

## Improvement of Treatment Methods for Chronic Opecal Periodontitis Endodontia

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**Relevance of the study.** In recent years, a positive growth trend in the effectiveness of endodontic treatment of teeth is noted in our country due to the introduction of modern technologies that allow forecasting the results of dental treatment. A decrease in the burden of periodontal disease can reduce treatment needs and reduce financial impact on health systems. The high prevalence of periodontic diseases also requires the establishment of a system for monitoring oral diseases in society. Periodont disease prevention programs should use general risk approaches to reduce the size of other chronic diseases.

Cost-effective strategies also enhance interdisciplinary collaboration between healthcare providers. Medical personnel should be well versed in perio-systemic communication and make diagnoses and refer patients to specialized dental or periodontal care to improve the quality of life of patients.

Further research is required to study the underlying mechanisms and Risk Factors of periodontal disease and to develop innovative prevention strategies. The periodontal complex includes hard and soft tissues supporting the teeth, which consist of cement, bone and periodontal ligament (PDL). Periodontitis, a common disease of parodont, which threatens the integrity of tissues and causes irreversible damage.

However, in the practice of the clinic, the number of unsuccessful treatments for caries complications did not decrease. As you know, the guarantee of the effectiveness of endodontic treatment is the following "three whales": cleaning, sterilizing and obturating the system of root canals. Nevertheless, a large number of errors are allowed at each stage of endodontic treatment. Thus, according to Radiological Research, in only 13.4% of cases, the root canals are satisfactorily filled. But even under conditions of quality obturation, inflammation is observed in the periodont in 5-8% of cases [1.3.5.7.9.11.13.15.17].

In endodontia, the main and widely used solutions for drug processing of root canals today are: 3.0-5.0-percent hypochlorite sodium solution, 0.05-percent chlorhexidine alcohol solution of bigluconate, EDTA solution, preparations containing iodine, hydrogen peroxide and 1% chlorphyllipt solution.

The use of a 1% solution of chlorphyllipt in the treatment of destructive forms of Sap has been noted to be effective in the strepto - and staphylococcal relationship. With studies carried out in our country, the source of accelerated periapical foci of chronic infection is noted in 14.8% of cases, root canals are non - perforated teeth, and in 76.4% of cases-teeth with partial filling of channels. When teeth were X-rayed after endodontic treatment using resortsin - formalin and ruxoxidevgenol pastes, periapical destructive changes were detected in 80% of cases and in 50% of cases-poor-quality fillable root canals. In most dental medical organizations, the most common and inexpensive filling material for root canals is ruxoxidevgenol and resortsin-formalin pastes in 73.4% of cases. The methods of filling root canals with " one paste " and the conduct of a resortsin-formalin method in difficult-to-pass root canals do not guarantee their qualitative obturation and can lead to the development of periapical foci of chronic infection. This reaffirms the importance of germ contamination as well as quality endodontic treatment, which allows them to prevent the effects of their life activity on the tissues surrounding their products. The experience of clinical use suggests that the method of delayed root canal filling significantly expands the possibilities of the dentist in the conservative treatment of chronic apical periodontitis, makes endodontic treatment safer, physiological and allows predicting the result [2.4.6.8.10].

A special place is occupied by complications associated with the introduction of the filling material into the upper jaw sinus or lower jaw canal. In this case, first of all, through the root canal or operative nerve decompression should be carried out. To eliminate intracellular hypertension, forehead drive means, eufillin are prescribed. Blood circulation (trental, nicotinic acid preparations), nerve metabolism is restored (vitamins of Group B, piracetam), pain is eliminated (analgesic, sedative, desensitizing agents). Also physiotherapeutic treatment is indicated, in particular, electroneurostimulation through the skin.

The purpose of tissue engineering and regenerative medicine is to restore and replace tissue damaged during illness, restoring physiological function. As for periodontal tissues, the field of Periodontology has made significant advances in patient care of methods of periodontal regeneration. While significant progress has been made in the areas of alveolar bone and gum soft tissue restoration, problems are observed in the reconstruction of the structural and functional aspects of the periodontal ligament (PDL) in which these treatments are regenerated. In the open literature, the frequency of the use of depophoresis (DP) is given in large numbers – from 15% to 95% of cases of root canal treatment. The use of the DP method in the therapy of root canals allows the patient to reduce the "emotional" pressure, especially in the early stages, for example, in the preparation and installation of electrodes.

The use of this method in patients with limited oral opening is very promising. Compared to traditional methods, the DP method provides for the use of much less equipment, which greatly facilitates its practical application. Another important advantage of this method is the minimality of mechanical impact on the root canal system, which greatly reduces the likelihood of cracks or fractures in the tooth roots.

Periodontitis is associated with negative consequences of pregnancy, including maternal infection, premature birth, underweight, preeclampsia, and microbiological and immunological factors associated with the underlying mechanisms. 52 - 55 low socioeconomic status, smoking, and urinary tract infections are already known to be associated with preterm birth; however, more recently, periodontal disease has also been found to be strongly associated with preterm events [12.14.16.18.20.21].

Periodontal disease is common in patients with rheumatoid arthritis, and this disease initiates an autoimmune response in rheumatoid arthritis. Both periodontal disease and rheumatoid arthritis have similar pathogenic mechanisms. People with rheumatoid arthritis have a high prevalence of alveolar bone destruction and tooth loss, which is also a consequence of periodontal disease.

There is a double relationship between periodontal disease and chronic kidney disease. Fisher and Taylor identified periodontitis as a risk factor for chronic kidney disease in an epidemiological study of 11,955 adults in the United States in people with chronic kidney disease. Ioannidou and Swedes observed a dose-response relationship between different stages of periodontal disease and chronic kidney disease, and they found that people with chronic kidney disease were 30-60% more likely to develop moderate periodontitis. Later, another study by Ioannidou et al., it was shown that Mexican Americans with low kidney function were twice as likely to develop periodontal disease compared to subjects with normal kidney function. Similarly, Iwasaki et al. showed a link between periodontitis and decreased kidney function in Japanese elderly people. In a recent prospective cohort study with 14 years of observation, Ricardo et al. Patients with chronic kidney disease with periodontitis were found to have a 35% higher risk of death than patients with chronic kidney disease without periodontal disease. The literature suggests that Diabetes mellitus is one of the systemic risk factors for periodontal disease and may play a large role in the onset and development of the disease. Diabetes mellitus is associated with disorders of the periodontal lobes, which can subsequently lead to tooth loss. Diabetic patients with periodontitis have a high concentration of a variety of cytokines, including inflammatory mediators, compared to non-diabetic individuals with milk fluids and saliva parodontal disease. A joint seminar report by the European Federation of parodontology and the American Academy of parodontology found a link between the severity of parodontal disease and the adverse effects of diabetes, and found that parodontal treatment was as useful as providing antidiabetic medication to diabetics. Vulnerability to infections and periodontal disease increases when saliva levels decrease due

to certain medications. Among the most common drugs that reduce salivary flow and cause dry mouth are tricyclic antidepressants, atropine, antihistamine, and beta blockers. Some medications (phenytoin, cyclosporine, and nifedipine) can cause abnormal growth of the gum tissue, which often makes it difficult to appropriately remove dental plaque under the enlarged gum, and thus can further exacerbate the existing periodontal disease [15.17.19.21].

Also the most effective method is fluorization. Fluorization effectively suppresses pain syndrome, limiting the foci of inflammation as well as the evacuation of Decay products. In the course of treatment, 3 – 5 treatments are prescribed, The Shape of the pulse is bipolar symmetry, the current density is 1-2 ma/cm<sup>2</sup>, the exposure time is 8-10 minutes, the treatment is carried out daily.

In the clinic, microwave therapy and the harmonious use of fluorization have manifested themselves from a good side, they combine the anti-inflammatory effect of microwaves and the analgesic effect of fluorizing currents. The course prescribes 3-5 treatments, in which both SVCH-therapy and fluorization are performed on the same day.

In acute and acute chronic periodontitis, after the removal of Decay products from the root canals at the first visit, effective transchanal exposure to parodont is carried out with helium-neon laser radiation. This leads to a decrease in the intensity of inflammation, a revival of micro - Hemo - and lymphocirculation, the activation of local protective reactions. In acute serous periodontitis, the recommended radiation density is 150 – 170 mW/cm<sup>2</sup>, in the form of acute purulent – 180-200 mW/cm<sup>2</sup>. Exposure-equal to 1-2 minutes per channel. In the course of treatment – 3-5 treatments. It is also allowed to irradiate the alveolar tumor on the vestibular side in the area of high projection of the ends of the " causative " tooth root.

After the cessation of acute inflammatory conditions, especially in destructive forms of periodontitis, it is necessary to normalize trophic and microcirculation in periapical tissues, to provoke reparative processes in bone tissue.

We also believe that the harmonious application of transchanal apexforesis as well as the method of fluorization is promising. In our opinion, apexforesis can not only be an independent method of treatment, but its use together with the method of fluorization will be an integral part of complex endodontic treatment, the main goal of which is to achieve maximum efficiency, reliability and harmlessness for the patient.

**Conclusion.** Thus, based on the analysis of the available data on endodontics in the current literature, the following conclusions can be drawn:

1. The problem of treating chronic apical periodontitis is considered one of the important, completely unresolved and promising tasks in therapeutic dentistry.
2. Justifies the need to optimize periodontitis and reparative regeneration of bone tissue in the jawalveolar arches in order to achieve stagnation of the positive results of treatment in clinical experience in the treatment of destructive forms of periodontitis.
3. It is important to include in the composition of Sap complex endodontic treatment physical factors that make it possible to actively affect the main joints of the pathogenesis of the pathological process around the peak, eliminate the inflammatory-destructive furnace and regenerate tissues.

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