Peptic Ulcer: A Review

Sonali rahangdale[1], Ashwini Andhale[2], Santosh Waghmare[3], Hemant Kamble[4]
[1, 2, 3, 4] Dept of Pharmacology
[1, 2, 3, 4] Loknete Shri Dadasaheb Pharate Patil College of Pharmacy.

Abstract- *Up to 10% of people globally suffer from by a long-term condition known as peptic ulcer. Peptic ulcer development can be affected by the pH of stomach juice and a decrease in mucosal resistance. The main factors influencing the mucosal resistance to damage are Helicobacter pylori (H. pylori) infection and non-steroidal anti-inflammatory medicines (NSAIDs). Proton pump inhibitors (PPIs) and histamine-2 (H2) receptor antagonists, both commonly used treatments for peptic ulcers, have been shown to cause adverse effects, relapses, and a variety of pharmacological interactions. On the other hand, medicinal plants and the chemical compounds they produce can be used to cure and prevent a broad range of disorders. The common medicinal plants that can be implemented for the treatment or prevention of peptic ulcers are thus presented in this overview.*

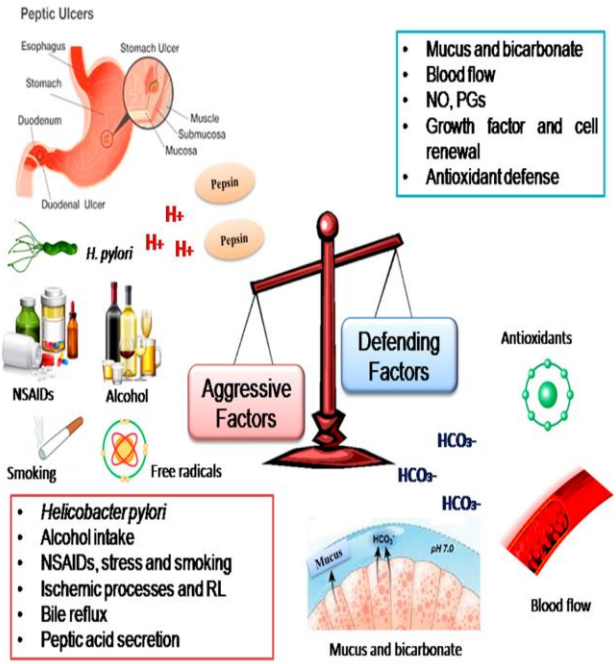
Keywords- Peptic ulcers, Helicobacter pylori, proton pump inhibitors.

I. INTRODUCTION

Peptic ulcer disease (PUD) is characterized by discontinuation in the inner lining of the gastrointestinal (GI) tract because of gastric acid secretion or pepsin. It extends into the muscularispropria layer of the gastric epithelium. It usually occurs in the stomach and proximal duodenum.

Usually occurring in the stomach or proximal duodenum, peptic ulcers are acid-induced lesions of the digestive system that have been defined by denuded mucosa with the defect extending into the submucosa or muscularispropria. Although recent epidemiological studies demonstrated a decrease in the incidence, rates of hospital admissions, and death associated with peptic ulcer the estimated prevalence of peptic ulcer disease in the general population is 5–10% . The advent of new treatments and improved hygiene practises, which led to a decrease in Helicobacter pylori (H. pylori) infections, are most likely secondary causes of this.

Idiopathic peptic ulcer disease, which is classified as H. pylori-negative, NSAID-negative, and aspirin-negative, can be identified in roughly one-fifth of patients. The imbalance between elements that support mucosal integrity and aggressive insults which causes idiopathic peptic ulcer growth, although the pathogenic processes behind this are still understood. According to a Danish study, psychological stress may make peptic ulcers more prevalent. Other causes include ischemia, medications (steroids, chemotherapy), radiotherapy, viruses, histamine, eosinophilic infiltration, gastric bypass surgery, metabolic disorders, and drugs (chemotherapeutic agents, radiotherapy).



Helicobacter pylori Eradication:

Although complete elimination of H. pylori is necessary for treating related peptic ulcers and preventing relapses, it is growing more difficult due to the increasing

number of cases of antibiotic resistance. The first effective treatment was introduced in the 1980s and consisted of a two-week treatment involving bismuth, tetracycline, and metronidazole. A proton pump inhibitor (PPI) and two antibiotics, such as clarithromycin plus amoxicillin or metronidazole, will be given for between seven and fourteen days as the traditional first-line treatment. However, during the past 10-15 years, there has been a noticeable drop in the clinical efficacy of triple therapy due to a rising prevalence of antibiotic resistance, particularly with clarithromycin. Antimicrobial susceptibility tests should be a foundation for the removal of H. pylori, As susceptibility.

proton pump inhibitors:

Proton-pump inhibitors are a class of medications that cause a profound and prolonged reduction of stomach acid production. They do so by irreversibly inhibiting the stomach's H^+/K^+ ATPase proton pump. They are the most potent inhibitors of acid secretion available.

Symptoms:

- bloating.
- belching.
- pain or discomfort in the upper part of your abdomen, anywhere between your belly button and breastbone.
- feeling full too soon while eating a meal.
- feeling uncomfortably full after eating a meal.
- nausea and vomiting.

Treatments:

- Antacids that neutralize stomach acid.
- Medications that protect the lining of your stomach and small intestine.
- Antibiotic medications to kill H. pylori.
- Medications that block acid production and promote healing.
- Medications to reduce acid production.

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