

## Intolerance to dental orthopedic materials with a flat form of leukoplakia of the oral mucosa and red

border of lips

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History phenomena intolerance to dental materials  
is over 130 years old. Recently, in connection with allergic disorders, the relevance of the issue with increasing frequency  
dental materials has grown exponentially. intolerance  
recognized and discussed at the dental faculties of medical universities and in Problem previously  
specialized dental clinics, today it becomes a problem of primary dental care at the level of regional hospitals. Often, intolerance to dental materials develops against the background of diseases of the oral mucosa, or is a provoking factor in the development of these diseases. The causal relationships that arise between these phenomena are not sufficiently discussed in the dental literature. One of the most dangerous diseases in this group is leukoplakia.

Leukoplakia is considered a facultative precancer of the oral mucosa, characterized by pathological keratinization in response to exogenous stimuli. Leukoplakia is diagnosed in 13% of patients with pathology of the oral mucosa over 40 years old, more often in men. The likelihood of developing cancer against the background of this condition is not clearly defined and, according to a number of authors, ranges from 15% to 70%. Systemic factors are involved in the etiology of leukoplakia: diseases of the gastrointestinal tract, endocrine system. They weaken the resistance of the oral mucosa and disrupt the regulation of the processes of keratinization of the epithelium. Among the local factors in the etiology of leukoplakia, there are traumatic, irritating factors that cause local inflammatory processes: poor-quality dentures and fillings, destroyed and abnormally located teeth,

The purpose of our work there was an identification of the relationship between the flat form of leukoplakia - one of the most common forms of chronic diseases of the oral mucosa and the red border of the lips - and biological intolerance to dental materials.

Since the etiology and pathogenesis of leukoplakia are not fully understood, the issues of prevention and treatment of this pathological process remain controversial.

### Contingent, materials and research methods

We examined 20 patients from 50 to 80 years old (18 men and 2 women). In all patients, the diagnosis of flat leukoplakia was verified by histological methods at the Altai Regional Oncological Dispensary. The patients were examined according to the standard in the dental office.

practice methods: diagnostics of concomitant dental diseases; assessment of the quality of orthopedic structures in the oral cavity; the presence of allergic reactions. The condition of the gums was assessed using the papillary-marginal-alveolar index. Investigated the microflora of the oral cavity with the simultaneous detection of candidiasis in the laboratory of the Department of Microbiology, Altai State Medical University. Cytological studies were carried out in the cytology laboratory of the Altai Regional Clinical Hospital - the material for cytological examination was taken on the buccal mucosa along the line of teeth closing. The hygienic state of the oral cavity was assessed using the Green-Vermilion index.

All patients were examined by the method of electropuncture diagnostics (EPD) according to R. Voll and by the method of autonomic resonance test (ART). In the process of diagnostics, removable and fixed structures in the oral cavity of patients were examined for tolerance, then samples of prosthetic materials offered for repeated prosthetics at the Altai Regional Dental Clinic were tested. Of those examined, 2 patients had complete removable dentures; 13 - partially removable, 5 - a combination of removable dentures and fixed structures.

#### Research results and their discussion

The study revealed that 15 patients had concomitant chronic diseases: 9 people suffered from diseases of the gastrointestinal tract (chronic gastritis, chronic cholecystitis); 4 people were diagnosed with type 2 diabetes mellitus; in 2 - diseases of the cardiovascular system. In the majority of patients, significant violations in the orthopedic structures were revealed, associated with incorrect determination of interalveolar distances, not verified occlusal contacts, inaccurate determination of the boundaries of removable prostheses, insufficient modeling of removable structures,- these are all factors contributing to mechanical trauma to the oral mucosa. Microbiological examination of the pathology of microflora and the presence of candidiasis did not reveal in any case.

Electropuncture diagnostics using the methods of R. Voll and ART in all cases revealed intolerance to orthopedic materials available in the oral cavity of patients. Patients, as a rule, complained of burning, itching, soreness of the oral mucosa. Some patients associated the appearance of unpleasant sensations in the oral cavity after prosthetics with materials to which we identified intolerance, others could not accurately determine the time of the onset of discomfort in the mouth and deterioration of the mucous membrane with the period of prosthetics. The majority of patients (about 60%) were found to be intolerant of stamped-brazed structures, 40% also had intolerance to acrylic base plastic.

After replacing orthopedic structures with rational ones, taking into account the individual biological compatibility of orthopedic materials, all patients showed stabilization of the state and the absence of negative dynamics of the pathological process. In 60% of patients, a decrease in the foci of hyperkeratosis by 2-3 mm. Almost complete disappearance of foci occurred in 17%.

Conclusions:

1. The etiological factors of the flat form of leukoplakia, apparently, can be considered both the phenomena of chronic mechanical trauma associated with errors in the selection and manufacture of orthopedic structures, and the biological incompatibility of orthopedic materials.

2. We recommend the study of orthopedic materials on the biological compatibility in all patients with chronic diseases of the oral mucosa, especially with symptoms of dysplasia.

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