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Herbal Aid for Oral Hygiene

Neha Vishal Dive, Ph.D. Scholar, Department Nursing, Shri JJT University Jhunjhunu, Rajasthan, India
Dr. Sushmita Sil, Department Nursing, Shri JJT University, Jhunjhunu, Rajasthan, India

Abstract

Hygiene assumes an essential part in the counteraction of oral illnesses, including periodontitis, tooth rot, and oral candidiasis. Likewise, numerous logical examinations show a connection between oral wellbeing and cardiovascular sicknesses, diabetes, and even passing. To forestall caries arrangement and periodontal infections, viable oral cleanliness ought to be performed and plaques ought to be taken out, plaque development ought to be forestalled, and strains ought to be eliminated. Patients and dental specialists are confronted with various oral cleanliness items containing dynamic and inert fixings. Albeit synthetic based items are great at oral cleanliness, there are numerous unfriendly impacts of dental cleanliness items, which are sold on the lookout. Viable use of toothbrush, floss, or wash is seen as vital for making oral cleanliness even without utilizing any synthetic compounds. Moreover, albeit well known natural items have assisted with controlling dental plaque and gum disease, their security and viability isn't explored exhaustively. Natural items might offer critical benefits over the synthetic ones with less secondary effects and high antimicrobial potential. Moreover, individuals know about the impacts of home grown items for oral consideration, and their advantage in these items has expanded as of late. Conventional natural based medicines give decreased unfriendly responses of compound partners like protection from anti-toxins, consumption, or staining of teeth. Home grown items, for example, clove and clove oil, coconut oil, pomegranate, green tea, Salvadora persica (meswak), Aloevera, Acacia arabica, Melaleuca alternifolia (tea tree), Azadirahta indica (neem), and licorice are utilized to advance oral cleanliness, and their inhibitory impact on biofilm development is displayed in various examinations. As indicated by bioactivity concentrates on these species, antibacterial, mitigating, anticariogenic, and astringent properties were noticed for their parts as well as concentrates. On the off chance that such home grown items can be formed really, this might prompt an improvement in the overall dental wellbeing of the populace. Summed up here are such normal items, which might be utilized successfully in the business plans as well as private item.

Keywords: Herbal medicine, oral hygiene, oral hygiene products, dental plaque

INTRODUCTION

There is an increasing public awareness on personal oral hygiene. Apart from toothbrushes and toothpastes, toothpowder, mouthrinses, and similar products are also widely used inthe population. People brush and rinse their teeth to feel fresh, to avoid bad breath, dental caries, oral diseases, and to have a nice smile. Effective oral care is important for all individuals, especially for kids, pregnant women, and those who have an immune system deficiency, or undergoing chemotherapeutic or radiation therapy. Likewise, numerous logical investigations show a connection between oral wellbeing and cardiovascular illnesses, diabetes, and even demise. To forestall caries arrangement and periodontal illnesses, successful oral cleanliness ought to be performed and plaques ought to be taken out, plaque development ought to be forestalled, and strains ought to be eliminated.

Oral infections, periodontal disease, and dental caries are occurring very common all around the world. Effective oral hygiene prevents oral infections and diseases. Antibiotics, fluoride, and chlorhexidine derivatives are used successfully as oral hygiene products against oral diseases including infections and caries; however, long-term overuse of these chemical-based oral hygiene products caused some oral or systemic adverse reactions.

Numerous different products or their mixture can be used for oral hygiene throughout the centuries. These old formulations had the potential oral or systemic side effects because of their toxic constituents such as sulfuric acid, mercuric perchloride, carbolic acid, and formaldehyde. With the recognition of these toxic effects, researches for new products have increased rapidly, and more reliable products have emerged over the years.

In recent years, herbal products in oral care, which are widely used in traditional medicine, have attracted the attention of researchers looking for a safer and more effective oral hygiene product. Traditionally, herbal products such as clove and clove oil, coconut oil, pomegranate, green tea, Salvadora persica (meswak), Aloe vera, and Acacia arabica are used to promote oral hygiene. Antibacterial, anti-inflammatory, anticariogenic, and astringent compounds are mostly isolated from these species.

The use of herbal products for the protection of oral health and treatment of oral diseases comes from the very old days of the world. A well-known example, Salvadora persica L. (miswak or siwak), is the most common traditional source of the material for oral hygiene. Green tea, the leaves of Camellia sinensis is a popular drink that has a beneficial physiological effect. It is widely consumed all over the world and proven to have antioxidant and antibacterial effects against bacterial colony of dental plaque. It has been found that green tea polyphenols can eliminate halitosis by modifying the odorantsulfur components. Oxidative stress and inflammation in the oral cavity, due to heavy cigarette smoking and alcohol consumption, also decreased in the presence of green tea polyphenols.

There are many different plant species used for periodontal disease and oral hygiene in India. The dried powders of Acacia arabica (bark), Terminalia chebula (fruits), Terminalia bellerica (fruits), and Emblica officinalis have been used in their traditional tooth formulas for more than a century. Rasingam et al. reported on the traditional herbal tooth sticks used by the inhabitants of Andaman and Nicobar Island in India. Among these species, neem (Azadirachta indica), which is widely used as chewing stick throughout the world, is a native of India and is cultivated in all parts of the subcontinent because of its medicinal properties. It was reported that every part of the neem tree, such as branches, twigs, bark, and oil, was used for oral health in India, for centuries. It is one of the traditional dental care practices in India to brush with neem and mango branches and chew the neem leaves and seeds after the meals. The stems of Azadirachta indica have antiinflammatory and antimicrobial activities due to the presence of substances such as nimbin and nimbidine as phytochemicals. In case of mango twigs (Mangifera indica), mangiferin, which is the natural C-glucoside xanthone, has been reported in various parts of the plant such as leaves, fruits, stem, bark, and roots. Antioxidant, radioprotective, immunomodulatory, antitumor, antiallergic, anti-inflammatory, antidiabetic, and antimicrobial properties of mangiferin are reported in many studies. It has also therapeutic potential in both the prevention and treatment of periodontitis [26, 27]. Different Artemisia (wormwood) species are used traditionally because of its medicinal properties. For example, Artemisia absynthium, Artemisia herba alba, and Artemisia siberia extracts can be used in cosmetic and toiletry products such as toothpastes, which not only cleans the teeth but also prevents decay, treats bad breath, and protects the oral hygiene.

Another important method of traditional oral hygiene is oil pulling. which has been applied for a long time as a traditional folk medicine in India. Recently, people around the world are increasingly interested in this method, which is offering oral health benefits and oral hygiene. Based on current research, it was found that, when administered correctly and regularly, oil pulling improved oral hygiene. However, oil pulling does not replace dental treatments and is currently not recommended by the American Dental Association. According to the latest data, it can be safely used with brushing teeth and flossing as well as help maintain good oral hygiene and health.

Herbal oral rinse containing the extracts of echinacea, Hydrastis canadensis, calendula, aloe, Sanguinaria canadensis, grapefruit seed, cinnamon and spearmint oil, and peppermint oil was also tested in comparison with 0.12% chlorhexidine oral rinse. The effects of herbal rinse on restoring gingival health status were not statistically greater than those of the placebo. Chlorhexidine is more efficient than herbal rinse in reducing the clinical indicators of gingivitis when compared to the placebo. Therefore, individuals who are looking for a natural, sugar-free, and non-alcohol mouth rinse should be advised that there is still a need for researches to support the effectiveness of herbal oral rinses.

Licorice is one of the important traditional herbs used for different physiological conditions and as a food ingredient throughout the world. The effect of different licorice preparations on dental problems was evaluated by different authors. Recent researches suggest that licorice extracts and its phytochemicals have beneficial effects in oral hygiene and oral diseases. These effects have been attributed to the antiadherence, antimicrobial, and anti-inflammatory properties of its constituents. However, glycyrrhizin, which is one of the important components of licorice, is converted to glycyrrhetic acid in the humanintestine and can induce severe hypertension and hypokalemia in the body. Therefore, licorice extract without glycyrrhizin should be preferred for use in order to prevent the side effects of licorice.

Conclusion

Nowadays, most of the population prefers oral hygiene preparations that contain plant extracts due to safety problems and increased interest of individuals in natural-based products. When it comes to dental hygiene products, plants have been found to be safer and effective in the growth of dental plaque and tooth decay. Therefore, increasing the use of herbal products in mouth rinses and toothpastes will be useful in the control of dental caries. However, the knowledge and understanding of herbal products and traditional uses is still an ongoing process with respect to their effectiveness and safety. Further long-term studies should be carried out to find suitable herbal formulations and provide their compliance with consumers and patients.

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