

In Vitro Evaluation of Natural Drug For Potent Antiulcer And Biochemical Application

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Abstract- Antiulcer is tending to prevent or treat ulcers and especially ulcers of the wall of the stomach of duodenal antiulcer drugs. Carica papaya leaf medicines are very important to cure the various ailment of human. demands of the carica papaya leaf are increasing. The common forms of peptic ulcer are duodenal ulcer, gastric ulcer, NSAIDs induced ulcer and stress ulcer. Many synthetic drugs are used for the treatment of peptic ulcer but cause various adverse effect. Each year peptic ulcer disease affects 4 million people around the world. complications are encountered in 10%-20% of the patients and 2%-14% of the ulcer will perforate. life threatening and mortality varies from 10-40%. non-steroidal anti-inflammatory drugs, steroids, smoking and diet high in salt the factors have common that affect acid secretion gastric mucosa. than women more than stomach ulcer tend to occur later in life after age 60 and affect women more often than men.

In abstract have made to know the anti-ulcer drug of carica papaya leaf origin with the suggest carica papaya leaf, screening methodology and type of extract used for evaluation and

Keywords- Antiulcer, carica papaya leaf, aqueous extract, antioxidant, anti-inflammatory and cell line.

I. INTRODUCTION

there are many types of ulcers such as mouth ulcer, esophagus ulcer, peptic ulcer and genital ulcer. the peptic ulcer is seen among many people. The peptic ulcer is erosion of lining stomach or duodenum. Ulcer are an open sore of the skin or mucus membrane characteristic by sloughing of inflamed dead tissue. ulcer are lesions on the surface of the skin are a mucus membrane characterized by a superficial loss of tissue. the Carica papaya L. (papaya leaf), rich in vitamins A, B and C, has also as constituents carbohydrates, proteins, **alkaloids (carpaine and pseudocarpaine), proteolytic enzymes (papain and quimipapain), and benzyl isothiocyanate, more known as BITC.** Generally, pain occurs when the stomach is empty relives after eating. A duodenal ulcer is more common in younger individuals and Ulcers are most common on the skin of the lower extremities and in the gastrointestinal tract, although they may be

encountered at almost any site. There are many types of ulcers such as mouth ulcer, esophagus ulcer, peptic ulcer, and genital ulcer.

Of this peptic ulcer is seen among many people. The peptic ulcers are erosion of lining of stomach or the duodenum. The two most common types of peptic ulcer are called "gastric ulcer" and "duodenal ulcer. Most healthcare providers treat ulcers (stomach or duodenal) with these acid-suppressing drugs. Present study was conducted to help of carica papaya leaf considered as gastro protective and healing agents of ulcers. The most used plant species for the treatment of peptic ulcer were: Carica papaya L.

The seeds, leaves and roots have also been shown to treat ulcers in animals and humans. In a sauce pan, add water, papaya leaf and ginger piece. Boil till the color changes and water reduces. It will take about 8-10 mins. Now remove the leaf and add tea dust. Bring 2-3 boils and strain in serving cups. Add honey as desired and a few drops lemon juice. Papaya leaf is often consumed as an extract, tea, or juice and has been found to treat symptoms related to **stomach ulcer**. Other common uses include reducing inflammation, improving blood sugar control, supporting skin and hair health, and preventing cancer.

II. IDENTIFY, RESEARCH AND COLLECTED IDEA

I. in vitro anti-ulcer activity of aqueous extracted from medicinal plant leaf of carica papaya leaf against stomach ulcer of stomach wound healing.

Papaya leaf contains fibra nutrient that supports healthy digestive function and a unique compound called papain. Papain is **well known for its ability to break down large proteins into smaller, easier-to-digest proteins and amino acids.** It's even used as a meat tenderizer in culinary practices. The papaya leaf is the plant Carica papaya, one of the 22 accepted species in the genus Carica of the **family Caricaceae.** Family-caricaceae, genus-carica, species-C.papaya.

The leaves **reduce inflammation of the stomach lining and heal gastric ulcers by killing H. pylori bacteria.** Papaya

leaves also contain papain, protease enzyme, and amylase enzyme, which help break down proteins, carbs, and soothes the gastrointestinal (GI) tract.

2. Antioxidant Antibacterial And antiulcer form carica papaya leaf.

A limitation or inhibition of nutrient oxidation (especially lipids and proteins) by restraining oxidative chain reactions. Antioxidants are compounds capable to either **delay or inhibit the oxidation processes** which occur under the influence of atmospheric oxygen or reactive oxygen species. They are used for the stabilization of polymeric products, of petrochemicals, foodstuffs, cosmetics and pharmaceuticals.

Antioxidant substance from plants have attracted the principal interest in pharmaceutical manufacturing, since these compounds effectively prevent or retard the adverse impacts caused by free radicals. There are two groups of antioxidants. The reaction breaking antioxidant and prevent antioxidant. They demonstrate the main roles in the prohibition of many plants such as a duodenal stomach wounds and ulcers.

The study was aimed at evaluating the antiulcer and antioxidant activities of 70% ethanolic extract of leaves of

caricapapaya leaves.

The *papaya leaves* of this medicinal plants are used in folk medicine for treating ulcerative stomatitis, skin diseases, ulcers, wounds. Antiulcer activity, the free radical scavenging activities of medicinal plants depends on concentration and increased with increasing amount of the extract. These results suggest that *leaves of papaya* possess potential antiulcer activity, which may be attributed to its antioxidant mechanism of action.

III. WRITE DOWN YOUR STUDIES AND FINDINGS

1. medicinal plant

Herbs are refers to thousands of plants kindom. The term includes some leaves are useful for ulcers.

he most used plant species for the treatment of peptic ulcer were: *Carica papaya* L.(Caricaceae), *Zingiber officinale* Roscoe (Zingiberaceae), *Musa paradisiaca* L.(Musaceae) and *Allium sativum*L.(Amaryllidaceae).

2. carica papaya leaf

Papaya leaves work amazingly to treat stomach and mouth ulcer, it is also great to prevent malarial infection. Papaya leaf contains a compound named acetogenin that prevents diseases like malaria or stomach wounds. Papaya leaf juice can be beneficial for people with a weak immune system. **You can have it on a daily basis to give a boost to your immunity.** If you are on a high protein, papaya leaf juice can help in breaking down protein into amino acid and peptides.

3. Antioxidant Activity

The antioxidant activity of papaya leaves is determined using a method designed to give maximum extract of the antioxidant capacity of the sample. The work has undergone the antioxidant activity by DPPH and anti-inflammatory assay. Antioxidant substance from papaya leaf attracted the principle interest in pharmaceutical manufacturing, since these compounds effectively prevent or retarded the adverse of impacts caused by free radicals. they demonstrate denaturation and again the present of antioxidant substance alkaloids, carbohydrate, glycosides, saponins, protein, phenolic compound, flavonoids, terpenoids in papaya leaf was act as defense mechanism. The presence of antioxidant in papaya leaf protected the structure. Papaya leaves is the best medicine for anti-ulcer activity. The anti-ulcer potentials of aqueous (AE) of whole unripe *Carica papaya leaves* were evaluated using ethanol- and indomethacin-induced gastric ulcer models in rats. The effect of the extracts on small intestinal propulsion was also investigated.

IV. RELATED WORK

1. Phytochemical analysis

It refers to the extraction, screening and identification of the medicinally active substance found in *papaya leaf*. Some of the bioactive substance that can be derived from papaya leaf are alkaloids, carbohydrate, glycosides, saponins, protein, phenolic compound, flavonoids, terpenoids. The color intensity or the precipitate formation was used as analytical response to these tests phytochemical is a nature bioactive compound found in thacatica papaya leaf, to protect against disease.

2. Antiulcer Activity

The extracts significantly reduced the ulcer index in both experimental models ($P < .05$) compared to the control group. AE showed a better protection against indomethacin-induced ulcers, whereas AE was more effective against ethanol-induced gastric ulcers.

The extracts also significantly ($P < .05$) inhibited intestinal motility, with AE showing greater activity. Oral administration of AE up to 5,000 mg/kg did not produce lethality or signs of acute toxicity in mice after 24 hours. The extracts of unripe carica L. *papaya* contain terpenoids, alkaloids, flavonoids, carbohydrates, glycosides, saponins, and steroids. The cytoprotective and antimotility properties of the extracts may account for the anti-ulcer property of the unripe leaves. This extract was very high efficiency when compared with other extract. Then carica papaya leaves best antiulcer activity for this method.

3. Cytotoxicity Effect

The cytotoxicity effect of the sample was tested against the wound of the cells line. Carica L. *papaya* (leaves) was selected to test the antiulcer activity on wound of cell line because of its high antioxidant activity. were incubated at 37°C in 96 well plates containing 0.1 ml of the culture medium in each well (50, 100, 150, 200, 250, 300, 350).

Wound healing is a complex biological process that consists of hemostasis, inflammation, proliferation, and remodeling. Large numbers of cell types—including neutrophils, macrophages, lymphocytes, keratinocytes, fibroblasts, and endothelial cells are involved in this process.

V. OBSERVATION

In vitro Antioxidant and antiulcer activity of wound healing process of cell line. Measurement of wound of stomach duodenal ulcer cells was performed using human annexin V-platinum ELISA KIT. The mixture was incubated to allow wound healing by using cell death. the monolayer of cells was washed with PBS and they observed by healing cells image fluorescent microscopy.

Conclusion: The study concludes *carica papaya leaf* drugs for potential ulcer activity and standardization of sample. They act as potent in treating various disease and can be used as an alternative for some therapeutic treatment. Such leaf drugs to be clinically effective and globally competitive.

VI. CONCLUSION

Extract of the carica papaya leaf sample these anti-inflammatory methods causing the cell line wound healing is tightly regulated by a product, this process will be different. The cells line on the wound formation then included the drug will be seeded and after 24 hrs this wound was healing starting stage. Then after 48 hrs the total wounds were healing. Then the conclusion, the activity of cell line was observed are

coincident with the conclusion of the process. This finding agrees with many studies on cancer cell special.

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