

**MEDICINAL PLANTS USED IN THE TREATMENT OF PEPTIC ULCER DISEASE: A
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ABSTRACT

The uses of medicinal plants in holding numerous diseases is as old as human beings. Peptic Ulcer is a common gastrointestinal disorder whose formation depends on the presence of acid and peptic activity in gastric juice and decrease in mucosal defenses. Main causes of ulcer are emotional disturbanc, stressful lifestyl, alcohol consumption, irregular food habits, *H.pylori* infection etc. It can be treated by lowering the amount of acid in stomach. For this a number of synthetic drugs are given which have several side effects and less affordable. India still depends on medicinal plants. The aim of this article is to summarize about peptic ulcer, its causes, symptoms, treatment and study of ethnomedicinal plants used by ethnic people for treatment of ulcer.

KEYWORDS: Ulcer, Alcohol, *H.Pylori*, Drugs, Stress.**INTRODUCTION**

Peptic Ulcer is a common gastrointestinal disorder characterized by deep lesions penetrating through entire digestive tract. Data for this disease and its complications have shown striking geographical variations in incidence and prevalence.^[1]

The estimated prevalence of peptic ulcer disease in general population is 5-10%.^[2]

Several substances have been identified and reported to cause gastrointestinal lesions in animals. Some of them are bacterial infection drugs, chemicals, inflammatory mediators, lipid metabolites etc.

Extensive researches are performed to find out powerful anti ulcer agents of plant origin.^[3]

Some of the factors which causes Ulcer are

- Stressful lifestyle
- Alcohol consumption
- Irregular food habits
- Severe illness
- Shock
- Emotional disturbance
- Use of Painkillers^[4]
- *H.pylori* bacterium

Oxidative stress has emerged as one of the major pathogenic factors in progression of ulcer that directly impaired the cellular functions and promotes cellular organelle damage in cells.

The formation of peptic ulcers depends on the presence of acid in gastric juice and breakdown in mucosal defenses.

Symptoms of Ulcers

Peptic Ulcer may or may not have symptoms. When symptoms occur, it may include :

- Heartburn
- Vomiting
- Weight gain or loss
- Severe pain in abdomen
- Dark or black stool
- Vomiting blood
- Bloating

Types of Ulcer

Ulcer can be of following types :-

1. Peptic Ulcer – The two most common types of peptic ulcer are :

- Gastric Ulcers
- Duodenal Ulcers

They are named according to their locations in stomach Gastric Ulcers are located in the stomach. Duodenal Ulcers are found at the beginning of small intestine known as duodenum.

2. Aphthous Ulcers - Sores that develop in the inner lining of mouth are referred to as mouth ulcers.^[5]

They are common and usually occur due to trauma such as fractured teeth or fillings. Anemia, chronic infections,

throat cancer, mouth cancer, vitamin-B deficiency are some of the common causes of ulcers in mouth.^[6]

3. Esophageal Ulcers – Lesions that occur in esophagus (the food pipe) is called esophageal ulcers. These are most commonly formed at the end of food pipe and can be felt as a pain right below the breastbone in same area where symptoms of heartburn are felt.

Pathogenesis of ulcer

1. *H.pylori*:- The main cause of stomach ulcers is *H.pylori*, which was first identified by two Australian scientists in 1982.

H.pylori is a gram (-)ve bacillus, motile, flagellated and spiral shaped bacteria.^[7] The prevalence of *H.pylori* is

higher in developing countries like Africa, Central America, Central Asia and Eastern Europe etc.^[8]

2. Gastric acid secretions^[9]
3. NSAID
4. Ethanol (ethanol lifting)

Medicinal plants for Peptic Ulcer

Medicinal plants have usage in healing numerous diseases.^[10] They contain phytochemical constituents of therapeutic importance.^[11] Many plants use these phytochemical as a protein mechanism against pathogen.^[12]

Antiulcer drugs can be developed from these medicinal plants with less side effects.^[13]

Table 1: List of Indian medicinal plants having antiulcer activity.

S.no	Plant	Family	Part used
1.	<i>Acacia arabica</i>	Mimosaceae	Gum
2.	<i>Allium sativum</i>	Liliaceae	Bulb
3.	<i>Aloe vera</i>	Xanthorrhoeaceae	Whole plant
4.	<i>Azadirachta indica</i>	Meliaceae	Bark, leaves, flower
5.	<i>Carica papaya</i>	Caricaceae	Seed
6.	<i>Eclipta alba</i>	Asteraceae	Root
7.	<i>Glycyrrhiza glabra</i>	Liquoriceae	Stem, root
8.	<i>Hibiscus rosa sinensis</i>	Malvaceae	Root
9.	<i>Mangifera indica</i>	Amacardiaceae	Leaves, flower
10.	<i>Moringa oleifera</i>	Moringaceae	Leaves
11.	<i>Oryza sativa</i>	Gramineae	Grains oil
12.	<i>Pongamia pinnata</i>	Papillonaceae	Whole plant
13.	<i>Psidium guajava</i>	Myrtaceae	Roots, bark & leaves
14.	<i>Tamarindus indica</i>	Caesalpiniaceae	Seed
15.	<i>Ocimum sanctum</i>	Lamiaceae	Whole plant

CONCLUSION

Medicinal plants are the source of medicines for different types of diseases. It has been proven that plant extracts have significant antiulcer activity.

Peptic ulcer is a gastrointestinal disorder which occurs due to breakdown in mucosal defenses because of presence of acid and peptic activity in tissues.

There is a need to search novel plant sources and effective pattern of treatment.

This study is an effort to provide overall view of medicinal plants used in the treatment of peptic ulcer. This will also help in designing synthetic drugs from plant extracts by collecting knowledge and information from ethnic people of this area so preservation of these ethnomedicinal plants is essential to cure ulcer.

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