The use of bioresonance therapy in the complex treatment of diseases periodontium

B.I. Islamov, S.V. Volodin, A.S. Nosik, M.Yu. Gotovsky (Institute of Theoretical and Experimental Biophysics RAS, Pushchino, Moscow State University of Medicine and Dentistry, Center

## "IMEDIS",

## Moscow, Russia)

To date, a fairly large number of agents have been proposed for the local treatment of periodontal diseases, but none of them is universal. Therefore, in the treatment of periodontal diseases, a complex of drugs is most often used (antiseptics, antibiotics, herbal remedies, nonsteroidal anti-inflammatory drugs, etc.). It should be noted that many antiseptics and antibiotics used in the local treatment of periodontitis and gingivitis have a limited time factor and a number of side effects. For example, the currently widely used antiseptic chlorhexidine, which effectively suppresses the microflora in gingivitis and periodontitis, is used for 5-7 days, since longer use can lead to dysbiosis. Also, its use may be limited by such side effects, like staining the surface of teeth and tongue. And anti-inflammatory drugs administered under the bandage have a short-term and superficial effect, which is not always effective. Recently, the sensitivity of a number of anaerobic microorganisms to antibiotics, which were widely used in previous years, has changed. Also, data have been accumulated on the resistance of periodontopathogens to tetracyclines, levomecitin and metronidazole - the most important drugs with high activity against anaerobes, which have recently been widely used in local therapy of periodontal diseases. which were widely used in previous years. Also, data have been accumulated on the resistance of periodontopathogens to tetracyclines, levomecitin and metronidazole - the most important drugs with high activity against anaerobes, which have recently been widely used in local therapy of periodontal diseases. which were widely used in previous years. Also, data have been accumulated on the resistance of periodontopathogens to tetracyclines, levomecitin and metronidazole - the most important drugs with high activity against anaerobes, which have recently been widely used in local therapy of periodontal diseases.

Based on the foregoing, it becomes relevant to search for new, more specific, affordable and harmless methods for the diagnosis and treatment of periodontal diseases. These methods, in our opinion, include bioresonance therapy and autonomic resonance test.

## Materials and methods

We present the results of a study of 14 patients who underwent bioresonance therapy in the complex treatment of periodontal diseases using the hardwaresoftware complex "IMEDIS-EXPERT". Algorithms and modes of BRT are selected by the operator depending on the tasks (Bioresonance therapy. Methodical recommendations of the Ministry of Health of the Russian Federation No. 2000/74).

After the clinical and X-ray examination of the patient with the help of a sorbing paper file N30, material was taken from the periodontal pocket, which was then placed into the Venturi Transystem transport medium and subsequently delivered to the laboratory located at the Department of Microbiology of the Moscow State University of Medicine and Dentistry for cytological examination. Sowing on 5% blood hemin-agar was performed according to Gold, modified by Melnikov, by the sectoral method. The cultivation was carried out under anaerobic conditions for 5–7 days at a temperature of 37 ° C. Consideration of the growth result

colonies were carried out using an ML-2B binocular magnifier. Then, using the hardware-software complex "IMEDIS-VOLL" and an inductor connected to it, which was located on the examined area (upper or lower jaw), testing was carried out by the method of vegetative resonance test, the frequencies were recorded on an energy carrier (homeopathic crumbs). The dosage of the drug was selected individually. Then supra- and subgingival dental deposits were removed using ultrasound on the Piezon-Master device, treatment of carious teeth and complicated caries, correction of inadequate therapeutic and orthopedic treatment (excess

filling material; poorly made crowns, inlays, etc.), eliminated traumatic occlusion, and splinted movable teeth. Particular attention was paid to teaching oral hygiene.

## Results and their discussion

Approximately 21 days later, the patient was retested and the contents of the periodontal pocket were re-aspirated for cytological examination. At the same time, a significant change in the spectrum of the tested frequencies was noted, which is most likely associated with a change in the number and types of microorganisms. This is confirmed by the results of cytology, and is expressed in testing new frequencies with relevance or non-relevance in each case of the frequencies tested earlier. The clinical situation in the oral cavity and patient complaints changed. There was a decrease in complaints of pain, itching and bleeding of the gums. Locally, there was a decrease in hyperemia and swelling of the gums, a decrease in the depth of the periodontal pocket, a decrease in the bleeding index (according to Milleman), a decrease in the PMA index (papillary-marginal-alveolar index according to C.

Parma.

Much changed cytological painting content periodontal pocket.

Subjectively, there were no discomfort and side effects during the treatment of patients.

Here are the data of a cytological examination of several patients:

1. Microbiological analysis of the 1st patient: Streptococcus sanguis -  $5 \times 106$ ; Streptococcus salivarius -  $2 \times 106$ ; Enterobacter spp. -  $1 \times 10_{eight}$ . After 24 days Streptococcus sanguis -  $6 \times 104$ ; Streptococcus salivarius -  $1 \times 104$ .

2. Microbiological analysis of the 2nd patient Streptococcus sanguis -  $7 \times 106$ ; Streptococcus salivarius -  $2 \times 106$ ; Streptococcus mutans -  $1 \times 106$ ; Prevotella spp. -  $1 \times 104$ ; Enterobacter spp. -  $1 \times 10nine$ . After 18 days Streptocjccus sanguis - 2 × 106; Peptostreptococcus niger - 1 × 106; Prevotella spp. - 2 × 104; Fusobacterium spp. - 1 × 107.

3. Microbiological analysis of the 3rd patient Fusobacterium spp. -  $3 \times 107$ ; Prevotella spp -  $4 \times 107$ ; Streptococcus sanguis -  $1 \times 102$ ; Streptococcus mileri -  $1 \times 102$ . After 21 days Streptococcus sanguis -  $6 \times 107$ ; Staphilococcus epidermalis -  $3 \times 104$ ; Streptococcus salivarius -  $1 \times 106$ .

We also present several photographs of patients who were treated with bioresonance therapy.

In fig. 1 shows a photograph of the frontal part of the lower jaw of a patient before treatment. The patient is 18 years old, there are no general somatic diseases. Complaints about bleeding gums when brushing teeth, bad breath. Locally: the mucous membrane of the gums is edematous, hyperemic, bleeds easily when probing, the gingival pocket is absent. Supragingival dental deposits are noted. On the roentgenogram, there is no resorption of the inter-root septa. Diagnosis: chronic catarrhal gingivitis in the acute stage.



Rice. one.Photo of the patient's anterior mandible before treatment. Diagnosis: chronic catarrhal gingivitis in the acute stage.

In fig. 2 shows a photograph of the same patient 18 days after removal of dental plaque and bioresonance therapy. There are no complaints. The mucous membrane of the gums without pronounced inflammation. With a visible improvement in the patient's condition, poor oral hygiene is observed.



Rice. 2.Photo of the same patient 18 days after removal of dental plaque and bioresonance therapy.

In fig. 3 shows a photograph of the frontal part of the lower jaw of the second patient before treatment. Patient 47 years old, from concomitant diseases: chronic gastritis. Complaints of bleeding gums when brushing teeth and eating harsh food, bad breath, constant aching pains that are aggravated by pressing on the mucous membrane of the gingival margin in the anterior part of the lower jaw on the right. Locally, the mucous membrane of the gums in the anterior part of the lower jaw is edematous, hyperemic, when pressing on the edge of the gums, a purulent discharge is noted, in the area of the gingival papilla between the 42 and 43 teeth, a swelling of  $3.5 \times 5$  mm in diameter with purulent discharge is determined; painful on palpation, supra- and subgingival dental plaque. The depth of periodontal pockets during probing is  $3.7 \pm 0.4$  mm. On the roentgenogram, more than 1/3 of the bone resorption of the interdental septa is noted. Diagnosis: periodontitis of moderate severity in the stage of exacerbation, periodontal abscess in the area of 42, 43 teeth.



Rice. 3.Photo of the frontal part of the lower jaw of the second before treatment. Diagnosis: periodontitis of moderate severity in the stage of exacerbation, periodontal abscess in the area of 42, 43 teeth.

In fig. 4 shows a photograph of the same patient three days after removal of dental plaque and bioresonance therapy. Complaints of minor pain and bleeding of the gums in the area of the diagnosed

previously periodontal abscess, in the area of the rest of the teeth of the frontal part of the lower jaw, pain and bleeding according to the patient is not. Clinically, there is a decrease in edema and hyperemia of the gingival margin, the absence of purulent discharge.



Rice. 4.Photo of the second patient two days after the removal of dental plaque and bioresonance therapy.

Recently, a large number of drugs have been developed and put on sale, proposed for the treatment of periodontal diseases, but, despite this, the number of patients with this pathology is constantly growing. The aim of our study was to consider bioresonance therapy as effective without pronounced side effects and as individualized as possible in the complex treatment of periodontal diseases. The results of the study show the effectiveness of the results of using bioresonance therapy in the treatment of periodontal diseases.

Unfortunately, we cannot completely abandon antibiotic therapy, for the use of which there are clear indications in certain cases. But in most cases, the use of bioresonance therapy constituted an effective alternative to the use of antibacterial and antiseptic therapy.

Positive aspects of the bioresonance therapy method:

- practical absence of contraindications;
- no side effects;
- does not cause a violation of the microbiocenosis of the oral cavity;
- well tolerated by patients.

However, it should be noted that the frequency spectrum in the drug selector is insufficient, which does not cover part of the periodontal pathogenic flora.

Thus, all of the above indicates the effectiveness of the use of the autonomic resonance test in diagnostics and bioresonance therapy in the treatment of periodontal diseases. And it suggests the need for further study and improvement of this therapy in the complex treatment of periodontal diseases.

B.I. Islamov, S.V. Volodin, A.S. Nosik, M.Yu. Gotovsky The use of bioresonance therapy in the complex treatment of periodontal diseases //

"IMEDIS", 2010, v.1 - C.11-19