

# Prevalence of Various Forms and Development of Inflammatory Periodontal Diseases

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**Abstract:** Generalized periodontitis is a diffuse lesion of the periodontal complex that covers most or all of the teeth. General periodontitis is one of the most complex and still unsolved problems of clinical dentistry. Periodontitis, especially its general form, is 5-6 times more common than caries, leads to partial and complete secondary dentition, and long-term persistence of infection in periodontal pockets is a risk factor for the development of rheumatoid arthritis, infectious endocarditis, atherosclerosis., myocardial infarction, blood vessels, etc.

Key words: Actinomycetemcomitans, Porphyromonas gingivalis, Bacteroides forsythus, Peptostreptococcus.

The term "periodontium" refers to a complex of periodontal tissues that have a common innervation and blood supply and are closely related to each other morphologically and functionally. The periodontal complex is formed by gums, periodontium, bone tissue of alveolar processes, cementum of tooth roots and performs the most important functions - support, protection, reflex. Periodontal pathologies include gingivitis, periodontitis, periodontal disease and tumor-like processes (periodontomas). When widespread dystrophic-inflammatory changes occur in the entire complex of periodontal tissues, they talk about general periodontitis.

### Common causes of periodontitis

Necessary conditions for the occurrence of general periodontitis are factors of exogenous and endogenous origin, and the influence of the latter prevails. In addition, all etiological factors are divided into local and general. The first group includes the presence of plaque and calculus, incorrect occlusion, bruxism, disorders in the position of the teeth, mucosal threads, anomalies in the attachment of the tongue and lips frenulum, etc. The second group includes common diseases. - diabetes mellitus, diffuse toxic goiter, obesity, osteoporosis, hypovitaminosis, pathology of the blood system, rheumatism, cholecystitis, hepatitis, gastritis, enterocolitis, hypoimmunoglobulinemia, etc., affect the condition of the periodontium.

Using microbiological studies, it has been proven that the leading etiological role in the development of general periodontitis belongs to periodontopathogenic microorganisms - Prevotella intermedia, A. Actinomycetemcomitans, Porphyromonas gingivalis, Bacteroides forsythus, Peptostreptococcus, etc. The main "microbidenal plate". - subgingival plaque accumulates in the gingival cavity, periodontal pockets, in the root of the tooth, etc. The waste of pathogenic microflora activates the secretion of cytokines, prostaglandins, hydrolytic enzymes, which leads to the destruction of periodontal tissues. Risk factors for general periodontitis that reduce local and general nonspecific protection are tobacco smoking, radiation damage, and poor oral hygiene.

Before the development of general periodontitis, an inflammatory lesion of the gingival margin occurs, which leads to disruption of the dentogingival junction, destruction of ligamentous apparatus, and resorption of alveolar bone. These changes are accompanied by pathological tooth mobility, overloading of certain groups of teeth, and the occurrence of traumatic occlusion. If not adequately



and timely treated, general periodontitis leads to the loss or removal of teeth, disruption of the functioning of the dental system and the body as a whole.

## Classification

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Depending on the severity of the developed disorders (the depth of pathological pockets and the severity of destruction of bone tissue), three levels of general periodontitis are distinguished.

I (mild) degree - the depth of periodontal pockets is up to 3.5 mm; bone resorption does not exceed 1/3 of the length of the tooth root;

II (medium) level - the depth of periodontal pockets is up to 5 mm; resorption of bone tissue reaches 1/2 of the length of the tooth root;

III (severe) degree - the depth of periodontal pockets is more than 5 mm; bone resorption exceeds half the length of the tooth root.

Taking into account the clinical course, general periodontitis is distinguished, which is often aggravated (1-2 times a year), rare (once in 2-3 years) and chronic without aggravation.

Symptoms of common periodontitis

In the initial stage of general periodontitis, bleeding gums, their swelling and loosening are noted; itching, pulsation and burning in the area of the gums, pain when chewing food, bad breath. Dental pockets are shallow and mostly located in the interdental spaces. There is no mobility or shifting of the teeth; the general condition of the patient is not disturbed.

The clinical picture of developed general periodontitis, in addition to the listed symptoms, is characterized by loosening and displacement of teeth, sensitivity of teeth to temperature effects (hyperesthesia) and difficulties in chewing food. In severe cases, general periodontitis leads to general health disorders - weakness and restlessness, increased body temperature, sharp pain in the gum area. Regional lymph nodes become enlarged and painful. Dental examination reveals signs of diffuse hypertrophic gingivitis, large accumulation of soft dental plaque, supra- and subgingival dental deposits, severe traumatic occlusion, numerous periodontal pockets of various shapes and depths, often serous- purulent or purulent contents. In the advanced stages of generalized periodontitis, tooth loss, periodontal abscesses and fistulas may appear.

In the period of remission, the gums have a light pink color in chronic general periodontitis; periodontal pockets do not contain dental deposits and pus; The roots of the teeth may be exposed. According to radiography, there are no signs of bone resorption.

Diagnosis of general periodontitis

Clinical data and the duration of the disease are of great importance in the diagnosis of general periodontitis. If there is a concomitant pathology, the periodontologist can refer the patient to other specialists - a therapist, an endocrinologist, a gastroenterologist, a hematologist, an immunologist, a rheumatologist.

When assessing the dental condition of a patient with general periodontitis, attention is paid to the amount and nature of dental plaque, the condition of the gums, the depth of the oral vestibule, the condition of the bite, and the condition of the frenulum of the tongue. lips, mobility of teeth, presence and depth of periodontal pockets. During the initial examination, the Schiller-Pisarev test is performed, the hygiene index, periodontal indices are determined, and a periodontogram is drawn up.

In the case of generalized periodontitis, a study using PCR from the gum pocket, chemiluminescence of saliva, and bacterial culture of discharge from the periodontal pockets is indicated. Additional tests may include a biochemical blood test for glucose, CRP; determination of serum IgA, IgM and IgG.



To determine the stage of general periodontitis, orthopantomography, targeted intraoral radiography, biopsies of gum tissue are performed. General periodontitis should be differentially diagnosed with gingivitis, periodontal disease, periostitis and osteomyelitis of the jaw.

# Treatment of general periodontitis

Taking into account the multifactorial nature of the pathology, the treatment of chronic general periodontitis should be complex and differential, performed with the participation of periodontologists, dentists, surgeons and orthopedists. Professional support plays an important role in teaching the patient hygiene rules and choosing oral care products.

In mild cases of general periodontitis, removal of plaque and dental deposits, treatment of periodontal pockets with antiseptics (furacilin, chlorhexidine, miramistin solutions) and periodontal application to the affected area are indicated.

Treatment of moderately generalized periodontitis includes selective grinding of the occlusal surfaces of the teeth, curettage of periodontal pockets to remove subgingival deposits, epithelium, and granulations, and application of therapeutic dressings. At the same time, questions about the necessity of removing roots or individual teeth, therapeutic splinting and orthopedic treatment are resolved. Local anti-inflammatory procedures are supplemented with general therapy.

During the treatment of severe general periodontitis, in addition to the measures listed above, surgical measures may be required: removal of teeth of III-IV mobility level, gingivotomy or gingivectomy, flap operation, opening of periodontal abscesses, etc. . instructions, plastic surgery of oral vestibule is performed, osteogingivoplasty, plastic surgery of frenulum of tongue and lips. In severe cases of general periodontitis, systemic anti-inflammatory (NSAIDs, antibiotics), immunomodulatory therapy and vitamin therapy are mandatory.

Physiotherapy (medicinal electrophoresis, darsonvalization, ultraphonophoresis, laser therapy, magnetophoresis), hirudotherapy, ozone therapy, apitherapy, herbal preparations are used in complex treatment of general periodontitis.

Prognosis and prevention

Early and adequate treatment of general periodontitis allows achieving stable clinical remission and prolonging its duration. Further compliance with recommendations for preventive measures plays an important role in restoring periodontal tissue and maintaining the function of the dental system. In the advanced stages of general periodontitis, unfavorable prognosis may be associated not only with the loss of teeth, but also with the development of serious systemic complications from the cardiovascular system.

Prevention of general periodontitis requires proper hygienic care of the oral cavity, periodic professional hygiene, timely treatment of gingivitis, removal of dental plaque and treatment of concomitant diseases.

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