

COMPREHENSIVE REVIEW OF MIMOSA PUDICA BIOLOGY PHARMACOLOGY AND ETHNOBOTANICAL USES

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ABSTRACT:

Mimosa pudica is a short-lived evergreen shrub that people often call the "touch-me-not" plant, Chui Mui, or the shame plant. Different parts of this plant are known for their health benefits. The roots of Mimosa pudica have bitter, astringent, acrid, and cooling qualities. They are used to treat ulcers, inflammation, asthma, diarrhea, urinary problems, and fistulas. The plant contains the alkaloid mimosine, while an extract from its leaves has compounds similar to adrenaline. Its pharmacological profile shows promise in areas such as antibacterial, antivenom, antifertility, anticonvulsant, antidepressant, and aphrodisiac effects. Traditionally, the herb has been used to treat urogenital disorders, dysentery, and sinus issues and is applied to wounds. Freshly crushed leaves are used both internally and externally for conditions like piles, cuts, and wounds. Additionally, it is used externally for fissures, skin injuries, and ulcers. The hemostatic properties of Mimosa pudica help control bleeding related to piles. This plant is commonly found in open areas, especially along roadsides, in cultivated fields, and in waste spaces. It has spiny stems and small, fluffy, pink ball-shaped flowers during the summer. Its anti-inflammatory properties help reduce inflammation and manage secondary infections. This paper aims to investigate and compile various pharmacognostic aspects of the plant *M. pudica*.

KEYWORDS: Aphrodisiac, diuretic, Mimosa pudica, seismonastic nyctinastic movement.

INTRODUCTION:

'Mimosa pudica' is a herbaceous plant that can be annual or perennial (Ahmad Hafsa, 2012). Carl Linnaeus first described it in his work *Species Plantarum* in 1753. The term 'Mimosa' comes from Greek and means mimic, while 'pudica' is from Latin and means shy. This plant folds its leaves when touched or disturbed. It also changes leaf position at night. This night movement, called nyctinastic, is controlled by its biological clock. Often grown for its fascinating nature, the compound leaves of this sensitive plant fold inward and droop when they are touched or shaken. This mechanism helps protect the plant from potential harm. After a few minutes, the leaves reopen, which is known as seismonastic movement. The plant has around 500 species and usually grows to a height of about 50-70 cm (Vikas Srivastava, 2012). In Ayurveda, it is known as lajjalu and is appreciated for its ornamental beauty. The leaves of *M. pudica* can change their response to electrical and mechanical stimuli. They close at night and open during the day. This phenomenon was first studied by the French scientist Jean-Jacques d'Ortous de Mairan (ScienceDirect, 2025). Due to Mimosa's unique touch response, it is a popular subject for experiments on plant habituation and memory. It has many medicinal uses, including phytochemical research. Studies on *M. pudica* have found

alkaloids, the non-protein amino acid mimosine, flavonoids, C-glycosides, sterols, terpenoids, tannins, and fatty acids (Johnson K., 2014). *M. pudica* is known for properties such as anticonvulsant, antiasthmatic, aphrodisiac, analgesic, antidepressant, sedative, emetic, and tonic. It has been traditionally used to treat piles, alopecia, diarrhea, dysentery, as a diuretic, for insomnia, tumors, and various urogenital infections. It helps regulate blood sugar levels by improving insulin secretion because of its antioxidant properties. A paste made from lajvanti can be applied for faster wound healing and to reduce pain and swelling due to its antioxidant, antimicrobial, and anti-inflammatory qualities. Additionally, applying a lajvanti paste on the forehead can help relieve migraines. Its intriguing nature comes not only from its drooping response when touched but also from its rich nutrients and healing properties.

SYNONYMS: (Johnson K., 2014), (1mg, 2025), (myBageecha, 2025), (HerZindagi, 2025), (StuartXchange, 2025)

Lajja in Sanskrit, Sensitive plant in English, Lajalu or chui mui in Hindi, Lajjavati in Bengali, Reesamani in Gujarati, Tottalavadi in Tamil, Attapatti in Telugu, and Nachika in Kannada.

SCIENTIFIC CLASSIFICATION: (Kuntal Das, 2009)

Kingdom	Plantae,
Division	Magnoliophyta,
Class	Magnoliopsida,
Order	Fabales,
Family	Fabaceae,
Genus	Mimosa,
Species	Mimosa pudica.

GEOGRAPHICAL DISTRIBUTION: (Joseph Babu, 2013)

shows that this species comes originally from Brazil, the Caribbean, and South and Central America. It has now spread widely and is considered a weed in tropical areas. You can currently find it in the Southern United States, South Asia, East Asia, Micronesia, Australia, South Africa, and across India.

MORPHOLOGY: (Manish Singh, 2010)



The roots of *M. pudica* are cylindrical and tapering with secondary and tertiary branches, reaching up to 2 cm in thickness. They have a longitudinally wrinkled surface with a hard, woody texture that appears rough and grayish-brown to brown.

The stem is cylindrical, branched, about 1.5 m long, and up to 2.5 cm in diameter. It features longitudinal grooves, with a light brown exterior and a grey interior. In young plants, the stem stands upright, but it creeps as it gets older.

The plant has compound, sessile bipinnate leaves. These leaves have five primary leaflets that are petiolate and stipulate, with linear lanceolate shapes. There are 10 to 20 pairs of secondary leaflets that measure 0.6 to 1.2 cm long and 0.3 to 0.4 cm wide. The leaves are symmetrically arranged and close up when touched, giving them the name sensitive tree.

The flowers are pink and round, forming globose heads that grow from the leaf axils in mid-summer. Each flower measures 8 to 10 mm in diameter and 0.5 mm in height. They have radial symmetry and are four-lobed, with four stamens, a sessile ovary, and many ovules. Blossoms appear during the rainy season. Pollen grains are spherical to ovoid and round, about 8 microns in diameter, and are spread by insects and wind.

The fruits are simple, dry, leguminous pods that range from 1 to 1.6 cm long and 0.4 to 0.5 cm wide, containing two to five seeds. The fruit is made up of clusters of two to eight pods that are prickly along the edges.

The pods split into two to five segments and hold pale brown seeds that are about 2.5 mm long. The seeds are compressed, oval-elliptic, and can be brown or gray. They range in size from 0 to 0.3 cm long and 2.5 mm wide, featuring hard coats that prevent germination.

The plant has a distinct smell and has a taste that is astringent, bitter, and pungent. The whole plant or its roots are used for various purposes.

The varieties *Mimosa pigra* and *Mimosa diplotricha* grow upright. In contrast, *M. pudica* spreads out and stays flat on the ground during its life. *M. pudica* usually has only 1-2 pairs of branches, while *M. pigra* and *M. diplotricha* can have 6 to 16 and 4 to 9 pairs, respectively.

The dosing recommendations are as follows: (Kashif Rizwan, 2022)

Take fresh juice in amounts of 10 to 20 ml. For a decoction, the dose should be 50 to 100 ml per day in divided amounts, using 10 to 20 g of the drug for preparation. For capsules, the recommended intake is 1 to 2 capsules a day or as your healthcare provider advises.

FORMULATION PREPARATIONS: (Wildturmeric.net, 2028)

1. Poultice of Mimosa Pudica for Wound Healing: To create the poultice, take a handful of fresh leaves and crush them with a small amount of water to make a paste.

2. Mimosa Pudica Tea for Diarrhea: To prepare the tea, bring a cup of water to a boil and add a small bunch of freshly gathered M. pudica leaves until the water changes color. Strain the tea. This drink can help lower blood sugar levels, reduce anxiety and depression, and treat stomach ulcers.

3. Mimosa Pudica Oil: In a pan, heat a cup of unrefined sesame oil. Then, add 1/4 cup of Mimosa pudica leaves and an equal amount of mudakathan keerai leaves to make the oil. Keep heating the oil until the sizzling noise stops, which means all moisture has evaporated. Turn off the heat. This oil works well as a massage oil for relieving various aches and pains.

AYURVEDIC PREPARATIONS:

1. Kutaja Avaleha
2. Ural BPH capsules
3. Selip tablets and syrup
4. Samangadi Churna
5. Palsineuron capsules
6. Lakshadi Churna
7. Pilocure tablets
8. Samangaadi Churna
9. Kutajavaleha
10. Pusyanug Churna

11. Bhret Gangadhara Churna

PROPAGATION:

It can be grown from seeds and through vegetative methods.

TOXICITY:

M. pudica does not show serious toxicity; however, it might sometimes cause constipation that depends on the dose.

PRECAUTIONS:

Caution should be taken when using Lajvanti during breastfeeding and pregnancy. Patients should talk to a doctor before using the formulations in these cases.

AGRICULTURAL IMPACT: (Uko Ibeabuchi, 2020)

This species can be seen as a weed for tropical crops like cotton, soybeans, tomatoes, upland rice, bananas, sugarcane, coffee, oil palms, papayas, coconuts, and rubber. Its thorns and woody roots can create problems for farmers. The “Hawaii” variety is known to be harmful to livestock. It changes the physical and chemical properties of the soil where it grows. It takes up heavy metals such as copper, lead, tin, and zinc from polluted soils. Furthermore, it can form root nodules that allow nitrogen-fixing bacteria to turn atmospheric nitrogen into a form that plants can use. The roots of *Mimosa pudica* release carbon disulfide, which prevents the growth of some harmful and mycorrhizal fungi in the plant's rhizosphere. It also provides food for some animals.

Measures taken to control the spread of *M. pudica* include:

- a. **Physical Method:** incinerating the plant.
- b. **Chemical Method:** applying herbicides such as Picloram and Triclopyr; however, these are not effective when the leaves are folded.
- c. **Biological Method:** using coir dust, a byproduct from coconut processing, and allowing sheep to graze.

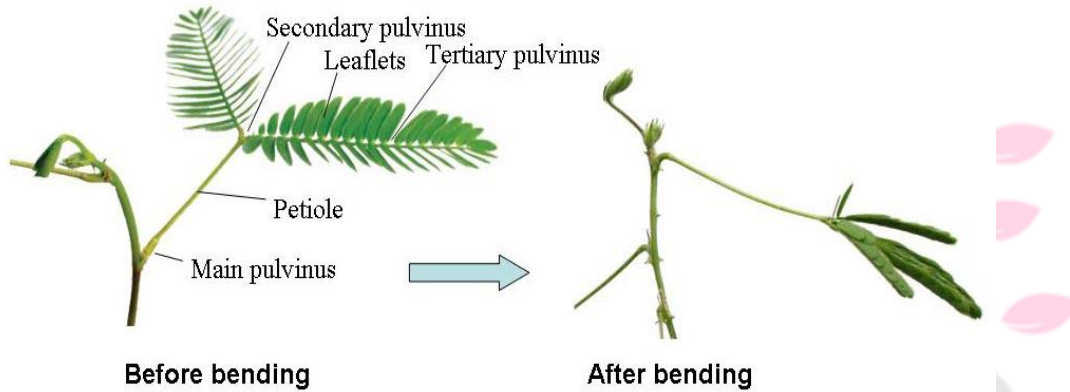
Habitat 15: *M. pudica* mainly grows in plantation crops, disturbed areas, pastures, waste sites, parks, lawns, gardens, and along roadways.

SEISMONASTIC MOVEMENT OF LEAVES: (Azmi Lubna, 2011)

When plants shake, they quickly respond by folding their leaves. This movement is supported by special structures called pulvini, which are swellings at the base of the leaf stalk. The cells in the pulvini change their turgor pressure as water moves in and out. Different ion concentrations affect how water moves. The parenchymatous motor cells in the pulvini act as the muscles in this response; they also have strands that carry water and nutrients. When certain physical stimuli occur, like touch, wind, heat, and bright light, electrical signals are triggered. These signals turn into chemical signals that create action potentials. This process causes potassium to move from the motor cells into the spaces between cells in the pulvini, lowering the turgor pressure. When stimulated, calcium ions found mainly in the tannin vacuoles are released. This release causes contraction and

affects water movement, leading to water gathering on one side of the pulvini. As a result, the action potential from the stimulation travels to the pulvinus and then to the pulvini of other leaflets, a process known as the seismonastic movement of leaves. The closing of leaves lasts about 4 to 5 seconds, while reopening takes around 600 seconds. The information shared can control the activation and deactivation of certain genes, potentially functioning as a way for long-term memory. This suggests that plants do not ignore repeated stimuli due to fatigue and have the capacity for habitual learning.

NYCTINASTIC MOVEMENT:



In the evening, leaflets fold, and they reopen in the morning. This behavior comes from an internal rhythm or biological clock within the plant. These actions are called nyctinastic movements.

Requirements: (Blog, 2021) should be below 1300 m above sea level. Light: It thrives in full sunlight or light shade. Temperature Altitude: The elevation: It cannot tolerate frost. Annual rainfall: It requires rainfall between 1000 and over 2000 mm. Soil: It can thrive even in poor soils due to its nitrogen-fixing ability and prefers well-drained soils.

REASONS FOR THE BENDING MOVEMENT OF M. PUDICA: (Volkov Alexander G., 2010)

1. When the leaves close, the spines on the plant become more visible. This deters herbivores from approaching or consuming it, making it less appealing to them.
2. The closed leaves minimize heat and water exchange with the environment, which helps with desiccation.
3. Animals might be intimidated by a rapidly moving plant and choose to eat a less active one instead.
4. The sudden motion can dislodge harmful insects.

DIFFERENT MECHANISMS INVOLVED IN MOVEMENT OF M. PUDICA LEAVES: (Azmi Lubna, 2011)

The bending motion of the pulvinus in *M. pudica* happens because of a quick change in the volume of the abaxial motor cell, which is triggered by different environmental stimuli. When electrical stimulation occurs, the actin filaments in the motor cells break apart.

The depolarization of the actin cytoskeleton in pulvinus motor cells due to electrical signals leads to higher calcium levels. Treatments with actin-modifying agents and calcium channel blockers slow the bending of the pulvinus. By using immunofluorescence analysis to compare the cell cytoskeleton before and after movement, and by injecting drugs that target actin and microtubules into the cut pulvinus, it is clear that actin filament fragmentation and microtubule changes happen during bending. Actin cables become loose afterwards. When phosphatase inhibitors are injected into several pulvini, the results show that changes in actin isoforms, actin filament fragmentation, and bending movements are all stopped after injecting a tyrosine phosphatase inhibitor.

Specialized red cells are located on the axial surface of the tertiary pulvini in *M. pudica*. Anatomical and electrophysiological methods demonstrate that these red cells act as real mechanoreceptors. They generate receptor potential in response to mechanical stimuli and connect with excitable motor cells.

Key proteins like H⁺-ATPase, aquaporin, and actin help with the movement of ions within pulvini, especially during a seismonastic reaction. H⁺-ATPase and aquaporin directly move water molecules while the role of actin is explained more biochemically. Actin has many phosphorylated tyrosine molecules that directly relate to how much *M. pudica* leaves droop.

High levels of potassium, chloride, and calcium lead to a quick reduction in water within the pulvini, causing the leaves of *M. pudica* to droop. Lowering this concentration gradient results in a weaker response and movement of the leaves.

When stimulated, the plant releases a surge of calcium ions that calmodulin detects. This activation opens voltage-gated ion channels and triggers electrical signals, possibly forming the basis for the plant's long-term memory.

The plant's cells act like neural cells by generating electrical gradients through the opening and closing of ion channels, transmitting signals along cell connections.

The folding motion of the leaves affects photosynthesis. It has been suggested that the neurohumor acetylcholine may play a part in the movement of *Mimosa*.

Since acetylcholine is not present in *Mimosa*, researchers tested two amines, serotonin and norepinephrine, in various sensitive plants. It was found that *Mimosa* contains only norepinephrine, which may be responsible for the movement.

RESEARCH ASSOCIATED WITH MIMOSA PUDICA: (Blog, 2021), (Volkov Alexander G., 2010)

In the 17th century, German botanist Wilhelm Pfeffer conducted some of the earliest experiments to study how plants adapt using *Mimosa*.

In 1965, Holmes and Gruenberg found that *Mimosa* could tell the difference between two stimuli: a drop of water and a finger's touch. Their results showed that the behavior seen through habituation was not due to fatigue, as the leaf-folding reaction happened again with a different stimulus.

Experiments focusing on electrical signaling in *Mimosa pudica* revealed that 1.3 to 1.5 volts and 2 to 10 μC of charge served as the threshold to trigger the closing of leaves.

Further research in 2017 by neuroscientist Greg Gage involved connecting electrical wiring to *Mimosa pudica* and linking it to an electrocardiogram. The findings showed that the action potential generated by one plant created an electrical response that affected other plants. Additional experiments were done on animals to compare the effects of local anesthetics with those of *Mimosa pudica*. These studies indicated that anesthetics caused a loss of function in the motor organs, which was observed after using substances like volatile ether, chloroform, carbon tetrachloride, hydrogen sulfide, ammonia, formaldehyde, and others.

A preclinical study showed that the methanolic extract of *Mimosa pudica* had significant antidiabetic and antihyperlipidemic effects in rats that were made diabetic using streptozotocin. In 2018, research teams from the Universities of Palermo (Italy) and Lugano (Switzerland) demonstrated the potential of using this plant to create plant-based controllable two-color displays that use air jets instead of electrical or touch-based stimulation. An investigation into the sustained release characteristics of *M. pudica* seed mucilage found that increasing the proportion of mucilage in the mix led to a decrease in drug release.

Robin G et al (Gabriel Roblin, 1987). examined the movement of calcium, potassium, and chloride ions in pulvini cells to understand how ion and water flow impacts the drooping of *M. pudica* leaves. They found that the ions do not play the same role in regulating pulvinar movements.

CHEMICAL CONSTITUENTS: (Vismayaviswan T. K., 2019) (Yanuar Beki Ramadhana, 2021)

The initial phytochemical analysis of *M. pudica* leaf extract showed the presence of active compounds, including terpenoids. The acetone extract contained flavonoids, quinones, phenols, tannins, saponins, and coumarins. The chloroform extract of the leaves had alkaloids such as mimosine and 4-O-gallic acid, which includes a diverse range of carbon and mineral content. The roots of the plant have 10% tannins and 55% ash content. They also have sac-like structures that release both organic and organo-sulfur compounds, including SO_2 , phytosterols, alkaloids, amino acids, glycosides, and fatty acids such as methylsulfinic acid, pyruvic acid, lactic acid, ethane sulfinic acid, propane sulfinic acid, 2-mercaptoaniline, S-propyl propane, 1-thiosulfinate, and thioformaldehyde. The seeds have mucilage made of D-glucuronic acid and D-xylose. The benzene extract contained crocetin-dimethyl ester, tubulin, and green-yellow fatty oils. A newly identified class of phytohormones called turgorines, which are derivatives of 4-O-gallic acid (specifically, 4-O-(β -D-glucopyranosyl-6'-sulfate)), was also found. Fresh tissues produce nor-epinephrine, d-pinitol (the 3-mono-methyl ether of inositol), and β -sitosterol.

M. PUDICA HAS SEVERAL USES FOR DIFFERENT HEALTH ISSUES.

Hypolipidemic: (Kashif Rizwan, 2022) The chloroform extract of *M. pudica* lowers lipid levels due to glycosides, flavonoids, and alkaloids.

Migraine: (Ahmad Hafsa, 2012), (1mg, 2025) Migraines happen when the pitta dosha is aggravated. Applying Lajvanti paste to the forehead can ease migraine symptoms by balancing pitta.

High Blood Pressure: (HerZindagi, 2025) Crushing the leaves, making juice, and taking 15 ml twice a day can help control high blood pressure.

Piles: (Swati V. Balsaraf, 2014) In Ayurveda, piles, also known as arsh, are caused by an unhealthy diet and lack of activity. This condition reflects an imbalance in the tridoshas, especially vata, which decreases digestion and causes constipation. Swelling in the rectal veins leads to piles and symptoms like pain, itching, or burning. Lajvanti may help treat piles due to its properties that balance pitta and kapha. It can also relieve burning sensations and discomfort. A decoction from the roots can be taken in doses of 10-15 ml throughout the day for bleeding piles. Alternatively, one can consume a tablespoon of root powder mixed in a glass of milk twice daily.

Antipyretics and Antimalarial: (Soundhararajan Ranjani, 2020) Leaf extracts of *Mimosa pudica* prepared with methanol, ethanol, and chloroform have significantly reduced temperature in mice compared to standard paracetamol. Some compounds, including terpenoids, flavonoids, and alkaloids found in the leaves, show antimalarial effects.

Toothache: (Soundhararajan Ranjani, 2020) Gargling a decoction made from the roots can help maintain oral hygiene and ease tooth pain. Also, a paste made from the root and fried in ghee can be applied to decayed teeth for relief.

Antiviral: The plant shows activity against *Vibrio cholerae*, which helps control cholera.

Spasmogenic: Ethanol extracts (50%) of the entire plant have exhibited spasmogenic effects in isolated guinea pig ileum.

Diuretic: A decoction of *M. pudica* leaves in doses of 200, 500, 1000, and 2000 mg/kg shows diuretic effects. This remedy can be combined with any synthetic diuretic that may lead to potassium loss.

Contraceptive: It acts as a contraceptive because of its spermicidal properties and ability to reduce testosterone. A fresh juice dosage of 10-15 ml is effective for treating menorrhagia. Aqueous extracts of root powder can also help with uterine bleeding issues.

Premature Ejaculation: A mixture of seeds and an equal amount of sugar can be consumed, using two tablespoons with milk at night.

Convulsion: The decoction of *M. pudica* leaves can be administered intraperitoneally at a dose of 1000-4000 mg/kg to protect mice from seizures triggered by pentylene tetrazole and strychnine.

Diarrhea and Dysentery: (Silpa M., 2019) Diarrhea and dysentery are caused by poor food choices, contaminated water, toxins, stress, and weak digestion, which increase vata and lead to ama formation, often resulting in diarrhea. Lajvanti helps digest ama and improve digestion, thus managing diarrhea through its kapha balancing properties.

Dosage: A 30 ml serving of juice from the leaves of this plant, along with a decoction made from its roots, helps treat diarrhea. The effectiveness of this antidiarrheal property comes from the tannins and flavonoids it contains.

Depression: Aqueous extracts from the dried leaves of *M. pudica* act as an antidepressant, similar to tricyclic antidepressants. They elevate serotonin levels and are effective as antidepressants, sedatives, and in managing stress, fatigue, and tiredness in Alzheimer's disease.

Alopecia: (OhFishiee, 2019) Alopecia often results from an imbalance in pitta dosha, which weakens hair roots and leads to hair loss. Lajvanti helps prevent the worsening of pitta dosha and supports hair root strength, thus managing abnormal hair

loss. The seeds and other parts of the sensitive plant contain mimosine, an amino acid that promotes new hair cell growth. Herbal shampoo made from *M. pudica* extracts is used to treat alopecia.

Helminthes: Alcoholic and aqueous extracts of the seeds show significant paralysis and death of worms in a dose-dependent way, while petroleum ether extracts have a mild anthelmintic effect. A decoction made from the roots and a leaf paste mixed with honey is also advised for intestinal worms.

Snake bites: The aqueous root extract of *M. pudica* reduces the hyaluronidase and protease activities of venom from Indian snakes in a dose-dependent manner. This extract also inhibits cobra venom activity. Lajvanti helps neutralize the venom in the bloodstream before it reaches its target area, acting as an antidote.

Breast enhancement: A paste made from this plant combined with ashwagandha roots can help avoid surgery for breast enhancement.

Uterine tonic: (Ahamefula A. Ahuchaogu, 2020) It helps maintain hormonal balance in the body and offers relief from heavy menstrual bleeding. Grinding the leaves, filtering out the juice, and mixing it with honey for consumption once or twice daily can also aid in childbirth.

Spasmogenic: Ethanol extracts (50%) of the entire plant show spasmogenic activity in isolated guinea pig ileum.

Diuretic: A decoction of *M. pudica* leaves, taken in doses of 200, 500, 1000, and 2000 mg/kg, shows diuretic effects. This medicine can work as a moderate diuretic when combined with any modern synthetic diuretic.

Contraceptive: (OhFishiee, 2019) It has spermicidal properties and lowers testosterone levels, serving as a contraceptive. Fresh juice in doses of 10-15 ml is used to treat menorrhagia. Aqueous extracts of root powder can help manage uterine bleeding issues.

Premature ejaculation: Mixing seeds with an equal amount of sugar and taking 2 tablespoons at night with milk is suggested.

Antifertility: The methanolic extract from air-dried *M. pudica* roots extends the estrous cycle, alters gonadotropin hormone secretion, and reduces follicle-stimulating hormone (FSH) levels, showing an antifertility effect.

Aphrodisiac: The ethanolic extract of *M. pudica* roots significantly boosts aphrodisiac properties in normal male mice without causing side effects.

Cough and asthma: (Golla, 2017) It is used to treat whooping cough, asthma, and chronic respiratory disorders. Taking 15 ml of juice from this plant twice daily is effective.

Insect bites: (Ghulam Muhammad, 2016) Grinding the leaves and stem of the plant and applying it to the affected area twice a day is recommended.

Antihepatotoxic and antioxidant potential: The methanolic leaf extract of *M. pudica* shows antioxidant activity, while the ethanolic extract is effective against carbon tetrachloride-induced liver toxicity.

Antimicrobial: (Dande, 2016) Whole plant extracts of *M. pudica* in petroleum ether, chloroform, ethyl acetate, methanol, and water show strong antimicrobial activity against both Gram-positive and Gram-negative bacteria due to phytoconstituents like terpenoids, flavonoids, glycosides, phenols, quinones, tannins, saponins, coumarin, and alkaloids.

Antifungal: Both methanolic and aqueous extracts have been tested against various fungal pathogens for their antifungal effectiveness.

Dosage: For 7-10 days, take 30 ml of juice early in the morning and in the evening.

Kidney stones: (Ravindra B. Malabadi, 2021) A decoction made from the roots, in a dose of 45-50 ml, is taken to relieve kidney stones and urinary issues.

Analgesic and Antiinflammation: (Sagar Mistry, 2012) The ethanolic extracts show significant anti-inflammatory properties. They are especially helpful for both acute and chronic inflammation because of the flavonoids present.

Anti-diabetic: (Nilesh G. Sutar, 2009) The ethanolic extract from leaves has demonstrated anti-diabetic effects by affecting carbohydrate metabolizing enzymes and insulin secretion. **Minor Cuts and Wounds:** A paste made from the roots is used to treat wounds. When fried in castor oil, this root paste is applied to deeper cuts to stop bleeding and encourage healing. It can reduce nasal bleeding and inflammation, likely due to its phenolic compounds. Juice from crushed leaves or a paste of the plant is used on fresh wounds to control bleeding and treat skin issues. Mixing it with sesame oil improves its antiseptic effects. In Western medicine, *Mimosa* root is used to treat hemorrhages, urinary infections, and for blood purification. The warmed leaf paste is applied around furuncles, abscesses, and boils to help drain pus and relieve itching for faster healing.

SOME OTHER USES: (Azmi Lubna, 2011)

1. For uterine prolapse, the leaves combined with those of other medicinal plants are used to manage hemorrhoids, urinary infections, and to ease symptoms of rheumatoid arthritis.
2. The juice is applied for sinus problems, sores, piles, fistulas, burning sensations in the eyes, and various skin diseases.
3. A decoction from the roots addresses syphilis, leprosy, venereal diseases, insect bites, insomnia, anxiety, and piles.
4. The paste can be used as a poultice to relieve vaginal or anal prolapse and to treat bone fractures.
5. Because *Mimosa* promotes healthy cell growth, it is found in shampoos, creams, capsules, and soaps. It also supports collagen production and the regeneration of new skin cells.
6. In both Ayurvedic and Unani medicine, the root of *Mimosa pudica* is used to treat jaundice, leprosy, leucoderma, and blood disorders.

CONCLUSION:

This review gives a brief biological overview of *M. pudica*. Historically, it has been used in various traditional medicinal systems to treat many illnesses. The current literature indicates that this herb has significant therapeutic properties. Its economic potential and easy availability make it a good candidate for developing new drugs in the industry. However, there is a need to focus more on exploring natural resources, like medicinal plants, for the benefit of humanity.

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