



CLINICAL PROFILE OF PATIENTS PRESENTING WITH DYSPEPSIA AND ITS ENDOSCOPIC CORRELATIONS

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ABSTRACT

Background & Objectives: Uninvestigated dyspepsia is common in surgical out patient and in patient department. The prevalence of clinically significant upper gastrointestinal findings in adult uninvestigated dyspepsia patients and their predictability based on history is unknown. This clinic-pathological study was undertaken in Department of General Surgery, ESIC Medical College and Postgraduate Institute of Medical Science and Research Bengaluru, Karnataka to study the profile of upper GI endoscopy findings in dyspeptic patient with following objectives.

1) To study the clinical profile in dyspeptic patients.

2) The correlation of clinical profile and alarm symptoms with endoscopic finding

Methods: A total of 212 dyspeptic patients attending the OPD and admitted in Department of General Surgery were included in the study. This study conducted over period of one and half years. Patient who gave consent and willing to undergo Upper GI endoscopy included in the study. The endoscopies were performed and biopsies were taken from suspicious lesions.

Results: A total of 212 patients with dyspepsia had endoscopy. Among them 126 are males and 86 are females. Mean age of study participants was 42.70±15.92 years. Maximum of these were in age groups between 25 to 55 years accounting for 64.1%. the common presenting complaint was epigastric pain and discomfort, seen in 59(28%) of patients, Most common alarm symptoms were vomiting accounting for 21%, followed by weight loss (17%) and GI bleed(12%). The endoscopy were normal in 22 (10%) patients. The abnormal findings included gastritis accounting for 27%, followed by duodenitis (21%) and grade I esophagitis (18%). Combination lesions were seen in 27 cases. Most common risk factor for dyspepsia includes alcohol (38%), followed by smoking (34%) and pan chewing(26%). Incidence of malignancy is increase in patient with dyspepsia along with alarm symptoms. Most common carcinoma was carcinoma of esophagus (6%).

Interpretation & Conclusion: Dyspepsia is more common in males between age group of 25 to 55 years of age. Endoscopic findings were abnormal in majority of patients with dyspepsia. The common abnormal findings included gastritis, esophagitis, and duodenitis. Alcohol and smoking are major risk factor. Dyspepsia with alarm symptoms increases risk of malignancy.

Upper GI endoscopy is a useful diagnostic modality in elucidation of the causes of dyspepsia.

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INTRODUCTION

Dyspepsia is common symptom in surgical practice affecting about 25% of general population in developed nations and it is a major cause for medical visits. New patients comprise about 10% of population every year.¹ Dyspepsia which represents as constellation of upper abdominal symptoms majorly affects quality of life and it is a chief burden in view of social costs consuming considerable medical and economic resources.² Dyspepsia is described by the Rome III criteria as one or more symptoms such as postprandial fullness, early satiety, epigastric pain or discomfort lasting at least four weeks.¹ Most patients with chronic dyspepsia do not have a clear underlying explanation despite proper investigation; these cases are currently labelled as non-ulcer (or functional) dyspepsia,

although this is likely to be a heterogeneous condition.³ Functional dyspepsia's pathophysiology remains relatively poorly defined, but stomach and duodenum sensory and motor abnormalities seem to play a central role in at least one subset of cases.⁶

Dyspepsia associated with alarming characteristics, also known as warning signs, red flags, are particular features that are believed to be associated with extreme gastrointestinal illness such as underlying malignancy and severe symptoms such as severity or ulcer. Alarming characteristics for patients with dyspepsia includes age > 50 years, new onset of symptoms, family H / O malignancy, unexpected weight loss, GI bleeding or iron deficiency anemia, progressive dysphagia, persistent vomiting, palpable epigastric mass and jaundice.⁷

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The gold standard for structural disease diagnosis in patients with dyspepsia remains the Upper G. Endoscopy especially where radiology has been negative. Advantage of negative endoscopy reduces patient anxiety & increases patient satisfaction.³

Initial endoscopy showed significant improvement in the rating of symptoms, quality of life, reduction of PPI use.⁸ Endoscopy in case of dyspepsia helps in early detection of carcinoma. So by early detection and treatment at initial stage has better outcome of patient.

Aims and Objectives

- To study the clinical profile of patients presenting with dyspepsia and correlate with endoscopic findings
- To study the clinical profile of dyspeptic patients
- Correlation of clinical profile and alarm symptoms with endoscopic findings

METHODOLOGY

Study Design

Descriptive study was conducted at the ESIC Medical College and post graduate Institute of medical sciences and research hospital Rajajinagar Bangalore

To know the clinical profile of patients presenting with dyspepsia and correlation of Endoscopic finding with clinical profile and alarm symptoms,

Study Period

The study was conducted over a period one and half year from January 2018 to June 2019

Sample Size

212 patients with dyspepsia with or without alarm symptoms. The sample size for the present research study has been calculated by considering the 60% abnormal endoscopic diagnosis from the past published literature. The minimum sample size has been calculated as 212 cases presenting with dyspepsia with 0.066 as absolute marginal error at 5% level of significance assuming two tailed hypotheses. Following formula has been used to calculate the sample size:

$$\text{Where, } Z_{\alpha/2} = 1.96, P = .60, Q = 1 - P \text{ and } D = 0.066$$

Method of Collection of Data (Including Sampling Procedure)

All the dyspeptic patients attending the OPD and admitted in ESIC Medical College & Post Graduate Institute of Medical Sciences and Research Centre, Bengaluru.

All the patients with dyspepsia presenting to OPD and admitted in Hospital and giving written informed consent will be included in the study. during the study period

Patient who are willing are subjected to UGI endoscopy after investigations. Data regarding clinical parameters, symptoms, investigations & endoscopic diagnosis is recorded in the proforma. Biopsy specimen was be submitted to histopathological examination.

The progress of study and data collection was reviewed every two months. At the end of the study period, data were entered in Microsoft Excel and analysed in reference to UGI findings in dyspeptic patient and association of alarm symptoms with malignancy.

Inclusion and exclusion criteria's were as follows

Inclusion Criteria

1. Patients who have given valid written consent
2. Age >18 years
3. Dyspeptic symptoms for more than 3 months
4. Postprandial fullness or bloating
5. Early satiety
6. Epigastric pain or retrosternal burning sensation

Exclusion Criteria

Patients who have previously undergone endoscopy for dyspepsia

- Not willing for endoscopy.
- Previous upper GI surgeries. IHD. Pregnancy
- Previously treated for H pylori infection within 6 months
- Unfit for endoscopy (shock, acute perforation, acute myocardial infarction etc)

Procedure

All the patients in this study group, on outpatient basis underwent upper gastro-intestinal endoscopy under topical anaesthesia. The patients were asked to fast for 4 hours prior to the procedure. Only few patients were given 5- 10mg diazepam intravenously for sedation.

Lignocaine viscous or oral lignocaine sprays were given to the patient 5-10 minutes before the procedure for the local anaesthetic effect. The upper gastro- intestinal endoscopy was conducted with Fujinon, flexible, fiberoptic endoscope with patients in left lateral positions.

Endoscopic biopsies were taken from the abnormal looking area and sent for histopathological examination

Statistical Analysis

Data collected was entered in a MS Excel sheet. The descriptive and analytical statistics were performed using with the Statistical Package of Social Sciences (SPSS) version 20 software.

Qualitative data is summarized using charts and diagrams like simple or multiple bar diagrams. The categorical type data like gender, endoscopic diagnosis: esophagitis, gastritis, gastric ulcer, malignancy etc., is expressed in terms of frequencies and percentages where as the numeric continuous data. Is expressed as mean \pm SD

In order to carry out the subgroup analysis among the categories like age categories, gender categories (male and female), Chi-square/Fischer exact/Freeman-Halton exact test for association was used depending upon the assumptions met. Correlation is computed using Pearson's correlation test. For all statistical evaluations, a p-value <0.05 will be considered as statistically significant.

Investigations or Interventions to Be Conducted On Patients

The study requires investigations and Upper GI Endoscopy, in patient presenting with dyspeptic symptoms.

Investigations

- Complete Blood Count
- Chest X-Ray PA view
- ECG

- HBsAg, HIV, HCV
- Liver function test
- Renal function test
- Lipid profile
- Coagulation profile
- Upper Gastrointestinal Endoscopy
- Histopathological examination of biopsy

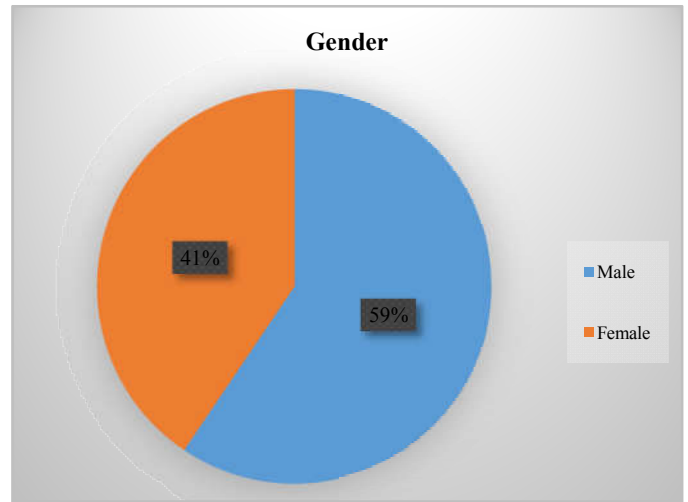
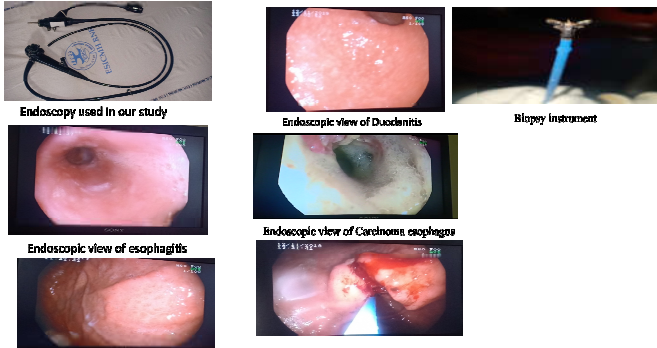


Fig 21 Graph showing gender distribution of study subjects

In the present study among 212 study subjects 126 were males and 86 were females. The mean age of male participants was 42.55±15.94 and females were 42.91±15.97.

Table 3 Frequency of various symptoms of dyspepsia in males and females

Dyspeptic symptoms	Male	Female	Total	%
Epigastric pain	39	20	59	28%
Retrosternal burning sensation/Heart burn	20	16	36	17%
Postprandial fullness or bloating	16	9	25	12%
Nausea/Vomiting	23	22	45	21%
Early satiety	06	12	18	8%

RESULTS

In our study of 212 patients who presented with dyspepsia for whom upper GI endoscopy was done as an initial diagnostic evaluator tool who visited Dept of General Surgery, ESICMC & PGIMSR, Rajajinagar, Bengaluru between January,2018 to June,2019.

Table 1 Distribution of study subjects according to Age

Age in years	Total
18-25	33 (15.6)
26-35	55 (25.9)
36-45	43 (20.3)
46-55	38 (17.9)
56-65	23 (10.8)
66-75	14 (6.6)
76-85	05 (2.4)
>86	01 (0.5)
Total	212 (100.0)

Majority of the participants belonged to age groups between 25 to 55 years accounting for 64.1%, Mean age of study participants was 42.70±15.92 years.

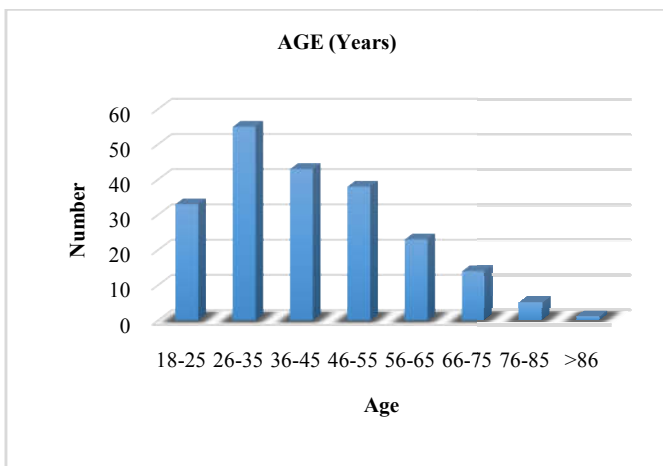


Table 2 Distribution of study subjects according to Gender

Gender	Total
Male	126 (59.0)
Female	86 (41.0)

Dyspeptic Symptoms

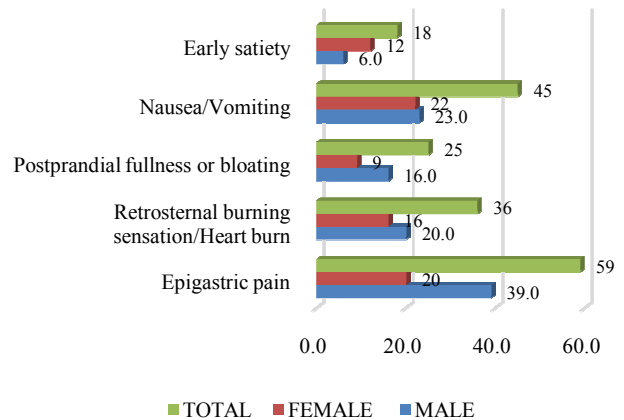


Fig 3 Graph Frequency of various symptoms of dyspepsia in males and females

In present study, out of 212 patients the most common component of dyspepsia was epigastric pain and discomfort, seen in 59 (28%) of patients, followed by nausea and/or vomiting in 45 (21%), Retrosternal burning sensation/Heart burn 36 (17%), Postprandial fullness or bloating 25(12%), Early satiety 18(8%)

Table 4 Distribution of study subjects according to alarm symptoms

Alarm symptoms	Present	%	Absent	%
Weight loss	36	17%	176	83%
GI bleeding	25	12%	187	88%
Vomiting	45	21%	167	79%

Dysphagia	18	8%	194	92%
Odynophagia	4	2%	208	98%
Jaundice	6	3%	206	97%

In present study most common alarm symptoms are vomiting 21% followed by weight loss (17%) and GI bleed (12%). Jaundice, dysphagia and odynophagia symptoms was seen in less than 10% of study participants

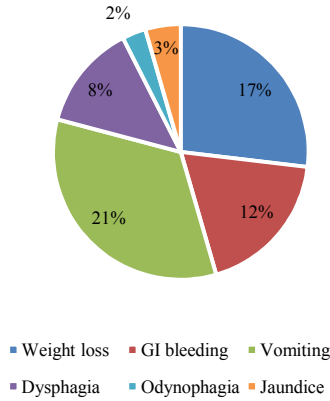


Fig 4 Graph Showing study subjects according to alarm symptoms

Table 5 Distribution of study subjects according to Risk factors for dyspepsia

Risk factors for dyspepsia	Present	%	Absent	%
Alcohol	80	38%	132	62%
Smoking	72	34%	140	66%
Pan chewing	56	26%	156	74%

In the current study majority of study participants had substance abuse like. Alcohol consumption, Smoking and pan chewing was seen in 38%, 34% and 26% respectively

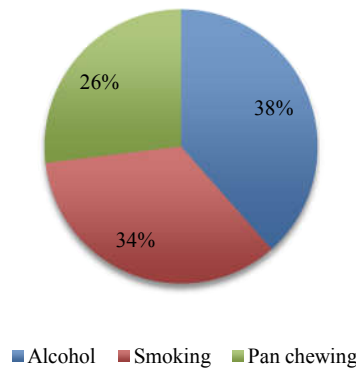


Fig 5 Graph showing distribution of study subjects according to Risk factors for dyspepsia

Table 6 Distribution of study subjects according to Endoscopic finding

Site of endoscopic findings	Number	%
Endoscopic findings present in esophagus only	57	27%
Endoscopic findings present in stomach only	64	30%
Endoscopic findings present in duodenum only	42	20%
Esophagus and stomach	6	3%
Stomach and duodenum	7	3%
Esophagus and duodenum	8	4%
Esophagus and stomach and duodenum	6	3%
Normal study	22	10%
Total	212	100

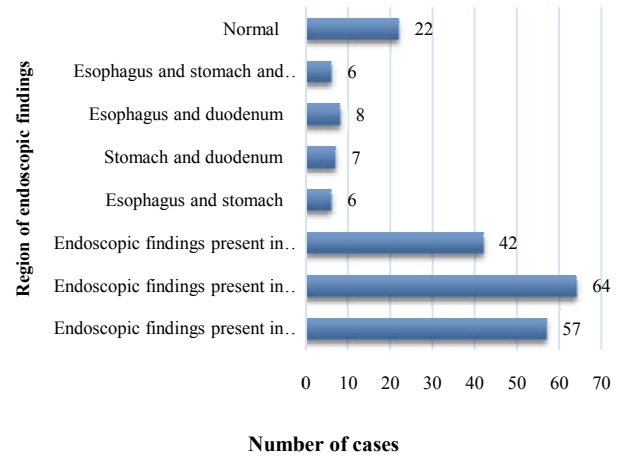


Fig 5 Graph showing distribution of study subjects according to site of endoscopic findings

Table 7 Distribution of study subjects according to Endoscopic findings in each organ

Organ	Lesion	Number	%
Esophagus	Esophagitis grade 1	30	18%
	Esophagitis grade 2	17	10%
	Carcinoma Esophagus	10	6%
Stomach	Gastritis	44	27%
	Polyp	6	4%
	Carcinoma Stomach	6	4%
	Peptic Ulcer	8	5%
Duodenum	Duodenitis	34	21%
	Diverticulitis	3	2%
	Duodenal Ulcer	5	3%
Total		163	100

In the current study most, common finding was gastritis accounting for 27%, followed by duodenitis 21%, and esophagitis grade 1- 18%, esophagitis grade 2-10%.

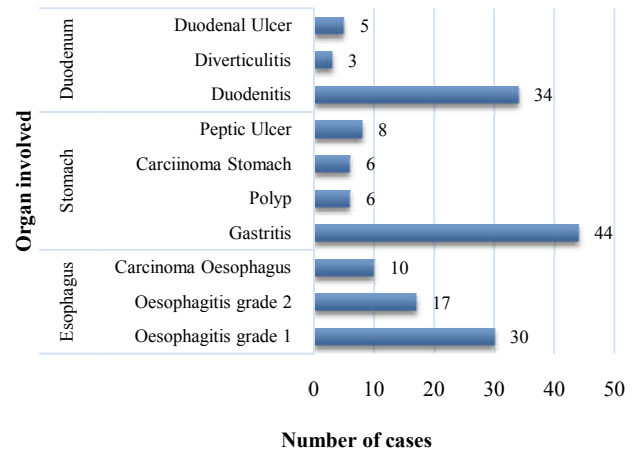


Fig 6 Graph showing distribution of study subjects according to endoscopic findings in each organs

Table 8 Distribution of study subjects according to alcohol as risk factor

Organ	Lesion	Alcohol		Chi Square	P value
		Yes	No		
Esophagus	Esophagitis grade 1	16	14	13.63	0.001 Sig
	Esophagitis grade 2	12	5		
	Normal	52	113		
Stomach	Gastritis	34	10	45.23	<0.0001 Sig
	Polyp	5	1		
	Normal	41	121		
Duodenum	Duodenitis	24	10	20.21	0.0004 Sig
	Diverticulitis	2	1		
	Normal	54	121		

In our study we found that alcohol is significant risk factor for gastritis followed by duodenitis and oesophagitis

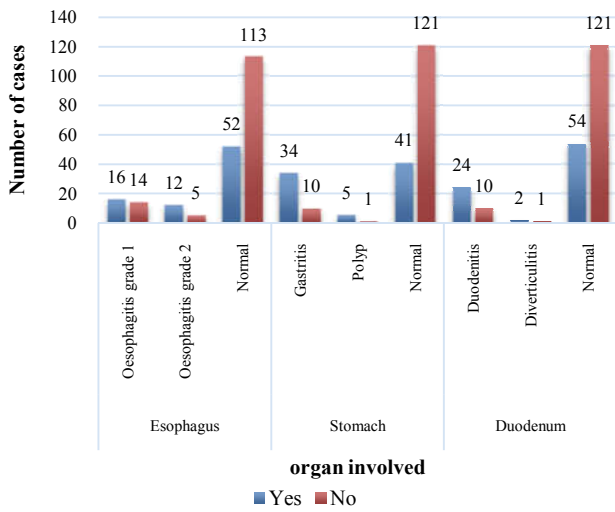


Fig 7 Graph showing distribution of study subjects according to alcohol as risk factor

Table 8a Distribution of study subjects according to alcohol as risk factor

Organ	Lesion	Yes	No	Chi Square	P Value
Peptic ulcer	Yes	6	2	4.91	0.02 Sig
	No	74	130		
Duodenal ulcer	Yes	3	2	1.08	NS
	No	77	130		
Esophageal Carcinoma	Upper	2	1	0.07	0.96
	Middle	3	1		
	Lower	2	1		
Stomach Carcinoma	Yes	4	2	2.19	0.13 NS
	No	76	130		

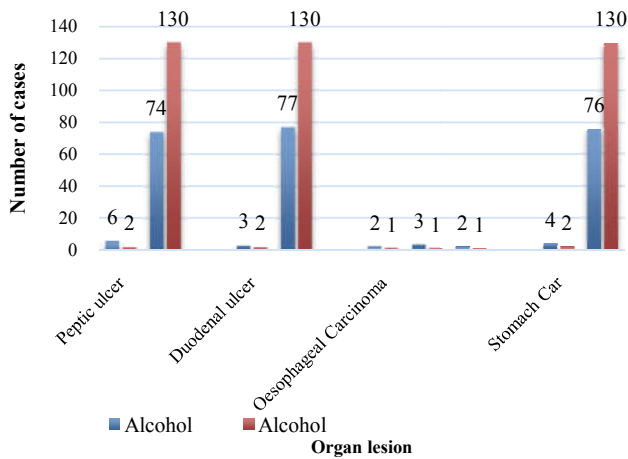


Fig 7a Graph showing distribution of study subjects according to alcohol as risk factor

Table 9 Distribution of study subjects according to smoking as risk factor

Organ	Lesion	Smoking		Chi Square	P Value
		Yes	No		
Esophagus	Esophagitis grade 1	20	10	24.31	<0.0001 Sig
	Esophagitis grade 2	10	7		
	Normal	42	123		
Stomach	Gastritis	30	14	33.80	<0.0001 Sig
	Polyp	4	2		
	Normal	38	124		
Duodenum	Duodenitis	26	8	41.11	<0.0001
	Diverticulitis	2	1		

The current study showed that smoking is a significant risk factor for duodenitis followed by gastritis and esophagitis.

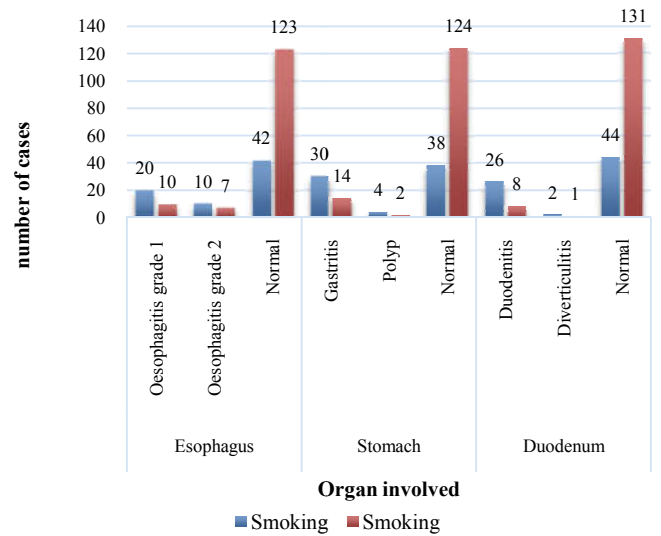


Fig 8 Graph showing distribution of study subjects according to smoking as a risk factor

Table 9a Distribution of study subjects according to smoking as risk factor

Organ	Lesion	Smoking		Chi square	p value
		Yes	No		
Peptic ulcer	Yes	7	1	10.62	0.001 Sig
	No	65	139		
Duodenal Ulcer	Yes	4	1	4.83	0.027 Sig
	No	68	139		
Esophageal Carcinoma	Upper	1	1	1.26	0.52 NS
	Middle	5	1		
	Lower	1	1		
Stomach Carcinoma	Yes	5	1	6.71	0.009 Sig

The present shows smoking is significantly associated with peptic ulcer, duodenal ulcer and stomach carcinoma whereas significant association was not observed for esophageal carcinoma.

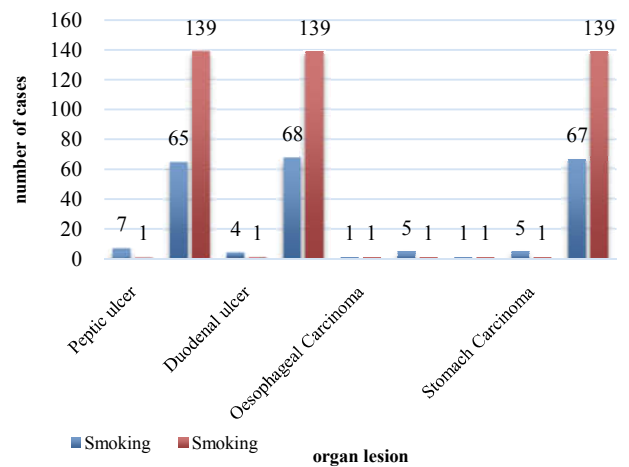


Fig 8a Graph showing distribution of study subjects according to smoking as risk factor

Table 10 Distribution of study subjects according to pan chewing as a risk factor

Organ	Lesion	Pan chewing		Chi Square	P Value
		Yes	No		
Esophagus	Esophagitis	17	13	26.03	<0.0001

	grade 1				Sig
Esophagitis	grade 1	9	8		
	grade 2				
	Normal	30	135		
Stomach	Gastritis	28	16	43.13	<0.0001
	Polyp	3	3		Sig
	Normal	25	137		
Duodenum	Duodenitis	19	15	21.39	<0.0001
	Diverticulitis	2	1		Sig
	Normal	35	140		

The current study showed that chronic pan chewing is a significant risk factor for gastritis followed by esophagitis and duodenitis.

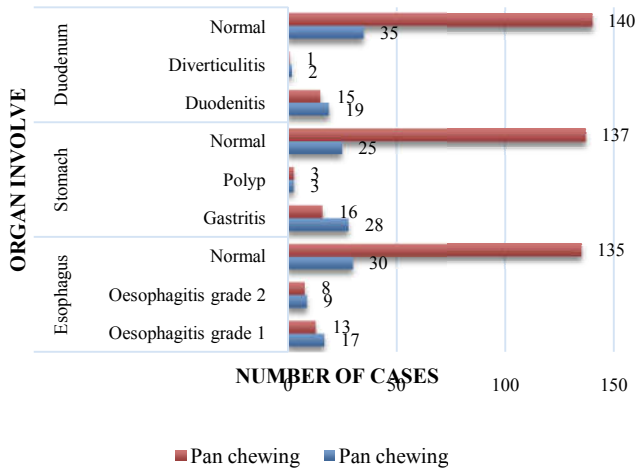


Fig 9 Graph showing distribution of study subjects according to pan chewing as a risk factor

Table 10a Distribution of study subjects according to pan chewing as a risk factor

Organ	Lesion	Pan chewing		Chi square	p value
		Yes	No		
Peptic ulcer	Yes	5	3	5.56	0.18
	No	51	153		
Duodenal Ulcer	Yes	3	2	2.97	0.08
	No	53	154		
Oesophageal Carcinoma	Upper	1	1	0.27	0.87
	Middle	4	2		
	Lower	1	1		
Stomach Carcinoma	Yes	3	3	1.76	0.18
					NS

The present study shows pan chewing is significantly associated with peptic ulcer

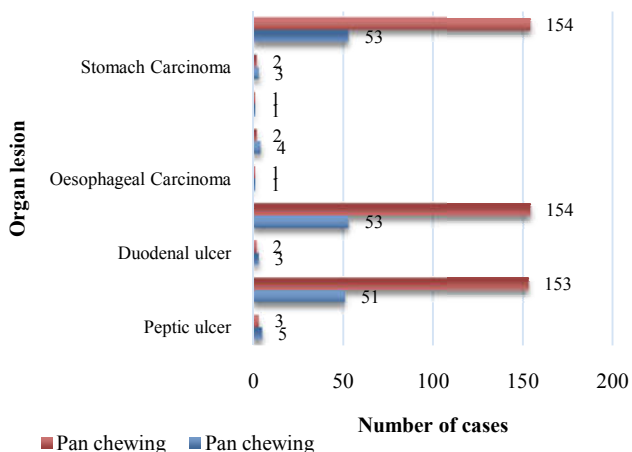


Fig 9a Graph showing distribution of study subjects according to pan chewing as a risk factor

Table 11 Distribution of study subjects according to alarm symptoms

Organ	Alarm symptoms	c2				P	
		0	1	2	3		
Carcinoma esophagus	Upper	2	1	0	1	2.70	0.84
	Middle	1	1	1	1		
	Lower	1	1	0	0		
Carcinoma	Yes	2	1	2	1	8.00	0.04
	No	162	16	15	13		
Stomach Biopsy	Normal	149	15	13	19	25.64	0.002
	Benign	2	2	3	3		
	Malignant	1	2	1	2		

0-no alarm symptoms, 1-one alarm symptom, 2-two alarm symptoms, 3-three alarm symptoms

The current study shows increase in number of alarm symptoms increase risk of Malignancy and it is statistical significance was seen in carcinoma of stomach.

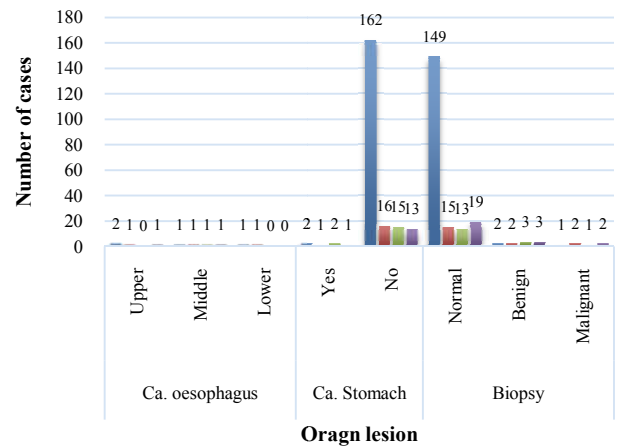


Fig 10 Graph showing distribution of study subjects according alarm symptom

Table 12 Distribution of study subjects according to presence of alarm symptoms

	Normal	Benign	Malignant	Total
Dyspepsia with alarm sym.	47	6	4	57
Dyspepsia without alarm sym.	150	3	2	155

The current study shows dyspepsia with alarm system increases the risk of malignancy. Whereas dyspepsia without alarm symptoms decreases the risk of malignancy.

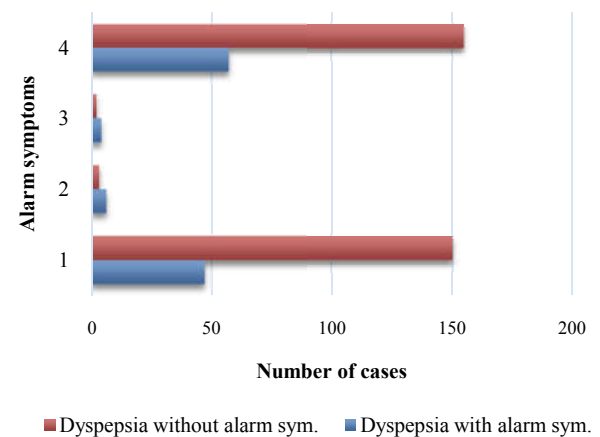


Fig 11 Graph showing distribution of study subjects according to presence of alarm symptoms

Table 13 Distribution of study subjects according to age

Organ		Age		c2	P
		< 50 yrs	> 50 yrs		
Stomach	Normal	70	92	2.15	0.34 NS
	Gastritis	24	20		
	Polyp	2	4		
Peptic Ulcer	Present	6	2	3.70	0.05 NS
	Absent	74	130		
Ca. Stomach	Yes	2	4	0.13	0.71 NS
	No	84	122		
Esophagitis	Normal	74	91	3.45	0.17 NS
	Grade 1	17	13		
	Grade 2	11	6		
Ca. Esophagus	Normal	116	86	2.97	0.39 NS
	Upper	1	3		
	Middle	1	2		
	Lower	1	2		
Duodenum	Normal	102	73	6.59	0.03 Sig
	Diverticulitis	1	2		
Duodenal ulcer	Duodenitis	12	22	1.13	0.28 NS
	Present	3	2		
	Absent	76	131		

In the present symptom's benign conditions like gastritis, esophagitis, duodenitis, peptic ulcer and duodenal ulcer were more common in patients with <50 years of age. Whereas, malignant conditions like carcinoma of stomach, esophagus and periampullary carcinoma were more common in patients >50 years of age,

DISCUSSION

Clinical Presentation

In this study, out of 212 patients the common presenting complaint was epigastric pain and discomfort, seen in 59(28%) of patients, followed by nausea /vomiting in 45(21%), Retrosternal burning sensation/heart burn 36(17%), postprandial fullness or bloating 25(12%), early satiety 18(8%).

Similar study was conducted by Thomson Thomson A B R *et al*,³ in which the most common complaint were upper abdominal pain(34.3%), heart burn(24.5%) and acid regurgitation(13.3%), epigastric pain is almost similar with that of present study.

Age distribution

In the current study mean age of study participants was 42.70±15.92 years. The mean age of male participants was 42.55±15.94 and females were 42.91±15.97. In the studies conducted by various authors, the mean age is as shown in table no 13.

Table 14 Comparison of age distribution

Sl. No	Name of study	Mean age in years
1	Thomson A B R <i>et al</i> ³	45.9
2	Ziauddin ⁴	42.2± 15.7
3	Choomsri p <i>et al</i> ⁵	41
4.	Wankhade R <i>et al</i> ⁶	41.25
5.	Desai SB <i>et al</i> ⁷	40.04± 14.3
	Present study	42.70±15.92

The mean age of the study participants was almost similar to study done by Ziadduin *et al* whereas it was lower than reported by Thomson ABR *et al* and higher that study participants of Choomsri *et al*, Wankhade R *et al* and Desai SB *et al*.

Gender distribution

In the present study among 212 study subjects 126 were males and 86 were females. The male: female ratio is 1.46:1.

Table 15 Comparison of gender distribution

Sl. No	Name of study	Male: Female ratio
1	Wankhade R <i>et al</i>	1.4:1
2	Desai SB <i>et al</i>	2.43: 1
3	Ziauddin <i>et al</i> ³²	1.6:1
4.	Mustapha SK <i>et al</i>	1.1:1
5.	Khan N <i>et al</i>	2.3:1
	Present study	1.46:1

Majority of the literature available suggests dyspepsia is more common in males than females. The male: female ratio of the study participants was almost similar to study done by Wankhade *et al*

Gastrointestinal (GI) findings (most common)

1. In the present study most, common gastrointestinal findings are gastritis accounting for
2. 27%, followed by duodenitis 21%, grade 1 esophagitis is 18%, and grade -2 esophagitis
3. 10%. In our study multiple organ combination lesion were seen in 17 cases. Most common carcinoma was carcinoma of esophagus.

Table 16 Comparison of common endoscopic findings in various studies

Sl. No	Name of study	Gastritis
1	Wankhade R <i>et al</i>	65%
2	Sarwar <i>et al</i> ³⁴	13%
3	Ziauddin ³²	18%
4	Yasmin <i>et al</i> (from whan)	30%
5	Mohammed <i>et al</i> (from whan)	59%
	Present study	27%

In the present study 27% of the participants were experiencing gastritis. almost near to studies by Yasmin *et al*,

Gastric malignancy

In this study there were six patients with carcinoma of stomach accounting for 2.8%, ten patients with carcinoma of esophagus accounting for 4.7%, and none with periampullary carcinoma accounting.

Table 17 Comparison of incidence of gastric malignancy

Sl. No	Name of study	Percentage of gastric malignancy
1	Choomsri p <i>et al</i> ³³	1%
2	Khan N <i>et al</i> ³⁵	3%
3	Ziauddin ³²	4%
4	Ramachandran <i>et al</i>	5%
	Present study	2.8%

In the current study the incidence of gastric malignancy was near same to studies done by Khan *et al*,

Gastrointestinal endoscopic findings

Table 18 Comparison of endoscopic findings

	Esophagitis	Gastric Ulcer	Duodenal Ulcer	Gastritis
Yasmin khan <i>et al</i>	3.50%	6.70%	60%	30%
Mohammed <i>et al</i>	5.10%	40%	20.10%	59%
Agbakwuru <i>et al</i>	49%	60%	30%	31%
Nikrumah <i>et al</i>	16%	42%	30%	35%
Nowshad Khan <i>et al</i>	12%	10%	8%	8%
Present study	28%	5%	3%	27%

Common gastrointestinal endoscopic findings in patients are esophagitis, gastritis, gastric and duodenal ulcer, duodenitis, etc. In the present study esophagitis (grade1 and grade 2) was seen in 28% of the study participant's which is lower than

studies done by Agbakwuru *et al* whereas it is higher as compared to study by Yasmin khan *et al*, Mohammed *et al*, Nikrumah *et al* and Nowshad *et al*.

In the current study the incidence of gastric ulcer is 5% which is in was lower than studies done by Agbakwuru *et al*, Yasmin khan *et al*, Mohammed *et al*, Nikrumah *et al* and Nowshad *et al*. Similarly, the number of study participants with duodenal ulcer reported to be 3% in the present study which is lower than studies done by Agbakwuru *et al*, Yasmin khan *et al*, Mohammed *et al*, Nikrumah *et al* and Nowshad *et al*.

The incidence of gastritis in the present study is 27% which is lower than studies done by Agbakwuru *et al*, Yasmin khan *et al*, Mohammed *et al*, Nikrumah *et al* whereas it is higher as compared to study by and Nowshad *et al*.

Outcome of endoscopic finding in dyspepsia with alarm symptom

Sumathi *et al*, in 2004-05 conducted similar study in Chennai, the following outcomes of endoscopic findings in the two groups

Table 19 Endoscopic finding in dyspepsia with alarm symptom

Groups	Findings	Sumathi <i>et al</i> 4	Present study
Dyspepsia without alarm	Normal	1223	150
	Benign	1415	3
	Malignant	125	2
Dyspepsia with alarm	Normal	77	47
	Benign	97	6
	Malignant	48	4

In both studies incidence of normal endoscopic findings are more in patient with dyspepsia without alarm symptoms.

In our study shows incidence of malignancy is increase in patient with dyspepsia along with alarm symptoms

Table 19a Endoscopic finding in dyspepsia with alarm symptom

Groups	Number of patients	Ramachandrsa an et al4	Present study
Dyspepsia with alarm	Number of patients	35	57
	Malignant	14(40%)	4 (7.01%)
Dyspepsia without alarm	Number of patients	265	155
	Malignant	5(1.8%)	2 (1.29%)

When the present study was compared with similar study by Ramachandrsan *et al*, the number of malignant cases were lower in dyspeptic patients with and without alarm symptom

CONCLUSION

- This, we conclude that dyspepsia is a common clinical event in the upper GI disorder.
 - The frequency of male subjects is higher and gastritis is the common pathology.
 - It is more common in age group of 25-50 years of age. Further, the risk of malignancy was higher in subjects with alarm symptoms
1. Upper GI endoscopy is a useful diagnostic modality to identify the specific pathology in patients with dyspepsia.

2. The presence of alarm symptom is statistically associated with more organic lesions on endoscopy.
3. Dyspepsia in age above 50 years is commonly associated with underlying organic lesions or malignancy
4. Abnormal Endoscopic findings were found in majority (77%) of patients with dyspepsia. Inflammatory change is commonest endoscopic findings associated with dyspepsia and the common abnormal endoscopic findings included gastritis, esophagitis, and duodenitis.
5. Dyspepsia with alarm symptoms increases risk of malignancy. Where as in dyspepsia without alarm symptoms there is reduced risk of malignancy.
6. Unhealthy life style and self-medication can aggravate the dyspepsia. Alcohol and smoking are being major risk factor for dyspepsia.

SUMMARY

1. In our study there are 212 study subjects of them 126 are males and 86 are females.
2. Maximum of these were in age groups between 25 to 55 years accounting for 64.1%. Mean age of study participants was 42.70±15.92 years.
3. The mean age of male participants was 42.55±15.94 and females were 42.91±15.97.
4. The common presenting complaint was epigastric pain and discomfort, seen in 59(28%) of patients, followed by nausea /vomiting in 45(21%), Retrosternal burning sensation/heart burn 36(17%), postprandial fullness or bloating 25(12%), early satiety 18(8%).
5. The most common endoscopic findings are present in stomach accounting for (30%), followed by esophagus (27%), duodenum (20%). Normal endoscopic study account for 22%.
6. Most common endoscopic finding in study are gastritis accounting for 27%, followed by duodenitis (21%) and grade 1 esophagitis (18%).
7. Most common carcinoma is carcinoma of esophagus (6%).
8. In our study multiple organ combination lesions ware seen in 27 cases.
9. In the study most common alarm symptom are vomiting accounting for 21%, followed by weight loss (17%) and GI bleed (12%). Less common are jaundice (3%) and odynophagia (2%).
10. In the study most common risk factor for dyspepsia were alcohol (38%), followed by smoking (34%) and pan chewing (26%).
11. In our study we found that alcohol and smoking were major risk factor for gastritis, followed by esophagitis and duodenitis in patient with dyspepsia. And pan chewing is also risk factor for gastritis, followed by esophagitis in patient with dyspepsia.
12. This study shows that dyspepsia with alarm symptoms increase risk of malignancy. Whereas dyspepsia without alarm symptoms decrease the risk of malignancy.
13. In our study benign condition common in patient with < 50 years of age whereas malignant conditions like carcinoma of stomach, and esophagus are more common in patient with >50 years of age.

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