

MODERN AND ACTUAL PROBLEMS OF PATHOLOGICAL TOOTH ERASURE

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The abstract: This article is devoted to an overview of the process of pathological tooth erasure, in order to identify certain processes occurring in the oral cavity and leading to this phenomenon, and also draws attention to factors related to the pathogenesis of pathological tooth erasure; among them are functional insufficiency of hard tissues, excessive abrasive action on hard tissues and functional overload of teeth. As a result of the work carried out, the influence of occlusal load, exogenous and endogenous factors on the dentition was noted. During the analysis of scientific publications and literature, this article reveals the attitude of Russian and foreign authors regarding the etiology of dental hard tissue loss, reflects the essence of the process regarding gender and age category, and briefly describes the actions of a dentist performed before treating this pathology.

Keywords: pathological tooth erasure, loss of hard tissues, dentistry.

During the process of pathological tooth erasure, demineralization of the hard tissues of the tooth is revealed, or rather, enamel erasure, resulting in a decrease in dentin; this fact reduces the resistance of hard tissues to the effects of multiple local adverse factors.: It leads to the proliferation of pathogenic microorganisms of the oral cavity and the penetration of foreign agents from outside, resulting in intense loss of hard tissues and increased sensitivity of teeth with exposed dentin.

Objective: to consider pathological erasure not only as a pathology, but also to find causal relationships regarding etiology and pathogenesis. A more precise formulation of pathological erasure is the definition: pathological tooth erasure is a polyethological process characterized by a loss of hard tissues that is not characteristic of the patient's biological age. According to data published in many scientific sources, from 15 to 50% of the world's population suffers from this disease. The process of loss of hard tissues is diverse in its localization and can manifest itself in the area of one, several or all of the patient's teeth. One of the most serious consequences of this pathology is a decrease in the height of the lower third of the face, so many dental specialists are interested in solving this problem. According to Kazeko L.A., pathological erasure is observed in a number of specific processes occurring in the oral cavity, each of them has its own name and carries a certain functional meaning. The loss of hard tissues is most often characterized by three different terms. "Attrition" means the loss of dental hard tissues on the occlusal surfaces of the tooth due to contact with antagonists. "Abrasion" (grinding)- reduction of the hard tissues of teeth or restorations, localized on the cervical and occlusal surfaces, caused not by occlusal contacts, but by other factors, usually mechanical action by various foreign bodies, for example, a brush with stiff bristles, tooth powder. "Egosiop" (erosion) is a decrease in the hard tissues of teeth caused by surface demineralization due to the action of acids, depending on the source of acid intake, this defect is located either on the vestibular cervical, oral, or occlusal surfaces. Attrition (erasure, scuffing) It is considered as a process that is part of the normal physiological aging of the body, along with the deposition of secondary dentin, alveolar elongation and muscle adaptation. In foreign literature, one can find a point of view regarding which erosion is a more important factor in the loss of dental hard tissues than abrasion due to contact of tooth surfaces. As a result, J.D. Eccles recommends using the term "tooth surface loss" (TSL), as it is often

difficult to identify any single factor in the development of a particular pathological process. B. Smith and J. Knight argues that the term "tooth hard tissue loss" (TSL) does not reflect the full severity of the problem, and therefore introduces the term "tooth wear", which, in their opinion, is suitable to describe all three etiological factors (attrition, erosion, abrasion). According to M. Kelleher and K. Bishop, the terms "loss of hard tooth tissues" and "tooth wear" are interchangeable, so they can be considered interchangeable; this point of view is the most popular among European dentists.

Regarding the pathogenesis of increased abrasion, there are a number of factors that directly affect the occurrence of this pathology: increased occlusive load, exogenous (some of these factors include diet, occupational hazards and irrational prosthetics without taking into account the coefficient of friction of the prosthesis material with tooth enamel and the roughness of the material) and endogenous factors (metabolic disorders, endocrine pathologies, syndrome bruxism, diseases of the gastrointestinal tract). Despite the presence of the above-mentioned general dental diseases in patients with increased tooth erasure, experts have not yet reached a consensus on their effect, and the mechanism of pathogenesis remains unclear. There is a more pronounced opinion regarding the erasure of occlusal surfaces. This process is evaluated from the point of view of mechanics and tribology (a scientific discipline that studies and describes the contact interaction of rigid deformable bodies during their relative displacement, friction and wear). Knowledge of these aspects concerning the hard tissues of teeth allows you to choose the most rational treatment method and material for restoration of teeth with increased abrasion. Thanks to a number of studies conducted by scientists from different countries, a pattern has been revealed that men are more susceptible to pathological erasure than women, and the age groups in which pathological erasure reaches its peak have also been identified. When seeking orthopedic treatment, tooth erasure is noted in 4% of patients aged 25-30 years, in 22.7% – from 30 to 40 years, in 35.3% – 40-45 years, in 26% in 50-60 years and in 12% – over the age of 60 years. Patients suffering from pathological tooth erasure, regardless of the degree and shape of the lesion, require oral sanitation before starting treatment, during which special attention is paid to eliminating unfavorable local factors and pathogenic microorganisms. It is recommended to follow the rules of oral hygiene, use toothbrushes with soft bristles and pastes based on hydroxyapatite and fluoride. In the early stages of the treatment of pathological erasure, it is best to perform a remineralizing complex therapy aimed at preventing and stopping the cariesogenic situation, the course of which is repeated over a certain period of time. A specialist faced with such a problem as pathological erasure faces a difficult task, the meaning of which is mainly to carry out reconstructive prosthetics, restore aesthetics as effectively as possible and normalize the function of the dental system.; With all this, it is important not to provoke the development of iatrogenic diseases of the temporomandibular joint or periodontitis.

After analyzing the literature on this topic, it can be concluded that the erasure of hard tooth tissues most often occurs gradually, due to contact with antagonists or under the influence of mechanical stimuli, as well as when eating. If there is a uniform erasure of all teeth within insignificant limits, then this process cannot be called pathological.

If the erasure occurs only relative to the enamel, it is physiological, but if it spreads beyond the enamel, affecting the dentin or completely damaging it, then this is pathological erasure.

Conclusions.

Thus, after studying a fairly large amount of scientific literature, it was found out what is meant by the term pathological erasure, a polyetiological process characterized as a loss of hard tissues. Treatment of increased tooth abrasion is one of the most difficult and urgent tasks in the practical work of a dentist. Choosing the optimal treatment method and observing the technique of its

implementation will ensure the most effective and long-term success of treatment, as well as the minimum likelihood of complications.

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