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HELICOBACTER PYLORI PREVALENCE IN GASTRODUODENAL PERFORATIONS

Surgery

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KEYWORDS

H. Pylori, Hollow viscous perforation, Gastroduodenal perforations

INTRODUCTION:

In India, gastro-duodenal ulcers are among the most prevalent diseases affecting people. Although much research has been done on the etiology of this disorder, especially in our region of the country, no single etiological agent can be blamed for the development of this particular sickness. Because stress is the single most significant factor in producing peptic ulcers and because modern life is so stressful and demanding, this condition is becoming more common. One of the devastating events that can happen to a person with gastroduodenal ulcers is perforation. The infection with H. pylori has a significant role in the development of stomach cancer and peptic ulcer disease. Even while the virus may be found in more than 50% of the world's population, only a small percentage of those people would experience ulcer disease or stomach cancer. This investigation aims to determine H. Pylori's contribution to the development of gastroduodenal perforation(1,2).

AIMS AND OBJECTIVES:

To assess the prevalence of H. Pylori infection in patients presenting with gastroduodenal perforation.

Methodology:

All patients hospitalized to Government General Hospital, Vijayawada between August 2020 and December 2022 who were diagnosed with acute perforated peptic ulcers were included in this prospective study. Prior to the study, written, informed consent was obtained. The following information was logged: demographics, medical history, previous peptic ulcer history, and usage of nonsteroidal anti-inflammatory medicines (NSAIDs). Following resuscitation, all patients had laparotomies and had the perforated ulcer simply closed by oversewing with more omentum. A biopsy that was collected from the mucosa and border of the ulcer site. 20% formalin was used to preserve the biopsy material, and the specimen was sent as soon as possible for Giemsa-stained histological analysis. The sample size is 50.

Inclusion Criteria:

1. All the patients who were diagnosed with gastro duodenal perforation clinically and radiologically, followed by explorative laparotomy for repair.

Exclusion Criteria:

1. Patient with H/o trauma are excluded.

RESULTS:

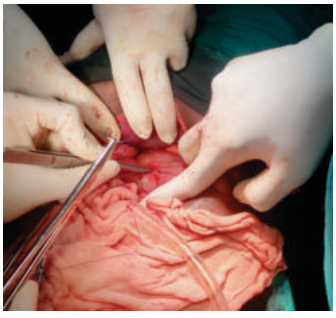

Figure 1 showing a gastric perforation in one of the patients.

The mean age of presentation was 42.6 ± 8.2 years. The most common age group of presentation was 31-40 years. In 42 cases (84%), biopsy was positive for H. Pylori, whereas in 8 cases (16%), biopsy was negative for H. Pylori. Males were 40 (80%) and females were 10 (20%). 29 (58%) patients had gastric ulcers, whereas 21 (42%) patients had duodenal ulcers. 38 patients (76%) had smoking as risk factor, 40 patients (80%) had alcohol as risk factor. 20 patients (40%) has NSAIDs as risk factor. Most common symptoms are abdominal pain, abdominal distention followed by fever and vomiting. Guarding and rigidity are present in 96% of the patients.

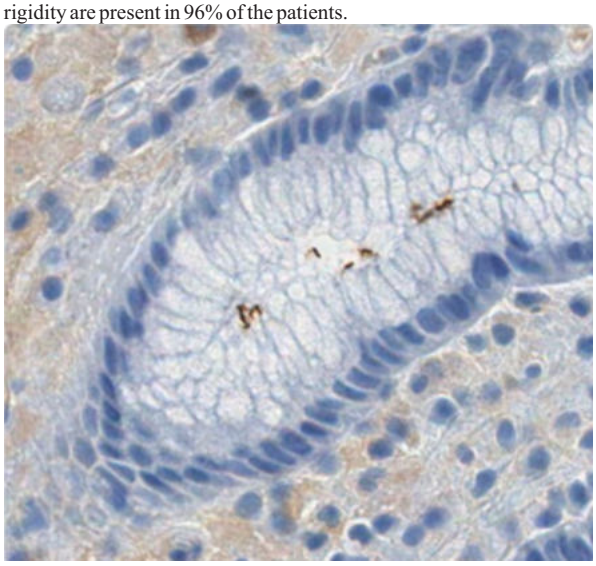

Figure 2 Showing Histopathology Slide Of Biopsy Of The Gastric Ulcer Showing Helicobacter Pylori.

DISCUSSION:

Despite the extensive use of H. pylori (H. pylori) eradicating medicines, the incidence of perforated peptic ulcer (PPU) has barely decreased. The prevalence of H. pylori is observed to be between 70 and 80 percent in patients with gastric ulcers and over 95% in those with duodenal ulcers. However, the prevalence of H. pylori infection varies significantly among studies, ranging from 0% to 100%(2,3). This suggests that variations in factors like the variety and type of diagnostic techniques used to identify H. pylori infection or the frequency of NSAID use may be to blame for the low prevalence found in some studies. Patients with H. pylori infection are more likely to have recurrent ulcer disease following peptic ulcer perforation, indicating that the bacteria are crucial to this problem. Since the disappearance of the organism prevents, or at least reduces, ulcer recurrence and ulcer perforation in patients with H. pylori-associated perforated ulcers after simple closure, all patients with perforated peptic ulcers should be treated by simple closure of the perforation and with therapy aimed at healing the ulcer and eradicating the H. pylori infection(4). As a result, the first postoperative time should be used to begin H. pylori eradication therapy. The sole remaining justification for elective definitive surgical treatment of peptic ulcer disease in patients with refractory recurrent symptoms of peptic ulcer disease despite effective medicinal treatment, but without H. pylori infection(5,6).

CONCLUSION:

H. Pylori was prevalent in 84% of the cases with gastroduodenal perforations.

REFERENCES:

1. El-Nakeeb A, Fikry A, Abd El-Hamed TM, Fouda EY, El Awady S, Youssef T, et al. Effect of Helicobacter pylori eradication on ulcer recurrence after simple closure of perforated duodenal ulcer. International Journal of Surgery. 2009 Jan 1;7(2):126–9.
2. Thirupathaiah K, Jayapal L, Amaranathan A, Vijayakumar C, Goneppanavar M, Nelamangala Ramakrishnaiah VP. The Association Between Helicobacter Pylori and Perforated Gastroduodenal Ulcer. Cureus. 12(3):e7406.
3. Donda 1 Dr Nemish V., Patoliya 2 Dr Anil, Maniya* 3 Dr Harmik H., Karkar 4 Dr Rutaben D., Karkar 5 Dr Rusitkumar M. A STUDY ON PREVALANCE OF H. PYLORI INFECTION IN GASTRODUODENAL PERFORATION. 1. 2023 Jan 15;6(01):67–76.
4. Parikh NS, Ahlawat R. Helicobacter Pylori. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 [cited 2023 Jan 19]. Available from: http://www.ncbi.nlm.nih.gov/books/NBK534233/
5. Gisbert JP, Pajares JM. Helicobacter pylori infection and perforated peptic ulcer prevalence of the infection and role of antimicrobial treatment. Helicobacter. 2003 Jun;8(3):159–67.
6. Dogra BB, Panchabhai S, Rejinthal S, Kalyan S, Priyadarshi S, Kandari A. Helicobacter pylori in gastroduodenal perforation. Medical Journal of Dr DY Patil University. 2014 Mar 1;7(2):170.