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A CLINICO-ENDOSCOPIC STUDY OF UPPER GI DISORDERS IN RURAL POPULATION OF PONDICHERRY

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ABSTRACT

Upper gastrointestinal disorders are commonly seen in routine clinical practice. Delay in their diagnosis and treatment may lead to fatal complication like cancer. The endoscopic examination of upper GI is not only important in diagnosing common upper GI disorders, but also helpful in identification of premalignant conditions like Barrets esophagus and malignant lesions. This is a retrospectively study of esophagogastroduodenoscopy (EGD) data of 1030 patients reported with various complains of Upper GI symptoms in Department of Surgery, endoscopy division. A total of 1030 patients were investigated. 144 (14%) patients were showed normal findings where as 886 (86%) cases had abnormal findings. The result of present study showed male predominance associated with the upper GI disorders. Gastritis was commonest disorder diagnosed in 701 (79.1%) cases. The duodenitis, oesophagitis, Hiatus hernia, GERD and round worms in duodenum were reported in 296 (33.4%), 328 (37.0%), 69 (7.78%), 21 (2.37%) and 4 (0.45%) cases respectively. 18(2.03%) of the cases were reported with Adenocarcinoma of stomach.

Gastritis is the most common upper GI disorder seen the patient population. Timely diagnosis by upper GI endoscopy with patient education and risk factor management is essential to control upper GI disorders in this community.

Key Words: Endoscopy, Upper GI disorders, Gastritis

INTRODUCTION

The prevalence of common upper gastrointestinal disorders like gastritis, duodenitis, oesophagitis, hiatus hernia and adenocarcinoma of stomach are varies between different communities (1). 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). The upper GI disorders are an outcome of inflammatory response (4). It is a hetrogenous process, which may lead to wide range of complications and manifestations. If left untreated or partial treatment all gastric disorders may lead to lifelong problem in an individual. Some time it may results in malignancy. Gastric disorders are found both in male and female of any age group (5)

In most upper gastric disorder patients upper endoscopy is the first line of procedure for investigation, treatment and

diagnosis (6). It is used for the examination of lining of esophagus (swallowing tube), stomach, and upper part of the small intestine (duodenum) (7). The epidemiological data on incidence and prevalence of gastric disorders showed wide variation among the different population (8). The pattern of GI disorders is unevenly spread all over the world. Due to improved lifestyle, the incidence of upper gastric disorders has been declining in some part of the world (9). However the knowledge about Upper GI disorders in certain communities is still not sufficient to prepare the guidelines for preventive measures.

The present study is a retrospective study carried out in department of surgery Sri Manakula Vinayagar medical college and Hospital with the primary aim to study incidence of various upper GI Tract disorders in patients with the complains of upper gastrointestinal disorders.

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MATERIALS AND METHODS

This was a retrospective study of esophagogastroduodenoscopy (EGD) data recorded at a tertiary care hospital in Pondicherry over a period of one year (Jan- Dec 2014). Patients with abdominal pain, difficulty in swallowing, prolonged nausea, blood in vomiting, heart burn, unexplained weight loss, anemia were subjected to endoscopy on a request from concerned consultant physician. This study includes the result of endoscopies done in 1030 patients, which are clinically suspected for upper GI tract disorders. The histopathology study data of 75 patients suspected of adenocarcinoma was also included in this study.

RESULTS

All The patients who were undergone upper GI endoscopy in the Department of Surgery, Sri Manakula Vinayagar Medical College and Hospital, Pondicherry, for upper gastrointestinal symptoms like heartburns, dyspepsia, Belching, acid brush, dysphagia and upper abdominal pain were included in this study.

A total of 1030 patients were investigated by upper GI endoscopy for a period of one year. 144 (14%) patients were shown normal findings where as 886 (86%) cases had abnormal findings (Table.1). The majority of upper GI disorders 660 (45.92%) were in the age group of <30-50> years as shown in table no .2.

The percentage of cases in other age groups of <10, <10-30>, <50-70>, and 70> were 5(0.5 %), 299 (20.80%), 419 (29.15%) and 56 (3.89%) respectively.

Among the upper GI diseases, the Gastritis was the commonest disorder detected in 701 (79.1%) cases. The duodenitis, oesophagitis, Hiatus hernia and GERD were reported in 296 (33.4%), 328 (37.0%), 69 (7.78%) and 21 (2.37%) cases respectively. A rare finding of round worms in duodenum was seen in 4 patients (0.45%). The biopsies were taken from patients with suspected adenocarcinoma of stomach and 18 (2.03%) cases were confirmed positive by histopathological examination. (Table.1). In present study the upper GI disorders were predominantly reported in male (59.85%) as compared to female (40.15%) (Table.3)

DISCUSSION

In last few years research studies from all over the world has observed the change in incidence of various gastrointestinal diseases, such as acid-peptic disease, Gastritis and gastric cancer, oesophagitis, hiatus hernia, peptic ulcer and GERD (1).

In the present retrospective study 86% patients were reported abnormal findings with gastritis (79.1%) as major disorder in this area, which is similar to other studies from Delhi, Hyderabad and Mumbai (10). Occasionally gastritis can be severe or even life-threatening due to symptoms or internal bleeding. (11).

The gastritis is multifactorial disorder, which can cause by infection of *H. pylori*, smoking, alcohol, physical or mental stress and diet. The *H. pylori* induced gastritis can easily be treated with the specific antibiotics (12). Change in food habit along with life style modification will positively help in controlling the gastritis in community. The daily practice of yoga with physical exercise also can assist in reducing the incidence of gastritis associated with stress. The prevalence of oesophagitis, duodenitis are comparatively low in this population. The present study showed that upper GI disorders were predominantly found in male compared to female age grouped between 30-50 years, which showed the strong association between gender and risk factors in development of upper GI disorders (13) (14).

In present study, 18 patients (2.03%) were diagnosed with adenocarcinoma by histopathological study. This shows that adenocarcinoma of stomach is uncommon in this population. This may be because of timely treatment, public awareness, modification of life style in this population (15). The endoscopy findings of the 4(0.45%) patients showed the uncommon appearance of round worms in the duodenum.

The incidence of hiatus hernia and GERD were reported with 7.78% and 2.37% respectively which is comparable with other studies (7) (16). The result of present study showed the incidence of GERD and hiatus hernia are relatively low but not uncommon. The incidence of hiatus hernia and GERD is increase with the age in western population, we have also found the similar association in our patients, who were age grouped between 30-50 years (1)

CONCLUSION

There are no documented reports available on the prevalence of upper GI disorders in Pondicherry, a southern coastal state. This report will be the basis for the future studies on upper GI disorders in this region. The gastritis, duodenitis, oesophagitis, hiatus hernia and GERD are frequent upper GIT disorders found in population. The presence of worms in the duodenum is less common than other disorders, however the upper GI endoscopy will be useful tool for the differential diagnosis of worms infestation in patients with epigastric pain. Along with the diagnosis and treatment, all the clinicians should educate the patients about the role of *H. pylori* infection, 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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Table 1: Incidence of upper GI disorders by endoscopic examination

Sr. no	Gastric disorders by Endoscopic examination (1030 patients)	
1	No. of Patients with upper GI disorders – 886 (86%)	
	Gastritis	701 (79.1%)
	Duodenitis	296 (33.4%)
	Oesophagitis	328 (37.0%)
	Hiatus hernia	69 (7.78%)
	GERD	21 (2.37%)
	Adenocarcinoma of stomach	18 (2.03%)
	Round worms in duodenum	4 (0.45%)
	Total no of abnormalities	1437
2	Normal	144 (14%)

Table 2: Age wise distribution of Upper GI disorders (Total cases-1026)

Clinical findings on upper GI Endoscopy	Age					Total
	<10 N=8	<10-30> N=39	<30-50> N=500	<50-70> N=280	70> N=59	
Total no. of patients						N=886
Gastritis	1	153	323	202	22	701
Duodenitis	2	67	134	85	8	296
Oesophagitis	0	66	143	97	22	328
Hiatus hernia	0	6	43	17	3	69
GERD	-	7	10	4	0	21
Adenocarcinoma	-	0	4	13	1	18
Round worms in duodenum	-	-	3	1	-	4
Total no. of abnormalities	3	299 (20.80%)	660 (45.92%)	419 (29.15%)	56 (3.89%)	1437
Normal	5	32	68	32	7	144

Table 3: Gender distribution of upper GI disorders by endoscopic examination

Gastric disorders by Endoscopic examination	Total no of positive patients	
	Male (%) N=572	Female (%) N=458
Gastritis	409	292
Duodenitis	198	98
Oesophagitis	184	144
Hiatus hernia	41	28
GERD	15	6
Adenocarcinoma of stomach	10	8
Round worms in duodenum	3	1
Total	860 (59.85%)	577 (40.15%)
Normal	53	91