

HERBS TO TREAT MOUTH ULCER – A REVIEW

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ABSTRACT

Mouth ulcers, or aphthous stomatitis, present a common and discomforting condition affecting the oral mucosa. While typically benign, the pain and inconvenience associated with these ulcers necessitate effective management strategies. The use of herbal remedies has long been a traditional approach in addressing oral health issues, including the treatment of mouth ulcers. This abstract provides an overview of several herbs commonly employed for their potential therapeutic benefits in managing and promoting the healing of mouth ulcers. Key herbs such as Aloe Vera, Chamomile, Licorice, Calendula, Sage, Turmeric, Peppermint, and Neem are explored for their anti-inflammatory, antimicrobial, and wound-healing properties. These herbs, deeply rooted in traditional medicine systems, have been used topically or as components in mouthwashes to alleviate pain, reduce inflammation, and facilitate the healing process. The bioactive compounds found in these herbs, such as curcumin, chamazulene, and glycyrrhizin, contribute to their purported efficacy in oral care. However, it is essential to acknowledge the variability in scientific evidence supporting these herbal remedies and the importance of individual responses. This abstract emphasizes the need for a balanced approach, integrating traditional wisdom with contemporary healthcare practices. Patients seeking herbal remedies for mouth ulcers are advised to consult with healthcare professionals to ensure safety, especially in the context of existing health conditions and potential herb-drug interactions. In conclusion, the utilization of herbs for mouth ulcers reflects a holistic and patient-centered approach to oral care. As we navigate the realm of herbal remedies, it is crucial to appreciate the rich tradition of botanical healing while being mindful of the evolving evidence-based landscape in modern healthcare.

KEYWORDS: Herbal remedies, mouth ulcers, oral health, natural treatments, traditional medicine, plant-based therapies, anti-inflammatory herbs, herbal formulation, pain relief.

INTRODUCTION

Mouth ulcers are painful, superficial sores that can form on the mucous membranes within the mouth. They are often referred to as canker sores or aphthous stomatitis.^[1] Even while these ulcers usually heal on their own in a week or two, they can cause substantial discomfort that interferes with daily activities including speaking, eating, and maintaining good oral hygiene. Herbs have long been used to treat the symptoms and encourage the healing of mouth ulcers in addition to conventional treatments.^[2,3]

For millennia, herbal treatments have been an essential component of traditional medical systems across the globe.^[3] Herbs are popular choices for treating mouth ulcers because of their supposed anti-inflammatory, antibacterial, and wound-healing qualities.^[4] The use of herbs in the treatment of mouth ulcers is indicative of a comprehensive strategy that attempts to address the root causes of oral discomfort in addition to its symptoms.

Herbal remedies for mouth ulcer

Herbal medicines have many benefits, but it's important to use them carefully, taking into account individual differences in response and possible drug combinations. It is best to speak with medical specialists, especially if you have a pre-existing ailment or are thinking about using herbal medicines in addition to conventional treatments.

1. Safety profile

- When compared to synthetic medications, herbal medicines are frequently seen to have a better safety record. Many of the plants used in traditional medicine have been used for a long time without having serious side effects, which gives those looking for natural alternatives some reassurance.^[5]

2. Holistic approach

- Herbal treatments frequently take a wholistic approach, treating the underlying causes of a patient's illness in addition to its symptoms. This is

in line with the tenets of integrative and holistic medicine, which take into account how environmental, mental, and physical aspects are intertwined.^[6]

3. Cultural and Traditional significance

- In many societies, herbal treatments have cultural and traditional value. Herbal medicine has a long history and is based on the experiences and knowledge of many different cultures that have been gathered over many centuries.^[7]

4. Rich source of bioactive compounds

- A wide range of bioactive substances, such as phytochemicals, antioxidants, and essential oils, are found in herbs. These substances support the medicinal qualities of herbs, including their anti-inflammatory, antibacterial, and antioxidant capacities.^[8]

5. Supporting sustainable practices

- Growing and gathering herbs for medical use can help promote environmentally friendly farming methods. Herbal treatments support ecologically friendly farming practices and biodiversity when they are sourced ethically.^[9]

6. Personal empowerment

- Using herbal remedies frequently encourages people to actively participate in their own health care. Growing medical plants at home, making herbal infusions, or incorporating herbal supplements into daily life are some examples of this self-care component.^[10]

7. Complementary and Integrative medicine

- Complementary and integrative medicine methods sometimes include the use of herbal remedies. A thorough and patient-centered approach to healthcare may be offered by combining herbal remedies with traditional medical practices.^[11]

1. Curcuma longa

The natural substance curcumin, which is present in the spice turmeric (*Curcuma longa*), has drawn a lot of interest from herbal medicine practitioners due to its possible medical uses, which include treating mouth ulcers. Curcumin's anti-inflammatory, wound-healing, and antioxidant qualities have been the subject of numerous research, underscoring its significance for dental health.

Importance of curcumin in mouth ulcers

1. Anti-Inflammatory properties

- Curcumin has strong anti-inflammatory properties. When it comes to mouth ulcers, inflammation plays a major role in the recovery process. Curcumin may lessen the degree of inflammation linked to mouth ulcers by modulating inflammatory pathways.^[12]

2. Antioxidant activity

- Oxidative stress contributes to the onset and advancement of oral ulcers. Due to its antioxidant qualities, curcumin reduces oxidative stress and scavenges free radicals. This antioxidant capacity might aid in the oral cavity's general healing process.^[13]

3. Wound-Healing effect

- Research has been done on curcumin's ability to heal wounds. Curcumin administration may help repair damaged tissues in the context of mouth ulcers, accelerating the healing process.^[14]

4. Antimicrobial activity

- Since secondary infections can obstruct the healing process of mouth ulcers, curcumin's antibacterial qualities may be pertinent in this regard. Because curcumin inhibits the growth of fungus and germs, it may help to maintain good dental hygiene.^[15]

5. Pain relief

- Curcumin may have analgesic properties, providing relief from the pain associated with mouth ulcers. Its ability to modulate pain perception and inflammation makes it a potential candidate for managing oral discomfort.^[16]

2. Chamomile

The well-known herb chamomile is made from the dried flowers of *Matricaria chamomilla*, also known as *Chamaemelum nobile*, and has been used traditionally for its possible medicinal properties. The anti-inflammatory, antibacterial, and calming qualities of chamomile have been studied, making it a promising treatment for a number of oral health conditions, including mouth ulcers.

Importance of chamomile in mouth ulcer

1. Anti-inflammatory effects

- The anti-inflammatory activities of chamomile are ascribed to substances such as alpha-bisabolol and chamazulene. Because inflammation plays a major role in mouth ulcer discomfort, chamomile's anti-inflammatory properties may be able to reduce symptoms.^[17]

2. Antimicrobial properties

- Chamomile has demonstrated antimicrobial activity against a range of bacteria and fungi. In the context of mouth ulcers, where secondary infections can impede the healing process, chamomile's antimicrobial effects may contribute to maintaining oral hygiene.^[18]

3. Soothing and Healing effects

- Chamomile's calming qualities can ease the pain and discomfort brought on by mouth ulcers. As chamomile encourages tissue regeneration and repair, it may also aid in the healing process.^[19]

4. Analgesic effects

- Due to its modest analgesic (pain-relieving) properties, chamomile may help reduce the discomfort that comes with mouth ulcers. This characteristic could potentially enhance the quality of life for people who are suffering from mouth pain.^[20]

5. Promotion of wound healing

- In the context of oral ulcers, chamomile's capacity to foster wound healing is significant. Chamomile has been shown to enhance tissue regeneration and reduce inflammation, which may speed up and improve the healing process.^[21]

3. Green tea

Green tea, which is made from *Camellia sinensis* leaves, is becoming more well-known for its possible health advantages because of its high catechin and other polyphenolic component content. Green tea's antibacterial, anti-inflammatory, and antioxidant qualities make it significant for treating mouth ulcers.

Importance of green tea in mouth ulcer

1. Antioxidant properties

- Green tea is rich in catechins, particularly epigallocatechin gallate (EGCG), which exhibit strong antioxidant effects. Antioxidants help neutralize free radicals and oxidative stress, which play a role in the development and aggravation of mouth ulcers.^[22]

2. Anti-inflammatory effects

- The polyphenols in green tea, particularly EGCG, have demonstrated anti-inflammatory properties. These effects may help reduce inflammation associated with mouth ulcers, contributing to symptom relief.^[23]

3. Antimicrobial activity

- Green tea has shown antimicrobial effects against bacteria and viruses. This property may be beneficial in preventing or managing secondary infections in the oral cavity, which can exacerbate mouth ulcers.^[24]

4. Wound Healing and Tissue regeneration

- The polyphenols in green tea have been studied for their potential to promote wound healing and tissue regeneration. These effects may contribute to the faster recovery from mouth ulcers.^[25]

5. Pain Relief

- Green tea polyphenols have been suggested to have analgesic properties, potentially providing relief from the pain associated with mouth ulcers.^[26]

4. Honey

Honey has been recognized for its potential therapeutic properties for centuries and is often considered a natural

remedy for various health issues, including mouth ulcers. The importance of honey in managing mouth ulcers is attributed to its antimicrobial, anti-inflammatory, and wound-healing properties.

Importance of honey in mouth ulcer

1. Antimicrobial activity

- Honey exhibits broad-spectrum antimicrobial properties, attributed to factors such as its low pH, high osmolarity, and the presence of natural compounds like hydrogen peroxide. These properties make honey effective against various bacteria and fungi, which can be beneficial in preventing or treating secondary infections in the oral cavity.^[27]

2. Anti-Inflammatory effects

- Honey has demonstrated anti-inflammatory effects, helping to reduce inflammation and alleviate the pain associated with mouth ulcers. This property contributes to the overall comfort of individuals experiencing oral discomfort.^[28]

3. Wound Healing and Tissue regeneration

- Honey promotes wound healing and tissue regeneration. It provides a moist environment conducive to the healing process, stimulates the growth of new tissue, and aids in the removal of dead tissue, which may be particularly beneficial in the case of mouth ulcers.^[29]

5. Neem

Neem (*Azadirachta indica*) is a well-known medicinal plant with a rich history in traditional medicine, particularly in South Asia. Neem has been valued for its diverse therapeutic properties, including antimicrobial, anti-inflammatory, and wound-healing effects. While there may not be an extensive body of research specifically on neem for mouth ulcers, its broader medicinal properties suggest potential benefits for oral health.

Importance of neem in mouth ulcer

1. Antimicrobial activity

- Neem is recognized for its potent antimicrobial activity against bacteria, viruses, and fungi. In the context of mouth ulcers, where secondary infections can hinder the healing process, neem's antimicrobial effects may contribute to maintaining oral hygiene.^[30]

2. Anti-Inflammatory effects

- Neem exhibits anti-inflammatory properties, which can be relevant for reducing inflammation and easing the discomfort associated with mouth ulcers. This anti-inflammatory action may contribute to the overall relief of symptoms.^[31]

3. Wound Healing and Tissue repair

- Neem has been traditionally used for wound healing. Its ability to promote tissue regeneration and repair may be beneficial in the case of mouth ulcers, aiding in a faster and more efficient healing process.^[32]

6. Aloe vera

Aloe vera (*Aloe barbadensis miller*) is a succulent plant known for its therapeutic properties, and it has been traditionally used for various medicinal purposes, including the management of skin conditions and oral health.

1. Anti-Inflammatory effects:

- Aloe vera has demonstrated anti-inflammatory properties, which can be relevant in reducing inflammation associated with mouth ulcers. This anti-inflammatory action may contribute to the alleviation of symptoms such as pain and discomfort.^[33]

2. Wound Healing and Tissue repair

- Aloe vera is recognized for its wound-healing properties. The gel extracted from the leaves contains compounds that may promote tissue regeneration and accelerate the healing process, potentially benefiting individuals with mouth ulcers.^[34]

3. Antimicrobial activity

- Aloe vera has antimicrobial properties that may help prevent or manage secondary infections in the oral cavity, which can be relevant in the context of mouth ulcers.^[33]

4. Analgesic (Pain-Relieving) effects

- The application of aloe vera gel may have analgesic effects, providing relief from the pain associated with mouth ulcers.^[34]

7. Calendula

Calendula officinalis, commonly referred to as marigold, is a blooming plant that has been used traditionally in herbal medicine for a very long time. Although there isn't much scientific evidence to support calendula's specific efficacy in healing mouth ulcers, the plant's general medicinal qualities point to possible advantages.

Importance of calendula in mouth ulcers

1. Anti-Inflammatory and Healing properties

- Calendula is known for its anti-inflammatory properties and has been traditionally used to promote wound healing. In the context of mouth ulcers, these properties may contribute to reducing inflammation and supporting the natural healing process.^[35]

2. Antimicrobial activity

- Calendula has demonstrated antimicrobial activity against various microorganisms. This property may

be relevant in preventing or managing secondary infections in the oral cavity, which can impede the healing of mouth ulcers.^[36]

3. Analgesic (Pain-Relieving) effects

- Calendula's potential analgesic effects could provide relief from the pain associated with mouth ulcers, improving the overall comfort of individuals with oral discomfort.^[37]

CONCLUSION

The review clearly shows that mouth ulcers can be effectively treated using naturally occurring components of medicinal herbs, regardless of the underlying reason, and that they can be kept from coming again. These medications' advantageous properties, in addition to their ability to boost immunity, account for their unparalleled ability to treat the illness holistically. A "natural and green dental practise" has a lot of potential if this easily accessible, secure, and natural material is used in dental procedures.

Although there is now insufficient scientific research to identify which plant is most effective in treating mouth ulcers, the use of herbs in dentistry is undoubtedly on the horizon. This research may give dentists a comprehensive manual and a great deal more information on using herbal therapies to treat mouth ulcers in their offices. Additionally, it could serve as a springboard for additional research by scientists attempting to close the gap between clinical and experimental dentistry.

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