

Treatment and cure of ulcer by herbal plants having flavonoids as active constituents.

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Abstract

Ulcers are mostly seen as gastrointestinal problem affecting a large number of humans. It is essentially an eruption on the mucus membrane that lines the gastrointestinal tract or can be seen on superficial layer of skin. Ulcers are formed when the natural equilibrium is disrupted by either increased violent variables or decreased mucosal protection factors. Today there are varieties of synthetic drugs to treat ulcers. However, as opposed to natural remedies, these medications are more costly and are likely to cause more side effects. Nature provides a large number of medicines which has all the solutions to human illness. Herbalists and indigenous healers have used plant derived agents to reduce and cure peptic ulcers for centuries. It was seen that flavonoids show crucial role in various diseases. Many more isolated compounds like Rutin, Quercetin, Kaempferol, Silymarin, Naringenin, and so on give notable results as anti-ulcer drugs. In this narrative review, we have comprehensively reviewed the plant sources having flavonoid as active constituent used as antiulcer agents.

Keywords: Flavonoid, Herbal plant, Medicinal use, Ulcer.

INTRODUCTION

Ulcers are eruptions or wounds on mucous membrane or the epidermal layer with loss of inflamed dead tissue. Ulcers are most often located in the gastrointestinal tract, but they can occur anywhere. Individuals can develop a variety of ulcers, including esophageal ulcers, peptic ulcers, mouth ulcers, foot ulcers and genital ulcers. One of these is peptic ulcer, which can be spotted in many individuals. Peptic ulcers are small wounds that form on the mucosa of the esophagus, stomach, or the duodenum which is anastomosed to the stomach.[1]

Gastric ulcers (GU): GU seems to be very prevalent in persons aged over 50 especially in women. The ulcer can still develop even though in some patients where gastric acid output is regular or even reduced. [2]

Duodenal ulcer (DU): DU is more common in younger people. Various studies have noticed that females are more likely to be affected by peptic ulcers as compared to the males.[3] In the upper abdomen, ulcers on both the anterior and posterior walls of the duodenum can cause excruciating pain and a burning sensation.[4].(Fig 1.)

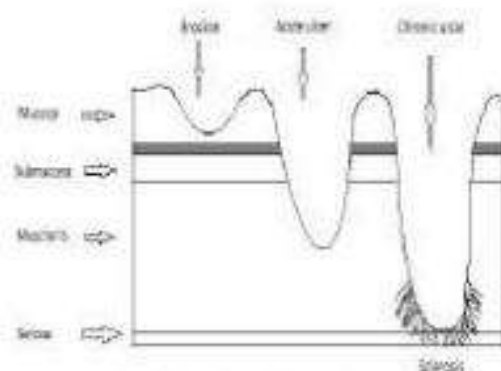


Fig 1. Degenerative alterations of mucosal lining in gastric and duodenal ulcers

Now, life can be enervating by peptic ulcers with symptoms like bleeding stool, serious distress in the stomach, and vomiting of blood. Apparently, peptic ulcer disease (PUD) is a non-infectious particularly characterized by repeating symptoms of upper abdominal discomfort, food or alkali generally alleviate them. Apart from this it brings more distress to patients, their daily routine also gets convulsed, and also causes mental trauma.[5] Peptic ulcer disease is caused by a mismatch between violent variable (e.g. HCl, pepsin) and helpful mucosa-protective variable (e.g. Mucus, bicarbonate barrier, prostaglandin and adequate blood flow), according to studies.[6] Primarily the destructive action of gastric acid and pepsin on the mucosa were thought to be the root behind occurrence of all ulcers in the upper gastrointestinal tract. Although the term "peptic ulcer" has recently been linked to *Helicobacter pylori* infection, emotional stress, alcohol intake and long-term use of nonsteroidal anti-inflammatory drugs (NSAIDs)[7]. In USA, prescribed NSAIDs have been counterproductive and it is accountable for about 25% of all unpleasant and harmful drug reactions. Every year Approximately 16500 arthritis patients lose their life from gastrointestinal toxicity. [8] Duodenal and gastric ulcer conditions are linked to the *Helicobacter pylori* infection. *H. pylori* is found only in the gastric epithelium, in which the organism tends to cluster around the cell crossroads and seldom penetrates the cell itself. *H. pylori* is not found in blood and is not found in other parts of the body, with rare exceptions.[9]

Antacid and antiulcer drugs account for 6.2 billion rupees in the Indian pharmaceutical industry.[10] Even in this digital age, 75–80 percent of the world's population till date relying upon phyto-medicines primarily in underdeveloped nation due to finer societal acceptability for primary health care, more suitable, effective for mankind, and fewer after effects.[11] Scintigraphy considered, there was no critical harmless in these natural plant derivatives.