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MODERN VIEWS ON THE PROBLEM WEDGE DEFECTS

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The problem of diagnosing and treating wedge-shaped defects of hard dental tissues is due to their high prevalence, the lack of a unified approach to the choice of treatment tactics, as well as insufficient coverage in modern scientific and medical literature. Despite the considerable attention paid to the study of dental caries, issues related to non-carious lesions of hard dental tissues in the adult population remain insufficiently studied and are represented by a limited number of publications.

A wedge-shaped defect is a kind of damage to dental tissues, located near the necks of the teeth and having the shape of a wedge with the base towards the neck of the tooth and the apex towards the cutting edge or chewing surface of the crown. Severe stages of wedge-shaped defects are more common in middle-aged and elderly people. The development of wedge-shaped defects gradually leads to a significant loss of hard tooth tissue, the appearance of hypersensitivity of enamel and dentin, and degenerative changes in the pulp. [1,3].

In the occurrence of some other nosological forms of damage to hard dental tissues (erosions, wedge-shaped defects), there is still a lot of uncertainty, both with regard to their etiopathogenesis and methods of prevention and treatment [2, 4].

In recent years, many researchers have associated the occurrence of cervical lesions and, in particular, wedge-shaped defects, with the pathology of occlusion.

Purpose of the study. To study the prevalence of wedge-shaped defects of hard dental tissues in adults of different age groups.

Materials and methods. 500 patients (150 men and 350 women) aged from 22 to 87 years were examined. All subjects were divided into 4 groups: 1st – young age (22–39 years); 2nd – middle age (40–59 years); 3rd – old age (60–74 years); 4th – senile age (75–87 years).

The clinical examination included a survey of patients, clarification of their life history and general status, professional work characteristics, as well as their complaints about the condition of the teeth and masticatory apparatus in general.

The appearance of the patient's face and oral cavity was examined using a dental mirror and probe. When studying wedge-shaped tooth defects, their prevalence (single, multiple) was assessed, and the stage of development of this pathology was also taken into account: initial, superficial, medium and deep, as well as the phases of exacerbation and stabilization of the wedge-shaped defect.

Results and discussion. Wedge-shaped defects of hard dental tissues in the 1st age group were diagnosed in 66 people (41 men and 25 women). At the same time, single wedge-shaped defects of hard dental tissues in the amount of 2–3 were identified in 50 people (27 men and 23 women). Multiple (4 or more) wedge-shaped defects were diagnosed in 6 people (4 men and 2 women). The exacerbation phase of this pathology, characterized by a rapid (within 2–3 months) loss of hard dental tissues, was diagnosed in 4 people (2 men and 2 women). In the remaining 72 patients of the 1st age group, suffering from wedge-shaped defects of hard dental tissues, a stabilization phase was revealed, characterized by the slow development of wedge-shaped defects with moderate hyperesthesia of hard tissues or its absence.

The stage of initial manifestations of wedge-shaped defects (stage 1) in the 1st age group was noted in 3 patients (2 men and 1 woman). Superficial wedge-shaped defects were diagnosed in 58 people (36 men and 12 women). At this stage, wedge-shaped defects usually have a slit-

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like shape, a depth of up to 0.5 mm and a side length of the defect of up to 3–3.5 mm, with characteristic damage to the tooth enamel. Medium wedge-shaped defects were rarely detected - 5 cases (3 men and 2 women). They were characterized by a defect limited by two planes located at an angle of 40–45° to each other with a defect depth of 1–1.2 mm and a defect side length of up to 4 mm. No deep wedge-shaped defects were identified in young people. In the 2nd age group, wedge-shaped defects of hard dental tissues were identified in 265 people. At the same time, regardless of gender, single and multiple wedge-shaped defects occur. Thus, single wedge-shaped defects were diagnosed in 165 people (87 men and 78 women), multiple – in 180 people (92 men and 88 women).

In persons of the 1st age group, the development of caries on wedge-shaped defects was not observed. In young and middle-aged people, wedge-shaped defects usually affect the buccal surfaces of the premolars, as well as the vestibular surfaces of the canines, central and lateral incisors of the upper, and less commonly, the lower jaw.

At the same time, with a wedge-shaped defect, increased sensitivity of the affected area of the hard tissues of the tooth crown to external stimuli was revealed. In patients of the 3rd age group, wedge-shaped defects of hard dental tissues were identified in 300 people (155 men and 145 women). At the same time, multiple wedge-shaped defects were more common (in 200 people - 107 men and 93 women), and single defects were less common (in 38 people - equally in men and women). The exacerbation phase in this category of patients was diagnosed in only one woman.

It was found that in elderly and senile people, wedge-shaped defects of hard dental tissues more often affected the buccal surfaces of premolars, as well as the vestibular surfaces of the canines, central and lateral incisors of the upper, less often the lower jaw. In 8.86% of cases in elderly and senile people, wedge-shaped defects affected the oral surface of the teeth. At the same time, in the elderly and senile age, increased sensitivity of the affected area of the hard tissues of the tooth crown with a wedge-shaped defect to external stimuli was less common than in young and middle-aged people. Elderly and senile people are more likely than middle-aged people to develop caries on wedge-shaped defects. Thus, in old age, the development of caries on wedge-shaped defects was detected

in 8.12% of men and 7.83% of women, in old age - in 10.11% of men and 4.76% of women.

Conclusion. Thus, the analysis of the obtained data revealed a high prevalence of non-carious lesions among various age groups of the adult population of the Volgograd Region. Changes in dental status and comorbidities in the studied group of individuals can be interpreted as risk factors for the development of non-carious lesions, meaning this problem is of concern not only to dental specialists but also to physicians in related fields.

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