ETHIOPIAN INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH

eISSN: 2349-5715 pISSN: 2349-5707

Volume: 12, Issue 02, February-2025 SJIF 2019: 4.702 2020: 4.737 2021: 5.071 2022: 4.919 2023: 6.980 2024: 7,662

Dalimova Shoira Qosimjonovna
Senior lecture of the Department of dentistry,faculty of Dentistry, therapist, Andijan State Medical institute

FEATURES OF TREATMENT AND PREVENTION OF INITIAL CARIES AND CHRONIC CATARRHAL GINGIVITIS

Abstract: The article presents modern views on the features of treatment and prevention of initial caries and chronic catarrhal gingivitis with herbal preparations. The role of microorganisms of dental plaque in the occurrence and development of caries and periodontal diseases is noted. One of the most promising areas of preventive medicine at present is the use of herbal preparations with bactericidal, anti-inflammatory, analgesic, reparative action in combination with the absence of side effects.

Keywords: initial caries, chronic catarrhal gingivitis, dental plaque microorganisms, antiseptics.

INTRODUCTION

Despite the use of various methods of prevention and treatment, dental caries and gingivitis still remain among the most common diseases of the oral cavity in children and adults [1].

The high prevalence of caries and its complications in schoolchildren in our country (up to 80% according to the WHO epidemiological survey) indicates the insufficient effectiveness of general and local preventive measures and confirms the significance of this problem [2].

The incidence of catarrhal gingivitis reaches almost 100%, usually affecting children and young people up to 25-30 years old. The highest prevalence of gingivitis is noted in adolescents aged 14-16 years [3].

MATERIALS AND METHODS

The function of the salivary glands and the composition of the oral fluid also play an important role in the prevention of caries and chronic catarrhal gingivitis. When treating a patient, it is necessary to use means to normalize salivation (regardless of the initial background - hyper- or hyposalivation), including pH, the ratio of organic and inorganic fractions, micellar structures and, most importantly, normalization of the optimal ratio of calcium and phosphorus (1:4), which ensures active processes of enamel remineralization. In addition, the immunological properties of saliva and oral fluid are normalized and, to a certain extent, activated [4]. Currently, the leading factors in the development of catarrhal gingivitis have been studied and described in the literature quite well. WHO specialists consider the main ones to be: harmful environmental influences, poor oral hygiene, disruption of the oral microbiocenosis, lack of or insufficient preventive measures, unbalanced nutrition, hereditary predisposition, concomitant diseases, etc. [2].

RESULTS AND DISCUSSION

The main cause of chronic gingivitis, as well as dental caries, are microorganisms of dental plaque or soft dental plaque in the area of the gingival margin - Str. Sanqis, Str. mutans, Bac. melanogenicus, Actinomyces viscosus, etc. At the beginning of plaque formation, coccal forms of microbes predominate in it, then, as the plaque forms and increases in thickness, anaerobes (fusobacteria, spirochetes, etc.) begin to predominate, and the number of streptococci decreases by 30% [2]. For the treatment of catarrhal gingivitis, it is important to develop methods for express research of the composition and contents of the gingival sulcus in a clinical setting, predicting the duration of remission and moments of exacerbation based on microbiological data [1]. This is why the

eISSN: 2349-5715 pISSN: 2349-5707

Volume: 12, Issue 02, February-2025 SJIF 2019: 4.702 2020: 4.737 2021: 5.071 2022: 4.919 2023: 6.980 2024: 7,662

study of microbiological factors is currently of theoretical and practical importance, as it reveals the mechanisms of interaction between microorganisms and periodontal tissues [3].

Thus, the search for new effective treatment and preventive measures that increase the resistance of enamel to the effects of acids during caries, increase the overall immunity of the body and reduce the risk of developing inflammatory periodontal diseases is currently ongoing [4].

A large number of calcium-containing drugs have been proposed for the treatment and prevention of dental caries. In our country, a 10% solution of calcium gluconate is widely used for application and electrophoresis, while the incidence of caries is reduced by 19.6-39.4% [2].

However, chemical agents containing both calcium and phosphorus ions are considered more effective. The most commonly recommended are calcium glycerophosphate, calcium monophosphate, pure fluorapatite, monofluorophosphate, hydroxyapatite, and dicalcium phosphate dihydrate [3]. The American Dental Association Academy of Health has developed the material ACP (amorphous calcium phosphate), which is a macromolecule in its composition. When applied topically, products containing ACP can cause the deposition of calcium and phosphorus on the tooth surface or in microscopic defects, changing the degree of roughness and gloss of the enamel [4].

The most widely used synthetic antiseptic drug is chlorhexidine. The positive properties of chlorhexidine include a powerful antimicrobial and antiseptic effect [1]. However, this drug has undesirable effects that limit its use: dysgeusia; staining of teeth, fillings, tongue, dentures; dysbacteriosis with prolonged use; allergenic and irritating effect on the oral mucosa; inactivation in the presence of iodine [2]. Triclosan is a broad-spectrum antiseptic. It has bactericidal, fungicidal, anti-inflammatory and deodorizing effects. The main mechanism of antibacterial action of triclosan is associated with the effect on the cytoplasmic membranes of bacteria. Negative effects include the short duration of the effect; transit xerostomia effect; erosion of the oral mucosa; occurrence of dysbiosis and allergic reaction with prolonged use [3].

In recent years, phytoecdysteroids, which are widespread in the plant world, have attracted much attention in medicine. Phytoecdysteroids are a large class of polyhydroxylated steroid compounds found in higher plants. Unique properties of these compounds have been identified, such as anabolic, vasoprotective, immunostimulating, adaptogenic and tonic effects [4].

CONCLUSION

Under certain conditions, ecdysteroids have a membrane-stabilizing effect, which underlies their anti-inflammatory effect, and also regulate mineral, carbohydrate, lipid and protein metabolism, exhibit antioxidant and antiradical properties. The above effects allow us to justify their use for the treatment and prevention of a number of dental caries and chronic catarrhal gingivitis.

REFERENCES:

1. 1 Vilova T.V. Clinical and physiological rationale for the use of a brown algae preparation in the treatment of gingivitis / T.V. Vilova // Dentistry. - 2018. - No. 6. - P. 17-20.
2. 2 Vinogradova T.F. Dental caries in children / T.F. Vinogradova // Clinical dentistry. - 2018. - No. 3 (47). - P. 7-10.
3. 3 Vichkanova S.A. Results of a clinical study of the antimicrobial herbal preparation sanguiritrin / S.A. Vichkanova // Doctor. - 2012. - No. 2. - P. 44-47.
4. 4 Garus Ya.N. Complex treatment of chronic catarrhal gingivitis using microvibroacoustic and infrared effects in combination with antioxidant protection / Ya. N. Garus, R. M. Antoshkieva // Russian Dental Journal. − 2011. − No. 5. − P. 18-20.