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Herbal Drugs Used as Antiulcer Agent: A Review

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Abstract: ***Ulcers are a recurrent gastrointestinal condition that affects a large number of people. It is essentially an inflammation or swelling of the mucous membrane that lines the skin of the digestive tract. Ulceration occurs when the natural balance is disrupted, either by increased aggressiveness or by reduced mucosal flexibility. This can be a result of the use of medicines on a daily basis as well as irregular eating habits& Stress and similarly peptic ulcer is a general term that refers to an ulcer in the stomach or duodenum of the digestive tract. Ulcers can be treated by using various synthetic drugs. According to the research, various Ayurvedic practitioners and traditional healers also use a variety of medicinal herbs and polyherbal combinations to heal ulcers. The desired goal of peptic ulcer therapy is to reduce pain, repair ulcers, and prevent ulcer recurrence. This is an approach of presenting several herbs which are useful to treat ulcer of stomach and duodenum like Bacopamonniera, Asparagus racemosus, Eclipta alba, Andrographispaniculate, Trichopuszeylanicus, Picrorrhizakurroa, Phyllanthus and Silibummarianum.***

Keywords: Herbal Drugs, Antiulcer Agent

1. Introduction

An ulcer is an open wound on the skin or mucous membrane marked by peeling off dead inflamed tissue. [1] Cysts are most commonly found on the skin of the lower legs and in the gastrointestinal tract, but they can appear anywhere. In peptic ulcer the lining of the stomach or duodenum is damaged. [2] The two most common types of "gastric" ulcers and peptic ulcers are duodenal ulcers. [3] The name is related to ulcers on the skin. Ulcers are rather prevalent in individuals over the age of 49. Eating can increase the pain instead of reducing it. Other signs and symptoms include nausea, vomiting and weight gain. [4] Despite the fact that acid production is normal or low in patients with stomach ulcers, sometimes ulcers can occur in the absence of acid. [5] Pain is most common When the stomach is empty and disappears after eating. The ulcer of the duodenum that mostly affects menis more common in young people. [6]

Peptic ulcer is affecting 10% of the worldwide population, is one of the most frequently occurring gastrointestinal diseases. An estimated 15, 000 people die each year from peptic ulcer disease.5Peptic ulcer bleeding and perforation had an estimated annual incidence of 19.5–58 and 3.9–13/100, 000 people, respectively. [7] The 7 - day mean of repeat bleeding was 14 % with 12.2 % having longer - term recurrence of perforation. Antacids and antiulcer medicines account for Rs 6.21 billion in the Indian pharmaceutical business, with a market share of 4.3 per cent. [8]

In vivo and in vitro and further clinical studies are required to complete this electronic database for these medicinal plants regarding peptic ulcer including Indian Ayurvedic book Materia Medica and VigyanPratiksha PubMed Scopus and Google Scholar was studied and all articles were retrieved &evaluated for evidence of efficacy and potential mechanisms. [9] Studies clearly show that any of these herbs, or the mechanisms involved in their effectiveness, are useful in treating peptic ulcers. [10]

Materia Medica has a wealth of knowledge about ethnic medicinal herbs that are valued as anti - ulcer agents and whose efficacy has been tested experimentally and proven by various researchers. After compiling the data, it turned out that medicinal herbs with anti - ulcer activity were specifically defined. [11]

2. Herbal as Antiulcer Agent

2.1. Adansonia digitata

The tree of the Malvaceae family is often referred to as the "bobab" or "the monkey - bread tree of Africa". The locals call it "Paparapuli". Mostly found in Bombay, Gujarat, Coromandel Coast and Ceylon. Wax, tannins are both soluble and insoluble, sodium, potassium chloride, etc. are all found in the bark. [12]

In Ayurvedic medicine, taking ginger powder and fresh root juice mixed with Salvadoraindica juice is beneficial. inactive syphilitic ulcer. For inflammatory ulcers, the leaves are used as a compress and poultice [13].

2.2. Aeglemarmelos

Aeglemarmelos, which belongs to the Rutaceae family, is called "vine tree". A plant that grows mainly in India. It is known as "Vilvam" in the local language. Flavonoids, tannins and saponins are the chemical constituents of this plant. [14]

According to the latest research. Ligate stomach ulcers in rats due to aspirin and pylorus and a leaf extract in aqueous form. The daily dosage is 1 g/kg and is to be taken orally for 21 days. [15] Compared to the control group, the results demonstrated a significant reduction in the number of ulcer lesions. The active ingredient Luvangetin is a seed - derived pyranocoumarin isolate. [16]

2.3. Aloe vera

A member of the Liliaceae family, commonly known as "Aloe Gel". And it is known as "Kattalai" in the local language and is widespread throughout India. Plant aloin, isobarbaloin and emodin are its chemical constituents. [17]

According to the latest research. Aloe vera powders was combined with acacia gum, and Given orally at a dose of 200 mg/kg to rats to heal indomethacin - induced stomach ulcers. The extract exhibited comparatively substantial antiulcer activity. [18]

2.4. Careyaarborea (Myrtaceae)

Another name for this is a "slow match tree". The locals call it Pilakputatami. “The chemical elements of this plant include 8% tannins in the thick red bark. Libor contains simple crystal calcium oxalate.1[9]According to the latest research. For 5 days, rats were given an ethanol - causing ulcer model orally against doses of 295 and 595 mg/kg, cold restraint stress, and pylorus binding to C. Arborea was given ethanol stem bark extract.[15] When compared to the extract control, the healing of stomach ulcers is significantly improved. [19]

2.5. Euphorbia neriifolia (Eurphorbiaceae)

Known colloquially as the "Common Milk Hedge". It is known locally as "Ilaikalli". It can be found in leafless shrub grown in Central India and Bengal. chemical component. This plant contains euphorbone, cowchoke, and other substances. [20]. According to Ayurvedic medicine the sap of the plant is often used as a treatment for unwell ulcers and itching with clarified or fresh buttermilk. [21]

2.6. Ficus religiosa (Urticaceae)

Also known as the "holy fig. "The local people name it "Arsha - Maram". This precious Peepal tree grows in the wild and grown by Hindus in India. The bark contains tannins, cochchoke (cochatone) and beeswax. [22] According to the latest research. In rats, F. religiosa leaves was tested at two dose levels (249 and 499 mg/kg, oral) against absolute ethanol, aspirin, and pylorus. [23] Gastric ulcers are dramatically reduced due to ligature reduced values of the ulcer Index in comparison to controls. [24]

2.7. Galegapurpurea. Galegapurpurea (Papilionaceae)

It is also known as "purple tephrosia". The locals call it "Koluk - ke - Velai". It is prevalent throughout India, especially in southern India. It grows extremely strongly on hard rocky ground. [19] The chemical content of this plant includes byproducts gum, a trace of albumin and ash manganese, a brown resin, and a trace of chlorophyll, as well as a principle of quercetin or querritin and the glucoside rutin. [25] In Ayurvedic medicine, ulcers are treated with the powder of the root mixed with honey. [25]

2.8. Hydrocotyleasiatica (Umbelliferae)

It is also called as "Indian Pennywort". It is found locally. known as "Vellarai". This little weed may be found all throughout India flourishing in damp environments. [26] For ulcers in Ayurvedic medicine, 3 to 5 granules are given three times a day. some simultaneously. The powder can be applied on ulcers or wounds, better yet, used as a poultice. It is possible to plant new leaves. [27]

2.9. Lawsonia alba (Lythraceae)

Also referred to as "Henna". The local people name it "Maruthony". The plant is widely grown throughout India, mostly as a garden and hedge plant. [23] The chemical content of this plant includes leaves that make up a coloring material 11 to 14% honey, Tannic acid, a kind of tannin, and an olive green resin are soluble in ether and ethanol. Oil is extracted from the seeds. It also has glucoside plant. [28]

In Ayurvedic medicine the leaves are used to make an ointment that is employed in the treatment of wounds and ulcers. [28]

2.10. Mangiferaindica (Anacardiaceae)

It is sometimes referred to as a "mango tree. ". It is known as "Mangai" in the local language. It is grown all over India. chemical componentAlkaloids, sterols, etc are found in this plant. [29] For ulcers in Ayurvedic medicine, the leaf extract is Orally administered after being dissolved in rice bran oil. The herb has traditionally been claimed to have anti - ulcer properties. [30].

According to the latest research. Rats given orally a decoction of flowers at dose of 249, 499 and one thousand mg/kg caused gastric ulcers in a dose - dependent manner. As a result, the extract lowered the amount of gastric juice and acidity substantially. [31]

2.11. Mimosa pudica (Fabaceae)

It is sometimes referred to as "don't touch me". It is known as "Thottal" in the local language. sinungi. "It grows in every tropical and subtropical country on the earth. [32] It has chemical components. Plant flavonoids include tannins, gums and mucus. [33]. According to the latest research. A dose - dependent mimosa leaf ethanolic extracts have anti - ulcer action. pudica has been documented, and these may be leaf extracts. It can be used as a natural antioxidant to heal ulcers. [33]

2.12. Moringaoleifera (Moringaceae)

Known colloquially as "drum - stick, horse radish tree" it is Locally known as "Murungai". [34] is indigenous to the western andIndia, Pakistan and Sub - Himalayan region as well as Arab. Alkaloids are the chemical elements of this plant. flavonoids, saponins, tannins, zeatin, quercetin, kaempferom, kaempferom, kaempferom, kaempferom, kempfas well as terpenoids. [35]

According to the most recent study, M. oleifera alcoholic leaf extract was administered orally to rats at dosages of 124, 249, and 499 mg/kg to prevent pylorus binding, ethanol, and aspirin - induced stomach ulcers. The extract has been demonstrated to reduce ulcers and acid pepsin release. [36]

2.13. Myrtuscommunis (Myrtaceae)

Also spelled "Myrtle" It is planted in various gardens around India. Ripe berries containing resin, tannins, etc are the chemical constituents of this plant. [37] The use of leaf powder in Ayurvedic medicine is effective in wounds and ulcers. The fruit is carminative and is used as an infusion to treat internal ulcers. [38] According to the latest research. M. communis topical formulation Wound healing activity demonstrated in rats at low doses. M. communis fruits are preserved in rat, ethanol, indomethacin, and pylorus ligation induced gastric ulcers by reducing stomach production and acidity and increasing the mucosal barrier. [39]

2.14. Odinawodier (Anacardiaceae)

Colloquially known as "Odiyaram". It is often grown in the warm regions of India. Chemical constituents of this plant include tannin - rich bark and ash content of potassium carbonate. [40] The juice of fresh bark has a useful use in Ayurvedic medicine to avoid ulcers. For chronic ulcers, bark powder with neem oil is used. The powdered bark is used in the treatment of leprosy. [35]

2.15. Plantagoispagula (Plantaginaceae)

It is sometimes referred to as "spogel seeds". It is locally known as "Ishapucolvirai". [36] This Persian plant is also found in north - west India, PB and Sindh, and is grown in a mini area that extends to Bengal, Mysore and the Coromandel Coast. [37] There are over 50 species of Plantago, of which 10 are endemic to India. This plant's chemical contents are rich in mucilage, fatty oils, and albuminous substances. [38] Decoction in the amount of 2 to 3 drinks in Ayurvedic medicine, many benefits of duodenal ulcer. [39]

2.16. Psidiumguyava (Myrtaceae)

Also spelled "guava". It is known as "Koyya" in the local language. It is grown almost everywhere in India and is particularly popular in Bengal. [40] Chemical ingredients of this plant include bark (27.4 percent tannins), resin and calcium oxalate crystals. [41] A decoction of the leaves is used locally in Ayurvedic medicine. An excellent gargle for ulcers, inflamed gums and mouth ulcers. [42]

According to the latest research. P. Guyava methanol leaf extract was given orally to rats at dosages of 499 and one thousand mg/kg for 10 days to prevent ethanol - induced stomach ulcers. [43] Essence compared with controls, ulcer indices are very low. [44]

2.17. Rhuscoriaria (Anacardiaceae)

Also referred to as "Sumach". It is indigenous to southern Europe. [42] The plant contains myricetrin and tannic acid etc as chemical constituents. [45] It is often used in Ayurvedic medicine as a powder or a squeezer, with a powder content of 20 to 30 grains. [46] local paste Applying a Combination of Charcoal Powder to Unhealthy Ulcers. [47]

According to the latest research. In rats, a hydrochloric extract of R. korea at doses of 144 and 249 mg/kg was given orally to prevent ethanol - induced stomach ulcers. Essence Significantly improves the recovery of gastric ulcers. [48]

2.18. Terminaliachebula (Combretaceae)

Common names include "myrobalan" "ink - nut, "and "gulnut" The locals call it "Kaduk - kai". It grows in woody forests in northern India, the central provinces and Bengal, as well as in the southern regions of the Mango Madras, Mysore and Bombay Presidencies. [49] Tannins are chemical elements of this plant. (tannic acid) 45 percent and more lucylase, When immersed in water, chebulinic acid dissociates tannic and gallic acids are formed. [50] In Ayurvedic medicine the ash of Triphala is dusted with Sindhu salt to eliminate excess discharge from syphilitic wounds. [51] Prepare a good ointment for aphthae for chronic ulcers and ulcerated wound, by mixing equal parts with dried myrobalan and catechu. [52] Both finely powdered and mixed with sufficient amount of ghee or any other mild oil into a thick paste. [53]

3. Conclusion

Current management impasse in contemporary medicine traditional medicine is used in research to determine the source of certain disorders. In this regard good procedures have been introduced by traditional medicine for the treatment of various gastritis disorders.

Traditional thought held that acid secretion was the sole cause of ulcer development and subsidence. The predominant mode of medicine was considered to be acid secretion. However, in the light of new information, the paradigm has changed. The primary focus is now on healing the ulcer. Acid secretion as well as defines system Ability to reduce acid secretion subatomic particle.

Natural products account for nearly half of all innovative chemical entities created in the past two decades. Recent medical developments have rekindled interest in natural products Search. As a result, efforts should be focused isolation and characterization of active principles, as well as elucidation of the structure - activity relationship Many medicinal plants and extracts (which contain active chemical ingredients such as tannins and flavonoids) show strong antiulcer efficacy. Traditional practices have documented the therapeutic effectiveness of some formulations.

Ayurveda, the world's oldest medication system, aids in the discovery of medically effective plant components. As a result, backed by Ayurvedic wisdom there is a need for

modern science to extract. Anti - ulcer properties. Combining traditional and contemporary enlightenment may lead to better drugs with fewer adverse effects for the treatment of peptic ulcers. Pharmacologists need to be more proactive. There is interest in evaluating herbal medicines for potential antiulcer properties. Clinically effective and internationally competitive herbal medicine activity and standardization.

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