FREQUENCY OF PEPTIC ULCER DISEASE IN PATIENTS OF DYSPEPSIA AN ANALYSIS OF UPPER GASTROINTESTINAL ENDOSCOPY

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ABSTRACT

Objective: To evaluate the frequency of peptic ulcer disease in patients of dyspepsia on upper gastrointestinal endoscopy.

Study Design: Descriptive study

Place and Duration of study: The study was conducted at Combined Military Hospital, Multan between 20th Feb, 2006 to 26th May, 2006.

Patients and Methods: A convenient non probability sampling was done and one hundred patients were selected from out patient department presenting within six months of dyspeptic symptoms. They were all subjected to upper gastrointestinal endoscopy

Results: Of all patients 61% (n=61) were males and 39% (n=39) were females with age ranging between 20 – 45 years. Study revealed functional dyspepsia (76%), duodenal ulcer (11%), gastric ulcer (4%) and esophagitis including gastoesophageal reflux disease (9%). This showed an overall frequency of peptic ulcer disease to be 15% in the studied population.

Conclusion: Peptic ulcer disease is a common structural cause of dyspepsia and was responsible for 15% of dyspepsia.

Keywords: Dyspepsia; Peptic Ulcer Disease.

INTRODUCTION

The term "dyspepsia," derived from the Greek words dys (bad) and pepsis (digestion), which refers to symptoms that originate in the upper gastrointestinal tract [1]. It is episodic or persistent upper abdominal pain or discomfort that is associated with belching, bloating, heartburn, nausea or vomiting [2]. The prevalence of dyspepsia ranges from 26 percent in the United States to 41 percent in U.K.[3,4] Although 20 to 25 percent of seek medical care, the problem is responsible for 2 to 5 percent of visits to primary care physicians [5]. Dyspepsia results in substantial health care costs both the direct costs of visits to doctors, expensive tests, and medications,and abstinence from work [6].

The most common organic disorders causing dyspepsia are peptic ulcer, gastroesophageal reflux disease, and gastric cancer. In 50 percent of patients, no cause is found and the dyspepsia is considered to be idiopathic - functional dyspepsia [7]. Evaluation of dyspepsia includes a thorough history and physical examination, with significance given to symptoms that suggest the presence of serious disease. Peptic ulcer is a breach in the mucosa that extends through the muscularis mucosae, and is usually 5 millimeter in diameter. There are two types; gastric and duodenal. There are three main causes of ulcers that include: non-steroided anti inflametory drugs (NSAIDs), chronic H.pylori infection and hypersecretory states like Zollinger-Ellison syndrome. They are common in cigarette smokers. Clinical features include epigastric pain (dyspepsia), which is localized to epigastrium and described as dull aching and gnawing in nature. Nausea and vomiting is also a feature especially with gastric ulcers. The incidence of the disease is variable. Studies conducted at multiple centres of the world have shown that prevalence of the disease is different in their respective population. This ranges from 5.3% to 20% [8-10]. In our population this percentage is quite different. Studies conducted in Pakistan have shown that the prevalence ranges from 14% to 22% in different studies [11-12].

PATIENTS AND METHOD

This prospective study was carried out at the department of Medicine Combined Military Hospital, Multan from Feb, 2006 till June,

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2006.It was a descriptive study and patients were selected by convenient sampling attending the out patient department of the Medical department. All the patients were interviewed and were asked for the presenting complaints, past history and history of smoking, NSAIDs intake, any use of antisecretory drugs or previous endoscopies. One hundred adult patients of both genders having symptoms of Upper abdominal discomfort or pain that was episodic or persistent and could be associated with nausea, vomiting, belching, bloating and heartburn and presenting within six months of their symptoms were included. The patients who had antisecretory therapy with H_2 blocker or Proton pump inhibitor or undergone endoscopy previously were not included in the study. After getting their baseline investigations done including complete blood counts, liver function Test's, Hepatitis serology, stool RE ova, cysts and occult blood and ultrasonography of abdomen they were evaluated with endoscopy.

Upper gastrointestinal endoscopy was performed by a consultant gastroenterologist under aseptic conditions. The findings which were specifically looked for during endoscopy included hyperemia, inflammation, stricture, webs, pouches, varices and gastroesophageal reflux in the Esophagus. Stomach was looked at for hyperemia, inflammation, breach of mucosa, deformity of pylorus. Duodenum was also looked at for the above mentioned signs.

Data was analyzed by using SPSS version 10. Frequency and percentages were used to define the data.

RESULTS

Out of hundred, sixty one patients were males 61% and thirty nine were females 39%. Patients were between 20 and 45 years. The commonest presenting symptoms of these patients were as follows; upper abdominal pain / discomfort (45%), bloating and mild abdominal distention after meals (22%), nausea (15%), central chest discomfort and regurgitation of meals (10%) and vomiting (8%). Thirty patients were over weight 30% with a BMI of more than 25.

Endoscopic findings were duodenal ulcer 11%, gastric ulcer 4%, Esophagitis including gastroesophageal reflux 9%. Rest of the endoscopic examination revealed normal study (n=76) 76%, representing functional dyspepsia (Figure).

This revealed an overall frequency of peptic ulcer disease to be 15% in my sample population. Duodenal ulcer was present in eight males 13.1% and three female patients 7.6%. Gastric ulcer was present in three 4.9% male patients and one 2.5% female patient.

Out of hundred patients, twenty six (26%) patients had history of using Non steroidal anti inflammatory drugs (Fig. 2) and twenty four male 40% patients had a history of smoking. There were no females smokers.

Amongst patients of was duodenal ulcer, four 36.3% used NSAIDs and six 54.5%were smokers. Similarly in patients with gastric ulcer, two 50% used NSAIDs and one 25%was a smoker.

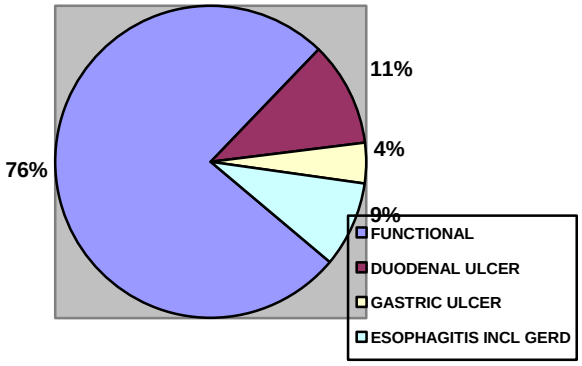

Figure: Frequency of peptic ulcer disease

DISCUSSION

Dyspepsia is not a disease but a name given to a constellation of symptoms originating in upper gastrointestinal tract [1]. It includes bloating, belching, heart burns, abdominal discomfort or even pain occurring episodically[2]. It has been estimated that around 40% people suffer from dyspepsia. 2-5% of all family practice consultations are accounted for by dyspepsia. It is quite prevalent in our part of the world as well. A study carried out in India showed that dyspepsia is prevalent in around 30% of the population. Significant

symptoms occur in 12%. Forty percent of these subjects receive treatment and only a small number undergo endoscopy or ultrasonography. The frequency of dyspepsia was not related to type of diet or consumption of spices but more prevalent in patients who abused tobacco or alcohol.

Symptoms of dyspepsia vary. They may present with shorter duration and with mild severity to sometimes with severe central abdominal pain and patients are brought directly to emergency department.[13] At the same time the disease can be dreadful and can present with complications. One of the important complications include, perforation which can present, as such, in emergency department, though it usually presents in those individuals who have long history of the disease.

The burden of illness with respect to quality of life and economic consequences of dyspepsia is considerable. Recent data from a large cross sectional survey in the UK suggest Dyspepsia may be costing society approximately, £1 billion ($1.46 billion) annually. Nonetheless, the majority of patients do not seek medical attention, only a small percentage of the patients having dyspepsia go to a medical practitioner for advice and treatment.

Endoscopy has consistently been shown to provide superior diagnostic accuracy in detecting structural causes of dyspepsia. Dooley [14] found that in only 39 of 98 patients (40 percent), the initial clinical diagnosis subsequently was shown to be correct. Double-contrast barium meal increased this figure to 65 percent, and Endoscopy increased the figure to 88 percent. Endoscopy is therefore a safe and accurate test. This is consistent with the American college of physicians (ACP) guidelines as well.

Peptic ulcer disease is one of the common causes in the structural defects besides functional cause. Endoscopy remains the gold standard in evaluating its prevalence. . In USA, 4 million individuals (new cases and recurrences) are affected per year. Lifetime prevalence of peptic ulcer disease (PUD) in the United States is approximately 12% in men and 10% in women. Peptic Ulcer is not only a common cause of dyspepsia in western population but it is much more prevalent in Asia. In Korea, for instance, the prevalence of peptic ulcer and gastric cancer were 24% and 7%, respectively. In this study, the leading treatable organic cause on upper gastrointestinal endoscopy is Peptic Ulcer disease with a frequency of 15% (duodenal ulcer and gastric ulcer to be 11% and 4% respectively). This is quite similar to the studies conducted in western population but also in conjunction with the studies done in Asia and in our country. In Sweden, it is nearly same for example, prevalence of peptic ulcer was 13% [15].

This has depicted that people living in this part of the world have certain factors that interplay to cause this disease. Though it was not mentioned in my study but these factors need to be assessed. Peptic ulcer is a typically human disease with involvement of the cortico-visceral axis and psychosomatic traits. Others factors play their role in the etiopathogenesis (like genetic, ethnic, environmental and socio-economic factors). However, main etiologic factors are Helicobacter pylori (approximately 90% duodenal and 50% gastric ulcers) and non-steroidal anti-inflammatory drugs (approximately 30% gastric and 10% duodenal ulcers).

CONCLUSIONS

In our study population peptic ulcer disease is respond for 15% cases of dyspepsia. It highlights the fact that upper gastro intestinal endoscopy should be carried out in patient presenting with dyspepsia, as quit significant proportion of patient can be found to have peptic ucler disease.

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