OVERVIEW OF THE ETIOLOGY, DIAGNOSIS, CLINICAL PICTURE AND TREATMENT OF PERIODONTAL TISSUE PATHOLOGY.

Gafforov S.A. [1]
Odilzhonov Zh.D. [2]
Nurmatova N.T. [1]
[1] Center for the development of professional qualifications of medical workers under the Ministry of Health of the Republic of Uzbekistan. Parkent street-51, Mirzo Ulugbek district, Tashkent. ID: 100007.
[2] Andijan State Medical Institute. St. Yu. Otabekov , Andijan ID: 170100 (Uzbekistan)
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SUMMARY

Relevance. The article presents the problems associated with the pathology of periodontal tissue (TP) according to the analyzes of research work, while the etiopathogenesis of the pathology of periodontal tissue and their treatment in modern dental practice is extensively analyzed. It was also determined that effective methods for treating inflammatory pathology of periodontal tissue have not yet been comprehensively developed.

Purpose of the study: Based on analyzes of domestic and foreign modern literature, to determine the main scientific direction for solving problems with periodontal tissue pathologies and their treatment.

Gafforov S.A. – https :// orcid . org /0000-0002-5084-336 X
Odiljonov Zh.D. – https :// orcid . org /0009-0005-4575-2884
Nurmatova N.T. - https://orcid.org/0009-0000-5853-4062

Relevance. Chronic inflammatory periodontal lesions (CIPD) continue to occupy a leading position in the structure of modern dental pathology [6,24]. Also, the prevalence of chronic periodontal diseases (CPD) and the difficulties of their early diagnosis make the treatment of inflammatory periodontal diseases (IPD) a particularly pressing and complex problem in dentistry. Today, CKD ranks second among dental diseases and is widespread among all categories of the population, regardless of age, place of residence and gender [7,23]. By data WHO only among adult population V In various age groups, VZP affects from 80 to 100% of all examined patients.

According to etiopathogenesis, periodontal tissue pathology (PT) is classified as an infectious chronic disease (CD), which affects the soft periodontal tissues and gradually leads To destruction bone tissue alveolar process [2,13]. However, at present, most researchers have adopted a different - multifactorial - concept of etiopathogenesis of diseases. Its basis is the position that the likelihood of developing periodontal inflammation is determined by 4 groups of reasons at once: - changes in systemic immunological reactivity body; - involutive changes with time; - direct influence of microbial aggression / invasion with the development of a corresponding local tissue reaction; - availability factors risk. At the present stage of development of dentistry, microorganisms have been identified so-called periodontopathogenic groups. Main from them are : Porphyromonas gingivalis , Aggregatibacter actinomycetemcomitans , Prevotella intermedia, Tannerella forsythensis , Campylobacter rectus, Fusobacterium nucleatum , Treponema denticola . Porphyromonas gingivalis and Aggregatibacter actinomycetemcomitans have maximum virulence rates [11].

Today, despite the fact that more and more new discoveries are being made in the field of experimental research, there is still no consensus among researchers about the genesis and development of the pathological process in the periodontium. A number of researchers have developed multifactorial models of the initiation and development of periodontitis. The most famous of them takes into account the influence three main reasons [16.21] : microorganisms, internal reactions body, factors external environment. At this actually microbial factor being implemented V full least only when the protective reactions of the immune system are weakened, which, in turn, are affected by unfavorable environmental factors [17,22].

Of particular importance is the involvement of bone structures in the pathological process. From everyone fabrics periodontal With metabolic points vision bone the tissue is quite active, because It constantly undergoes cyclic restructuring, alternating processes of osteoresorption and osteoformation . Various forms of periodontitis lead to characteristic destruction of all periodontal tissues, including periodontal fibers, alveolar bone and root cementum. Activation of osteoresorption cells (osteoclasts) during periodontitis occurs with the accumulation of periodontopathogenic bacteria and a large number of immunocompetent cells (neutrophils, monocytes, macrophages, lymphocytes). With excessive activation of osteoclasts, resorption of the alveolar walls prevails. Resorption of root cementum occurs later and has been found to begin from the epithelial lining of the gingival sulcus in an apical direction of approximately 0.5-1 mm.

Modern diagnosis of periodontitis includes a basic and additional set of examinations ; clinical diagnosis of periodontal status: collection of anamnestic data, examination with a descriptive and index assessment of periodontal status; - X-ray (R) diagnostics. An additional set of examinations may include various laboratory and ultrasound examinations.

When studying the patient's medical history; - clinical examination allows you to assess the condition cavities mouth (PR) reveal factors risk defeats periodontal Determine the depth of the vestibule, the level of attachment of the frenulum, the condition of the tongue, the presence and severity of mucosal strands, bite, the condition of hard tissues, tooth mobility, the presence prostheses. Special attention is given condition gums – color, turgor, the presence of dental plaque, bleeding, the relief of the gingival margin.

Today the most popular are orthopantomography (OPG) and cone beam computed tomography (CBCT). CBCT allow reach maximum detail V studying periodontal tissues both at the level of the dentofacial system (DS) as a whole and in any of its individual loci [9,10]. Also, the advantage of histological studies is the ability to identify clinically hidden, but diagnosable at the cellular-tissue level, pathological processes in the periodontium, thereby obtaining a much more detailed description of the state of the epithelial layer and a fairly high accuracy in assessing the effectiveness of using certain methods [1 4] ; or, the most informative method - identifying opportunistic microorganisms - polymerase chain reaction (PCR) with detection of results in real time is considered modern . It allows one to determine the species composition of aerobic, facultative anaerobic and some obligate anaerobic bacteria and gives an idea of the sensitivity of the identified microorganisms to antibiotics [11]. In addition to the above methods, modern practical dentistry also widely uses such methods as functional ones (vacuum test, rheoparodontography and polarographic research, laser Doppler flowmetry).

A number of authors argue that modern principles and technology for the treatment of periodontitis are a simultaneous solution to the following problems [3]: - relief inflammatory

processes V periodontitis; - warning further development pathological process; - preservation And recovery ZChS functions ; - warning development general And local complications; - warning negative influence on general health And quality of life (QoL) of patients.

Therapeutic treatment of periodontitis is based on the use of pharmacological and physiotherapeutic methods and is the basic or initial stage of the complex treatment of periodontal diseases. It is aimed primarily at eliminating the bacterial biofilm and the factors that ensure its accumulation on the tooth. Includes professional oral hygiene, training and control of individual oral hygiene, removal of over- and subgingival dental deposits, correction and elimination of factors contributing to the maintenance of the runway, such How: overhanging edges of fillings, carious cavities, wedge-shaped defects, elimination of premature contacts, antimicrobial and anti-inflammatory therapy [4,10] .

Orthodontic treatment of periodontitis is aimed at eliminating dentoalveolar anomalies (DA) and secondary deformations of the dentition, which contribute to the course of pathological processes in the periodontium. Orthopedic treatment of periodontitis is aimed at creating conditions for the functioning of the joint in a compensated state and restoring its impaired functions in order to regress the pathological process in the periodontium.

In the vast majority of cases, the basis for the treatment of periodontitis is local medical therapeutic and surgical treatment. It should be noted that surgical treatment is not performed without the stage of previous local drug therapeutic treatment. The following review data have been obtained on current topical drug therapy. The most necessary and frequently used groups of drugs are antiseptics, antibiotics and PI agents. Immunomodulators, antioxidants and ozone therapy also have a certain level of applicability [6].

Significant confession clinicians got combined local drugs antibiotics With antiseptics [18,20] . At treatment inflammation periodontal also used proteolytic widespread in modern treatment practice for periodontal inflammation, vitamin preparations were purchased. Thus, vitamins A and E have a strong stimulating impact on reparative processes; vitamins WITH And P stimulate the activity of leukocytes, improve the permeability of tissues and blood vessels, are a necessary component in the formation of connective tissue collagen and enhance the effectiveness of other drugs [19] or a separate direction of adjuvant treatment of periodontitis is the correction of local immunological status. Data have been established on the successful use of immunomodulators for this purpose - leukocyte interferon, myelopidae , polyoxidonium [5] and glucose minimuramil dipeptide (“ Lykopida ”) [1] and others.

In modern dentistry, in addition to the traditional methods and means of treating periodontitis discussed above, treatment methods that providing pronounced positive effect with a minimum of side effects. One such method is herbal medicine. Today, this area is rapidly developing and has become an evidence-based method of treatment. This is due to a breakthrough in scientific research in the field of phytochemistry , pharmacognosy, drug technology, biochemistry, the creation of unique medicinal drugs, as well as its exceptionally high social demand [12].

According to the World Health Organization (WHO), approximately 80% of our planet's population still prefers to be treated with herbal preparations. IN present time More than 23,000 plants are used for phytotherapeutic purposes - this is about 7% of all earth flora. According to a number of researchers, the most important advantages of herbal medicine over traditional methods of treatment in periodontology are: 1. Complex effect on periodontal

tissue: antiseptic, analgesic, bactericidal And bacteriostatic, anti-inflammatory, keratoplasty , decongestant And etc.; [8]; 2. Possibility of long-term use; 3. Pleasant organoleptic properties; 4. Tissue stimulation regeneration [15] ; 5. Positive systemic effect of the body. We also know that in the last decade a number of new plants have been identified that have medicinal properties; So, application V drug " Sangviritrin " biologically active substances allocated from Macleya with cordate and Macleya small-fruited, allows you to have an inhibitory effect on the development of gram-positive and gram-negative bacteria, yeast-like and filamentous fungi. Phytoconcentrate " Stomatofit " is a combined dental product of plant origin. His compound includes the following - rhizomes calamus, arnica herbs, oak bark, peppermint leaves, chamomile flowers, common thyme herb, sage leaves. Basic pharmacological action – anti-inflammatory. A drug Also has an astringent And softening action. Except Togo, tannins and the essential oils contained in the preparation have an antiseptic effect on the mucous membrane. Tests in vitro proved that essential oils of sage and chamomile have a bactericidal effect against gram-positive and gram-negative bacteria, as well as a fungicidal effect against Candida albicans (RLS, 2018).

Wide application V modern medical practice received Asepta gel with 10% propolis extract. This drug has a pronounced antimicrobial, anti-inflammatory effect, stimulates metabolism and accelerates regeneration and epithelization [13]. Also, the Russian drug in gel form “Forest Balsam” contains the juice of aloe leaves and a decoction of 5 medicinal herbs. Gel consistency allows the drug to remain on the gums for a long time, prolonging the therapeutic effect. Possesses high organoleptic qualities. The drug " Parodontocide " is a dental gel containing active substances of plant origin - clary sage oil, mint oil, clove oil, allantoin, thymol and phenyl salicylate . Prevents and eliminates symptoms of oral inflammation, helps accelerate the regeneration of damaged gum tissue and mucous membrane of the cavity mouth, speeds up process healing after surgical intervention. Does not disturb the natural microflora of the oral cavity. Easily and evenly applied to the gum surface. The advantage of the gel is the possibility of local application to the inflamed area [4].

Thus, herbal medicine is one of the promising areas in modern dentistry, since herbal medicines have a mild complex effect on the body as a whole, are non-toxic, non- allergic , and can be used in all age groups. They are effective in prevention and long-term treatment, and can also be a worthy alternative to antibacterial drugs. As mentioned above, oral antiseptics form the basis of drug treatment for periodontitis. However, despite the high effectiveness of modern oral antiseptics, the results of their use are often insufficient. Apparently, this is due to the relative deficiency of anti-inflammatory and reparative effects in drugs of this group. In addition, cases of complications such as candidiasis, local allergies and atrophic changes in the mucosa continue to occur. This determines necessity further search V the direction of new antiseptics or the creation of rational combinations of classical antiseptics with each other with each other or with drugs of alternative pharmacological groups. In particular, among the latter, multicomponent preparations of plant origin , which have recently gained significant popularity, attract attention . However, detailed statistical Almost no research in these areas has been carried out to date. Despite the use of various methods, the effectiveness of complex treatment of periodontitis remains insufficiently high, therefore many specialists are being sought new ways treatment. Thus, despite the significant achievements of modern dentistry, the problem of treating CP in general remains relevant. Analysis of data on this topic showed that a greater number of treatment results that differ from the desired level are

associated precisely with the imperfection of the therapeutic component of treatment.

The totality of the identified circumstances revealed an objectively existing “problem area” in the field of modern periodontology - the need to improve the therapeutic stage of treatment for periodontitis. Almost complete lack of coverage in known works of such aspects as integral statistical assessment of the effectiveness of basic drugs, development optimized therapeutic programs, the feasibility of use and the real place of herbal medicines in treatment, proved the feasibility and scientific and practical significance of conducting this study

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