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**MORPHOLOGICAL RESEARCH OF MUCOUS MEMBRANE OF GUM AT INTOLERANCE OF METAL ORTHOPAEDIC CONSTRUCTIONS**

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**Introduction.** The complex morphological analysis plays an important role in assessment of the condition of mucous membrane of the oral cavity. Morphological research must be an integral part of dentistry dental examination when carrying out difficult orthopedic manipulations. The importance of morphological research of mucous membrane of the oral cavity is determined by the need of understanding of character and degree of intensity of pathological process as well as resulting compensatory, adaptive and regenerative reactions.

**The purpose** of our research was to study the regularities and features of pathomorphological reorganization of mucous membrane of prosthetic bed at intolerance of metal dentures.

**Materials and methods.** The biopsy material of mucous membrane of prosthetic area inthefieldof stamped - soldered bridge-like denture was used as material for this pathomorphological research. Formation of group of patients was carried out according to the problems of this research. The group contained nineteen dentistry patients aged from 27 till 47 years. In their oral cavities the patients had the orthopaedic stamped-soldered constructions made from non-corrosive steel with nitride- titanic covering.

Areas of mucous membrane of the gum excised during removal of teeth or their roots under block anesthesia on strict medical indications for the purpose of sanitation of the oral cavity were investigated as a control group in our work. Since the indications for biopsy research are limited the intake of materials was made only after a preliminary conversation with a patient and the patient’s consent.

For obtaining an objective description of the processes in mucous membrane of the gum we took specimens from the pathological nidus and on its border with healthy tissues with the application of local anesthesia.

The microslides were studied with the microscope ”Olympus ВХ-41”.

**Results of the research.** The histological changes in mucous membraneof the gum among the patients in the experimental group had polymorphous character and were visualized by signs of a long traumatic inflammation, emergence of parakeratosis, keratosis, hyper keratosis and acanthosis. As a result there is a disorder of normal regenerative processes with epithelial barrier damage.

First of all it should be noted that in under epithelial tissues of mucous membraneof the gum, both in reticulate and papillary layers the diffusion infiltration mainly by lymphocytes, plasmatic cells, fibrocytes and fibroblasts is found. The vessels of reticulate layer are sharply widened with parietal arrangement of erythrocytes and occurrence of fibrous connecting tissues around them coloured in red by Van-Gizon.

Along with it there is a diffusion substitution of the under epithelial layer by tender connecting tissue coloured in red by Van-Gizon. Besides, practically in all cases an expressed edema of under epithelial layer is found. In the biopsy material of mucous membraneamong a part of patients there is anexpressed acanthosis with formation of papillary structure dipped in its own layer.

In separate histological preparations a moderately expressed proliferation of epithelium of basal parts is observed. At the same time the nuclei of cells acquire a rod-shaped form, are lengthened and contain heterochromatin. The variety of morphological changes is characterized by a combination of keratosis and acanthosis with a slight disbundling of nuclei of basal layer of epithelial layer and focal proliferation of the latter. Isolated cases with processes opposite those described above can be found. The atrophy of epithelial layer with areas of densely cellular lymphhistiocytic infiltration takes place in this case.

**Conclusions.** Thus, on the basis of the conducted research the following conclusions can be drawn.

The long time stay of the metal orthopedic non-removable stamped - soldered bridge-like denture with nitride- titanic covering in the oral cavity causes a chronic inflammation in the area of prosthetic bed and leads to formation of keratosis process of mucous membrane.

In turn the occurrence of keratosis and acanthosis in a mucous membrane is accompanied, as a rule, by a persistent inflammation with emergence of dysplastic processes of mucous membrane of the gum and with associated decrease in regenerative processes in integumentary epithelium.