Research Paper

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Pattern of upper gastrointestinal disorders based on endoscopy in a tertiary care hospital of Assam: A record based study

Medical science

KEYWORDS : Upper gastrointestinal disorders, pattern, endoscopy, gastritis

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ABSTRACT

Introduction- Upper Gastrointestinal disorders are a significant cause of morbidity and mortality in developing world. Endoscopy has become a cornerstone for diagnosing various upper gastrointestinal disorders and the pattern of disorders has been changing over last few years. Objectives – To assess the pattern of upper gastrointestinal disorders in patients who underwent endoscopy within last 5 years in a tertiary care hospital of Assam. Methods- A retrospective study was conducted in Assam Medical College, Dibrugarh wherein the records of patients undergoing endoscopy under the Department of Surgery within the last 5yrs (2009-2013) were reviewed and analyed. Statistical analysis was done using MS excel and data was analyzed in percentages. Results – A total of 2780 patients underwent UGI endoscopy during last 5yrs with age ranging from 4-95 yrs. There were 1975 males (71.04%) and 805 females (28.96%) with male to female ratio of 2.5:1. Gastritis was found to be the most common cause of morbidity in 575 patients (20.68%) followed by duodenal ulcer in 420 patients (15.1%). Carcinoma esophagus was reported in 325 cases (11.69%) and gastric carcinoma in 140(5.03%). Esophageal varices was found in 320 patients (11.51%) while only 165(5.93%) had gastric ulcer. Miscellaneous lesions like duodenitis, esophageal polyp, gastric polyp, hiatus hernia, Dieulafoy's lesion etc) were found in 415 patients (14.92%) while normal finding was reported in 420 patients (15.1%). Conclusion- Gastritis continues to be an important cause of morbidity in Assam. The prevalence of Carcinoma esophagus and stomach is also quite high. Both duodenal and gastric ulcer prevalence was found to be high. Further studies need to be done to determine the factors associated with these diseases and minimize their complications.

Introduction:

Upper gastrointestinal disorders are common in India and are a significant cause of morbidity and mortality in the developing world. Peptic ulcer disease (PUD), [1] gastroesophageal reflux disease [2] and cancers [3] are leading UGI conditions and affect millions of people worldwide. Endoscopy has become a cornerstone for diagnosing various upper gastrointestinal disorders. [4, 5] The direct visualization of different sites, with the facility to obtain histological materials, makes endoscopy superior to other gastrointestinal diagnostic procedures. Upper gastro-intestinal endoscopy (UGIE) also facilitates the performance of therapeutic procedures such as UGI tract sclerotherpy, polypectomy, and gastrostomy. The epidemiology of common gastrointestinal diseases differs between populations in Asian countries, and in Asia particularly, the pattern of these diseases seems to be changing. [6] The prevalence of peptic ulcer disease has been declining at the same time as the prevalence of gastroesophageal reflux disease (GERD) and its complications have been increasing. [7] Gastric cancer remains a common cancer in Asia and oesophageal carcinoma seems to be increasing. These changes may reflect the experience of Western countries several decades ago, and comparisons of the epidemiology of gastrointestinal diseases between Western and Asian countries continue to be of interest. There is paucity of information regarding the pattern of gastrointestinal disorders in India and particularly in Assam on endoscopic examination. The changing pattern of lesions seen on endoscopy may guide the clinicians in undertaking early preventive and therapeutic interventions for control of these disorders. Hence this study was undertaken with the objective of assessing the pattern of upper gastrointestinal disorders in patients who underwent endoscopy within last 5 years in a tertiary care hospital of Assam.

Patients and methods:

A record based study was conducted in the Department of Surgery, Assam Medical College and Hospital, Dibrugarh from October to December 2013. All patients who presented with symptoms associated with upper gastrointestinal disorders and referred from different departments of medical college, private clinics and hospitals underwent UGI endoscopy in our hospital. Informed consent was obtained before the procedure. Overnight fasting was an essential requirement. After positioning of the patient and Oropharyngeal anesthesia, a supportive mouthpiece was placed to keep the mouth open during the endoscopy. The endoscope tip was lubricated and it was inserted directly into the oesophagus after advancing the endoscope over the tongue, uvula and epiglottis. Findings at endoscopy were recorded in a procedure record book by the doctor along with the recommendations. Medical records of all such patients, a total of 2780, over the last five years (2009 – 13) were reviewed and analyzed using MS excel.

Results:

A total of 2780 patients' records were reviewed and analyzed in the study. The age range of the patients varied from 4- 95 years. Majority of the patients belonged to middle-aged group (31 – 50 years). Males constituted 71.04 % of the patients with male to female ratio of 2.5:1.

The main indications for undergoing endoscopy were epigastric pain (45%), recurrent vomiting (11.4%), dysphagia (10.7%), UGI bleed (10.6%), reflux related symptoms (9.8%) and abdominal mass (2.3%). Table 1 shows the findings obtained on endoscopy. Features of gastritis were most common (20.7%) while duodenal ulcer, gastric ulcer and reflux oesophagitis was found in 15.1%, 5.9% and 5.8% patients respectively.

The most common carcinoma detected on endoscopy was oesophageal carcinoma (11.7%). It was more prevalent among males (70.8%) as compared to females (29.2%) and among older age group (>40 years). The most common site was middle third of oesophagus (41.5%) followed by lower third (36.9%). The next common carcinoma was gastric carcinoma found in 5.03% patients. It was more common in males (75%) as compared to females (25%) and in patients above 60 years of age (32.1%) followed by 31-40 years age group (25%).

Regarding gastric ulcer, the most common age group was 51-60 years (44.2%) followed by above 60 years group (20.6%) whereas for duodenal ulcer, most common age group was 41-50 years (33.3%) followed by 31-40 years (31.4%). Figure 1 shows the trend of upper gastrointestinal diseases over the last 5 years in our hospital. The number of cases suffering from gastric and oesophageal carcinoma as well as gastric and duodenal ulcer is

increasing whereas the number of cases suffering from gastritis is declining.

Discussion:

This study was based on 2780 patients who underwent endoscopy in the last 5 years in our institute. The indications for conducting endoscopy in the majority of our patients were epigastric pain, UGI bleed and vomiting which were comparable with other reports. [8, 9] Endoscopic diagnosis of oesophagitis, gastritis, duodenitis, and peptic ulcer disease were made according to the accepted standard criteria. [10]

Gastritis was by far the most common endoscopic diagnosis followed by duodenal ulcer, oesophageal varices and oesophageal carcinoma. The frequency of gastritis in our patients is higher than that reported from the central region of Saudi Arabia. [11] Carcinoma oesophagus, is much more common in this region and was reported in 11.69% patients. Tsega reported a prevalence of only 1% of Ca oesophagus in Ethiopia. [12] It may be due to excessive alcohol intake and tobacco use among the population. Duodenal ulcer is still a common problem in our area and was seen in 15.1% of patients which is similar to other reports. [11, 13] However, Hagrove reported a figure of 8% in his series. [14] Gastric ulcer was found in 5.93% patients. This is similar to the 5% prevalence reported by Al-Mofleh et al. [11] Oesophagitis, was reported in 160 (5.8%) patients in our study. Tsega in 1981 in Addis Ababa found oesophagitis in less than 1% patients [12] while Ogutu and colleagues reported in 4.2%. [15] Oesophageal varices, mainly due to portal hypertension secondary to alcoholism was a common finding reported in 11.5% patients.

The trend of upper gastrointestinal diseases on endoscopy during the last 5 years shows an increasing trend for gastric and oesophageal carcinoma along with gastric and duodenal ulcer. The number of cases reporting normal findings on endoscopy has declined consistently over the years implying better case selection for endoscopy.

Conclusion:

Prevalence of various upper gastrointestinal disorders on endoscopy was found to be quite high. Further community based studies to determine the true prevalence of gastrointestinal disorders are needed. Early endoscopy in patients with dyspepsia should be done as majority of the patients undergoing endoscopy had abnormal endoscopic findings. There is a need to determine the relationship between gastric ulcer and H. pylori infection. In a state like Assam where upper gastrointestinal symptoms are very common and radiological services inadequate, expert endoscopic studies can be of great diagnostic value and may have a role in reducing the morbidity and mortality due to upper gastrointestinal diseases.

Table 1: Frequency pattern of various endoscopic findings

FINDINGS ON UGI ENDOSCOPY	FREQUENCY (PERCENTAGE)
Normal	420 (15.1%)
Gastritis	575 (20.68%)
Duodenal ulcer	420 (15.1%)
Oesophageal carcinoma	325 (11.69%)
Gastric carcinoma	140 (5.03%)
Oesophageal varices	320 (11.51%)
Gastric ulcer	165 (5.93%)
Reflux oesophagitis	160 (5.8%)
Duodenitis	80 (2.8%)
Gastric polyp	25 (0.9%)
Oesophageal polyp	15 (0.54%)
Hiatus hernia	40 (1.43%)
Gastric ulcer with duodenal ulcer	20 (0.72%)
Worm infestation	15 (0.54%)
Gastropathy with gastric varices	14 (0.5%)
Dieulafoy's lesion	02 (0.07%)
Miscellaneous	44 (1.58%)

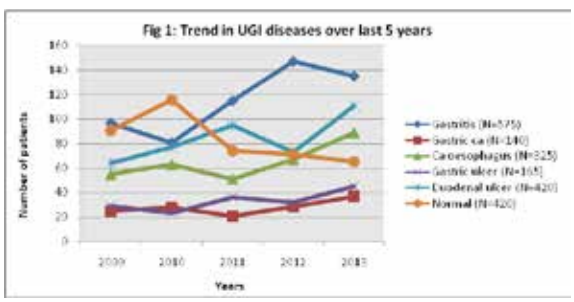

Fig 2: Endoscopic view of various upper gastrointestinal disorders



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