



A Review on Herbal Mouth Wash

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ABSTRACT

Today, herbal medicine is becoming more and more popular as a safe and effective means of treatment for many different medical conditions. Herbs are often preferred because they are natural and do not put harmful chemicals into the body. Herbs are available fresh, as capsules, powders, extracts, roots, etc.

Some people prefer to grow their own. Always seek advice from an expert before taking herbs as a supplement or as a health remedy. Traditional healers have long used botanicals to prevent or cure infectious diseases. Commercially available mouthwash formulations are often medicated and contain chemicals that may elicit adverse effects to the users. A mouthwash may be recommended for its efficacy in preventing dental caries and other oral conditions due to its antimicrobial, anti-inflammatory and analgesic properties. Therefore, it is essential to raise awareness in selecting for an appropriate mouthwash that is safe to be applied to the oral cavity and its natural microflora. The interest towards the incorporation of herbal ingredients in oral products has been increasing exponentially over the years. Then the physical evaluation, pH determination, stability study, antimicrobial study. By this study it was concluded that the developed herbal mouthwash possess significant, therapeutically efficacious, suitable vehicle for drug delivery in low cost but definitely with high potential. Hence there is need for increased usage of herbal preparation to avoid the adverse effects. This study is an attempt to outline such natural substances, which may be used as effective mouthwashes.

Keywords: [herbal, herbal medicine, mouthwash, Antimicrobial, natural plant, Stability.]

INTRODUCTION

Nowadays, the majority of people are choosing natural herbal products for the prevention or treatment of diseases. Plants being an abundant source should be considered in various pharmacological formulations. Ayurvedic medicinal plants are used in various treatments, as there are no or minimal side effects. For long-term use of mouthwashes, numerous mouthwashes have been tested in vitro and in vivo. 7–13 Ayurvedic medicines give a holistic approach toward entire human beings. It can maintain the balance between general and oral health as well as an environment which is in this era necessary for the well-being of humans. (1) Oral disease is a major health problem with dental periodontal diseases among the most important preventable global infectious diseases. Oral health influences the general quality of life because poor oral health has been linked to chronic conditions and systemic disease. The association between oral diseases and oral microbiota is well established in this regard, plant derived natural Plant Contain Neem, Clove oil, Peppermint, and Chemical contain Saffron, Sodium lauryl sulphate, Coloring agent, that inhibit the growth of oral pathogens, dental plaque, influence the adhesion to surfaces and reduce symptoms of oral diseases as compared to synthetic. Mouthwashes are liquid oral products that are gargled for cleaning the mouth and teeth to freshen breath. It may also kill the microorganism in the mouth or whiten Teeth more than 750 species of bacteria that inhabit the oral cavity have been implicated in oral diseases. (2)

History of herbal mouthwash

Egyptians are known for the first artistic drawings that emphasize the importance of beauty and hygiene. An unclean body was thought to be impure. In addition to washing their bodies in oils, the Egyptians used many products to freshen their breath. They chewed sodium carbonate or rinsed their mouth with honey and water to which goose fat, frankincense, cumin, and ocher had been added. There are surviving recipes for chewable tablets: made of dried plant matter such as myrrh, mastic, cypress grass, and lily which were finely grounded, mixed with honey, heated and dried in balls. Discords, a Greek physician and surgeon whose writing served as a medical textbook for medical education in his field, suggested for treatment of bad breath, a mouthwash mixture of the following: a decoct of the leaves of the olive tree, milk, the juice of pickled olives, gum myrrh with wine and oil, pomegranate peelings, nutgalls, and vinegar. The ancient Romans included teeth cleaning as part of their religious ceremonies. The patriarchy employed slaves, forerunners of modern dental hygienist, to clean their teeth. The Romans were really the first to invent toothpaste and mouthwash, but it included a secret ingredient: human urine. They imported Portuguese urine because they thought it had more strength. Until the 18th century, urine continued to be an active ingredient in toothpaste and mouthwash, because of the ammonia's cleansing abilities. Ammonia still continues to be an added ingredient in a lot of dental dentifrices. Writings between 120 and 162 AD, refer to mouthwashes for help in the treatment of diseases. (3)

What is the Mouthwash ?

Herbal mouthwashes can be used as an adjunct to various oral hygiene practices like tooth brushing, flossing. It's proven that they have effective anti-inflammatory, anti-plaque properties and hence can be used in supportive periodontal therapy. It does not contain alcohol, artificial preservatives, flavors or colors. Hence Herbal mouthwashes can be considered an alternative to chemical mouthwashes in sustaining oral hygiene, especially because of the added advantages provided by herbal preparations.(4)

Types of mouthwash

Types of Mouthwash Here's an inventory of the various sorts of mouthwash.

1) Fluoride mouthwash: Fluoride in mouthwashes contains salt which helps protect the teeth from cavities and cavity. Since fluoride could also be found in toothpaste and water, it's advisable to require care when using this type of mouthwash since intake of an excessive amount of fluoride isn't good for your overall health.

2) Antiseptic mouthwash: This is the foremost common mouthwash. This mouthwash usually contains alcohol and is typically utilized by people with mouth infection to stop bacterial growth. This is often also helpful for people that have halitosis or bad breath. This is often used alongside the proper brushing of teeth and flossing to help forbid bacteria that cause mouth infections and stinky breath.

3) Cosmetic mouthwash: A mouthwash that doesn't really do anything to your overall oral care but is just how to freshen your breath or to mask bad breath.

4) Natural mouthwash: Natural mouthwash could also be a mouthwash that does what other sorts of mouthwash do except the ingredients are natural. It is also a popular option as an alcohol-free mouthwash. Their ingredients are safer to use as compared to other sorts of mouthwash.(5)

Advantage of mouthwash

1. Fresh breath.
2. Reducing tooth decay using sodium fluoride.
3. Reducing gum inflammation by killing bacteria.
4. Whitening teeth using a bleaching agent
5. Preventing gum disease using an antiseptic or anti-plaque ingredient.
6. Mouthwash prevents gingivitis and gum disease by killing the bacteria that would otherwise infect the dental sockets and gums.
7. It can prevent the buildup of plaque, strengthen the enamel, and demineralize your teeth, allowing you to prevent tooth decay.

Benefits of herbal Mouthwash

- Natural mouthwash uses time-tested ingredients.
- Natural mouthwash is gentle for even the foremost sensitive mouths
- Natural mouthwash feels great.
- Natural mouthwash has naturally antibacterial properties.
- Natural mouthwash contains no harsh additives.
- Natural mouthwash is effective.
- Natural mouthwash doesn't cause waterlessness.
- Natural mouthwash is in high demand, Natural mouthwash contains no "mystery" ingredients. (6)

Natural Plants Used as herbal Mouthwash:

1. Cloves (*Syzygies aromaticum*) the are dried, aromatic, unopened floral buds from the myrtaceae.

family -Myrtaceae

Use - is a natural antibiotic with broad antibacterial, antifungal, and antiviral activities. (7)

2. Peppermint oil –(leaves of perenniaaromatic)

Family -Mentha piperita L.

Use -the oil is used for the treatment of stomach disorder ,cough drop ,remove 99% germs causes bad breath and cavities.(8) 3. **Neem** (Azedarach indica)

Family – Azardica indica .

Use -The use of the different part of plant including flowers, leaves ,seed , bark .and used in the antimicrobial ,antimalarial , antibacterial ,antiviral.(9)

4. Saffron (Crocus sativa L.)

Family –Crocus Sativus L.

Use - Saffron is a spice with a strong fragrance and distinctive color. The spice is also rich in antioxidants, which may have many health benefits is a bulbous perennial stem less plant that contains more than 300 volatile and nonvolatile ingredients, including .(10)

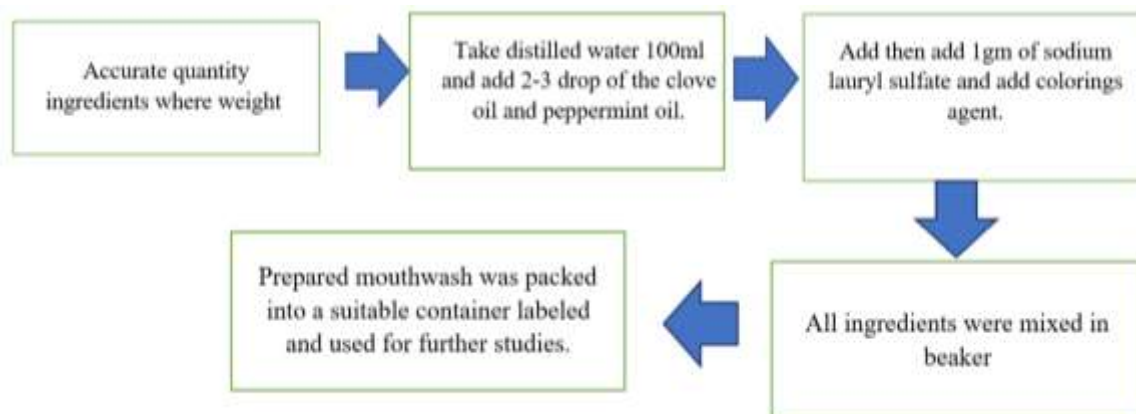
5. Sodium lauryl Sulphate

There is a need for the search of natural and innovative substances that can fill the role provided by SLS in toothpastes, with less or no potential for harm. Plant-derived saponin may prove beneficial as it is likely to be relatively harmless when taken orally, and toxicity is minimized during ingestion by low absorption and hydrolysis. (11)

Method of formulation mouthwash

Formulation containing ingredients such as clove oil, peppermint, Neem, Saffron, sodium lauryl sulfate, Method of preparation.

Take distilled water 100ml and add 2-3 drop of the clove oil and peppermint oil.



Sr. No	Name of ingredients	Scientific name	Quantity	Uses
1	Clove Oil	Syzygium aromaticum	2-3 drops	Analgesics, anti-inflammentry
2	Peppermint Oil	Mentha x piperita	2-3 drops	Freshener, antibacterial, antifungal
3	Sodium lauryl sulfate	Sodium lauryl sulfate	1 gm	Buffering agent.
4	Neem	Azardica indica .	2-3 drop	Antibacterial, Antimaterial, Antiviral.
5	saffron	Crocus sativus L.	2-3 drop	Antioxidants, distinctive color
6.	Water	-	100 ml	Quantity Sufficient.
7.	Salt	-	10 ml	Osmotic preservative

Table no.01 Formula for mouthwash

Formulation of herbal Mouthwash

The herbal Mouthwash was prepared by the formula given in table 1. Salt solution was made by preparing 1% w/v solution of salt in sterile water. Then all the extracted ingredients are mixed in a fixed Ratio.(11)

Evaluation of herbal mouthwash

1. Color and Odor: Physical parameters like odor and color were examined by visual examination .

2.PH: pH of prepared herbal mouthwash was measured by using digital pH meter. The pH meter was calibrated using standard buffer solution about 1 ml of mouthwash was weighed and dissolved in 50ml of distilled water and its pH was measure.

3.Test for microbial growth in formulated mouthwash- The formulated mouthwash was inoculated in the plates of agar media by streak plate method and a control was prepared. The plates were placed in the incubator and are incubated at 37°C for 24 hours. After the incubation period plates were taken out and checked for microbial growth by comparing it with the control .

Stability Studies- The formulation and preparation of any pharmaceutical product is incomplete without proper stability studies of the prepared product. This is done in order to determine the physical and chemical stability of the prepared product and thus determine the safety of the product. A general method for predicting the stability of any product is accelerated stability studies, where the product is subjected to elevated temperatures as per the ICH guidelines. A short term accelerated stability study was carried out for the period of 3 months for the prepared formulation. The samples were stored at under the following conditions of temperature as 3-5^o C, 25^o C RH=60%, 40^o C ±2% RH= 75%. Finally the samples kept under accelerated study were withdrawn on monthly intervals and were analyzed .(12)

Result and Discussion

The pH of the formulation was found to be 6.1. As the skin is having an acidic pH around 5.5 this pH range of the formulation is suitable for oral disorders. The formulation was found to be free from heavy metals. The formulation was free from microbes as they have not produced any microbial growth when they got inoculated in the agar medium. This mouthwash is a herbal prepared without the addition of any kind of alcohol and any other additives as other products found in the market. The formulation was undertaken stability studies for physical and chemical change. No considerable variations in properties of the formulation were observed. The results of stability stability studies are shown in the given table 2. Alcohol consumption as well as alcohol and tobacco use are known risk factors for head and neck cancers. It has always been the question of whether use of alcohol containing mouthwash increases the risk of cancer. When used in mouthwashes antimicrobial ingredient like neem, clove and other essential plant extracts have been found to reduce plaque and gingivitis when combined with daily brushing and flossing. Volatile sulfur compounds are the major contributing factor to bad oral odour. They arise from a variety of sources that is breakdown of food, dental plaque and bacteria associated with oral disease. The antibacterial activity was evaluated by agar diffusion method for different concentrations of mouthwash .(13)

Conclusion

This review's objective is to provide a general overview of mouthwashes and to compare herbal mouthwash to chlorhexidine mouthwash in order to educate readers about the benefits of using herbal mouthwash. Notwithstanding its drawbacks, short-term use of chlorhexidine mouthwash is useful for dental treatments. Natural mouthwashes can help you maintain healthy oral hygiene. It will take a lot of programmes to educate people about the importance of mouthwash in oral care. (14)

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