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Original Research Article

A clinico-endoscopic study of upper GI disorders in rural population

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ABSTRACT

Background: Upper gastrointestinal disorders are commonly seen in routine clinical practice. The definitive diagnosis of upper gastrointestinal disorders rest on endoscopic evaluation and biopsy if required for planning proper treatment. The objectives of the study were to determine the spectrum of disease in upper gastrointestinal tract and to establish endoscopy as an effective tool in the proper diagnosis of various upper gastrointestinal tract disorders.
Methods: A prospective study was conducted among patients who presented with upper gastrointestinal symptoms at Gadag Institute Medical College, from August 2016 to August 2017, Gadag. After history taking and physical examination, patients were subjected to fibre-optic upper GI scopy.
Results: The result of present study showed male predominance associated with the upper GI disorders. Gastritis (45.65%) was the most common finding followed by normal exam (17.39%), GERD (6.83%), oesophageal cancer (2.17), Oesophagitis (4.34), gastric ulcer (9.31%), and gastric cancer (3.10%), duodenitis (5.90%) and oesophageal varices at 5.27% Gastritis is the most common upper GI disorder seen the patient population.
Conclusions: Upper GI endoscopy is an effective and appropriate approach for initial investigation to assess patients with GI symptoms. Thus, it helps early management gastric disorders.

Keywords: Gastritis, GERD, Oesophgogas-troduodenoscopy

INTRODUCTION

Endoscopy as a diagnostic and therapeutic tool has grown in recent years. The epidemiological data on incidence and prevalence of gastric disorders showed wide variation among the different population. The pattern of GI disorders is unevenly spread all over the world. It is a hetrogenous process, which may lead to wide range of complications and manifestations. The risk factors like smoking, alcohol, tobacco, food habits, drugs, physical or mental stress, foreign bodies and bacterial infections are actively plays an important role in predisposition and progression of these disorders.[2,3] Upper gastrointestinal (GI) lesions include patients presenting with symptoms of epigastric pain, dysphagia and odyophagia, etc. In this rural population of Gadag, authors routinely encounter patients with upper GI symptoms. Hence, the need for the study is early detection of upper GI lesions by endoscopy and later evaluating the disease for appropriate management.

METHODS

This was a prospective study consisted of the clinical and endoscopic data obtained from consecutive patients with upper gastrointestinal symptoms presenting to the outpatient department of General Surgery at Gadag Institute Medical science, Gadag from August 2016 to August 2017. All patients underwent thorough physical

examination and were subjected to upper GI endoscopy. Inclusion criteria was all OPD patients with symptoms included in study and patients who were sick, not fit for endoscopy are excluded from the study. Detailed evaluation of the upper GI tract was done, and biopsy was taken in indicated cases.

RESULTS

The study population comprised of 322 patients. 56 (17.39%) had normal findings and 266 cases (82.60%) had abnormal findings. Of the 266 abnormal cases, 180 (67.66%) were males 86(32.33%) were females (Table 1).

Table 1: Gender distribution among abnormal cases.

Sex	No	Percentage %
Male	180	67.66
Female	86	32.33
Total	266	100

Among the cases with abnormal findings majority (39.84%) were in the age group of 30-55 years. Percentage of cases in the age groups of 10-20, 21-30, 31-50, 51-70 and >70 years were 3%, 15.41%, 39.84%, 30.45%, and 11.27% respectively as shown in Table 2.

Table 2: Distribution of patients according to age.

Age group	No of patients	Percentage %
10-20	8	3.00
21-30	41	15.41
31-50	106	39.84
51-70	81	30.45
>70	30	11.27

The main indications for endoscopy were epigastric pain (49.68%), dysphagia (14.90%), and odynophagia (7.14%), other symptoms cited included vomiting, nausea, heartburn, bloating, early satiety and weight loss (28.26%) (Table 3).

Table 3: Gastrointestinal symptoms at presentation before endoscopy.

Symptoms	No	Percentage%
Epigastric pain	160	49.68
Dysphagia	48	14.90
Odynophagia	23	7.14
Others	91	28.26

The majority of patients (46.89%) did not have obvious sources for their symptoms. Risk factors included alcohol consumption (22.36%), smoked tobacco (21.42%), non-steroidal anti-inflammatory drugs (5.59%) and aspirin use (3.74%) (Table 4).

Table 4: The risk factors for upper gastrointestinal symptoms reported during patients assessment on history.

Risk factors	No	Percentage %
None	151	46.89
Alcohol	72	22.36
Smoking factors	69	21.42
NSAIDS	18	5.59
Aspirin	12	3.72

Gastritis (45.65%) was the most common finding followed by normal exam (17.39%), GERD (6.83%), oesophageal cancer (2.17), Oesophagitis (4.34), gastric ulcer (9.31%), and gastric cancer (3.10%), duodenitis (5.90%) and oesophageal varices at 5.27% (Table 5).

Table 5: Histological and endoscopic findings of patients who underwent endoscopy.

Gastric disorders	No	Percentage%
Gastritis	147	45.65
Normal	56	17.39
GERD	22	06.83
Oesophageal cancer	07	2.17
Oesophagitis	14	4.34
Gastric ulcer	30	9.31
Gastric cancer	10	3.10
Oesophageal varices	17	5.27
Duodenitis	19	5.90

DISCUSSION

In last few years research studies from all over the world has observed the change in incidence of various gastrointestinal diseases, such as Gastritis and gastric cancer, oesophagitis, hiatus hernia, peptic ulcer and GERD. The present study found that maximum patients with gastrointestinal pain and discomfort were diagnosed with gastritis.

The present study shows alcohol consumption (22.36%) and smoked tobacco (21.42%) are more comman risk factors for developing upper GI disorders. Smoking can accentuate gastro oesophageal reflux symptoms by relaxing the lower oesophageal sphincter. Further, cigarette smoking has been shown to cause harmful effects to the gastric mucosa.[5,6] Alcohol and smoking lowers the pyloric pressure, and that leads to reflux of bile leading to the damage of gastric mucosal barrier. Present study also shows 67.66% were males suffered from upper GI disorders. Male predominance could be due to risk factors like smoking, alcohol which is common in Indian population.

In the present study, maximum number of cases subjected to upper GI endoscopy belonged to the age group of 31-50 (39.84%) and 51-70years (30.45%). In study by Ray

and Pal done at Referral Railway Hospital, Kolkata, the mean age group of the study was 51-60 years.[11]

In the present prospective study 82% patients were reported abnormal findings with gastritis (45.65%) as major disorder in this area, which is similar to other studies from Delhi, Hyderabad and Mumbai.[7] Present study also shows GERD (6.83%), oesophageal cancer (2.17), Oesophagitis (4.34), gastric ulcer (9.31%), and gastric cancer (3.10%), duodenitis (5.90%) and oesophageal varices at 5.27% Occasionally gastritis can be severe or even life-threatening due to symptoms or internal bleeding.[8] Therapeutic endoscopy, interventional radiology treatment and therapy using adult laparoscopy are the common modalities for treating patients with acute abdomen.[9,10]

CONCLUSION

Upper GI endoscopy is an effective and appropriate approach for initial investigation to assess patients with upper GI disorders. It enhances the early diagnosis and thus helps in early initiation of the required treatment for upper GI disorders including pharmacological and surgical treatment. gastritis, duodenitis, oesophagitis, hiatus hernia and GERD are frequent upper GIT disorders found in population. All the clinicians should educate the patients about food habits, personal hygiene, lifestyle, stress and exercise in development of upper GI disorders, which can help in bringing down the incidence of gastrointestinal disorder.

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