



AEGLE MARMELLOS (ANTI-ULCER ACTIVITY)

Rutuja B Nathe , Ritika D Gosavi , Vaishali Bhamare
Student, Student,, Assistant Professor
Mahavir Institute Of Pharmacy, Nashik -422004

ABSTRACT

Aegle marmelos in Indian standard clinical systems, linn is a frequent plant that is used to therapy a range of disorder conditions. The aim of the contemporary study used to be to set up a scientific basis for the effectiveness of Aegle marmelos in treating stomach ulcers. For the investigation, an aqueous extract of Aegle marmelos leaves used to be made. A day by day dose of the extract given orally for 21 days at a charge of 1 gm/kg body weight. Estimates were made for the gastric acid excretion volume, ulcer lesion count, pepsin content, PH, total acidity, hexose, and hexosamine contents. The outcomes showed that after extract therapy, the quantity of ulcer lesions, the amount of gastric juice, and the acidity all decreased notably while pH and hexosamine tiers increased. The content of hexose and pepsin, however, was not extensively changed.

Key words-(aegle marmelos,Ulcer,H.pylori,

INTRODUCTION

Ulcers are sores that are sluggish to heal or maintain returning. They can take many varieties and can show up both on the inner and the backyard of your body.

They can be observed on places of your body you can see, such as a leg ulcer discovered on the skin, or in locations you can't see, such as a peptic ulcer in the lining of your stomach or higher intestine. From your eye to your foot, you can get them simply about somewhere on your body.

Injuries, diseases, and infections can purpose them. What they appear like relies upon on where you have them and how you obtained them. While some go away on their own, others motive serious issues if you don't deal with them.

Types of Ulcers:

There are 7 types of Ulcers are described below:

- Leg & Foot Ulcers
- Bedsores
- Genital Ulcers
- Corneal Ulcers
- Stomach Ulcers
- Peptic Ulcers
- Mouth Ulcers

Leg & Foot Ulcers

These can be painful and may take months to heal. They vary in how they look, from red splotches that ooze to darkened patches of swollen skin.

Most start with an injury that doesn't heal well because of some other health issue -- usually, a blood flow problem.

If you have problems with your veins, you can get venous ulcers, the most common kind on your legs. You're more likely to get them if you have:

A history of blood clots in your legs
Limited ability to move around
Osteoarthritis (when cartilage on the ends of your bones wears down)
Varicose veins

If you have problems with your arteries, such as plaque build up (atherosclerosis), you may get arterial ulcers. Typically, you get these on your feet and toes.



Bedsores

Also known as pressure ulcers or strain sores, at first they just look like off-color skin. Over time though, they can grow into deep, open wounds.

You get bedsores when extended strain on your pores and skin leads to blood drift problems. You're extra possibly to get them if you have a condition that makes it hard for you to pass and you're compelled to lie down or sit most of the time. An instance is when you've had surgical operation that requires bed rest for a lengthy time.

Bedsore can cause: Bone and joint infections

Cancer in your skin's higher layers Cellulitis, a painful infection in your pores and skin and smooth tissue Flesh-eating micro organism (necrotizing fasciitis), a life-threatening infection Sepsis, a life-threatening problem the place bacteria get into your blood and go at some stage in your physique.

Genital Ulcers

These are painful sores on the penis, vagina, or anus.

They're commonly prompted by sexually transmitted diseases such as herpes, syphilis, and chancroid (in which bacteria motive skin ulcers to form, typically on the genitals). They might also be brought about by means of an injury or a reaction to a pores and skin care product.

Open sores on your genitals make you greater in all likelihood to provide or get sexually transmitted diseases (STDs), including HIV.

Corneal Ulcers

These show up on the cornea, which is the floor of your eye. They might also reason redness and pain, and you can also feel like you have something stuck in your eye. Typically, you get a corneal ulcer from an infection. You would possibly also get it due to the fact of dry-eye syndrome, an harm to your cornea, or troubles with your eyelids which can motive your corneas to dry out and form ulcers. They can purpose serious vision problems, such as blindness.



Stomach Ulcers

One kind of ulcer you can't see is a peptic ulcer. You can get them in your stomach or the top section of your small intestine. For most people, stomach pain is the first clue they have one. Normally, you have just the proper quantity of belly acid to destroy down your food. But if some thing throws your stomach off, the acid can consume away at its lining and motive an ulcer. This can manifest because of *H. pylori*,

a type of bacteria Long-term use of non steroidal anti-inflammatory drugs (NSAIDs). These include aspirin, ibuprofen (Motrin and Advil), and naproxen (Aleve and Naprosyn). Acetaminophen (Tylenol) doesn't purpose this problem.

Use of some medicines, such as steroids and a classification of medicinal drugs known as selective serotonin reuptake inhibitors (SSRIs), used to treat depression .If not treated, peptic ulcers can cause: Bleeding internal your body, Blockages that maintain food from moving out of your belly

Peptic Ulcers

Peptic ulcers are open sores that boost on the internal lining of your stomach and the upper element of your small intestine. The most frequent symptom of a peptic ulcer is stomach pain.

Peptic ulcers include:

Gastric ulcers that manifest on the inner of the stomach Duodenal ulcers that happen on the inside of the upper component of your small gut (duodenum)

The most common motives of peptic ulcers are infection with the bacterium *Helicobacter pylori* (*H. pylori*) and long-term use of non steroidal anti-inflammatory capsules (NSAIDs) such as ibuprofen (Advil, Motrin IB, others) and naproxen sodium (Aleve). Stress and spicy foods do not motive peptic ulcers. However, they can make your symptoms worse.

Mouth Ulcers

Also called canker sores, these small, round sores may also be red, yellow, or gray. They show up inside your cheeks and lips, as well as on your tongue and gums. They're exceptional from cold sores that you may additionally get round the outdoor of your mouth. Certain conditions, such as celiac disease (an immune reaction eating gluten) or Crohn's (a bowel ailment that causes inflammation), can give you mouth ulcers. They can additionally be brought on by way of trauma, sensitivity to meals with lots of acid, adjustments in your hormone levels, or no longer enough vitamins.

Usually, mouth ulcers are innocent and go away on their own. Check with your health practitioner if they final extra than three weeks

AEGLE MARMELOS

Origin

Bael is native to India (Zeven and De Wet 1982) and observed during Southeast Asia. In India this fruit is grown in Indo-Gangetic plains and Sub-Himalayan tracts up to a peak of 500 m, in North-East India and dry and deciduous woodland of central and southern India.

Plant profile :

- Kingdom - Plantae
- Division - Magnoliophyta
- Class -Magnoliopsida
- Family – Rutaceae
- Synonyms-Belou marmelos(L)A.Lyons, Crateva marmelos L
- Order -Sapindales
- Biological sources - The fruit from the genus Aegle marmelos, a native tree from India, where the fruit is known as “Bael,” is also recognised as the wooden apple. The fruit shape resembles an apple and the identify wooden apple is due to the fruit tough shell.
- Genus -Aegle
- Common identify –Bael Patra, Bael
- Species- A .marmelos

Uses -

1. Management of bacteria-induced diarrhoea and cholera.
- 2: Good for digestion.
- 3: Reduces cholesterol.
- 4: Help in diabetes management.
- 5: Prevent skin infections.
- 6: Act as a blood purifier.
- 7: Help in scurvy.
- 8: May minimize most see

PHYTOCHEMISTRY

Marmelos has been reported to include a number of phytoconstituents frequently marmenol, marmin, marmelosin, marmelide, psoralen, alloimperatorin, rutaretin, scopoletin, aegelin, marmelin, fagarine, anhydromarmelin, limonene, â-phellandrene, betulinic acid, marmesin, imperatorin, marmelosin, luvangentin and auroptene Yadav et al. have determined the contents of tannin (0.985%) and riboflavin (0.005%). Various organic acids together with oxalic, tartaric,

malic and ascorbic acids had been separated and quantified the usage of a RP-HPLC. Dhan et al. have characterised the a variety of phenolics in the fruit as chlorogenic acid (136.8 µg/g), ellagic acid (248.5 µg/g), ferulic acid (98.3 µg/g), gallic acid (873.6 µg/g), protocatechuic acid (47.9 µg/g) and quercetin (56.9 µg/g) via LC-MS and LC-MS/MS scans and HPLC studies. In 2008, Suvimol et al. have used SPME/GC/MS machine to find *A. marmelos*. They located hexanal, isoamyl acetate, limonene, β-phellandrene, p-cymene, acetoin, (E)-2-octenal, (E,E)-2,4-heptadienal, dehydro-p-cymene, linalool oxide, 3,5-octadiene-2-one, α-Cubebene, trans-p-mentha-2,8-dienol, citronellal, β-cubebene, β-caryophyllene, hexadecane, pulegone, α-Humulene, verbenone, carvone, carvyl acetate, dihydro-β-Ionone, (E)-6,10-dimethyl-5,9-undecadien-2-one, β-Ionone, caryophyllene oxide, humulene oxide and hexadecanoic acid. Seed oil composed of palmitic, stearic, oleic, linoleic and linolenic acid. Apart from these, seed oil has been observed to contain 12.5% of an uncommon fatty acid, ricinoleic acid along with different normal fatty acid.

Physico Chemical Standardization of Leaves

Determination of man or woman extractive values (Cold extraction)

The air dried, powdered plant material was once extracted with petroleum ether, chloroform, alcohol, hydro alcohol and water one after the other in a conical flask at a room temperature. The most cold extractive price used to be cited in ethanol extract.

Determination of character extractive values (Hot extraction)

The air dried powdered plant cloth was once extracted with Petroleum ether, chloroform, alcohol, hydro alcohol and water one at a time in a Soxhlet apparatus. The maximum warm extractive value was once stated in ethanol extract.

Fluorescence Analysis

The air dried plant cloth was subjected to fluorescence analysis beneath extremely violet light and day mild after giving cure for 48 hours with a range of chemical and organic solvents like 1N Sodium hydroxide, Nitric acid, Sulphuric acid, Iodine, Conc. , Ammonia, Ferric chloride, Glacial acetic acid, Picric acid, Petroleum ether and Chloroform.

Conclusion

In cutting-edge medication system, 4 synthetic capsules are used to treat peptic ulcer 1. capsules to inhibit gastric acid secretion Antacids to neutralize gastric acid Ulcer protective agents and Antibacterial drugs. These artificial pills motives lot of facet consequences and additionally produces AMR. WHO additionally recommends the use of natural capsules to reduce AMR. *Aegle marmelos* Linn. is a amazing antibacterial and used as antiulcer drug for the therapy of peptic ulcer. To limit AMR, therapy with natural capsules is want of hour and *Aegle marmelos* Linn. is one properly choice because it possess each antibacterial and antiulcer activities proved scientifically. The bacteria *H. pylori* is responsible for inflicting peptic ulcer. No or less literatures are available on effect of *Aegle marmelos* on *Helicobacter pylori*, as a result lookup

is wanted in this subject to be aware of its effect on H .pylori. If it indicates wonderful effect, to limit AMR it will be a excellent herbal drug to treat Peptic ulcer barring any facet effect.

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