta*. Based on the *gati* of *dosha, Amlapitta* is of two in number. These include *Urdhvaga* and *Adhoga amlapitta*. The clinical features of *Urdhvaga Amlapitta* are enlisted as vomiting of green, yellow, blue, black or red coloured sticky and thin material followed by *kapha*, vomiting occurring during digestion of food or even in an empty stomach, belching of bitter and sour taste, burning sensation in throat, chest, upper abdomen, palm and soles, headache, loss of appetite, fever of *kapha pitta* origin and itchy circular rashes.[1]

Symptoms similar to *Urdhvaga Amlapitta* can be found in diseases like Gastritis, Acid peptic disease or hyperacidity in modern parlance. Thus, *Urdhvaga Amlapitta* can be viewed as a catch-all phrase for a variety of illnesses. The majority of individuals ignore these symptoms which may leads to Peptic ulcers, persistent gastritis, and Barrett's oesophagus etc. The initial steps in the evaluation of a patient with various types of GI diseases involve a thorough history taking and physical examination. The GI tract can also be evaluated internally by upper and lower endoscopy to examine what's within the lumina. The gold standard for diagnosing disorders of the upper digestive system is endoscopy. With an endoscope, nearly the whole colon, as well as a significant portion of the stomach, duodenum, small intestine and esophagus can be seen.[2]

II. BACKGROUND AND RATIONALE

Ayurveda mostly discusses patient's subjective parameters. The significance of the objective parameter is huge for a suitable scientific acceptance.In Ayurveda, there isn't a set method for comparing the subjective and objective parameters.The invention of many diagnostic tools in modern medicine helps for the comprehension of appropriate pathology in terms of structural or functional changes. Thus, the data gathered using these techniques will be useful for the accurate determination of the origin and consequences of illness in Ayurveda. By conducting this study, the symptomatology of *Urdhvaga Amlapitta* can be analysed with the changes that occur in the endoscopic findings .This will make it easier to objectively assess the degree of illness and its course . Further assist in determining the suitable interventions based on severity.

III. REVIEW OF LITERATURE

Literary data regarding *Urdhvaga Amlapitta* ,upper gastrointestinal diseases and diagnostic endoscopy were taken from different classical and modern textbooks. Beyond this further literary data were collected from published articles in reputed journals

IV. RESEARCH METHODOLOGY

a. **Study design**-The cross sectional study.
b. **Study setting**-OPD of Government Ayurveda college hospital, Kannur
c. **Study period** -18 months
d. **Study population**-The study sample was drawn from OPD of Government Ayurveda college hospital,
e. **Research question** -Whether the symptomatology of *Urdhvaga Amlapitta* can be analysed with its endoscopic findings in individuals of age group 20-60 attending the OPD of Govt. Ayurveda college hospital, Kannur?
f. **Hypothesis**-As it was an observational study, no hypothesis was proposed.
g. **Aim and objectives**-To analyse the symptomatology of *Urdhvaga Amlapitta* with endoscopic findings
h. **Inclusion criteria**- Participants diagnosed with the disease *Urdhvaga Amlapitta*.
Participants of age group 20-60 years.

i. **Exclusion criteria**- Pregnant women
Participants who has underwent Gastro intestinal surgery

Participants with Bleeding disorders, Systemic lupus erythematosus.

Participants with long term use of corticosteroids and non-steroidal anti- inflammatory drugs.

j. **Sample size**= 28
k. **Sampling technique**- Consecutive sampling
l. **Scientific and Ethics committee approval-** The scientific committee approved the synopsis with reference number GACK/SRC/15/2022.It was approved in Ethics committee with reference number E2/3907/2021/ACK/PG-15.
m. **Preparation of clinical proforma**

Based on a review of the literature, a comprehensive proforma was created. The clinical proforma consisted of three sections. The first part consists of preliminary details of the participants.Second part consists of symptom analysis of *Urdhvaga Amlapitta*. Twenty three symptoms of the *Urdhvaga Amlapitta* were enlisted from different authentic textbooks. Based on the severity, these symptoms were graded into zero, one, two, three, four as absent, mild, moderate, severe or very severe respectively. Since the characteristics of vomiting in *Urdhvaga Amlapitta* were important and also it was difficult to grade on the basis of severity the characteristics like colour and consistency of vomitus , taste and its relation with intake of food were included without grading as it was present or absent. The burning sensation in different sites of the body , belching with its taste and relation with food were also not graded. The 3rd part consists of endoscopic findings of the participants. The commonly seen 21 endoscopic findings were collected and tabulated.

Table no:1 parameters of assessement of *Urdhvaga Amlapitta*

Sl No	Parameter for assessment	Grading
1	Indigestion	Absent Takes 4-6hrs for ingestion of food after proper formation of appetite. Takes 6-9hrs for ingestion of food after proper formation of appetite. Takes more than 9hrs for ingestion of food after proper formation of appetite. Feeling of indigestion of food always.
2	Fatigue	Absent Fatigue relieved by rest. Fatigue not relieved by rest. Fatigue limiting instrumental activities of daily living. Fatigue limiting selfcare activities of daily living.
3	Nausea	Absent Nausea present after heavy meals. Nausea present after normal meals. Nausea present even on empty stomach. Nausea present on empty stomach and not relieved by medicine.
4	Belching	Absent Belching after intake of hot, pungent, spicy food. Belching after intake of routine meals. Belching after intake of routine meals, relieved by medicine. Belching after intake of routine meal, not relieved by intake of medicine.
5	Heaviness of stomach	Absent Feeling of heaviness of stomach after intake of heavy meals. Feeling of heaviness of stomach after intake of light food. Feeling of heaviness of stomach in empty stomach. Feeling of heaviness of stomach always.
6	Heaviness of body	Absent Feeling of heaviness of body after intake of heavy meals. Feeling of heaviness of body after intake of light food. Feeling of heaviness of body in empty stomach. Feeling of heaviness of body always.
7	Burning sensation	Absent Burning sensation after intake of hot, pungent, spicy food Burning sensation after intake of routine meals. Burning sensation after intake of routine meals relieved only after intake of

		medicine. Burning sensation after intake of routine meal not relieved by intake of medicine.
8	Tastelessness	Absent Tastelessness, but can eat normal quantity of food Tastelessness, but can eat very little quantity of food Tastelessness, cannot eat even little quantity of food Tastelessness, forcible eating leads to nausea and vomiting
9	Hiccup	Absent Hiccup after intake hot, pungent, spicy food. Hiccup after intake of routine meals. Hiccup after intake of routine meals relieved by medicine. Hiccup after intake of routine meal, not relieved by intake of medicine.
10	Bowel sounds	Absent Mild increase in bowel sound Moderately increased bowel sound Severely increased bowel sound Severely increased and persistent bowel sound
11	Giddiness	Absent Occasional/mild giddiness Moderate giddiness Persistent giddiness Persistent and severe giddiness disturbing daily life
12	Diarrhoea with burning sensation	Absent Less than 2/day with burning sensation 2-3/day with burning sensation 4-5/day with burning sensation More than 5 with burning sensation
13	Retrosternal pain	Absent Retrosternal pain occasionally after food Retrosternal pain every day after meal Retrosternal pain after every meal Retrosternal pain every time even though food is not taken
14	Horripilation	Absent Mild horripilation during retrosternal burning, nausea, vomiting Moderate horripilation during retrosternal burning, nausea,vomiting Severe horripilation during retrosternal burning, nausea, vomiting Severe and persistent horripilation during retrosternal burning,nausea, vomiting
15	Head ache	Absent Head ache not disturbing daily routine. Headache disturbs daily routine. Headache disturbs daily routine, subsided after rest. Patient is bed ridden due to pain
16	Bitter taste in mouth	Absent Bitter taste in mouth rarely Bitter taste in mouth occasionally Bitter taste in mouth often Bitter taste in mouth always
17	Abdominal distension	Absent Minimal Abdominal distension Moderate Abdominal distension Massive but not tense Abdominal distension Massive and tense Abdominal distension
18	Vomiting	Absent Vomiting 1- 2 times in a week.

		Vomiting 3-4 times in week. Vomiting 5-6 times in week. Vomiting once in a day.
20	Feeling of excessive heat in relation with gastric problems	Absent Rarely Feeling of warmth Occasional Feeling of warmth Often feeling of warmth Always feeling of warmth
20	Itching in relation with gastric problem	Absent Rarely Feeling of itching in relation with gastric problems. Occasional Feeling of itching in relation with gastric problems. Often Feeling of itching in relation with gastric problems. Always Feeling of itching in relation with gastric problems.
21	Circular skin lesion in relation with gastric problem	Absent Rarely appearances of skin eruptions in relation with gastric problems. Occasional Appearances of skin eruptions in relation with gastric problems. Often Appearances of skin eruptions in relation with gastric problems. Always Appearances of skin eruptions in relation with gastric problems.
22	Papular skin lesion in relation with gastric problem	Absent Rarely appearances of skin diseases in relation with gastric problems. Occasional Appearances of skin diseases in relation with gastric problems Often Appearances of skin diseases in relation with gastric problems. Always Appearances of skin diseases in relation with gastric problems.
23	Fever	Absent Rarely presence of fever Occasionally presence of fever Often presence of fever Always presence of fever

Table no:2 Colour of vomitus

COLOUR
Accha (Clear material)
Harita (Green colour material)
Neela (Blue colour material)
Syava (Black colour material)
Peeta (Yellow colour material)
Sarakta (Red colour material)
Mamsodakabham (Material resemblances of colour of Flesh washed water)

Table no:3 consistency of vomitus

CONSISTENCY
Sleshmanjatam (Vomiting of *kapha* after sour bitter vomiting)
Picchila (Slimy vomitus)

Table no: 4 Characteristics of vomiting in relation with intake of food

VOMITING IN RELATION IN RELATION WITH INTAKE OF FOOD	
Vomiting not in relation with food	- *Amla* (sour) *Tikta* (bitter)
Vomiting in relation with food	- *Amla* (sour) *Tikta* (bitter)

Table no:5 Burning sensation in different sites of body

BURNING SENSATION IN DIFFERENT SITES OF BODY
Udara (Abdomen)
Hrit (Chest)
Kanda (Throat)
Pani (Palm)
Pada (Sole)

Table no: 6 Belching in relation with intake of food

BELCHING IN RELATION IN RELATION WITH INTAKE OF FOOD
Belching not in relation with food - *Amla* (sour) / *Tikta* (bitter)
Belching in relation with food - *Amla* (sour) / *Tikta* (bitter)

Table no: 7 Endoscopic findings

ENDOSCOPIC FINDINGS		
1.Normal	8.Ulcers	15.Nodule
2.edema	9.Stricters	16.Atrophy
3.Erythema	10.Varices	17.Hypertrophy
4.Inflammation	11.Mass	18.Hemmorhage
5.Single erosion	12. Malignancy	19.Candidiasis
6.Multiple erosions	13.polyp	20. Hook worm infestation
7.Circumferential erosion	14.exudates	21.Others

Table no: 8 Sites in upper GIT visualized by the Endoscopy

Site	Findings	Site	Findings
1.Esophagus a. Mucosa		c.Antrum	
b.Esophagogastric junction		d. Pylorus	
2.Stomach a. Fundus		3.Duodenum a.D1	
b. Body		b.D2	

Table no: 9 other common findings on endoscopy

Hiatus hernia	Present	Absent
Lax lower oesophageal junction	Present	Absent
Dilated oesophagus	Present	Absent
Barrett's oesophagus(red and velvety)	Present	Absent
H.pylori	Present	Absent

n. Statistical analysis = Descriptive statistics ,Inferential statistics -Chi-square test ,Fisher's exact test

V. OBSERVATIONS AND RESULTS

Age wise distribution of sample

Table no: 10 Age wise distribution of sample

Age in years	Frequency	Percent
≤30	3	10.7
31 – 40	5	17.9
41 – 50	5	17.9
>50	15	53.5

Gender wise distribution of sample

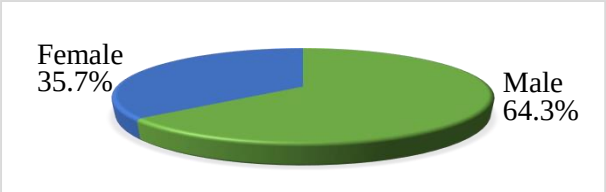

Figure no: 1 Gender wise distribution of sample

Distribution based on time of intake of food of sample

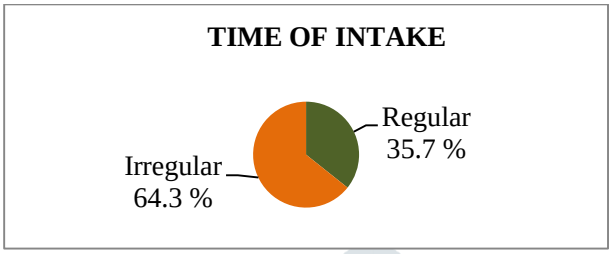

Figure no : 2 Distribution based on time of intake of food of sample

Distribution of sample based on the duration of the disease

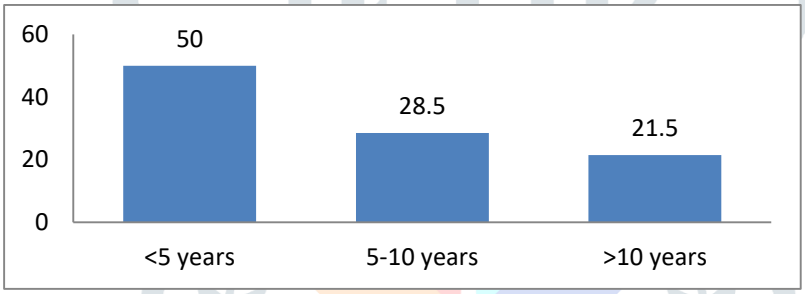

Figure no: 3 Distribution of sample based on the duration of the disease

Urdhvaga Amlapitta symptom wise distribution of sample

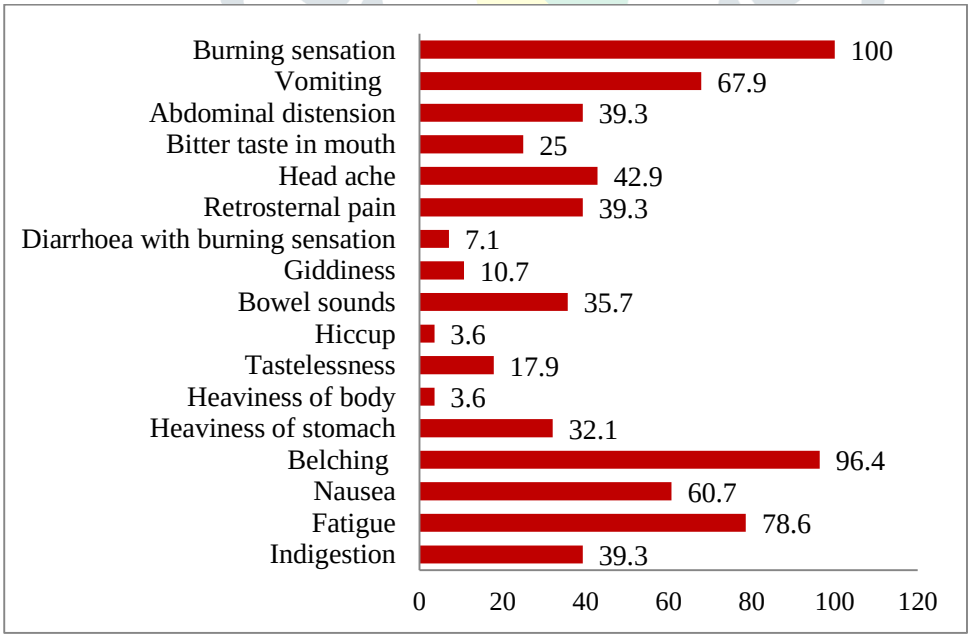

Figure no: 4 *Urdhvaga Amlapitta* symptom wise distribution of sample

Distribution of sample based on the colour of vomitus

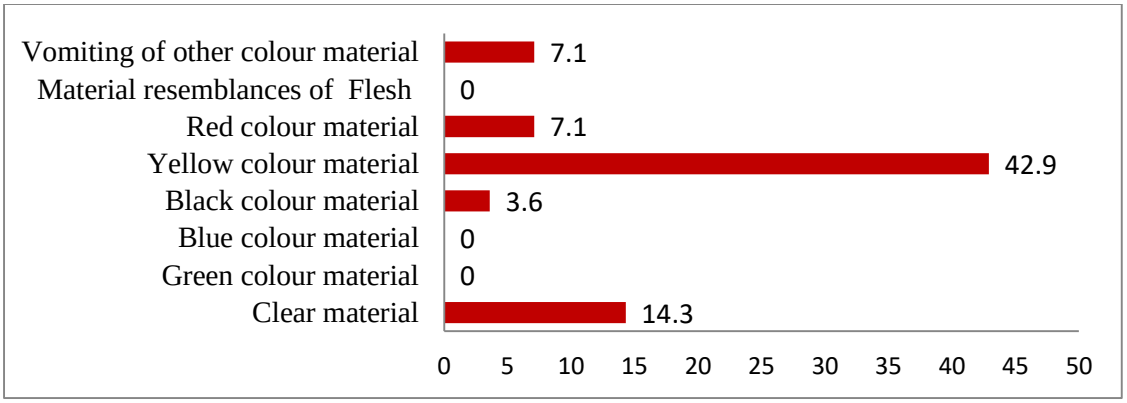

Figure no: 5 Distribution of sample based on the colour of vomitus

Distribution of sample based on the consistency of vomitus

Table no:11 Distribution of sample based on the consistency of vomitus

Vomiting consistency	Frequency	Percentage
kapha after sour bitter vomiting	1	3.6
Slimy vomitus	3	10.7

Distribution of sample based on the vomiting in relation with food

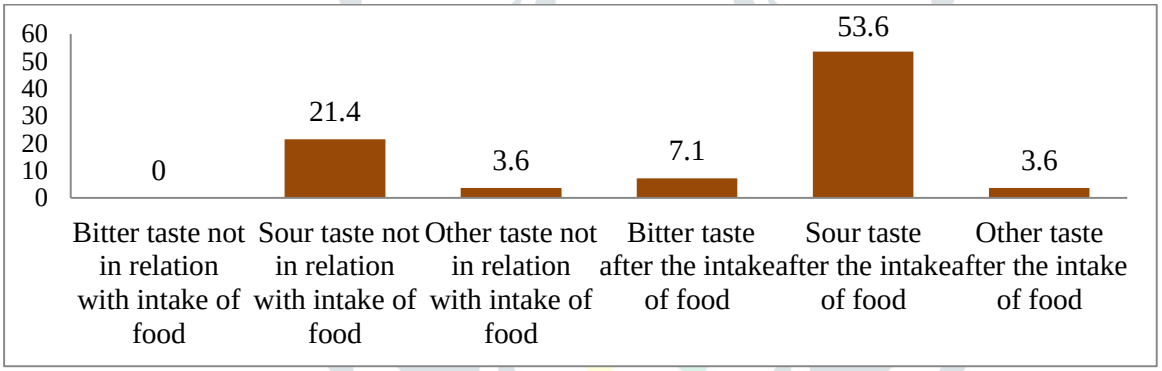

Figure no: 6 Distribution of sample based on the vomiting in relation with food

Distribution of sample based on the site of *daha*

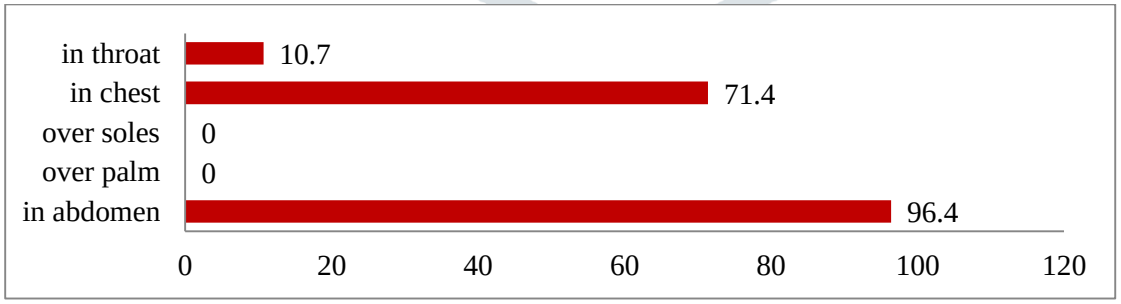

Figure no: 7 Distribution of sample based on the site of *daha*

Distribution of sample on the *udgara* in relation with food and taste

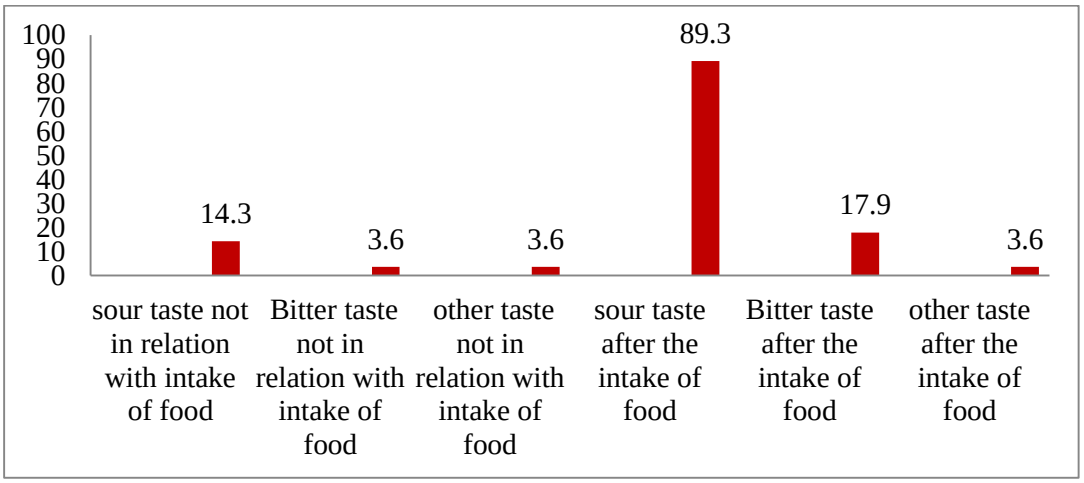

Figure no: 8 Distribution of sample on the *udgara* in relation with food and taste

Distribution of endoscopic findings based on site- Esophageal mucosa

Table no:12 Distribution of endoscopic findings based on site- Esophageal mucosa

Esophageal mucosa	Frequency	Percent
Normal	23	82.1
Edema	1	3.6
Erythema	1	3.6
Inflammation	1	3.6
Ulcers	1	3.6
Varices	2	7.1
Candidiasis	1	3.6
Others- Esophageal diverticulum	1	3.6

Distribution of endoscopic findings based on site- Esophago gastric junction mucosa

Table no:13 Distribution of endoscopic findings based on site- Esophago gastric junction mucosa

Esophago gastric junction mucosa	Frequency	Percent
Normal	27	96.4
Edema	1	3.6
Erythema	1	3.6
Inflammation	1	3.6

Distribution of endoscopic findings based on site - Stomach fundus

Table no: 14 Distribution of endoscopic findings based on site - Stomach fundus

Stomach fundus	Frequency	Percentage
Normal	19	67.9
Edema	6	21.4
Erythema	6	21.4
Inflammation	6	21.4
Varices	1	3.6
Polyps	2	7.1
Atrophy	1	3.6
Others - snake skin appearance with red spots	1	3.6

Distribution of endoscopic findings based on site-Stomach body

Table no: 15 Distribution of endoscopic findings based on site-Stomach body

Stomach body	Frequency	Percentage
Normal	20	71.4
Edema	5	17.9
Erythema	5	17.9
Inflammation	5	17.9
Polyp	2	7.1
Atrophy	1	3.6

Distribution of endoscopic findings based on site-Stomach antrum

Table no: 16 Distribution of endoscopic findings based on site-Stomach antrum

Stomach antrum	Frequency	Percentage
Normal	5	17.9
Edema	20	71.4
Erythema	21	75
Inflammation	20	71.4
Multiple erosion	1	3.6
Ulcers	1	3.6
Others - Snake skin appearance with red spots	1	3.6
Others - Intestinal metaplasia	1	3.6

Distribution of endoscopic findings based on site -Stomach pylorus

Table no: 17 Distribution of endoscopic findings based on site -Stomach pylorus

Stomach pylorus	Frequency	Percentage
Normal	25	89.3
Edema	3	10.7
Erythema	3	10.7
Inflammation	3	10.7

Distribution of endoscopic findings based on site -Duodenum 1

Table no: 18 Distribution of endoscopic findings based on site -Duodenum 1

D1	Frequency	Percentage
Normal	25	89.3
Edema	2	7.1
Erythema	2	7.1
Inflammation	2	7.1
Multiple erosions	2	7.1

Distribution of endoscopic findings based on site -Duodenum 2

Table no: 19 Distribution of endoscopic findings based on site -Duodenum 2

D2	Frequency	Percentage
Normal	28	100

Distribution of endoscopic findings based on other findings

Table no: 20 Distribution of endoscopic findings based on other findings

Findings	Frequency	Percentage

Hiatus hernia	1	3.6
Lax lower esophageal junction	9	32.1
Dilated esophagus	1	3.6
Barrett's esophagus	1	3.6
H.pylori	1	3.6

Relationship between severity of *Urdhvaga Amlapitta* symptoms and endoscopic findings

Table no: 21 *Avipaka* and endoscopy findings

Endoscopic findings	*Avipaka*					p value
	Absent (n=17)	Mild (n=6)	Moderate (n=3)	Severe (n=1)	Very severe (1)	
Esophageal mucosa candidiasis	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	<0.001
Fundus varices	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	<0.001

Table no: 22 *Udgara* and endoscopy findings

Endoscopic findings	*Udgara*				p value
	Absent (n=1)	Mild (n=18)	Moderate (n=6)	Very severe (1)	
Barrett's esophagus (red and velvety)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	<0.001

Table no: 23 *Tikta asyata* and endoscopy findings

Endoscopic findings	*Tikta asyata*			P value
	Absent (n=21)	Mild (n=4)	Moderate (n=3)	
Antrum - Snake skin appearance with red spots ,Intestinal metaplasia	0 (0.0%)	0 (0.0%)	2 (66.7%)	<0.001

Table no : 24 *Hikka* and endoscopy findings

Endoscopic findings	*Hikka*		p value
	Absent (n=27)	Mild (n=1)	
Fundus polyps	1 (3.7%)	1 (100.0%)	<0.001
Antrum multiple erosion	0 (0.0%)	1 (100.0%)	<0.001
D1multiple erosions	1 (3.7%)	1 (100.0%)	<0.001
Hiatus hernia	0 (0.0%)	1 (100.0%)	<0.001
H.pylori	0 (0.0%)	1 (100.0%)	<0.001

Table no : 25 *Adhmana* and endoscopy findings

Endoscopy findings	*Adhmana*				p value
	Absent (n=17)	Mild (n=5)	Moderate (n=5)	Severe (n=1)	

Esophageal mucosa diverticulum	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	<0.001

Table no: 26 *Daha* and endoscopy findings

Endoscopy findings	*Daha*				p value
	Mild (n=17)	Moderate(n=8)	Severe (n=2)	Very severe (n=1)	
Esophageal mucosa ulcers	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	<0.001

VI. DISCUSSION

Age

The higher prevalence was observed in older ages .During the aging process, there may be a chance of loss of normal physiology of GIT like motility, secretion of enzymes and hormones and digestive process.[3] If a person starts to take *pittakara ahara* and *vihara* along with these kinds of changes, there may be more chance to get affected with *Urdhvaga Amlapitta* compared with others with normal physiology.

Gender

64.3 percent of participants were males.A study by Prasad K et.al on the prevalence of common upper GI diseases showed that upper GI diseases were more common in males than females.[4]

Time of intake of food

The majority (64.3%) reported irregular meal times.The irregular time of food intake may cause an increase in gastric acid production and there by impairing other gastric functions.

Duration of *Urdhvaga Amlapitta*

In its early stage is *krichra sadhya.* But in chronic condition, it becomes *yapya*.[5]

Colour of vomitus

Clear vomitus may be due to the regurgitation of saliva. The presence of bile may be indicated by the yellow colour vomiting .The red colour may be due to the blood. The black colour may be due to the oxidised state of blood by the action of gastric acids because of the transformation of iron in the blood into brown to black colour.The change in the colour of the vomitus may be due to the change in the predominance of *dosha* in *samprapti* of *Urdhvaga Amlapitta*. The *pitta* predominant condition causes the *harita*,*peeta* and *rakta varna* .[6] *Vata dosha* may be the main cause of vomiting of black coloured or clear vomitus or vomiting of food that they were taken previously.[7]

Distribution of sample based on the consistency of vomitus

The inflammatory conditions stimulate nasal passage, leading to increased mucus production and postnasal drip which could be vomited up sometimes. The inflammatory reactions may be increase the mucus production in the stomach and esophagus .So there may be vomiting of *kapha* after a bitter sour vomiting. The delayed gastric emptying may lead to the prolonged exposure of the gastric contents to the mucus .So it also may be expelled as slimy.

Vomiting in relation with food

Mid of the digestion or during the time of digestion is the *pitta pradhana kala* .[8] So if the vomiting is occurs during this time with a predominance of *vata* and *pitta dosha* then the taste of vomitus may be *tikta* and *amla rasa* respectively .The predominance of *prakupita kapha* may be the cause of the slimy vomitus.

Distribution of sample based on the site of *daha*

The stomach content may travel into the esophagus and then into the mouth which results in burning sensation in the pathway like abdomen, chest and throat.Due to the *nidana seva* there may be *pitta sancaya* and its *prakopa* in *amasya*. Later it attains *prasara avastha* and undergoes *urdhva gati* and causes *daha* in *kukshi, hrit* and *kanda* regions.

Distribution of sample on the *udgara* in relation with food and taste

Due to the *nidana seva* there may be *pitta sancaya* and its *prakopa* in *amasaya*. Later it may be attaining *suktatva* and undergoing *urdhva gati* and expelling of the mouth as *udgara*. The predominace of taste of *udgara* like *amla, katu, tikta* and *lavana* was due to the predominance of *pitta, vata* and *kapha dosha* respectively.

Relationship between severity of *Urdhvaga Amlapitta* symptoms and endoscopic findings

Avipaka and endoscopy findings

Candidiasis and fundus varices were significantly associated with severe and very severe indigestion respectively ($p<0.001$).Candida overgrowth may disrupt the balance of gut flora (dysbiosis), leading to a change in digestion and absorption ,which may contribute the *avipaka* (indigestion). Due to the increased portal vein pressure, venous congestion may occur in the esophageal vein resulting in inflammation and irritation in esophageal mucosa thereby regurgitation and reflux occurs. This inflammatory reaction effect on the esophageal spasm leading to delayed gastric emptying. It contributes to gastric distension followed by vagal stimulation and release of gastrin and secretin. This may exacerbate the *avipaka* (indigestion) symptom.

Udgara and endoscopy findings
There was a significant association ($p<0.001$) between very severe *Udgara* and Barrett's esophagus . Barrett's esophagus may impair the esophageal motility, abominal pressure and acid production leading to severe *udgara*.

Tikta asyata and endoscopy findings

Moderate grade of *tikta asyata* showed significant association with antrum snake skin appearance with red spots and intestinal metaplasia ($p<0.001$) .This may lead to the reflux of gastric content from the stomach to esophagus, and mouth which leads to *tikta asyata*.The underlying inflammatory pathologies may cause irritation and damage to taste buds which also lead to the *tikta asyata.*

Hikka and endoscopy findings

Fundus polyps, antrum multiple erosion, D1 multiple erosions, Hiatus hernia, and H. pylori were all significantly associated ($p<0.001$) with mild *hikka* .Fundus polyps can cause increased sensitivity and abnormal contraction and irritate the diaphragm and vagus nerve, thereby leading to abnormal signals causing *hikka* .Hiatus hernia causes mechanical stimulation to esophagus and stomach causing abnormal contraction and hiccups. H.pylori infection may cause gastric distension, leading to increased pressure on diaphragm, stimulating the hiccup reflex. Multiple erosions that present in antrum and D1 may cause irritation to the vagus or phrenic nerves resulting in hiccup

Adhmana and endoscopy findings

Severe abdominal distension showed significant associations with esophageal diverticulum ($p<0.001$).Due to the trapping of food, water and gas in the diverticulum, intraluminal pressure may increase within the esophagus.It causes obstruction of esophagus and then to distension

Daha and endoscopy findings

Very severe *daha* showed significant association with esophageal ulcers ($p<0.001$).The esophageal ulcer crater may directly irritate the mucosa, causing burning sensation. The ulcers may also cause muscle spasms in the esophagus leading to burning pain.

VII. CONCLUSION

Through this study it was found that Esophageal and duodenal abnormalities in endoscopic findings were less common compared to gastric abnormalities,which light up the relevance of each part in pathogenesis of *Urdhvaga Amlapitta*.Among the 23 symptoms *Lakshanas* like *avipaka, udgara,tikta asyata ,hikka, adhmana* and *daha* were significantly associated with different endoscopic findings.This study showed that some of the endoscopic findings were found to be normal even if the participant showed varying severity grade of *lakshana*.Some of the endoscopic findings were found to be normal even if the participant showed varying severity grade of *lakshana*. The symptoms of *Urdhvaga Amlapitta* cannot be directly analyse with the changes in endoscopic findings.

VIII. ACKNOWLEDMENT

I would like to express my profound gratitude to all my teachers ,colleagues, juniors,seniors and other college and hospital staffs for their extended support and corporation.

REFERENCES

1. Prof. K. R. Srikantha Murthy .*Madhavakara. Madhava nidana* (*roga vinischaya*). chapter 5. *sloka* no 4-6.5th edition. 2003. Chaukhamba orientalia Varanasi; p.166
2. KV Krishna Das. Textbook of Medicine.Gastrointestinal endoscopy .volume 1 .6th edition.2017. JAYPEE The Health Sciences publisher New Delhi;p.478
3. Dumic I, Nordin T, Jecmenica M, Stojkovic Lalosevic M, Milosavljevic T, Milovanovic T. Gastrointestinal tract disorders in older age. Can J Gastroenterol Hepatol. (2019) 2019:6757524. 10.1155/2019/6757524 [PMC free article] [PubMed] [CrossRef] [Google Scholar]
4. Prasad K, Pavan Kumar S, Suresh BP/Prevalence of Common Upper GI Diseases on Esophagogastroduodenoscopy/New Indian J Surg. 2022;13(1):31–35)
5. Prof. K. R. Srikantha Murthy .Madhavakara. Madhava nidana (roga vinischaya). chapter 51 .sloka no 7. 5th edition . 2003. Chaukhamba orientalia Varanasi ; p.167
6. Pt.Hari Sadasiva Sastri Paradakara edited Vagbata's Ashtanga Hrudaya . Nidana sthana with Sarvangasundara of Arunadatta and Ayurveda rasayana of Hemadri commentary .chapter 5 .sloka no 33. reprint 2016 .Chawkamba Sanskrit series Varanasi ;p. 481
7. Pt.Hari Sadasiva Sastri Paradakara edited Vagbata's Ashtanga Hrudaya . Nidana sthana with Sarvangasundara of Arunadatta and Ayurveda rasayana of Hemadri commentary .chapter 5 .sloka no 31-32. reprint 2016 ,Chawkamba Sanskrit series Varanasi ;p. 481
8. Pt.Hari Sadasiva Sastri Paradakara edited Vagbata's Ashtanga Hrudaya Nidana sthana with Sarvangasundara of Arunadatta and Ayurveda rasayana of Hemadri commentary. chapter 1 .sloka no 16. reprint 2016.Chawkamba Sanskrit series Varanasi ;p. 445

JETIR