



## “A Review On Herbal Drugs Used For The Treatment Of Ulcers”

<sup>1</sup>Saloni S. Pathak, <sup>2</sup>Bhagyashri A. Borade, <sup>3</sup>Sachin J. Dighade

<sup>1</sup>Student, <sup>2</sup>Assistant Professor, <sup>3</sup>Principal

<sup>1</sup>Department of Quality Assurance,

<sup>1</sup>Institute of Pharmacy and Research, Badnera, Amravati, India.

**Abstract:** Ulcers are open sores or lesions in the epithelium that can occur on the skin or internal mucous membranes, resulting from tissue disintegration and necrosis. They are slow-healing and often painful, sometimes requiring medical intervention to avoid complications. The manifestation, symptoms, and treatment of ulcers vary depending on their underlying causes. Herbal medicine, an integral part of traditional healthcare systems globally, offers alternative treatments for various types of ulcers. Derived from plant parts such as leaves, roots, bark, and seeds, herbal remedies are gaining prominence due to their therapeutic properties. Specific herbs such as Curcuma Amada, betel leaves, Curcuma longa, Centella Asiatica, and Prunella vulgaris have demonstrated efficacy in treating peptic, mouth, arterial, venous, and genital ulcers, respectively. This review highlights the role of herbal medicine in ulcer treatment and its integration into contemporary healthcare systems.

**Index Terms** - Ulcers, Herbal Medicine, Peptic Ulcers, Mouth Ulcers, Arterial Ulcers, Venous Ulcers, Genital Ulcers, Complementary Medicine, Plant-Based Therapies.

### I. INTRODUCTION

Ulcer is disease of skin both which is lining the human body externally and its internal viscera which can be demarcated as an open sore in the lining of epithelial cells or deep lesion in the specific. An region which vitiates and would lead to bleeding and turn out as bleeding sore or bleeding ulcers [1]. An ulcer is a break in the continuity of the covering epithelium, either skin or mucous membrane due to the molecular death. An ulcer is a painful sore that is slow to heal and sometime recurs. Ulcers aren't uncommon. Why they appear and their corresponding symptoms typically depend on their underline causes. Ulcer can appear anywhere in or on your body, from the lining in your stomach to the outer layer of your skin. Sometime ulcer disappears on their own. Others times they required medical treatment to prevent serious complications. Simply said it break in skin or mucous membrane with loss of surface tissue, disintegration and necrosis of epithelial tissue, and often pus. Sometime that faster and open [2]. Some herbal medicine used to treat different type of ulcers. Herbal medicine(HM) is the fulcrum of complementary and alternative medicine, which in recent times is increasingly gaining widespread popularity all over the world and gradually streaming toward integration into the mainstream healthcare systems [3]. Herbal medicine is a practice that includes herbs, herbal material, and preparations that contain parts of plants or combinations thereof as active ingredients. These herbs are derived from plant parts such as leaves, bark, flowers, roots, fruits, and seeds [4]. In contemporary

times, HM remains a major component of the primary healthcare in many rural African and Asian communities. It also constitutes an integral part of the culture of many societies of the world. Many herbs and herbal recipes have a long traditional history of folk uses and claims of health benefits. Scientific research has shown that HMs contain complex chemical compounds that are responsible for the pharmacological activities. Herbal drugs are also playing the important role in treatment of ulcers. Some common types of ulcers are cured with the help of herbal drugs for example, *Curcuma amada* are used to cure the peptic ulcers, betel leaves are used to cure mouth ulcers, *Curcuma longa* are used to cure arterial ulcers, *gotu kola* (*Centella asiatica*) are used to cure venous ulcers, *Prunella vulgaris* are used to cure genital ulcers. Other than this different types of drugs we use in ulcers treatment and other diseases [5].

## HERBAL DRUGS USED IN TREATMENT OF ULCER:

### *Curcuma amada*

Plant profile: *Curcuma amada* belongs to the *Curcuma* genus and *Zingiberaceae* family, which is popular as an herbal plant. This vegetal is generally identified as mango ginger and from East Indian origin. This native Indian plant has spread widely to several countries in Asia, including Indonesia, Australia, and America. *C. amada* is a unique plant because its morphology is similar to ginger (*Zingiber officinale*) but has a mango (*Mangifera indica*) aroma. Because of this uniqueness, *C. amada* is also locally acknowledged as Temu Mangga in Indonesia. *C. amada* is commonly used as a seasoning for making pickles, sauce, curry, candy, salad, and flavor because of its distinctive aroma. *C. amada* is also known as a source of certain minerals and starches so that this plant can be used as a medicine, cosmetics, dye, and as nutraceutical. 1,2 Several bioactivities of *C. amada* rhizome have been investigated, including antibacterial, antioxidant, anticancer, antihyperglycemic, anti-inflammatory, and antiallergic properties [6].



Figure 1: *Curcuma amada*

### Scientific classification:

- Kingdom: Plantae
- Order: Zingiberales
- Genus: *Curcuma*
- Species: *C. amada*
- Class: Monocotyledonea
- Division: Magnoliophyta
- Common name: Mango ginger
- Scientific name: *Curcuma*/hidden lilies

## SOURCE OF PLANT MATERIAL:

This rhizome of curcuma amada were collected from khatimuttarakhand in the month of October 2012 and verified by Dr.D.S.Rawat (plant taxonomist)G.B.Pant University of agriculture and Technology, pantnaga [7].

## CHEMICAL CONSTITUENTS:

The rhizome essential oil of curcuma amada from lacknow revealed, the essential oil of curcuma amadaroxb. Contain  $\alpha$ -curcumen(28.1%),  $\beta$ - curcumene(11.2%), camphor(11.2%) and curzerenone(7.1%), 1,8-cineole(6.0%) as major components. The essential oil of curcuma amada Roxb. Contain  $\alpha$ -pinene, and  $\beta$ - curcumene, camphor, cuminal alcohol, myristic acid and turmerone. Car-3-ene and cis- ocimene contribute the characteristic mango odour of the rhizome. Its thizome yield 1% essential oil containing  $\alpha$ -pinene 18%, ocimene 47.2%, linalool 11.2%, linalyl acetate 9.1%, and safrole 9.3% (chopranayar&chopra, 1980) [8].

## PART OF PLANT USE :- Rhizome

**USES:** Appetizer, alexeric, antipyretic, diuretic, emollient, expectorant and laxative and to cure bilioiseness, itching, skin diseases, bronchitis, asthma, inflammation due to injuries. It is also use in treatment of peptic ulcer [9]

**SYNONYMS** :-Curcuma manga, valeton & van zipp

## BETEL LEAVES:

**Plant profile:** The deep green heart-shaped leaves of betel vine are popularly known as Paan in India. It is also known as Nagaballi, Nagurvel, Saptaseera, Sompatra, Tamalapaku, Tambul, Tambuli, Vaksha Patra, Vettillai, Voojangalata etc in different parts of the country. The scientific name of betel vine is *Piper betle* L. It belongs to the family Piperaceae, i.e. the Black Pepper family. The vine is a dioecious (male and female plants are different), shade loving perennial root climber. There are about 100 varieties of betel vine in the world, of which about 40 are found in India and 30 in West Bengal. The most probable place of origin of betel vine is Malaysia. In spite of its alienness, the plant is much more popular in India than in any other country of the world since the antiquity. This would be evident from the numerous citations laid down in the ancient literature, particularly the Indian scriptures. In these citations, significance of the leaves has been explained in relation to every sphere of human life including social, cultural, religious and even day-to-day life, which is very much relevant even these days [10]. For example, a well-prepared betel quid is still regarded as an excellent mouth freshener and mild vitalizer, routinely served on the social, cultural and religious occasions like marriage, Puja (religious festivals), Sraddha ceremony (religious function performed after cremation) etc [11].



Figure 2: Betel leaves

## SCIENTIFIC CLASSIFICATION:

- Kingdom: Plantae
- Order: Piperales
- Family:Piperaceae
- Genus:Piper
- Species:P betle
- Class:Magnoliopsida
- Common name: Betel leaves
- Scientific name: *Piper betle* L

**SOURCE OF PLANT MATERIAL:** The term betel was derived from the Malayalam word vettilla via Portuguese. In India betel leaf plays an important role since ancient culture. Its use in India dates back to 400 BC. As per ancient books of Ayurveda, Charaka, Sushruta Samhitas, and Kashyapa the practice of chewing betel leaf after meals became common between 75 AD and 300 AD. The betel plant is native to southeast Asia. It is an evergreen, dioecious perennial, with glossy heart shaped leaves and white catkins. Betel plant are cultivated for their leaves which is most commonly used as flavoring in chewing areca nut (betel nut chewing) [12].

**Chemical Constituents:** Betel leaf contain varies geographically and is mostly chavibetol dominant. Safrole is a major component of Sri Lanka piper betel. Eugenol, isoeugenol, and germacene D are other dominant compound in other chemotypes. Leaves also contain eugenol, chavicol, hydroxychavicol and caryophyllene. Stems contain phytosterols, lignin (pinoresinol) and other bioactive components. Some of them are oleanolic acid, dehydropiperonaline, and bornyl p-coumarate. Roots contain aristololactam A-II, a new phenylpropene, 4-allyl resorcinol and a diketostroidstigmast-4-en-3,6-dione [13].

### Part Of Plant Use: Leaf

**USES:** The phytochemicals that are present in betel leaves have antioxidant and anti-ulcer properties. It also improve oral health. Betel leaf are also use for reduce the growth of bacteria in your mouth, use to prevent wide range of oral infection and diseases. Betel leaf can also protect oral cavity from dental caries by reducing the amount of acid that is produce by bacterial saliva. One of the traditional medicine that are used to stop bleeding is a betel leaf. Betel leaf serves as an astringent to stop bleeding in gingivitis and to heal mouth ulcer. [14].

**Synonyms:** betel pepper, piper betel

### Curcuma Longa

Curcuma longa or turmeric is a tropical plant native to southern and southeastern tropical Asia. A perennial herb belonging to the ginger family, turmeric measures up to 1 m high with a short stem and tufted leaves. The parts used are the rhizomes. Perhaps the most active component in turmeric is curcumin, which may make up 2 to 5% of the total spice in turmeric. Curcumin is a diferuloylmethane present in extracts of the plant. Curcuminoids are responsible for the yellow color of turmeric and curry powder. They are derived from turmeric by ethanol extraction. The pure orange-yellow, crystalline powder is insoluble in water. The structure of curcumin ( $C_{21}H_{20}O_6$ ) was first described in 1815 by Vogel and Pellatier and in 1910 was shown to be diferuloylmethane [15]. Chemical synthesis in 1913 confirmed its identity [16]. Turmeric is widely consumed in the countries of its origin for variety of uses, including as a dietary spice, a dietary pigment, and an Indian folk medicine for the treatment of various illnesses [17].

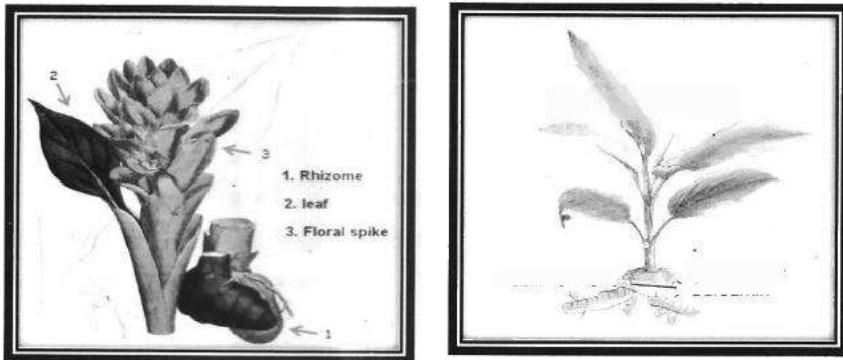


Figure 3: curcuma longa

### Scientific Classification:

- Kingdom: Plantae
- Order: Zingiberales
- Family: Zingiberaceae
- Genus: Curcuma
- Species: c. longa
- Class: Magnoliopsida
- Division: Tracheophytes
- Common name: turmeric
- Scientific name: Curcuma longa

**Source Of Plant Material:** The greatest diversity of curcuma species by number alone is in India, at around 40 to 45 species. Thailand has a comparable 30 to 40 species. Other countries in tropical Asia also have numerous wild species of curcuma. It is a major part of Ayurveda, Siddha medicine, traditional Chinese medicine, Unani. The name possibly derives from middle English or early modern English tunmerite or tarmarte. It may be Latin origin, terra merita [18].

**Chemical Constituents:** The main active components of rhizome are the nonvolatile curcuminoids and the volatile oil. Curcuminoids (curcumin, desmethoxycurcumin, and bisdemethoxycurcumin) are nontoxic polyphenolic derivatives of curcumin that exert a wide range of biological activities. However, the major components are - turmerone, 8-tumerone, a-santolina, standalone, 8-bisabolene, 8-caryophyllene [19].

### Part Of Plant Use: Rhizome

**Uses:** It is used to treat the arterial ulcers (open wound). Curcuma longa L. is commonly used as a spice in curries, food additives and also, as a dietary pigment. It has also been used to treat various illnesses in the Indian subcontinent from the ancient times. [20].

**Synonyms:** Turmeric, Curcuma Domestica

### Gotu Kola Or Centella Asiatica

#### Plant Profile:

Centella asiatica (CA), a clonal, perennial herbaceous creeper belonging to the family Umbelliferae (Apiaceae) is found throughout India growing in moist places up to an altitude of 1800 m. It is found in most tropical and subtropical countries growing in swampy areas, including parts of India, Pakistan, Sri Lanka, Madagascar,

and South Africa and South Pacific and Eastern Europe. About 20 species related to CA grow in most parts of the tropic or wet pantropical areas such as rice paddies, and also in rocky, higher elevations [21]. The CA extracts (CAE) have been used traditionally for wound healing and the research has been increasingly supportive for these claims [22]. A preclinical study reported that various formulations (ointment, cream, and gel) of an aqueous CAE applied to open wounds in rats (3 times daily for 24 days) resulted in increased cellular proliferation and collagen synthesis at the wound site, as shown by an increase in collagen content and tensile strength [23]. The authors found that the CAE-treated wounds epithelialized faster and the rate of wound contraction was higher when compared to the untreated control wounds. Healing was more prominent with the gel product. It is believed to have an effect on keratinization, which aids in thickening skin in areas of infection. Asiaticoside, a constituent in CA, has been reported to possess wound healing activity by increasing collagen formation and angiogenesis [24].

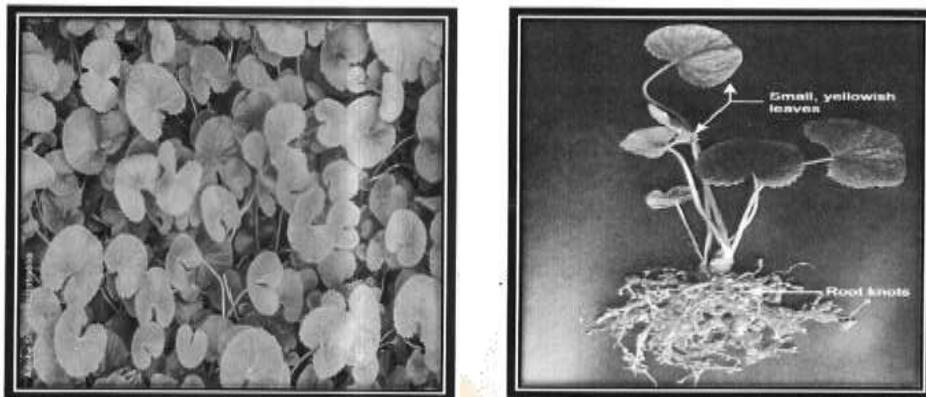


Figure 4: Gotu kola or *Centella asiatica*

#### Scientific Classification:

- Kingdom: Plantae
- Order: Apiales
- Family: Apiaceae
- Genus: Centella
- Species: *C. asiatica*
- Class: Centella
- Division: Tracheophyte
- Scientific name: Gotu kola
- Common name: *Centella asiatica*

#### Source Of Plant Material:

Gotu kola (*centella asiatica*) is a perennial plant native to India, Japan, China, Indonesia, South Africa, Sri Lanka, and the South Pacific. *Centella asiatica* is a clonal perennial herbaceous creeper belonging to the family Apiaceae. It is found throughout India growing in moist places up to an altitude of 1800m. It is found in most tropical and subtropical countries growing in swampy areas. About 20 species related to CA grow in most parts of the tropic or wet pantropical areas such as rice paddies and also in rocky, higher elevations. It is tasteless, odourless plant thrives in and around water [25].

**Chemical Constituents:** The primary active constituent of CA are saponins, which include asiaticosides, in which a trisaccharide moiety is linked to the aglycone Asiatic acid, madecassoside and madamasiatic acid. These triterpene saponins and their saponins are mainly responsible for wound healing and vascular effect by inhibiting the production of collagen at the wound site [26].

**Part Of Plant Use: Leaf**

Uses: Historically, gotu kola (*centella asiatica*) has also been used to treat syphilis, hepatitis, stomach ulcer, mental fatigue, epilepsy, diarrhea, fever, and asthma. Today, in U.S. and Europe gotu kola is most often used to treat varicose veins and chronic venous insufficiency, a condition where blood pools in the legs [27].

**Synonyms:** Hydrocotyle Asiatic, tiges grass

**Prunella Vulgaris**

*Prunella vulgaris* L. has 1 to 2 feet long stem with leaves notched on the edge. The flowers are purple in color which sprouts at top of the stem. Flowers are in full bloom mostly from June to August. *P. vulgaris* L. (Labiatae), is also known as self heal, was popular in European and Chinese medicine for curing sore throat, fever and enhance wound healing. The plant is a perennial herb which is wild in Kashmir valley and is widely used. The herb has tremendous medicinal importance and not a single traditional composite unani medicine of sore throat, common cold and head ache is without this herb. In Kashmir, the herb is used in unani medicine as brain tonic in chilly winters, as it is boiled and inhaled in the form of steam which clears phlegm and reduces head ache. In Kashmir the herb is among one of the ingredients of composite traditional medicine which is used for bathing pregnant women after she delivers her baby. The aqueous extract of this herb is recently used in clinical treatment of herpetic keratitis. The herb has great medicinal value and is used as hypotensive, antibiotic, antiseptic, antirheumatic, antipyretic, antibacterial, antioxidant, diuretic, vermifuge. It is used in treatment of wounds, ulcers [28].



Figure 5: *prunella vulgaris*

**Scientific Classification:**

- Kingdom: Plantae
- Order: Lamiales
- Family: Lamiaceae
- Genus: *Prunella*
- Species: *p. vulgaris*
- Class: Magnoliopsida
- Division: Tracheophyta
- Common name: Woundwort
- Scientific name: *Prunella vulgaris*

**Source Of Plant Material:** The *p. vulgaris* is found in Europe, North Africa, Asia, and tropical Australasia, North, Central, and South America and in the sub-antarctic island. Some sources list *p. vulgaris* as a native of North America. Other sources suggest that the self-heal population in the USA consists of the native subspecies, *p. vulgaris* subsp [29].

**Chemical Constituents:** It includes betulinic acid, D-camphor, D-fenchone, cyanidin, delphinidin, hyperoside, manganese, lauric acid, oleanolic acid, rosmarinic acid, myristic acid, rutin, linoleic acid, ursolic acid, beta-sitosterol, lupeol, and tannins. Their structures were established on the basis of spectral analysis as polygalacerebroside, ursolic acid,  $\beta$ -amyrin, quercetin, quercetin-3-O- $\beta$ -D-galactoside, a-spinasterol, stigmasterol,  $\beta$ -sitosterol, daucosterol [30].

**Part Of Plant:** Flowers, Steam, Leaves

## Uses

:It is used in healing of injuries, fever, wounds, ulcers and sores. It is also used in antibacterial, antipyretic, antiseptic, antispasmodic. It acts as antiseptic and hence useful for wounds, burns, ulcers and painful. It is also useful in urinary tract. The whole plant is useful for internally or externally wound. *Prunella vulgaris* is a medicinal herb that has been used centuries to treat infection and other illnesses. Some studies show it may help fight inflammation, protect against cancer, prevent diabetes complication, and treat herpes [31].

**SYNONYMS:** *Brunella Vulgaris L.*

## Types Of Ulcers

- Peptic ulcer
- Mouth ulcer
- Arterial ulcer
- Venous ulcer
- Genital ulcer

### PEPTIC ULCER

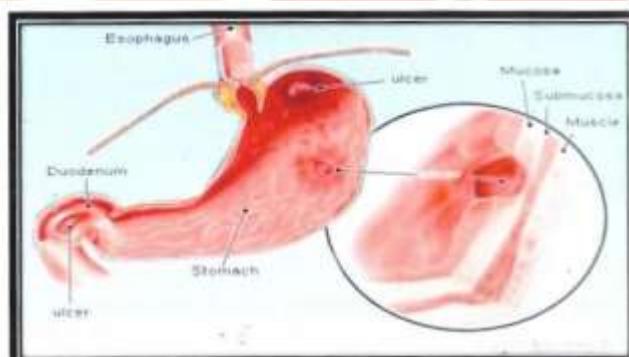


Figure 6: peptic ulcer

These are sores or wound that can develop on: The inside lining of your stomach The upper portion of your small intestine Your esophagus. They form when digestive juice damage the walls of your stomach or intestine. These ulcers are quite common.

Peptic ulcers caused by: Inflammation after contracting *helicobacter pylori*(*H.pylori*) bacteria or through long term use of nonsteroidal anti-inflammatory drugs (NSAIDs)

There are two types of peptic ulcers:

- Gastric ulcers or ulcers that develop in the stomach lining.
- Duodenal ulcers that develop in the duodenum (small intestine).

The most common symptoms of this condition are a burning sensation. Other symptoms may include:

- Bloating or the feeling of being full
- Bleaching
- Heart burn
- Nausea
- Chest pain
- Vomiting

- Weight loss

### Treatment:

Depends on the underlying causes of your ulcers. If you have an *H.pylori* infection, your doctor may prescribe antibiotics to kill the harmful bacteria. For majority of peptic ulcers cases, acid-lowering medication regimens are generally prescribed to help protect the mucosal lining from stomach acid so it has time to heal [32]. Curcuma amada showed immense therapeutic potential against *H.pylori* infection, as it was highly effective in the eradication of *H.pylori* from infected mice as well as in restoration of *H.pylori*-induced gastric damage. Curcumin does this by preventing the growth of *H.pylori* cagA+Strain to control *H.pylori*-mediated ulcer, suggesting its antiulcer potential [33].

### MOUTH ULCER:

Mouth ulcers are small sore or lesions that develop in your mouth or the base of your gums. They are commonly known as canker sore [34]

Mouth ulcers caused by: Stress, Hormonal changes, Vitamin

deficiencies. Mouth ulcers are common and often go away within 2 weeks. They can be uncomfortable but shouldn't cause significant pain. When mouth ulcer is very painful and doesn't go away within 2 weeks, seek immediate medical attention. Other serious symptoms associated with this type of ulcer may include: Usually slow healing, Avoiding drinking or eating. Mouth ulcer often go away on their own without treatment. If they become painful, your doctor or dentist may prescribe an antimicrobial mouth wash or ointment to reduce your discomfort. If your condition is the result of a more serious infection, seek medical attention to receive the best treatment [35]. Betel leaf is widely used to treat mouth ulcers in India so it comes as no surprise that it improves oral health. Betel leaf can help reduce the growth of bacteria in your mouth, preventing a wide range of oral infections and diseases. Betel leaf can also protect your oral cavity from dental caries by reducing the amount of acid that is produced by bacterial saliva [36].

### ARTERIAL ULCER:

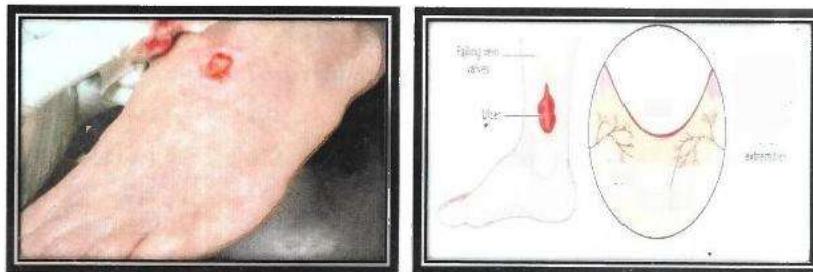


Figure 8: Arterial ulcer

Arterial (ischemic) ulcers are open sore that primarily developed on the smaller side of arterioles and capillaries, most often around the outer side of your ankle, feet, toes, and heels. Arterial ulcer developed from damage to the arteries due to lack of blood flow to the tissue. Arterial ulcers are also sometimes found in the gut in individuals who are ill and have poor blood pressure in general. These forms of ulcers can take months to heal and require proper treatment to prevent infection and further complications [37]. Arterial ulcers have a "punched out" appearance accompanied by a number of symptoms, including: Red, yellow or black sore, Hairless, Leg pain. Treatment: Arterial ulcers depend on the underlying causes. Primary treatment includes restoring blood circulation to the affected area. While antibiotics may help reduce symptoms, your doctor may recommend surgery to increase blood flow to your tissue and organs. In more severe circumstances, your doctor may recommend amputation [38]. You can also treat the arterial ulcers with the help of herbal drug curcuma longa. 1 teaspoon of curcumin powder, Water, Mix the curcumin and water to make a thick paste. Apply the paste to the ulcers on your ankle and let it dry. Wash it off with warm water. You can also consume a glass of hot milk with turmeric to help your body combat the infection from within. You must do this at least twice daily. Curcuma longa has been used for ages for wound healing due to its

antibacterial properties [39]. It contains a compound called curcumin that has exceptional anti-inflammatory and wound-healing properties [40,41].

### VENOUS ULCER:

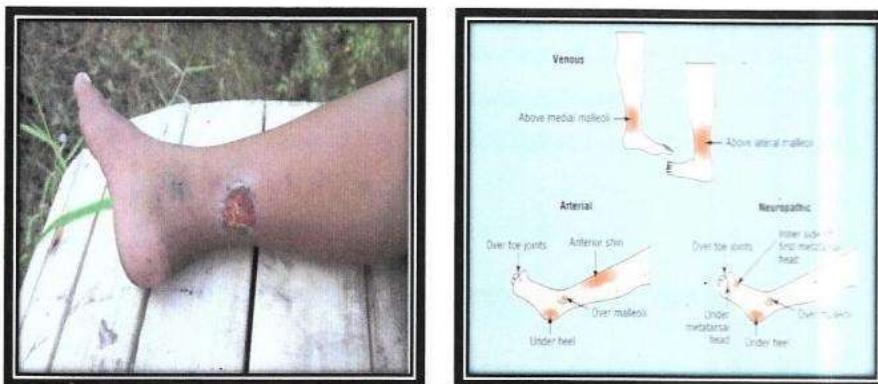


Figure 9 venous ulcer

Venous ulcer are the most common type of leg ulcers are open wound that often from on your leg.Below your knee and on the inner area of your ankle.They typically developed from damage to your veins cause by insufficient blood flow backto your heart.In some cases venous ulcers causes little to no pain unless they are infected.Other cases of this condition can be very painful [42].

Other symptoms you may experience include:

- Inflammation
- Swelling
- Itchy skin
- Scabbing
- Discharge

Treatment: Venous ulcer can take month to fully heal.In rare cases they may never heal. Treatment focus on improving flow to the affected area.Antibiotics can help prevent infection and reduce symptoms,but they aren't enough to heal venous ulcer.Alongside medication,your doctor may recommend surgery or compression therapy.To increase blood flow.[43].Venous ulcer are also treated by the herbal drug gotu kola.A handful of gotu kola leaves or 1 tablespoon of dried gotu kola,Water Grind the gotu kola leaves with enough water to form a thick paste.Apply this paste to your leg ulcers and leave it on for 15-20 minutes.Wash it off.Apply this paste 1-2 times daily.Gotu kola is a creeping herb that is mainly found in tropical regions like Asia and Africa.It is used to treat open wounds like leg ulcers and burns [44].The presence of compounds like asiatic acid and madecassic acid gives gotu kola its wound-healing and anti-inflammatory properties [45].

### GENITAL ULCER:

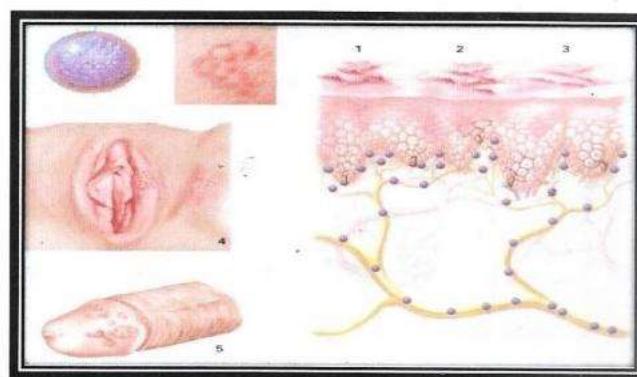


Figure 10: genital ulcer

Genital ulcer are sore that develop on genital areas,including the penis,vagina,anus,or surrounding areas.They are usually cause by sexually transmitted infections (STIs),but genital ulcers can also be

triggered by trauma, inflammatory diseases, or even, in some case trusted source, an Epstein-Barrvirus (EBV) infection [46]. In addition to sores, symptoms that may accompany genital ulcers include: Rash or bump in affected area, Itching or pain, Fever

**Treatment:** Similar to other type of ulcers, treatment depends on the underlying causes of your conditions. In some cases, these sore go away on their own. If diagnosed with an STI, your doctor may prescribe antiviral or antibiotics medication or ointments. If you feel you have been exposed to an STI, seek immediate medical attention [47]. Genital ulcers are also cured with the help of herbal drugs. *Prunella vulgaris* are used to treat the genital ulcer. *Prunella vulgaris* is often cited as a possible treatment for the genital ulcer, which is marked by contagious sores around your mouth or genitals. *Prunella vulgaris* may protect against herpes by stimulating the activity of immune cells like macrophages, which help your body fight infection [48]. Laboratory tests also showed that *Prunella vulgaris* has a different type of anti-ulcer action than currently available treatment, such as Zovirax (acyclovir). Given the high incidence of genital herpes and the emergence of acyclovir-resistant strains of herpesviruses, the [experimental herbal herpes treatment] may prove to be a useful new anti-ulcer drug [49].

## HOW DOES LONG IT TAKE FOR ULCERS TO HEAL?

- The length of time it takes for your ulcer to heal depends on the type, as well as the severity of the ulcer itself. For many peptic ulcers, the healing time is around a month or so with treatment. Arterial ulcer can take several months to heal or may not even heal at all.
- With compression therapy, venous ulcers can be healed in a few months, although some may not heal at all. Mouth ulcers or canker sore, can take anywhere from a week to 4 weeks trusted source to heal with treatment. However, many people have reoccurring mouth ulcers.
- The amount of time is taken to heal genital ulcers really depends on what is causing them. For example, individual living with genital herpes, which is sexually transmitted disease can treat there ulcer but cannot cure them, so they may periodically reappear. Most ulcers go away faster with the proper treatment.

## 2. CONCLUSION

Ulcers are sore that are slow to heal and sometimes reoccur. They can appear in many different parts of the body, from the stomach lining to the genital area. While peptic ulcers are the most common kind of ulcers, there is a variety of ulcer types, and many are caused by underlying conditions. Treatment of ulcers depend on what causes them. Ulcers are common and there are over-the-counter methods that can ease the discomfort they may cause. The quicker you talk with your doctor about your symptoms, the quicker you may be able to find relief. From this study we can conclude that studies with plant sources can result in novel and effective patterns of treatment. Current stalemates of modern medicine in the management of various ailments incline research tendencies to traditional medicine. In this respect, traditional medicine has introduced good protocols for treatment of various ulcer disorders. All of the remedies presented here had adequate evidence from traditional or scientific source for their efficacy in management of ulcers.

### 3. REFERENCES

1. Mehta, D., 2016. Ulcer-review on types, anti-ulcer drugs, anti-ulcer medicinal plants, anti-ulcer drug market, diagnostics and current global clinical trials status. Invent Rapid Pharm Pract, 2, pp.1-8.
2. Vimala, G. and Gricilda Shoba, F., 2014. A review on antiulcer activity of few Indian medicinal plants. International journal of microbiology, 2014.
3. Bent, S., 2008. Herbal medicine in the United States: review of efficacy, safety, and regulation. Journal of general internal medicine, 23(6), pp.854-859.
4. <https://www.healthline.com/health/types-of-ulcers>
5. Bent, S., 2008. Herbal medicine in the United States: review of efficacy, safety. And regulation. Journal of general internal medicine, 23(6), pp.854-859.
6. Sugita, P., Amalia, M., Dianhar, H. and Rahayu, D.U.C., 2021. PHeNOLC COMPOUNDS FROM tHe RHIZOMES OF INDONESIAN Curcuma amada. studies, 14(4), pp.2686-2691.
7. Momin, E.R., Kamat, M.M., Upadhye, A. and Kumar, S., 2014. Laparoscopic management of a perforated duodenal ulcer, case report from a municipal hospital. Indian Journal of Applied Basic Medical Sciences, 16(23), pp.68-74,
8. Narayananakutty, A., Sasidharan, A., Job, J.T., Rajagopal, R., Alfarhan, A., Kim, Y.O. and Kim, H.J., 2021. Mango ginger (Curcuma amada Roxb.) rhizome essential oils as source of environmental friendly biocides: Comparison of the chemical composition, antibacterial, insecticidal and larvicidal properties of essential oils extracted by different methods. Environmental Research, 202, pp.111718
9. Mahadevi, R. and Kavitha, R., 2020. Phytochemical and pharmacological properties of Curcuma amada: A Review. International Journal of Research in Pharmaceutical Sciences, 11(3), pp.3546-3555.
10. Ahuja, S.C. and Ahuja, U., 2011. Betel leaf and betel nut in India: History and uses Asian journal pp 13-55.
11. Deshpande, S.M., Upadhyay, R.R. and Singh, R.P., 1970. Chemical study of Piper betel leaves. Current Science,
12. Ahuja,S.C.and Ahuja,U.,2011.Betel leaf and betel nut in India:History anduses.Asian Agrihist,15(1),pp.13-35.
13. Rathee, J.S., Patro, B.S., Mula, S., Gamre, S. and Chattopadhyay, S., 2006. Antioxidant activity of Piper betel leaf extract and its constituents. Journal of agricultural and food chemistry, 54(24), pp.9046-9054.
14. Madhumita,M.,Guha,P.and Nag,A.,2020.Bio-actives of betel leaf (Piper betle L.):A comprehensive review on extraction, isolation, characterization, and biological activity. Phytotherapy Research, 34(10), pp.2609-2627
15. Sirisidhi, K., Kosai, P., Jiraungkoorskul, K. and Jiraungkoorskul, W., 2016. Antithrombotic activity of turmeric (Curcuma longa): A review. Indian Journal of agricultural research, 50(2) ...

16. Milobedzka,J.,v.Kostanecki,S.and Lampe,V.,1910.Zur kenntnis des curcumins.Berichte der deutschen chemischen Gesellschaft,43(2),pp.2163-2170.

17. Aggarwal,B.B.,Kumar,A.,Aggarwal,M.S.and turmeric (Curcuma longa): a spice for all seasons.Phytopharmaceuticals in cancer chemoprevention,23,pp.351-387.

18. Srimal,R.C.and Dhawan,B.N.,1973.Pharmacology of diferuloyl methane (curcumin),a non-steroidal anti-inflammatory agent.Journal of pharmacy and pharmacology,25(6),pp.447-452.

19. Joshi,P.,Jain,S.and Sharma,V.,2009.Turmeric(Curcuma longa)a natural source of edible yellow colour.International journal of food science &technology,44(12), pp.2402-2406.

20. Niranjan,A.and Prakash,D.,2008.Chemical constituents and biological activities of turmeric(Curcuma longa l.)-a review.Journal of Food Science and Technology,45(2),pp.109.

21. Gohil,K.J.,Patel,J.A.and Gajjar,A.K.,2010.Pharmacological review on Centella asiatica: a potential herbal cure-all.Indian journal of pharmaceutical sciences,72(5),p.546

22. Bown,D.,2001.New Encyclopedia of Herbs and Their Uses:The Definitive Guide to the Identification,Cultivation, and Uses of Herbs the Definitive Guide to the Identification,Cultivation and Uses of Herbs.Dorling Kindersley.

23. Singh,P.and Singh,J.S.,2002.Recruitment and competitive interaction between ramets and seedlings in a perennial medicinal herb,Centella asiatica.Basic and Applied Ecology,3(1),pp.65-76.

24. Gohil,K.J.,Patel,J.A.and Gajjar,A.K.,2010.Pharmacological review on Centella asiatica:a potential herbal cure-all.Indian journal of pharmaceutical sciences,72(5),pp.546.

25. Bylka,W.,Znajdek-Awizen,P.,Studzihska-Sroka,E.and in cosmetology.Advances in Dermatology and Allergology/Postepy Dermatologii i Alergologii,30(1),pp.46-49.

26. Kunjumon,R.,Johnson,A.J.and Baby,S.,2022.Centella asiatica:Secondary metabolites,biological activities and biomass sources.Phytomedicine Plus,2(1), pp.100176

27. Siddiqui,B.S.,Aslam,H.,Ali,S.T.,Khan,S.and Begum,S.,2007.Chemical constituents of Centella asiatica.Journal of Asian natural products research,9(4). pp.407-414.

28. Winn,A.A.,1991.Proximate and ultimate sources of within-individual variation in seed mass in *Prunella vulgaris*(Lamiaceae).American Journal of Botany,78(6), pp.838-844

29. Schmid,B.,1985.Clonal growth in grassland perennials:III.Genetic variation and plasticity between and within populations of *Bellis perennis* and *Prunella vulgaris*.The Journal of Ecology,pp.819-830.

30. Gu,X.,Li,Y.,Mu,J.and Zhang,Y.,2013.Chemical constituents of *Prunella vulgaris*.Journal of Environmental Sciences,25,pp.S161 .

31. Zhang,Y.et.al 2007.Chemical properties,mode of action, and in vivo anti-ulcer activity

32. Bertleff,M.J.and Lange,J.F.,2010.Perforated peptic ulcer disease:a review of history and treatment. *Digestive surgery*,27(3),pp.161-169.

33. Sandeep,M.,2016.Antiulcer Activity of Fresh Rhizome Juice of Curcuma Amada(Doctoral dissertation,RVS College of Pharmaceutical Sciences, Coimbatore).

34. Wei,L.et.al.2019.Large-scale and rapid preparation of nanofibrous meshes and their application for drug-loaded multilayer mucoadhesive patch fabrication for mouth ulcer treatment. *ACS applied materials & interfaces*,11(32),Pp.28740- 28751.

35. Mittal,S.and Nautiyal,U.,2019.A review:herbal remedies used for the treatment of mouth ulcer.mouth,8,pp.9.

36. Madhumita,M.,Guha,P.and Nag,A.,2020.Processing and potential health benefits of betel leaf (*Piper betle* L.).In *Herbal Medicine in India*(pp.237-246). Springer, Singapore.

37. Greer,N.et.al.2013.Advanced wound care therapies for nonhealing diabetic, venous, and arterial ulcers: a systematic review. *Annals of internal medicine*,159(8),pp.532-542.

38. <https://www.slideshare.net/sunilkamble/ulcer-143104564#>

39. Greer,N.,Foman,N.A.,MacDonald,R.,Dorrian,J.,Fitzgerald,P.,Rutks,I.and Wilt,T.J.,2013.Advanced wound care therapies for nonhealing diabetic,venous, and arterial ulcers:a systematic review. *Annals of internal medicine*,159(8). pp.532-542

40. Calianno,C.and Holton,S.J.,2007.Fighting the triple threat of lower extremity ulcers. *Nursing2020*,37(3),pp.57-63.

41. <https://www.stylecraze.com/articles/effective-home-remedies-for-leg-ulcers/#ts-fab-reviewer-240485>

42. Falanga,V.,1993.Venous ulceration.The Journal of dermatologic surgery and oncology,19(8),pp.764-771.

43. Collins,L.G.and Seraj,S.,2010.Diagnosis and treatment of venous ulcers.American Family Physician,81(8),pp.989-996.

44. Millan,S.B.,Gan,R.and Townsend,P.E.,2019.Venous ulcers:diagnosis and treatment.American family physician,100(5),pp.298-305.

45. Chong,N.J.and Aziz,Z.,2013.A systematic review of the efficacy of *Centella asiatica* for improvement of the signs and symptoms of chronic venous insufficiency. *Evidence-Based Complementary and Alternative Medicine*,2013.

46. WAINBERG,M.A.et.al.1990.Human immunodeficiency virus,genital ulcers and the male foreskin:synergism in HIV-1 transmission. *Sexually Transmitted Infections:Current Epidemiological Perspective on World-wide Infections with Aspects on Transmission,Molecular Biology,Epidemiological Control and Prevention*,17,pp.181-186.

47. Roett,M.A.,Mayor,M.T.and Uduhiri,K.A.,2012.Diagnosis and management of genital ulcers.American family physician,85(3),pp.254-262.

48. Beauman,J.G.,2005.Genital herpes:a review.American family physician,72(8), Pp.1527-1534.

49. Hill,J.W.,2008.Natural Treatments for Genital Herpes,Cold Sores and Shingles. Clear press LLC