

Treatment of Oral Mucosa Diseases with Medicinal Plants

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Annotation: This article provides information about the traditional treatment of oral mucosal diseases and medicinal plants that can cure this disease.

Keywords: Medicinal plants, patients, Kalanchoe, rose, biological activity, ethanol, stearin, phytol.

Introduction.

In recent years, interest in natural remedies, in particular medicinal plants, has been growing in terms of restoring and strengthening human health. In particular, oral diseases - stomatitis, gingivitis, periodontitis, candidiasis - are one of the most common problems among all segments of the population. Although modern pharmacological drugs play an important role in the treatment of these diseases, their long-term use can cause various side effects. Therefore, the demand for natural and alternative remedies, including folk medicine, is increasing.

The issue of oral diseases has long been one of the topical topics in the fields of dentistry, otolaryngology and general therapy. Since these diseases are directly related not only to the teeth, but also to the gums, tongue, inner part of the lips, oral mucosa and the immune system of the body as a whole, their study and development of effective treatment methods are still in the focus of scientific research today.

Modern scientific sources contain extensive information about oral diseases, their etiology and pathogenesis, clinical symptoms and treatment protocols. In particular, large-scale clinical studies have been conducted in Russia, the USA, Germany, Japan and other countries on diseases such as stomatitis, gingivitis, periodontitis, candidiasis. In particular, scientific work

aimed at studying the microbiological environment of the oral cavity, explaining the molecular mechanisms of inflammatory processes and developing new therapeutic agents against them has become widely popular in recent years [5]. At the same time, methods of treating oral diseases in folk medicine, especially the use of herbal therapy, have also existed for a long time, and their study has provided science with many useful results. Bioactive substances contained in medicinal plants - flavonoids, essential oils, alkaloids, tannins, organic acids - have been recommended as effective means against inflammation of the oral mucosa. In particular, folk medicine methods based on chamomile (*Chamomilla recutita*), sage (*Salvia officinalis*), calendula (*Calendula officinalis*), oak bark (*Quercus robur*), aloe vera and other plants are widely used among the people.

However, to date, the effect of plants used in folk medicine on oral diseases, their scientifically based effectiveness, scope and methods of application have not been fully systematized. Therefore, there is a need to combine existing experiences with modern medical knowledge, determine their scientific validity, and identify safe and effective recipes.

Natural medicinal plants are widely used in modern medicine and folk medicine. In particular, Kalanchoe (*Kalanchoe pinnata*) and Rose (*Rosa gallica*) are distinguished by their anti-inflammatory, antiseptic and regenerative (tissue restoration) properties [7].

Kalanchoe is a genus of succulent plants in the family of the Asteraceae, of which 125 species grow naturally in Madagascar, tropical Africa, Southeast Asia and tropical South America. Most species are grown as houseplants.

The chemical composition of the Kalanchoe plant includes, in particular, alkaloids, triterpenes, glycosides, flavonoids and steroids and various chemical compounds. In addition, it contains various organic acids such as caffeic acid, ferulic and oxalic acid, as well as fatty acids such as palmitic, stearic, arachidic and others.

Chemical composition of the Kalanchoe plant

№	Component	Quantity
1	n-hexadecanoic acid	0,59
2	Phytol	1,74
3	Stearic acid	0,58
4	Squalene	1,23
5	Tocopherol	3,83
6	Tocopherol	0,84
7	Tocopherol	4,35
8	Stigmasterol	0,88
9	Heptacosan	15,34
10	Simiarenol	1,44
11	Friedelin	1,90
12	Octadecanal	0,62
13	2-Hexadecanol	0,305

Kalanchoe exhibits antimicrobial properties against pathogenic bacteria, fungi, protozoa, and viruses through biologically active secondary metabolites such as alkaloids, flavonoids, terpenes, and polysaccharides[1].

In recent decades, many antibacterial and antifungal compounds have been identified among Kalanchoe species. For example, *K. pinnata* and *K. daigremontiana* are medicinal plants that contain flavonols (e.g., quercetin and kaempferol), flavones (e.g., luteolin), and bufadienolides. [2].

Rose is a common name given by the people to several species of the family Asteraceae that are cultivated as ornamental plants. The medicinal properties of the rose are numerous. It is valued

in both folk and official medicine. The medicinal properties of rose are mainly anti-inflammatory, soothing, antiseptic, skin regenerating and moisturizing, improving digestion and immunity, and making it a useful herb for excess bile and rashes [3].

Roses and the biological activities of their major compounds

№	Component	R. damascena Mill.	Rosa alba L	Rosa gallica L	Rosa centifolia L
1	Ethanol	0.80	0.15	0.01	0.00
2	Limonene	0.00	0.03	0.16	0.05
3	Linalool	1.90	1.43	1.58	1.03
4	β -Phenethyl alcohol	0.40	0.25	0.36	0.09
5	Cis-Rose oxide	0.22	0.08	0.05	0.07
6	Trans-Rose oxide	0.13	0.06	0.00	0.04
7	Citronellol	28.72	16.65	9.22	9.22
8	Nerol	4.80	10.10	4.72	4.36
9	Geraniol	21.40	30.98	24.84	17.60
10	Eugenol	1.00	1.12	0.05	0.74

Conclusion. In conclusion, Aloe vera, sage, Kalanchoe, rose and black cumin are all plants that have been widely used in folk medicine since ancient times, rich in natural healing properties. Each of them contains its own biologically active substances and has a positive effect on diseases of the oral mucosa. Future scientific studies will be conducted to study the medicinal properties of plants.

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