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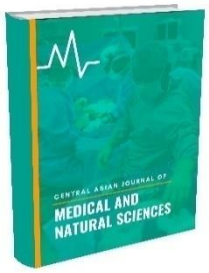

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Clinical Characteristics of Chronic Hypertrophic Gingivitis in Adolescents

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Abstract: Relevance. It is difficult to draw a line between a healthy gum and initial inflammation. Even in the tissues of a clinically healthy gum, histological signs of a minor inflammatory infiltrate are almost always found. With an increase in clinical and histological inflammation, lateral proliferation of the connective epithelium can be observed. In the marginal part, it exfoliated from the surface of the tooth, at the same time bacteria penetrated into the resulting space - a periodontal pocket was formed [1.3].

Most diseases of the marginal periodontal disease are not characterized by vivid symptoms. As a rule, many of them have no pain, and hyperemia, swelling and increased bleeding of the gums are not always taken seriously.

The clinical development of periodontal diseases in adolescents has many differences from similar pathological processes in adults, and this is explained by the fact that in adolescence these processes occur in morphologically and functionally immature tissues capable of inadequately and, in any case, not identically responding to similar causes that can cause periodontal diseases in adults [5.7].

In addition, growth disproportions and maturation of adolescent body structures are of great importance in the pathogenesis of clinical forms of pathology. Disproportions of growth and maturation can occur both within a system united by the unity of function, and in structures and systems that provide and adapt the entire organism to external conditions from birth to old age (endocrine, immune, etc.).

This heterochronous maturation of structures and the formation of function in adolescents causes the occurrence of juvenile chronic gingivitis, periodontitis and periodontitis, which occur as a result of temporary, transient functional juvenile hypertension, juvenile disorders of carbohydrate metabolism. These deviations in the periodontal state can disappear without a trace under the influence of minimal interventions or, despite the elimination of the causes initiating them, acquire the character of an independent progressive disease [2.4.6.8].

Among the wide variety of periodontal diseases, pathological processes associated with lateral proliferation of the connective epithelium of the marginal gingiva are distinguished. Such diseases include HCG, which is accompanied by a chronic inflammatory process of the marginal gum, swelling, tissue hyperplasia and false pockets, which are not periodontal pockets, since we are not talking about loss of attachment or apical migration of the epithelium.

However, since the environment of false pockets is poor in oxygen, it is favorable for the existence of periodontopathogenic anaerobic microorganisms. As mentioned above, gingivitis can turn into periodontitis. However, even in the absence of treatment, it can remain stable for many years. In the treatment of gingivitis, it is completely reversible. As a rule, we are not talking about the loss of connective tissue attachment or apical migration of the epithelium, there is also no destruction of the bone tissue of the alveolar process [9.11.13]. The authors pointed out that HCG is manifested by an increase in the volume of gingival papillae, the formation of so-called false pockets. The epithelial attachment is not disturbed, there are no pathological changes in the bone tissue of the alveoli.

Compared with intact parodort, the resistance of capillaries is significantly reduced. With HCG, the time of hematoma formation is 14.87 ± 1.31% of a second, which is significantly lower than with intact periodontal disease. A marked decrease in capillary resistance in HCG is associated with the formation of vascular-rich granulation tissue [10.12].

Danilevsky N.F. noted that in patients with HCG against the background of physiological puberty, there is an increase in the number of functioning capillaries, a change in their shape and the nature of microcirculation. This gave reason to believe that functional changes in the vessels of the gum (spasm or dilation) are associated with the peculiarities of neuroendocrine disorders and autonomic disorders in girls with puberty pathology.

Periodontal disease in adolescent children is common. According to WHO, about 78% of children have various periodontal diseases. They can be of an inflammatory, degenerative and tumor nature. The largest group of periodontal diseases are inflammatory (gingivitis, periodontitis). They accounted for 9298% of all periodontal diseases. Periodontitis and gingivitis (catarrhal or hypertrophic, edematous form) have the same causal factor. These are two interrelated forms of the disease. When gingivitis is an inflammatory process, it is limited only to the gum. The spread of inflammation to other periodontal tissues (periodontal, root cement, alveolar bone) leads to the development of periodontitis. The prevalence of gingivitis in children is 78%, periodontitis is 2-4%. Children of 9-10 years of age are most often affected by periodontal diseases.

Research by K.Jackson (1975) showed that in England, at the age of 15, gingivitis is encountered in 36-90% of cases. According to the Harvard Dental School in the USA 1/3 of children aged 6 to 11 years and / 3 adolescents suffering from various forms of periodontal diseases. In Japan, YoshinoriTakahashi (1986) recorded inflammatory periodontal diseases at the age of 17 in 37% of cases, and in 20-25 years -63.5% of cases, and according to YoshinoriSasaki (1986), the prevalence of inflammatory forms of periodontal diseases at a young age is 94.3%. N. Muhlenman, A. Magog found inflammatory gum changes in 80% of German schoolchildren aged 7 to 16 years.

In our country, epidemiological studies of the population using the WHO methodology have shown that the prevalence of inflammatory periodontal diseases in children aged 12-15 years, depending on climatogeographic zones, was recorded at 57-90%. According to epidemiological data of domestic and foreign authors [192,202,206], gingivitis, the prevalence of which reaches almost 100%, is one of the most frequently noted periodontal pathology at a young age.

Depending on the age of the child, periodontitis is divided into:

- prepubertal periodontitis — up to 11-12 years;
- puberty (juvenile) — from 12 to 17 years;
- post—puberty - from 17 to 21 years.

Features of the development of periodontal diseases in children are associated with the fact that, firstly, the pathological process develops in constantly growing tissues, forming part of the periodontal

tissue morphologically and functionally immature, able to adequately respond to minor damaging factors. On the other hand, periodontal pathology can develop against the background of disproportion of growth and maturation of tissue structures within the system, with common functions (tooth, periodontal, alveolar bone, etc.), and in structures and systems that provide the entire body and its adaptation to changes in the external environment (nervous, humoral, endocrine, etc.), which leads to the occurrence of periodontal diseases in adolescence. In addition, the periodontal condition may be affected by the lack of synchronicity between the course of eruption of permanent teeth and the rate of construction of the alveolar bone, which leads to a decrease in the area of the attached (alveolar) gum, elongation of the clinical crown of teeth 2-5 mm, a decrease in the depth of the vestibule of the oral cavity. Thus, when assessing the clinical and radiological signs of periodontal disease, the structural features of the periodontal in children should be taken into account [13.15.17.19].

As a result of inflammatory mediators (histamine, serotonin, bradykinin), the permeability of blood vessels increases, causing redness, swelling of the gums, periodontal, alveolar bone, as well as gum soreness. Initially, there are symptoms of gingivitis (catarrhal or hypertrophic, edematous form). During a long period in the absence of treatment, loosening and destruction of the dentoalveolar epithelial attachment occurs, epithelium germination in the apical direction followed by bone resorption, as a result of the cytotoxic action of microbial toxins and acidic environment, and activation of osteoclast resorption under the influence of inflammatory mediators (lymphokines, leukotrienes, interleukins, prostaglandin E2). Systemic diseases (endocrine, CCC, blood, gastrointestinal tract, hypovitaminosis, dysfunction of the genital glands, immunodeficiency states, etc.) lead to changes in the immunobiological reactivity of the body, a decrease in protective and adaptive reactions that ensure the stability of the body as a whole and periodontal disease in particular. There are numerous studies that indicate a significant weakening of nonspecific and specific immunity factors in patients with periodontitis. In this regard, conditions are being created for the implementation of the main complexes of causal factors. Differences in the course of periodontal diseases depend on different immunity in patients. Prolonged contact of the microflora of dental deposits from periodontal tissues can lead to the development of autoimmune processes [14.16.18.20].

Conclusion. Thus, we see an obvious relationship and interdependence between the level of hygienic condition of the oral cavity, the quality of hygienic measures in the oral cavity and the prevalence and intensity of periodontal diseases, and, accordingly, the state of dental status. A high percentage of the prevalence of inflammatory periodontal diseases at a young age, and the tendency to aggravate the severity of this pathology at working age, even in countries with a high level of culture, where all interdental means for hygienic oral care are available and variable, determines the urgency of the problem of treatment and prevention of inflammatory periodontal diseases at a young age and has social significance.

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