
**EUROPEAN INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH
AND MANAGEMENT STUDIES****VOLUME04 ISSUE02**DOI: <https://doi.org/10.55640/eijmrms-04-02-14>

Pages: 87-92



**THE COMPOSITION OF THE MICROFLORA OF THE PERIODONTAL POCKET IN SEVERE
FORMS OF PERIODONTITIS RESISTANT TO STANDARD TREATMENT*****Rustamov Arslan****Clinical resident of the 2nd year of the Department of Orthopedic Dentistry, Samarkand state medical university, Uzbekistan****Axmedov Alisher Astanovich****PhD, Scientific adviser, Head of the Department of Orthopedic Dentistry, Samarkand state medical university, Uzbekistan*

ABOUT ARTICLE**Key words:** Microbiological diagnostics, periodontal diseases, Diagnosis and treatment of diseases.**Received:** 04.02.2024**Accepted:** 09.02.2024**Published:** 14.02.2024**Abstract:** The significance of the study Diagnosis and treatment of diseases of the marginal periodontium is a complex and urgent problem of modern dentistry, acquiring not only medical but also social significance.

INTRODUCTION

The prevalence of periodontal diseases in the world is 98% (Haffajee A.D., Socransky S.S., 2000) and is the main cause of tooth loss in people over 40 years old; according to WHO (1998), the peak incidence occurs at the ages of 15-18 and 35-44 years. In recent years, the number of young adults with periodontitis has been growing, while the number of periodontal tissue diseases resistant to standard treatment is increasing. Currently, the plaque microbiota is considered as the main etiological agent of inflammatory periodontal diseases (Bezrukova I.V., Grudyanov A.I., 2002). Measuring the microbial composition provides the information necessary for diagnosis and determining the course of treatment. To increase the effectiveness of treatment, it is necessary to purposefully influence the combination of microorganisms involved in the development of specific periodontal pathologies. Microbiological diagnostics allows you to choose the right drugs and methods of systemic antibiotic therapy, as well as manage and evaluate the effectiveness of the selected antimicrobial treatment

regimen. In addition, by identifying the etiology, doctors can clarify the diagnosis and predict the prognosis of the disease. In modern dentistry, there are different opinions regarding the choice of methods for diagnosing periodontal diseases, but most scientists agree on the need for microbiological studies. Microbiological diagnostic methods include bacteriological, bacteriological, immunological and molecular genetic methods. Each method has its advantages and disadvantages in terms of cost, accessibility, sensitivity and duration [5, 6]. The purpose of the study is to analyze the bacterial flora of periodontal pockets in severe periodontitis and determine their sensitivity to antibiotics and disinfectants by disk diffusion (DDM).

MATERIALS AND METHODS The main candidates for microbiological examination of the flora of periodontal pockets and the appointment of systemic antimicrobials were nine patients in whom, despite carefully conducted traditional treatment, it was not possible to eliminate the activation of the process and the loss of periodontal attachment continued. These patients were sent to study the flora of periodontal pockets and determine sensitivity to antibiotics and disinfectants by disk diffusion [5, 6]. Patients were recommended certain areas for material collection. These areas were the most frequently aggravated areas or those that were aggravated at the time of the study (for example, pus from the pocket). Microbiological studies were conducted in two clinics in Barnaul (microbiological laboratory of the polyclinic of GBUZ "KDC AGMU VPO" and laboratory of the clinic "Health"). The sensitivity of the isolated microflora to antibiotics and disinfectants was determined by the disco diffusion method [5, 6]. The results of the study During the microbiological examination, the following results were obtained: Group B streptococci were found in 78% of cases, *Staphylococcus epidermidis* and *Streptococcus viridians* - in 56% of cases, these microorganisms belong to the aerobic opportunistic microflora, but at high concentrations contribute to the formation of pathological microbiota [2]. The high virulence of *Staphylococcus epidermidis*, in particular, is associated with its ability to form biofilms. The *S. epidermidis* capsule is known as the *S. epidermidis* capsule, an adhesive intercellular polysaccharide. Other microorganisms can bind to the formed biofilm and form multilayer biofilms. Such biofilms reduce the metabolic activity of the microorganisms contained in them, making them less effective against antibiotics. *Moraxella (branharella) catarrhalis* was isolated in 11% of cases. Pathogenic factors of *Moraxella* include the presence of endotoxins and fimbriae *M. catarrhalis* has adhesion molecules that allow the bacterium to bind to human mucosal cells *M. catarrhalis* is known to cause infection in immunocompromised individuals, so the prescribed treatment should take this factor into account [4]. This factor should be taken into account [4]; fungi of the genus *Candida* were isolated in 22% of cases. In this case, standard periodontal treatment does not give a favorable result. Special treatment of *Candida*-dependent periodontitis is required. In one case, *Acinetobacter* was isolated from a 35-year-old diabetic patient.

Acinetobacter microorganisms are polymorphic gram-negative rods. The frequency of serious infections caused by these microorganisms, such as meningitis and bacteremia, continues to increase. From a practical point of view, it is important to distinguish between Acinetobacter and Neisseria. This is due to the fact that the former are resistant to penicillin, while the latter are susceptible. The sensitivity of the microbiota to antibiotics and disinfectants is shown in Table 2. The microbiota isolated from periodontal pockets in severe periodontitis, resistant to standard periodontal treatment, is most sensitive to the following groups of antibiotics: - β -lactam antibiotics (ampicillin, cephalosporins); - fluoroquinolone antibiotics (ciprofloxacin); - Vancomycin hydrochloride (Glycopeptide tricyclic antibiotics isolated from *Amycolatopsisorientalis* (*Nocardiaorientalis*)). Sensitivity to lincomycin and doxycycline has not been revealed. Sensitivity to nystatin and fluconazole was revealed; *Candida albicans* was sensitive to amphotericin B and intraconazole.

CONCLUSIONS

1. Bacteriological tests make it possible to identify aerobic microorganisms and fungi of the genus *Candida*. This study allows us to determine the fungal-dependent form of periodontitis and prescribe appropriate etiological treatment. The analysis of the aerobic flora gives an idea of the state of immunity and allows you to adjust the treatment.
2. The discodiffusion method for determining sensitivity to antibiotics and disinfectants has the following advantages: - it is simple and accessible, easily standardized, and the results are reliable and reproducible.
3. The disadvantages of DDM is that it is not relevant antimicrobial sensitivity - it does not support antimicrobial sensitivity measurement. It also lacks methods for identifying clinically important resistance mechanisms such as complex microorganisms requiring nutrition (e.g. *Streptococcus pneumoniae*, *Haemophilus*), methicillin resistance in *Staphylococcus*, penicillin resistance in *Streptococcus pneumoniae*, and the production of broad-spectrum b-lactamases in *Enterobacteriaceae*.

REFERENCE

1. Абдуллаева П. Р., Ахмедов А. А. СПОСОБ ЛЕЧЕНИЯ ИШЕМИЧЕСКИХ СОСТОЯНИЙ ЗРИТЕЛЬНОГО НЕРВА И СЕТЧАТКИ (ЛИТЕРАТУРНЫЙ ОБЗОР): Medical science //Ethiopian International Journal of Multidisciplinary Research. – 2023. – Т. 10. – №. 09. – С. 18-23.

2. Ризаев Ж. А., Ахмедов А. А. ОСНОВЫ СТОМАТОЛОГИЧЕСКОЙ ПОМОЩИ В РЕСПУБЛИКЕ УЗБЕКИСТАН НА ОСНОВЕ РАЗВИТИЯ ОБЩЕЙ ВРАЧЕБНОЙ ПРАКТИКИ //ЖУРНАЛ СТОМАТОЛОГИИ И КРАНИОФАЦИАЛЬНЫХ ИССЛЕДОВАНИЙ. – 2023. – Т. 4. – №. 3.
3. Абдуллаева Н. И., Ахмедов А. А. ОСТЕО-ИММУНОЛОГИЧЕСКИЙ СТАТУС ПАЦИЕНТОВ С ЗАБОЛЕВАНИЙ ПАРОДОНТА В ПОДРОСТКОВОМ И МОЛОДОМ ВОЗРАСТЕ //TA'LIM VA RIVOJLANISH TANLILI ONLAYN ILMIY JURNALI. – 2023. – Т. 3. – №. 11. – С. 143-149.
4. Ахмедов А. А. Иммунологические аспекты патогенеза гингивита и пародонтита //IQRO. – 2023. – Т. 3. – №. 2. – С. 121-123.
5. Ризаев Ж. А., Ахмедов А. А. GROWTH AND DEVELOPMENT OF GENERAL MEDICAL PRACTICE IN THE REPUBLIC OF UZBEKISTAN TO IMPROVE DENTAL CARE //ЖУРНАЛ СТОМАТОЛОГИИ И КРАНИОФАЦИАЛЬНЫХ ИССЛЕДОВАНИЙ. – 2023. – Т. 4. – №. 3.
6. Ахмедов А. А., Нарзиева Н. DENTAL PROSTHETICS ON IMPLANTS AND THEIR FEATURES //American Journal of Pedagogical and Educational Research. – 2023. – Т. 16. – С. 132-135.
7. Astanovich A. D. A. et al. The State of Periodontal Tissues in Athletes Engaged in Cyclic Sports //Annals of the Romanian Society for Cell Biology. – 2021. – С. 235-241.
8. Alimjanovich R. J., Astanovich A. A. СОВЕРШЕНСТВОВАНИЕ СТОМАТОЛОГИЧЕСКОЙ ПОМОЩИ В УЗБЕКИСТАНЕ С ИСПОЛЬЗОВАНИЕМ КОНЦЕПТУАЛЬНОГО ПОДХОДА ДЛЯ УЛУЧШЕНИЕ ЕЕ КАЧЕСТВА //JOURNAL OF BIOMEDICINE AND PRACTICE. – 2023. – Т. 8. – №. 4.
9. Ортикова Н. Глобализация биоэтики в период пандемии COVID-19 //Общество и инновации. – 2020. – Т. 1. – №. 1/S. – С. 677-682.
10. Ортикова Н. Влияние психоэмоционального напряжения детей на состояние здоровья полости рта //Общество и инновации. – 2023. – Т. 4. – №. 7/S. – С. 328-333.
11. Ортикова Н. Х., Ризаев Ж. А., Мелибаев Б. А. ПСИХОЛОГИЧЕСКИЕ АСПЕКТЫ ПОСТРОЕНИЯ СТОМАТОЛОГИЧЕСКОГО ПРИЕМА ПАЦИЕНТОВ ДЕТСКОГО ВОЗРАСТА //EDITOR COORDINATOR. – 2021. – С. 554.
12. Ортикова Н. Тенденция эффективности профилактических мероприятий путем коррекции психологического стресса у детей на стоматологическом приёме //Общество и инновации. – 2022. – Т. 3. – №. 6. – С. 181-189.
13. Qobilovna B. Z., Nodirovich E. A. EVALUATION OF ORTHOPEDIC TREATMENT WITH REMOVABLE DENTAL PROSTHESES FOR PATIENTS WITH PAIR PATHOLOGY //Spectrum Journal of Innovation, Reforms and Development. – 2023. – Т. 11. – С. 95-101.

- 14.**Anvarovich E. S., Qobilovna B. Z. INFLUENCE OF DIFFERENT TYPES OF RETRACTION THREADS ON THE DEGREE OF GINGI RECESSIOIN //Spectrum Journal of Innovation, Reforms and Development. – 2023. – Т. 11. – С. 84-86.
- 15.**Tohirovna M. L., Qobilovna B. Z. Optimization of Complex Methods Treatment of Inflammatory Periodontal Diseases //Eurasian Research Bulletin. – 2023. – Т. 17. – С. 138-143.
- 16.**Tavakalova Q. M., Qobilovna B. Z., Sarvinoz Y. Preventive Measures in the Treatment of Caries in School children //Eurasian Research Bulletin. – 2023. – Т. 17. – С. 60-65.
- 17.**Исламова Н., Чакконов Ф. Роль продуктов перекисного окисления липидов и противовоспалительных цитокинов крови в развитии заболеваний полости рта при гипотиреозе //Общество и инновации. – 2020. – Т. 1. – №. 1/с. – С. 577-582.
- 18.**Fakhriddin C., Shokhruh S., Nilufar I. ENDOKANAL PIN-KONSTRUKSIYALARNI ISHLATISHDA ASORATLAR VA XATOLAR TAHLILI //JOURNAL OF BIOMEDICINE AND PRACTICE. – 2022. – Т. 7. – №. 1.
- 19.**Shoxrux S., Shoxrux I., Faxriddin C. PREVENTION AND TREATMENT OF ORAL INFECTIONS IN DENTURE WEARERS //International Journal of Early Childhood Special Education. – 2022. – Т. 14. – №. 4.
- 20.**Xusanovich C. F. COMPLETE REMOVABLE PROSTHESIS SUPPORTED BY IMPLANTS //European International Journal of Multidisciplinary Research and Management Studies. – 2023. – Т. 3. – №. 11. – С. 127-133.
- 21.**Xusanovich C. F. et al. PROSTHETICS A COMPLETE REMOVABLE PROSTHESIS BASED ON IMPLANTS //European International Journal of Multidisciplinary Research and Management Studies. – 2023. – Т. 3. – №. 11. – С. 122-126.
- 22.**Najmiddinovich S. N. et al. CARIES IN SCHOOL CHILDREN AND TREATMENT PREVENTIVE MEASURES //American Journal of Pedagogical and Educational Research. – 2023. – Т. 16. – С. 44-49.
- 23.**Khusanovich K. B. R. C. F. TYPES AND APPLICATIONS OF DENTAL COMPLIMENTS //Journal of Modern Educational Achievements. – 2023. – Т. 5. – №. 5. – С. 95-99.
- 24.**Zarnigor J. MAIN ROLE OF HYGIENIC EDUCATION IN THE SYSTEM PRIMARY PREVENTION OF DENTAL DISEASES OF PATIENT //European International Journal of Multidisciplinary Research and Management Studies. – 2023. – Т. 3. – №. 11. – С. 157-163.
- 25.**Qizi J. Z. B. METHODS OF OPTIMIZATION OF TREATMENT OF PERIODONTAL DISEASES USING NEW TECHNOLOGIES //European International Journal of Multidisciplinary Research and Management Studies. – 2023. – Т. 3. – №. 10. – С. 234-241.

- 26.** Kobilovna B. Z., Rushana R. COMPARATIVE EVALUATION OF PARTIAL DENTURES WITH VARIOUS FASTENING ELEMENTS //Intent Research Scientific Journal. – 2023. – T. 2. – №. 9. – C. 98-103.
- 27.** Qobilovna B. Z., Maxzuna U. Improvement of Providing Therapeutic Dental Care to Pregnant Women. Therapeutic and Preventive Measures //Eurasian Research Bulletin. – 2023. – T. 16. – C. 146-150.
- 28.** Tavakalova Q. M., Qobilovna B. Z., Sarvinoz Y. Results of the Prevention Program Dental Diseases in School-Age Children //Eurasian Research Bulletin. – 2023. – T. 17. – C. 50-54
- 29.** Jurabek T. D., Qobilovna B. Z. Principles of Prevention of Dental Diseases in Children in Modern Conditions //Eurasian Research Bulletin. – 2023. – T. 17. – C. 55-59.
- 30.** Tavakalova Q. M., Qobilovna B. Z., Sarvinoz Y. Preventive Measures in the Treatment of Caries in School children //Eurasian Research Bulletin. – 2023. – T. 17. – C. 60-65