

ORIGINAL ARTICLE

PREVALENCE OF DIFFERENT TYPES OF PEPTIC ULCER DISEASE AND TREATMENT MODALITIES USED BY PATIENTS IN HYDERABAD, SINDH

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Background: Peptic ulcer is mucosal lesion of the stomach or duodenum in which acid and pepsin play major pathogenic role. The major forms of peptic ulcer are gastric ulcer and duodenal ulcer, often caused by *Helicobacter pylori*, non-steroidal anti-inflammatory drugs (NSAIDs), physiological stress and smoking. The objective of this was to assess the prevalence of different types of peptic ulcer and treatment modalities in peptic ulcer patients. **Methods:** A total of 425 patients of different age groups were selected from different areas of Hyderabad city having peptic ulcer. There were 166 (39%) male and 259 (61%) females. Data were collected on a questionnaire. Subjects were divided into 5 age groups. **Results:** Peptic ulcer was more prevalent in age group 20–30 years and mostly found in females (60%) compared to males (40%). Gastric ulcer was seen mostly (68%) compared to duodenal ulcer (32%). The tendency of treatment type came out to be allopathic 38%, homeopathic 4%, and herbal 4%. The tendency of combination therapy was allopathic+homeopathic 34%, homeopathic+herbal 4%, allopathic+herbal 12%, and allopathic+homeopathic+herbal 4%. **Conclusion:** Gastric ulcer is more common than duodenal ulcer in Hyderabad that is in contrast to reported data. The patients suffering from either types of ulcer preferred allopathic treatment followed by homoeopathy and herbal medication.

Keywords: Peptic ulcer, Gastric ulcer, Duodenal Ulcer, Homeopathy, Allopathy, Herbal Medicine, *Helicobacter pylori*, Non-steroidal anti-inflammatory drugs

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INTRODUCTION

The road to cure the ulcers has been a long and bumpy one. In early 20th century ulcers were believed to be caused mainly by smoking and stress.¹ Treatment focuses on hospitalization, bed rest, and prescription of special bland foods. Later, gastric acid was blamed for ulcer disease. In 1994, National Institutes of Health Consensus Development Conference concluded that there is a strong association between *Helicobacter pylori* and ulcer disease, and recommended that ulcer patients with *H. pylori* infection be treated with antibiotics.²

About 75% ulcer patients are still treated primarily with anti-secretory medication, and only 5% receive antibiotic therapy.³ Consumer research by the American Digestive Health Foundation found that nearly 90% ulcer sufferers are unaware that *H. pylori* cause ulcers.⁴ In fact, nearly 90% of those with ulcers blame their stress or worries for ulcers, and 60% pointed towards type of diet they were taking.⁵ The Center for Disease Control and Prevention (CDC), with other government agencies, academic institutions, and industry, launched a national education campaign to inform health care providers and consumers about the link between *H. pylori* and ulcer.⁶ This campaign reinforced the news that ulcers are a curable infection and the fact that health can be greatly improved and

money saved by disseminating information about *H. pylori*. Medical researchers have sequenced the *H. pylori* genome. This discovery is helping scientists to better understand the bacterium and design more effective drugs to fight it.⁷

Apart from *H. Pylori* infection there are various other causes of peptic ulcers. Use of NSAIDs is probably the most common cause of gastrointestinal mucosal injury in Pakistan.⁸ Psychosocial factors, mostly stress, are estimated to contribute 30–65% of ulcers, whether related to non-steroidal anti-inflammatory drugs or *H. pylori*.⁹

The smoking habit plays substantial role in the development and deterioration of ulcer. Anderson² reported increasing tendency of ulcer perforation by 10 fold in smokers aged 15–75 years. Hozawa¹⁰ concluded that the association between smoking, intake of alcohol and risk of peptic ulcer were highly significant. However in case of occurrence of peptic ulcer disease one has to choose the effective and efficient method of treatment.

Symptoms of peptic ulcer disease commonly include epigastric pain, postprandial pain and nocturnal pain, pain that can wake the patient from sleep, anaemia caused by gastrointestinal blood loss, weight loss attributed to reduced appetite caused by fear of pain, and vomiting.¹¹

Endoscopy is essential for an accurate diagnosis of peptic ulcer disease and ulcer complications (e.g., a gastric ulcer can be biopsied to exclude malignancy or to obtain tissue for Helicobacter pylori diagnostic test).¹²

There are various modes for the treatment of diseases, depending upon different school of thoughts. The most common methods are allopathic, homoeopathic and herbal medicines, by which patients suffering from variety of diseases including ulcer get treatment.¹³

The objectives of this study were to find out the prevalence of different types of peptic ulcers in different age groups and genders, and to identify various treatment modalities used for peptic ulcer disease.

SUBJECTS AND METHODS

It was a survey based cross sectional study on peptic ulcer patients. The study was conducted from peptic ulcer patients living at the different areas of Hyderabad city, during June to October 2014. A number of 425 patients who were diagnosed with peptic ulcer disease were selected from different areas of Hyderabad city. All the patients included in this study were endoscopy diagnosed peptic ulcer disease, using different types of anti ulcer medications since two or more year of duration. Patients excluded from the study were patients without known ulcer, patients on medication for diseases other than ulcer, patients on anti-ulcer medication for less than 2 years.

A questionnaire designed by Ethical/ Scientific Committee of the Department of Physiology, University of Sind Jamshoro, was used with permission and approval. All patients were briefed about the application of questionnaire and applied after the informed consent of the patients. Questionnaire was designed for the assessment of type of the medications used by peptic ulcer patients. Data were analysed on SPSS-14.

RESULTS

The 425 patients included 166 males and 259 females having peptic ulcer (Figure-1). The Duodenal ulcer percentage was 32% and gastric 68% among 425 patients (Figure-2). Females were suffering from peptic ulcer in all age groups more than males (Figure-3).

All patients taking different types of medicine for peptic ulcer were divided into 5 groups based on age (Figure-4). Majority of disease sufferers from both sexes were of age group 20–30 years.

The majority of population that is 38% in all age groups and genders still prefer allopathic medications over other types. However 34% patients also prefer both that is combination of both allopathic and homeopathic medications, while rest of the variants were not significant (Figure-5).

Each of the 5 groups were observed having variety of tendency for taking different types of anti-ulcer medicines. It was observed that majority of patients in all age groups prefer allopathic treatment over other modes of treatment followed by allopathic and homeopathic combination (Figure-6).

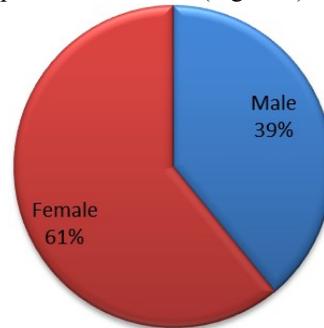


Figure-1: Percentage of males and females in 425 patients

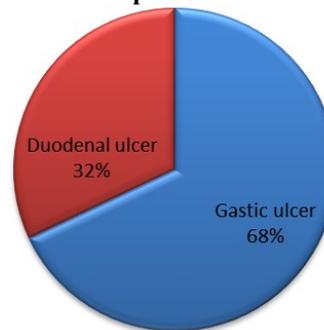


Figure-2: Percentage prevalence of type of peptic ulcer in 425 subjects

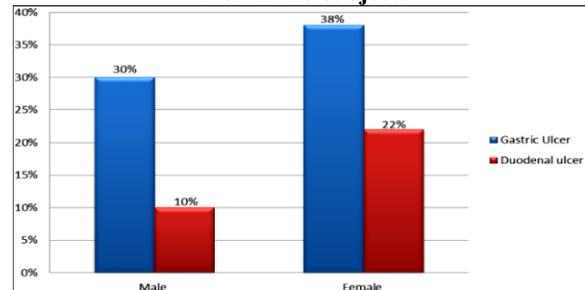


Figure-3: Percentage of gastric and duodenal ulcers in both genders

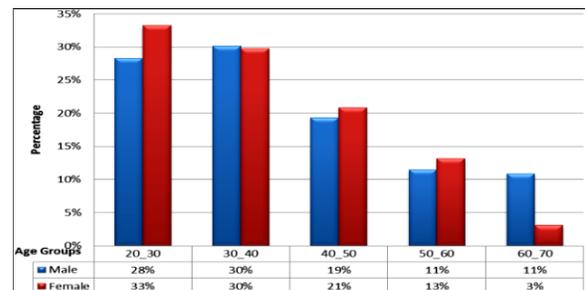


Figure-4: Percentage of male and female patients with peptic ulcer disease in different age groups

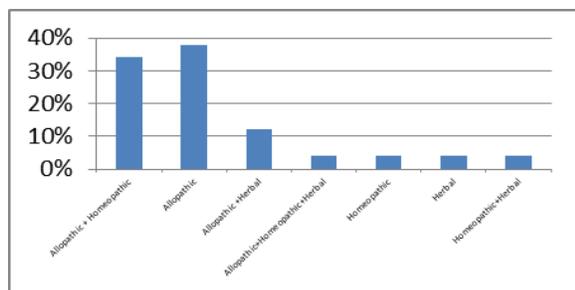


Figure-5: Percentage distribution in total using different types of medication

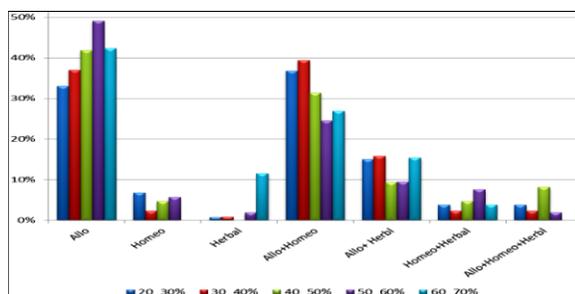


Figure-6: Percentage distribution in total of different age groups using different medication

DISCUSSION

The purpose of this study was to analyse the tendency of anti-ulcer medication among the patients having peptic ulcer. Whatever the cause of peptic ulcer was in the patients under study, every one was observed in anxious state for prompt recovery from symptoms. Therefore, they preferred different types of medicines and different methods of the treatment available.

Peptic ulcer is a common health problem reported prevailing all over the world. The prevalence and incidence of peptic ulcer is not known in Pakistan, however the current study has tried to find the percent prevalence of the disease in Hyderabad city of Pakistan.

The study population from 20 to 70 years of age have had peptic ulcer and their mean age was 45 years. The selected patients were equally divided into five age groups; such elaborative division was not conducted in any other study in recent years.

The peptic ulcer was more prevalent in the age group 20–30 years; that is a significant finding compared to findings of Niaz Ali *et al*⁹ who reported higher prevalence of disease in fifth decade of life.

The major cause of this finding can be justified with the findings of Anderson *et al*² which states that peptic ulcer higher prevalence is due to premature attitudes towards the eating habits and stressful environment. This age group is observed with highest tendency for eating fast food and junk food, which might be the cause of ulcer.

We found that 60% of the female and 40% of male suffered from peptic ulcer. This shows that in

Hyderabad city women are mostly affected by peptic ulcer. This is persistent with findings of Bopana *et al*.⁶ Gastric ulcer was mostly found in females compare to males and the duodenal ulcer was seen more in females than male. These findings were different from findings of Hamid *et al*¹⁴ who showed increased prevalence of gastric ulcers in males compared to females.

Interestingly, a study conducted in Peshawar by Nawaz *et al*¹⁵ reported males affected more than females. The two studies showed different finding probably because of their distant geographical locations, different living style and dietary provisions. In the current study no significant predisposing factor was identified, however in a clinical study conducted by Barbara *et al*⁴ indicated the role of both *H. Pylori* and smoking as the main cause of peptic ulcer. In southern Europe, Arroyo *et al*³ found significant cases of peptic ulcers reported without *H. pylori* and the use of NSAIDs.

For the treatment of peptic ulcer several types of medication are available. In our society the common trend of peptic ulcer treatment is of allopathic medication. This study reveals that there is also acceptance of alternate methods of treatment. The patients of age groups 20–30 and 30–40 years are referring towards combined therapy of allopathic and homeopathic medicine though the common tendency is still towards allopathic medication. The peptic ulcer patients of Hyderabad city mostly preferred allopathy and homeopathy for relief from peptic ulcer. The patients suffering from chronic peptic ulcer have shown treatment change attitudes, most of them switched over from allopathy to homeopathy and some added natural medicine. The current study found that the use of herbal medication is rare and that might be due to its less effectiveness in treatment of peptic ulcer disease. However this trend can be observed in other chronic diseases worldwide.

CONCLUSION

Gastric ulcer is more prevalent than duodenal ulcer in Hyderabad that is in contrast to reported data. Youngsters 20–30 years of age are the most affected age group. The patients preferred allopathic type of treatment followed by homeopathy. There was reasonable acceptance of herbal medicine as well. Further work on prevalence of gastric ulcer and use of alternate medicine is suggested.

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