



DISEASES OF THE ORAL MUCOSA IN CHILDREN AND METHODS OF THEIR PREVENTION

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Abstract: Diseases of the oral mucosa are highly prevalent, making their prevention a pressing issue. Various causes and factors contribute to the development of these pathologies, many of which can be eliminated, thereby preventing the disease. Prevention should begin in childhood. This article describes primary and secondary prevention measures for oral diseases in children at different ages, based on the structural features of the oral mucosa.

Keywords: prevention, diseases of the oral mucosa, childhood, stomatitis.

The oral cavity is a high-risk environment for developing inflammatory processes and stomatitis. This is due to frequent trauma, exposure to the environment, and high microbial contamination. The importance of preventing oral mucosal diseases (OMD) is due to the high prevalence of this pathology. Primary and secondary prevention are distinguished. Primary prevention refers to a set of measures aimed at preventing the onset of diseases and eliminating risk factors. Secondary prevention involves the treatment of existing pathological processes in the oral cavity. Prevention of oral mucosal diseases requires active measures aimed at both the individual and the environment. Currently, the epidemiology of oral mucosal diseases has not been studied; however, their prevalence is directly related to the maturity of the human immune system. Prevention of OMD pathology should begin in childhood. The nature of oral mucosal diseases in children is largely determined by age-related characteristics of the mucosal structure.

Measures for the prevention of diseases of the oral mucosa at different age periods.

The first 10 days of a baby's life are called the neonatal period. During this period, the baby's salivary glands are not yet functioning, and the oral mucosa is very fragile and has many blood vessels. Any injury, even minor (for example, from a pacifier), can cause damage to the mucosa. In children aged 10 days to one year, the mucosal epithelium is thin. During infancy, the tissue begins to lose the immune properties acquired during the antenatal period, which affects the mucosa's immunobiological capabilities during this period. In this regard, it is worth mentioning the diaplacental transfer of maternal antibodies, hormones, enzymes, and other factors. This likely explains the baby's relatively high resistance to viral and bacterial stomatitis in the first year of life and the predominant development of fungal infections of the oral mucosa, which is also facilitated by the neutral or slightly acidic reaction of saliva. Primary prevention measures during this period include: preventing injury by carefully selecting a pacifier or nipple (short length), close supervision of the child, general health measures, and monitoring the child's development. Secondary prevention should focus on the timely treatment of traumatic injuries, eliminating the underlying cause, and prompt and effective treatment of children with candidiasis, including referral to a pediatrician or mycologist.

Between the ages of 1 and 3 years, morphological features become clearly evident. The specialized and integumentary mucosa exhibits areas of epithelial thinning and low glycogen and

RNA levels; the basement membrane is thin and highly permeable. The connective tissue of the mucosa is also poorly differentiated. Cellular elements are located predominantly perivascularly and are few in number. Mast cells are young, immature forms; regulation of vascular permeability is still imperfect; plasma cells and histiocytes are very few. Keratinization processes intensify in areas of normal keratinization; the level of glycogen used in keratinization decreases. These factors determine the frequency of acute herpetic stomatitis at this age. Acute herpetic stomatitis in children with reduced immunity is highly contagious. Between 1 and 3 years of age, primary prevention involves isolating children from contact with those sick with acute or recurrent viral infections; promoting physical activity; administering antiviral medications to weakened and frequently ill children; and using ultraviolet irradiation to stimulate endogenous interferon production. The goals of secondary prevention include reducing the recurrence of oral herpes in children who have had an acute illness. Timely diagnosis by a pediatrician, referral of the sick child to a dentist, and early administration of antiviral medications will prevent further development of stomatitis and reduce the number of outbreaks. Therefore, close collaboration with pediatricians is the responsibility of the pediatric dentist in this regard.

Between the ages of 4 and 12, an increase in epithelial thickness, a thickening of the basement membrane, and fibrous structures of connective tissue are observed. Glycogen content in the epithelium decreases slightly. Histiocytic-lymphoid clusters appear, and the number of mast cells decreases, which may indicate decreased vascular permeability. Mast cell activity increases, leading to the accumulation of cytoplasmic heparin, which acts as a nonspecific protective factor. At this age, perivascular lymphoid-histiocytic infiltrates, known as "round cell" infiltrates, form. This is associated with the development of protective mechanisms and the presence of significant environmental sensitization already at this age. During this period, the tendency toward diffuse reactions in various diseases of the mucous membrane decreases, and the permeability of vascular walls decreases. Furthermore, mast cell activity increases sharply, caused by the accumulation of heparin in their cytoplasm. Secreted heparin acts as a nonspecific protective factor, blocking proteolytic and mucolytic enzymes in the blood and tissues, normalizing abnormal capillary permeability, and thereby promoting the restoration of tissue metabolism. These histological and histochemical characteristics explain the occurrence of acute and chronic diseases based on allergic reactions between the ages of 4 and 12. Recurrent oral aphthae and recurrent herpetic stomatitis occur in preschool age. During this period, primary prevention primarily consists of general health measures and a balanced diet. Secondary prevention methods include: long-term use of antiviral agents during recurrent herpes infections, until the lesions have completely healed; treatment and rehabilitation of children with symptoms of recurrent oral aphthae, with staged reports during follow-up.

IV period Age-related histological and histochemical differences after the age of 12-14 years are characterized by changes occurring under the influence of hormonal regulation factors and explaining the prevalence of juvenile gingivitis and soft leukoplakia. Schoolchildren are also characterized by lip diseases, recurrent oral aphthae, erythema multiforme exudative, recurrent herpetic stomatitis (usually in moderate and severe forms, sometimes continuously recurring) with an allergic component. In school-age children, primary prevention is also based on general health measures (daily routine, activities, time spent outdoors, sports); organization of a balanced diet; in children with constitutional abnormalities - limiting the use of drugs, especially

antipyretics, analgesics, antibiotics, sulfonamides; rehabilitation after acute respiratory infections; ensuring the correct architecture of the lips and nasal breathing. Secondary prevention methods include medical examination of children with erythema multiforme, lip diseases, and others. Risk factors for the development of oral mucosal diseases in children include trauma, viruses, and infections (fungal, bacterial, and specific, etc.); and low resistance to various infectious agents, constitutional abnormalities, allergies, and general illnesses (including infectious ones). Preventive measures vary at different age levels. Certain measures are more important for each age group, although they may still be relevant at other times.

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