

## Original Research Article

**Comparison of rural versus urban patients with respect to their clinical features and endoscopic findings in symptomatic dyspepsia patients**Shoket Mehmood Chowdry<sup>1\*</sup>, Rubina Kausar<sup>2</sup>, Naveen Akhtar<sup>3</sup><sup>1</sup>Assistant Professor, Department of Gastroenterology, Government Medical College Jammu, Jammu and Kashmir, India.<sup>2</sup>Blood transfusion officer, Department of Blood transfusion, Govt Medical College, Jammu, Jammu and Kashmir, India.<sup>3</sup>Lecturer, PG Department of Immunohaematology and Blood Transfusion Medicine, Government Medical College, Jammu, Jammu and Kashmir, India.

Received: 07-05-2021 / Revised: 11-06-2021 / Accepted: 17-07-2021

**Abstract**

**Introduction:** Dyspepsia is a common disorder affecting 23-45% population, globally. Dyspepsia presents with several clinical dilemmas. Clinically Dyspepsia is defined as one or more clinical symptoms of burning, early satiation, epigastric pain and postprandial fullness<sup>2</sup>. Several studies referred it to upper abdominal discomfort that specifically arises from upper gastrointestinal tract (GIT). In latest literature, bloating and nausea also coexist with dyspepsia, however, heart burn is excluded from dyspepsia diagnostic criteria due to primary initiation from esophagus leading towards gastro esophageal reflux disease (GERD). **Materials and Methods:** A retrospective comparative study was conducted in patients attending single gastroenterology centre at Jammu from January 2016 to December 2020. A sample size of 200 patients was compared rural versus urban patients in clinical presentation and endoscopic findings of dyspepsia. Patients were selected using non probability consecutive sampling. Patients with age 16-75 years, both genders, epigastralgia/epigastric burning that last for minimum 3 months and occurrence of symptoms at least 6 months before were included in study. **Results:** In this study, maximum patients were 31-40 year age group, less number patients were >70 years age group. Age distributions were observed as follows 16-20 years 25(12.5%), 21-30 years 10(5%), 31-40 years 46(23%), 41-50 years 42(21%), 51-60 years 36(18%), 61-70 years 34(17%), greater than 70 years 7(3.5%). Urban Population predominance is more in endoscopic findings of dyspepsia patients. More endoscopic findings were observed in urban populations when compared with rural population. Erosive Antral Gastritis were observed in 47 urban, 42 rural. Erosive Gastritis were observed in 14 urban and 7 rural patients. Mild Antral Gastritis were observed in 18 male and 15 female patients. Mild Antral Gastritis were observed in 19 urban patients, 14 rural patient's sir. Mild Antral Gastritis + Granularity were observed in 3 urban patients and 1 patient of rural population. **Conclusion:** In the present comparative study between rural and urban patients with respect to their clinical features and endoscopic findings in symptomatic dyspepsia patients, the gastritis was found to be the leading problem irrespective of urban regions. In this study we conclude that dyspepsia, epigastric pain, GERD, upper ABD pain, mild antral gastritis is more in urban population than rural population.

**Key Words:** Dyspepsia, GERD, GIT, epigastric pain, upper ABD pain, mild antral gastritis.

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**Introduction**

Dyspepsia is a common disorder affecting 23-45% population, globally[1]. Dyspepsia presents with several clinical dilemmas. Clinically Dyspepsia is defined as one or more clinical symptoms of burning, early satiation, epigastric pain and postprandial fullness[2]. Several studies referred it to upper abdominal discomfort that specifically arises from upper gastrointestinal tract (GIT). In latest literature, bloating and nausea also coexist with dyspepsia, however, heart burn is excluded from dyspepsia diagnostic criteria due to primary initiation from esophagus leading towards gastro esophageal reflux disease (GERD)[3]. Several risk factors for dyspepsia are identified including *Helicobacter pylori* infection, behavioral characteristics and psychiatric disorders. Dyspepsia diagnostic evaluation is associated with upper gastrointestinal endoscopy, gastric emptying test, abdominal ultrasonography, and

gastric accommodation evaluation. Endoscopy is an absolute indication for patients with alarming features of dyspepsia. Endoscopy is associated with diagnosis of structural disorders. Negative endoscopy had a significant advantage of reducing anxiety and increasing patient satisfaction in dyspeptic patients[9]. The main objective of this study is comparison of rural versus urban patients with respect to their clinical features and endoscopic findings in symptomatic dyspepsia patients.

**Materials and methods**

A retrospective comparative study was conducted in patients attending single gastroenterology centre at Jammu from January 2016 to December 2020. A sample size of 200 patients was compared rural versus urban patients in clinical presentation and endoscopic findings of dyspepsia. Patients were selected using non probability consecutive sampling. Patients with age 16-75 years, both genders, epigastralgia/epigastric burning that last for minimum 3 months and occurrence of symptoms at least 6 months before were included in study.

**Inclusion criteria:** Patients with symptoms of dyspepsia, difficulty in swallowing, blood in vomiting, unexplained weight loss, loss of appetite, upper abdominal discomfort were included in the study.

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Who attended the gastroenterology outpatients section and also patients referred from other wards, screened by Gastroenterologist for upper GI endoscopy, were the subjects of this study. Informed consent was taken from subjects.

**Exclusion criteria:** Exclusion criteria included patients with GERD, patients using Non steroidal anti-inflammatory drugs (NSAIDs) at least 1-week before study, chronic decompensated liver disease, decompensated chronic heart failure, other predominant dysmotility symptoms, presence of major psychiatric disorders and symptoms outside the epigastrium. All patients had fasting of 06 hours. Endoscopy (upper digestive) was carried out by standard electronic video endoscope. (Olympus 150 CV) under sedation with single dose of Inj Midazolam 5mg iv 5minutes before the procedure and local anesthesia with lignocaine oral spray, with the patient lying in left lateral decubitus position with neck flexed forward keeping in view the age, BMI and comorbidities like chronic liver disease, chronic renal failure. After incubating the lumen the mucosa was visualized on

LCD screen and examined and recorded for inflammation, reflux, narrowing, strictures, furrowing, erosions, ulcers, polyps and masses. Biopsies were taken from the suspicious and mass lesions and sent for histopathological examination. All the patients were sent back after 15 minutes of observation.

**Statistical Analysis:** Data was analyzed using SPSS-24. Descriptive statistics and normality tests were calculated for age and gender. Counts and percentages were calculated to summarize the data of each categorical variable. Pearson Chi-square test was selected to compare the frequencies of organic dyspepsia with age and gender. The  $p$ -value of  $\leq 0.05$  was considered significant.

#### Results

A retrospective comparative study was conducted in patients attending single gastroenterology centre at Jammu from January 2016 to December 2020. A sample size of 200 patients was compared between rural versus urban patients with respect to their in clinical presentation and endoscopic findings of dyspepsia.

**Table 1: Age distribution**

S.No	Age Group	No of patients	Percentage
1	16-20	25	12.5
2	21-30	10	5
3	31-40	46	23
4	41-50	42	21
5	51-60	36	18
6	61-70	34	17
7	>70	7	3.5

In this study, maximum patients were 31-40 year age group, less number patients were >70 years age group. Age distributions were observed as follows 16-20 years 25(12.5%), 21-30 years 10(5%), 31-40 years 46(23%), 41-50 years 42(21%), 51-60 years 36(18%), 61-70 years 34(17%), greater than 70 years 7(3.5%).

**Table 2: Gender Distribution**

S.No	Gender	No of patients	Percentage
1	Male	95	47.5
2	Female	109	54.5

In this study, 109(54.5%) female patients predominance is more than male 95(47.5%) patients were observed.

**Table 3: Rapid Urease test**

S.No	Rapid Urease test	No of patients	Percentage
1	Positive	110	55%
2	Negative	90	45%

Rapid urease test positive was observed in 110 (55%), Negative was observed in 90 (45%) patients.

**Table 4: comparison of rural versus urban patients with respect to their endoscopic findings**

S.No	Endoscopic findings	Rural	Urban
1	Erosive Antral Gastritis	42	47
2	Erosive Gastritis	7	14
3	Erosive Gastritis and Duodenal Ulcers Present	2	1
4	Erosive Gastritis with Erosive Duodenitis	5	15
5	Erosive nodular antral Gastritis	2	1
6	Esophageal Growth 29-32 cms	2	1
7	Grade 2 haemorrhoids. rest normal up to caecum	2	1
8	Mild Antral Gastritis.	14	19
9	Mild Antral Gastritis + Granularity	1	3
10	Mild Antral Gastritis + Granularity	0	1
11	Small Haemorrhoids, Visualised mucos normal up to Caecum	2	0
12	Small HH, Erosive Antral Gastritis	5	0
13	Small Hiatus Hernia, Submucosal Blebs, semicircular rings +	3	0

Urban Population predominance is more in endoscopic findings of dyspepsia patients. More endoscopic findings were observed in urban populations when compared with rural population. Erosive Antral Gastritis were observed in 47 urban, 42 rural. Erosive Gastritis were observed in 14 urban and 7 rural patients. Mild Antral Gastritis were observed in 18 male and 15 female patients. Mild Antral Gastritis were observed in 19 urban patients, 14 rural patient's sir. Mild Antral Gastritis + Granularity were observed in 3 urban patients and 1 patient of rural population.

**Table 5: comparison of rural versus urban patients with respect to their clinical findings**

S.No	Clinical findings	Rural	Urban
1	CH. Dyspepsia	23	30
2	CH. Dyspepsia LOA	3	6
3	CH. Dyspepsia PP Vomiting	2	3
4	Dyspepsia	8	10
5	Dyspepsia LOA	2	7

6	CH.Dyspepsia PP Vomiting	1	4
7	Diffuse ABD Pain	0	1
8	Dyspepsia	7	11
9	Dyspepsia LOA	1	0
10	Dyspepsia PP Vomiting	3	2
11	Dysphagia	2	2
12	Epigestic Pain PP Vomiting	4	5
13	Epigestic Pain RHQ	2	0
14	Diffuse ABD Pain	0	1
15	Dyspepsia	9	9
16	Dyspepsia PP Vomiting	0	1
17	Dysphagia	0	3
18	Epigestic Pain	20	30
19	Epigestic Pain PP Vomiting	5	4
20	Epigestic Pain RHQ	2	0
21	GERD	5	4
22	LOA	0	1
23	Loose Stool LOA	0	1
24	NASH	1	0
25	Pain ABD	0	3
26	Pain LHQ	2	3
27	Pain RHQ	1	0
28	PP Vomiting	2	4
29	Upper ABD Pain	4	4

Urban patient's predominance is more in clinical findings of dyspepsia patients. CH. Dyspepsia was observed in 30 urban and 23 rural patients. CH.Dyspepsia LOA was observed in 6 urban and 3 rural patients. Dyspepsia was observed in 10 urban and 8 rural patients. Epigestic Pain was observed in 30 urban patients and 20 rural patients. PP Vomiting was observed in 4 urban patients and 2 rural patients. Upper ABD Pain was observed in 4 urban patients and 4 rural patients[5-7].

#### Discussion

Dyspepsia is a common presenting complaint for both primary care physicians and gastroenterologists. The symptoms of dyspepsia overlap with many conditions such as GERD, peptic ulcer disease (PUD), irritable bowel syndrome (IBS), side effects of medications (such as NSAIDs, steroids), pancreatitis, biliary tract disease, motility disorders, unstable angina and malignancy. The prevalence of GERD and irritable bowel syndrome is higher in patients with dyspepsia compared with patients without dyspepsia. Dyspeptic patients younger than 50 years of age and without alarm features are commonly evaluated by 1 of 3 methods.

The present study was undertaken to evaluate the spectrum of upper gastrointestinal (GI) endoscopy findings in dyspeptic patients with or without alarm features and their comparison between urban and rural population. In our study, female preponderance was higher which was similar to other studies. The mean age was 44.6±14.2 years which is similar to other studies with very few presenting before the age of 20 years, peaking in the fourth and fifth decade[8-10].

#### Conclusion

In the present comparative study between rural and urban patients with respect to their clinical features and endoscopic findings in symptomatic dyspepsia patients, the gastritis was found to be the leading problem irrespective of urban regions. In this study we conclude that dyspepsia, epigastric pain, GERD, upper ABD pain, mild antral gastritis is more in urban population than rural population.

**Conflict of Interest: Nil**

**Source of support: Nil**

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