



CLINICAL AND BIOCHEMICAL EVALUATION OF THE ORAL CAVITY IN PATIENTS AFTER MAXILLOFACIAL ONCOLOGIC RESECTIONS UNDERGOING PROSTHETIC TREATMENT

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ABSTRACT

Rehabilitation of patients with malignant tumors (MT) and maxillofacial defects (MFD) is a very big problem of today's society. Especially for the purpose of restoration with the use of orthopedic prostheses can cause tumor recurrence, and aresection prosthesis can cause infection of the tissues of the wound bed. It has been established that the presence and level of expression of matrix metalloproteinases (MMP) tissue inhibitors (TIMP) is actively used to study oral hygiene (OH) when determining MMP-8 in gingival fluid and studying chronic periodontitis. Loss of control over the expression /activity of MMP in various pathologies is associated with an immune response to injury, contributes to the progression of the disease and significant tissue damage. Therefore, it is relevant to study the significance of oral fluid (OF) biomarkers both for additional diagnostics and for assessing the effectiveness of complex and reconstructive treatment of acquired defects of the maxillofacial region (MFR)

Relevance.

Rehabilitation of patients with malignant tumors (MT) and maxillofacial defects (MFD) is a very big problem of today's society. Especially for the purpose of restoration with the use of orthopedic prostheses can cause tumor recurrence, and aresection prosthesis can cause infection of the tissues of the wound bed. It has been established that the presence and level of expression of matrix metalloproteinases (MMP) tissue inhibitors (TIMP) is actively used to study oral hygiene (OH) when determining MMP-8 in gingival fluid and studying chronic periodontitis. Loss of control over the expression /activity of MMP in various pathologies is associated with an immune response to injury, contributes to the progression of the disease and significant tissue damage. Therefore, it is relevant to study the significance of oral fluid (OF) biomarkers both for additional diagnostics and for assessing the effectiveness of complex and reconstructive treatment of acquired defects of the maxillofacial region (MFR).

The purpose of the study.

Assess the clinical characteristics of the state of the PR after restorative orthopedic prosthetics of the MFR using different methods of manufactured prostheses to optimize the orthopedic rehabilitation of patients.

Material and methods.

The study was conducted in cancer patients (OP) with various defects and deformations of the MFR. 33 patients were selected for a number of rehabilitation measures, including: - 13 inpatients (group 1) with postoperative defects of the MFR restored by autoplasty methods; combined prostheses, - 20 patients (group 2a) and with acrylic plastic + Vertex termosens 10 patients (group 2b). The level of oral fluid (OF) biomarkers was studied using enzyme-linked immunosorbent assay (ELISA) and the obtained data were processed using standard Student's t-test methods in Microsoft Excel 2017.

Results.

It was established that by tumor localization and structure in 36.8% of cases - the right half of the upper jaw; 35.2% - the left half of the upper jaw; 8.9% - ethmoid labyrinth cells; 10% - the right and left halves of the upper jaw; 5.6% of cases - the lower jaw and - 3.6% of cases - the skin of the nose; while it was established that by nosology, cancer - 60.8%; sarcoma - 15.2%; melanoma - 0.6%; cylindroma - 18.8% and other neoplasms - 0.4%. It was determined that the level of the biomarker MMP-2 in the rhinoplasty with autoplastics was 2.4 ± 0.5 ng/ml; with titanium 3.8 ± 0.6 ng/ml and with acrylic + Vertex termosens 4.4 ± 0.8 ng/ml, while the average MMP-2 before prosthetics was 3.1 ± 1.1 ng/ml: the same characteristic deviation of the digital indicators on gr. 1, gr. 2a, and gr. 2b - 287.2 ± 82.1 ng/ml; - 708.4 ± 146.2 ng/ml; - 844.6 ± 224 ng/ml and 376.8 ± 119.4 ng/ml, respectively, is noted on MMP-8. In this case, certain ineffective changes in quantitative indicators of biomarkers and tissue inhibitors in the NSRI are noted depending on the type of orthopedic prosthesis.

Conclusion.

Thus, restorative operations of the maxillofacial region with orthopedic prosthetics; methods of autoplastics, also using CT titanium and acrylic plastic + Vertex termosens are effective in all cases, while certain effectiveness of quantitative indicators of biomarkers and tissue inhibitors in the NSRI are noted depending on the type of orthopedic prosthesis.

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