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INDICATORS OF MICROFLORA AND ANTIBIOTIC SENSITIVITY OF PATIENTS WITH PYOINFLAMMATORY DISEASES OF THE DENTOFACIAL AREA.

Review. The paper analyzes the infrastructure of odontogenic inflammatory diseases, studied the microflora, determined its properties, qualitative and quantitative composition, and sensitivity to the main types of antimicrobial agents.

Key words. Odontogenic inflammatory diseases, microflora, antimicrobial agents.

Despite significant progress in the treatment and prevention of major dental diseases, inflammation of the maxillofacial area continues to occupy a leading place among the causes of hospitalization of patients into the dental surgery department [4].

The problem of treating acute odontogenic infection remains relevant. This is explained by the fact that with an increase in the number of patients with acute odontogenic inflammatory processes in the maxillofacial area, changes in the familiar clinical picture of the disease are observed: both aggressive and suppressed forms of the disease occur, and serious complications such as mediastinitis, meningitis, and others often occur that leads to long-term treatment and disability. All this certifies the fact that the treatment of acute inflammatory diseases of the maxillofacial area must be approached differentially, comprehensively, and correct medical devices shall be used. [2, 4].

Currently, the use of antibiotic therapy is very important, but also very problematic. The list of antibiotics is huge, it is constantly increasing, requires adjustments to treatment modes. It is difficult for doctor to choose especially new medicines. The appearance of antibiotic-resistant forms of microorganisms also significantly complicates the treatment of patients with odontogenic inflammatory

diseases. Under the influence of modern antibacterial medicines that have an unequal effect on various groups of microorganisms, there have been significant changes in the ratio of all types of pathogens of purulent-infectious processes [1, 3].

It is known that the state of the macroorganism plays a significant role in the development of the pyoinflammatory process, however, the factors of virulence and pathogenicity of bacteria, which influence the clinic and the outcome of the disease, are also significant. In this regard, in the general complex of examination of patients, determination of the type of pathogenic microorganisms and their sensitivity to antibiotics gains significance [5].

The **purpose** of our study was the study of the infrastructure of inflammatory diseases in the basic surgical dental department, as well as the nature of the microflora and its properties of patients with pyoinflammatory diseases of the maxillofacial area, the qualitative and quantitative composition of the microflora of purulent foci to identify the most common pathogens and determine the rational use of antibiotic therapy.

Research materials and methods. Analysis of disease histories of patients with inflammatory diseases of the maxillofacial area over the past three years. We observed 150 patients with inflammatory diseases of the maxillofacial area. Taking of the studied material was carried out as follows: the skin around the wound was pre-treated with an antiseptic solution, necrotic masses, detritus and pus were removed with a sterile napkin. Material was taken with a sterile swab with rotational movements from the center to the periphery of the wound surface. The material was taken with two tampons: one for microscopy, the other for seeding. Not more than an hour after taking, the material was delivered to the microbiological laboratory for seeding. For seeding of the studied material the following nutrient media were used: 5% blood agar, sugar broth, media to control sterility. Material taken by another sterile swab from the same wound was seeded on a 5% blood agar plate, on sterility control medium and sugar broth.

The sensitivity of microorganisms to antibiotics was determined by the method of diffusion into agar using paper disks, which is as follows: the surface of nutrient agar in Petri dishes, seeded with test microbes were covered with antibiotic-impregnated paper disks and incubated at 37 degrees C °. The presence of a zone of growth inhibition of microbes around the disk indicates the about the causative agent's sensitivity to the medicine, absence of growth inhibition – to its sustainability.

Research results. A total of 3,872 patients have been treated over the past three years in the surgical dental department for 30 beds. Among them, osteogenic abscesses and phlegmons accounted for 699 cases (18%), odontogenic osteomyelitis - 823 cases (21.2%), odontogenic sinusitis - 334 (8.6%), inflammatory diseases of the salivary glands - 199 (5.1%), carbuncles and furuncles amounted to 222 (5.7%).

Analysis of the microbial flora of our patients showed that the majority of patients with inflammatory processes showed an increase in gram-positive flora (90.5%), the negative microflora was 8.4%.

The causative agents of inflammatory diseases were in the most cases: streptococcus - 42 (28%) patients, with Str.viridens (33.9%), Str.pneumonia (26.6%), Str.hemolyticus (19.2%) occupying the leading position.

Staphylococcus aureus was detected in 45 patients (30%), epidermal staphylococcus was inoculated in 19 patients (12.6%).

Among others, E. coli was found in 5 cases, Klebsiella - 6 cases, dipteroids - 3 cases. Associations of microorganisms accounted for more than 10% of cases. The virulence of pathogens was high and amounted to a maximum of 10 to 8 degrees.

A sensitivity analysis of the microflora taken from the purulent focus showed that ceftriaxone, cefazidine - 85% efficiency, fluoroquinolones - 95% efficiency, linkosamines - 82%, aminoglycosides - 75%, amoxiclav - 55%. Other antimicrobial drugs, such as dioxidine, accounted for (35.1%), chlorophyllite - effectiveness 21.5%.

Thus, the vast majority of patients with inflammatory diseases of the maxillofacial area have been admitted with odontogenic osteomyelitis, osteoabscesses and osteoflegmones.

Bacteriological study of the composition of the microflora of a purulent focus in inflammatory diseases of the maxillofacial area reflects the true picture of the dominance of certain types of microbes, their associations, and the determination of sensitivity to antimicrobial medicines allows their rational use in practice.

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