

A Retrospective Assessment of Clinical Profile of Peptic Ulcer Disease: An Observational Study**Dheeraj Kumar¹, Sonal², Vishwamohan Dayal³**¹Senior Resident, Department of Gastroenterology, Indira Gandhi Institute of Medical Sciences, Patna, Bihar, India²Senior Resident, Department of Obstetrics and Gynaecology, AIIMS, Patna, Bihar, India³Professor and HOD, Department of Gastroenterology, Indira Gandhi Institute of Medical Sciences, Patna, Bihar, India

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Abstract**Aim:** The aim of the present study was to understand the distribution of peptic ulcers.**Methods:** The present study was conducted in the Department of Gastroenterology. Informed consents were taken from patients. The 50 peptic ulcer disease patients were enrolled in to the study. The age group of the patients was from 20-70 years.**Results:** The age and the type of ulcer it can be clear that the more ulcer prone age was from 30 years & above. The ulcers were found in all age groups. The majorly observed site of the ulcer pain is the epigastrium. The burning & the hunger was the commonest type of pain observed in the Duodenal ulcer. All patients suffering from the ulcers are doing smoking as well as alcohol consumption. The previous regular consumptions of the NSAID's & Steroids are the also one of the factors for the duodenal & gastric ulcers.**Conclusion:** Duodenal ulcer perforation is the second most common abdominal emergency in our study. After invention of the H2 blockers and proton pump inhibitors the role of elective surgery for duodenal ulcer has been drastically decreasing, but the incidence of perforation is not much changing.**Keywords:** Duodenal ulcer; Gastric ulcer, Peptic ulcer

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Introduction

Peptic ulcer disease (PUD) results from an imbalance between stomach acid-pepsin and mucosal defence barriers. It affects 4 million people worldwide annually. [1] The incidence of PUD has been estimated at around 1.5% to 3%. [2] Although 10%-20% of patients with PUD will experience complications, only 2%-14% of the ulcers will perforate causing an acute illness. [3,4] Perforation is a serious complication of PUD and patients with perforated peptic ulcer (PPU) often carries high risk for morbidity and mortality. [5] The lifetime prevalence of perforation in patients with PUD is about 5%. [6] Treatment includes use of proton pump inhibitors and Helicobacter pylori eradication therapies. In spite of all these peptic ulcer perforation rates have remained unchanged and therefore remains a major health challenge. In developing world, patients tend to be young male smokers while in developed countries; patients tend to be elderly with multiple co-morbidities and associated use of non-steroidal anti-inflammatory drugs (NSAIDs) or steroid. [7,8] Along with NSAIDs, Helicobacter pylori (H. pylori), physiological stress, smoking, corticosteroids and

previous history of PUD are risks factors for PPU. [1,9-11]

In the presence of risk factors recurrence of ulcer is common despite initial successful treatment. The diagnosis of perforated PUD could pose a diagnostic challenge in most cases especially in patients with no previous history of PUD. Symptoms of PUD include epigastric pain, upper abdominal discomfort, bloatedness and feeling of fullness. Sudden onset of abdominal pain or acute deterioration of the ongoing abdominal pain is typical of PPU leading to chemical peritonitis. Delays in diagnosis and prompt initiation of surgical management of perforated PUD have clearly been shown to be associated with high morbidity and mortality after surgery for perforated peptic ulcer disease. [12,13]

Peptic ulcers are present in around 4% of the population. [14] They newly began in around 53 million people in 2014. [15] About 10% of people develop a peptic ulcer at some point in their life. 15 They resulted in 301,000 deaths in 2013 down from

327,000 deaths in 1990. [16] The first description of a perforated peptic ulcer was in 1670 in Princess Henrietta of England [17] H. pylori was first identified as causing peptic ulcers by Barry Marshall and Robin Warren in the late 20th century [19] a discovery for which they received the Nobel Prize in 2005. [20]

The aim of the present study was to understand the distribution of peptic ulcers.

Materials and Methods

The present study was conducted in the Department of Gastroenterology, Indira Gandhi Institute of

Medical Sciences, Patna, Bihar, India from July 2021 to June 2022. Informed consents were taken from patients. The 50 peptic ulcer disease patients were enrolled in to the study. The age group of the patients was from 20-70 years. The patients visited to Out Patient Department (OPD) and in-patient department (IPD) were considered in the study. All the patients clinical history were collected. Also the complete physical examination was done.

Results

Table 1: Age & Ulcer Type

| Age in Years | Duodenal Ulcer | Gastric Ulcer |
|--------------|----------------|---------------|
| 20-30 years | 4 | 1 |
| 31-40 years | 16 | 3 |
| 41-50 years | 6 | 0 |
| 51-60 years | 8 | 0 |
| 61-70 years | 8 | 1 |
| Total | 40 | 10 |
| Total | 40 | |

The age and the type of ulcer it can be clear that the more ulcer prone age was from 30 years & above. The ulcers were found in all age groups.

Table 2: Site of the ulcer pain

| Site | Duodenal Ulcer | Gastric Ulcer |
|-----------------------------------|----------------|---------------|
| Epigastrium | 15 | 5 |
| Right Hypochondrium | 5 | 0 |
| Epigastrium & right hypochondrium | 12 | 3 |
| Epigastrium & Umbilicus | 7 | 0 |
| Umbilicus & right hypochondrium | 1 | 0 |
| Umbilicus & left hypochondrium | 0 | 2 |
| Total | 40 | 4 |

The majorly observed site of the ulcer pain is the epigastrium.

Table 3: Type of pain

| | Duodenal Ulcer | Gastric Ulcer |
|--------------------|----------------|---------------|
| Burning | 4 | 2 |
| Burning and hunger | 19 | 6 |
| Dull aching | 7 | 0 |
| Hunger | 6 | 2 |
| Discomfort | 4 | 0 |
| Total | 40 | 10 |

The burning & the hunger was the commonest type of pain observed in the Duodenal ulcer.

Table 4: Alcohol & Smoking among the patients

| | Duodenal Ulcer | Gastric Ulcer |
|---------|----------------|---------------|
| Alcohol | 6 | 2 |
| Smoking | 16 | 2 |
| Both | 12 | 1 |
| Total | 34 | 5 |

All patients suffering from the ulcers are doing smoking as well as alcohol consumption.

Table 5: Drug History

| | Duodenal Ulcer | Gastric Ulcer |
|----------|----------------|---------------|
| NSAID's | 17 | 2 |
| Steroids | 3 | 3 |
| Total | 20 | 5 |

The previous regular consumptions of the NSAID's & Steroids are the also one of the factors for the duodenal & gastric ulcers.

Discussion

Peptic ulcer disease refers to painful sores or ulcers in the lining of the stomach or first part of the small intestine, called the duodenum. Peptic ulcer disease (PUD), also known as a peptic ulcer or stomach ulcer, is a break in the lining of the stomach, first part of the small intestine, or occasionally the lower esophagus. [14,21] An ulcer in the stomach is known as a gastric ulcer while that in the first part of the intestines is known as a duodenal ulcer. The most common symptoms are waking at night with upper abdominal pain or upper abdominal pain that improves with eating. The pain is often described as a burning or dull ache. Other symptoms include belching, vomiting, weight loss, or poor appetite. About a third of older people have no symptoms. [14] Complications may include bleeding, perforation, and blockage of the stomach. Bleeding occurs in as many as 15% of people. [17]

Similar to several digestive disorders, the prevalence of PUD initially increased and then subsequently decreased. Jennings et al. analyzed PUD epidemiological data spanning 150 years and found that the incidence of and mortality due to PUD increased markedly during the nineteenth century and then decreased steadily due to improvements in environmental hygiene and medical therapeutic strategies. [22] During the first 50 years of the twentieth century in the United States, PUD affected approximately 10% of the adult population. [23] The age and the type of ulcer it can be clear that the more ulcer prone age was from 30 years & above. The ulcers were found in all age groups. The majorly observed site of the ulcer pain is the epigastrium. The burning & the hunger was the commonest type of pain observed in the Duodenal ulcer. The previous regular consumptions of the NSAID's & Steroids are the also one of the factors for the duodenal & gastric ulcers.

All patients suffering from the ulcers are doing smoking as well as alcohol consumption. A study in a tertiary hospital in Tanzania 85.7% use alcohol and 64.3% were smokers. A study from eastern India by Ekka et al also reported 65.73% were known smokers while 42.86% patients were admittedly alcoholics. [24,25]

Conclusion

Duodenal ulcer perforation is the second most common abdominal emergency in our study. After invention of the H2 blockers and proton pump inhibitors the role of elective surgery for duodenal ulcer has been drastically decreasing, but the incidence of perforation is not much changing.

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