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ХАРЬКОВСКИЙ НАЦИОНАЛЬНЫЙ МЕДИЦИНСКИЙ УНИВЕРСИТЕТ

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«ГОФУНГОВСКИЕ ЧТЕНИЯ»

в рамках празднования 210-летия ХНМУ и международного Дня стоматолога

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Затверджений та рекомендований до видання Вченою радою Харківського національного медичного університету (протокол №1 від 22.01.2015 р.)

Збірка наукових праць присвячена 210-річчю Харківського національного медичного університету. У ній представлені матеріали науково-практичної конференції з міжнародною участю «Гофунговскі читання» у рамках святкування 210-річчя ХНМУ та міжнародного Дня стоматолога (10.02.2015 р.). Збірка включає останні результати наукових досліджень по актуальних проблемах стоматології та щелепно-лицьової хірургії з різних країн. У випуск включені праці фахівців, які виконані на кафедрах стоматологічного профілю та суміжних дисциплін медичних ВНЗ і установ післядипломної освіти лікарів, а також в практичній охороні здоров'я. У них відбиті експериментальні, теоретичні і клінічні питання сучасної стоматології та щелепно-лицьової хірургії. Представлені роботи з питань профілактики, діагности, лікуванню і реабілітації стоматологічних захворювань у дорослих і дітей; педагогіки, історії стоматології, медичного краєзнавства та огляди літератури.

Автори виражають подяку за допомогу в публікації збірки Харківський обласний осередок Асоціації стоматологів України (голова осередку – кандидат наук з держ. управління, доцент Н.М. Удовиченко)

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a higher buffer capacity. Evaluation of the buffering capacity of saliva is one of the factors that determine the risk of development of dental caries. The aim of the study was assessment of buffer capacity of saliva in smokers and non-smokers.

Material and methods: Survey and biochemical studies of saliva were conducted in the group of 116 individuals aged 20-50 years who reported for treatment to the Department of Conservative Dentistry with Endodontics of the Medical University of Lublin. In the study group 53 people (45.69%) smoked cigarettes, 63 patients (54.31%) indicated that they had never smoked cigarettes and never tried smoking. The mean age in smokers group was 31.77 years, while in non-smokers group 29.04 years. Stimulated, mixed saliva was collected between 9.30 a.m. and 11.30 a.m., 1,5 to 2 hours after a meal. Buffer capacity was determined using CRT buffer test (Ivoclar Vivadent, Liechtenstein). Obtained results were submitted to statistic analysis using Chi^2 test. Test values which were considered statistically important were those of $p<0.05$.

Results: High salivary buffer capacity was stated in 80.95% of non-smokers and in 33.96% of smokers, medium in 17.46% and 41.51% respectively, low in 1.59% and 24.53% respectively. In smokers salivary buffer capacity was significantly lower compared with non-smokers ($\chi^2=29.09$, $p<0,001$).

Conclusion: Lower buffer capacity of saliva in smokers compared to non-smokers is an important risk factor for diseases of the mineralized tissues of the teeth.

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EFFECTIVENESS EVALUATION OF COMPREHENSIVE TREATMENT OF PATIENTS WITH GENERALIZED PERIODONTITIS ASSOCIATED WITH ORAL LICHEN PLANUS BY MONITORING LOCAL IMMUNITY INDICES

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Changes in the oral mucosa, parodontium tissues are in most cases clinical and sometimes only signs of disorders in functioning of different organs and systems. At the same time disorders, which appear in the oral cavity, can increase severity of the background disease. Lichen acuminatus is one of the most wide-spread and manifest as for clinical implications diseases of the oral mucosa.

One of the most important causes, which determine the possibility of conjoint contraction of chronic generalized periodontitis (CGP) and lichen acuminatus and define their course, is the state of local mechanisms of defense of the oral cavity. Therefore, estimation of immune competence of the oral cavity in patients with CGP and lichen acuminatus can be one of possible objective criteria of treatment quality.

The goal of our research is assessment of SIgA in the oral fluid, C3 components of the complement, activity of lysozyme and beta-lysins in patients suffering from CGP and lichen acuminatus before and after treatment, as indices of positive influence of suggested complex therapy on the immunological course of CGP pathogenesis.

The object and methods of the research. 72 patients were examined and divided into 4 groups. The first group (20 people) comprised patients with CGP of initial and mild severity without lichen acuminatus. 32 patients with conjoint course of CGP (initial and mild severity) associated with acuminatus (typical form) were divided into 2 groups (2 and 3). The second group (16 people) was represented by patients with

CGP and lichen acuminatus without involvement of the oral mucosa; the third group (16 people) was represented by patients with involvement of the oral mucosa. The fourth observational group comprised patients with intact parodontium (20 people). On the basis of treatment methods groups 2 and 3 were divided into subgroups 2a, 2b, 3a 3b (8 patiens in each one).

Systemic treatment of lichen acuminatus (after specialized medical consultation) consisted in prescribing of Delagil, 1 pill twice a day, Xantinol nicotinate, 1 pill three times a day and vitamin E in capsules, 1 capsule once a day, to the patients of the second and third groups.

Immunology research of the oral fluid included study of lysozyme activity by means of nephelometric method and also assessment of SIgA, C3 components of complement and beta-lysins activity by enzyme linked immunoassay.

The results of the research and their consideration. Efficacy of treatment of the patients representing different groups was assessed through study of indices of local immunity of the oral cavity, of both non-specific (lysozyme, beta-lysins, C3 components of conplement) and specific (SIga) types of immunity.

In patients of all groups with CGP of initial and mild severity in the setting of lichen acuminatus of typical form (the second and third groups) as well as without lichen acuminatus (the first group) sharp decrease of lysozyme activity in the oral fluid is marked. After conservative treatment firm increase of lysozyme activity in the oral fluid of the patients of all observational groups after two weeks of treatment and while control measurement of lysozyme intake in 3 months is noted. However, only in the patients, who were undergoing treatment according to elaborated scheme, indices of lysozyme activity achieved the level of control ones and corresponded to it during the whole period of observation (from 34.86% до 36.38%).

Dynamics of control of beta-lysins activity of bactericide factor, which is most active against anaerobic and sporogenous aerobic microorganisms, during the whole period of observation has shown that in all patients with CGP and CGP associated with lichen acuminatus of typical form, firm decrease of activity of this bactericide factor of the saliva in comparison with control before treatment and normalization of beta-lysins activity after use of different treatment schemes is identified.

The most important component of complement system is C3 fragment, the breakdown of which into C3a and C3b is considered to be a midpoint of each several cascades of activation of complement system which end with formation of membranes of attack complex and lysis of pathogenic bacteria of the oral cavity. Consequently in all patients with CGP and CGP associated with lichen acuminatus the level of this fragment of complement is reduced in comparison with control by 1.5-2. When standard schemes of treatment of the patients with CGP (groups 1, 2a and 3a) are used, positive dynamics is also apparent. However firm normalization of concentration of C3 fragments in the oral fluid is not achieved.

In all patients with CGP associated with lichen acuminatus in the oral fluid, increase of concentration of SIgA by 2 (in comparison with the norm) has been detected. After performed treatment according to the elaborated scheme normalization of SIgA level in the oral fluid of the patient of groups 2b and 3b during the whole period of observation was accomplished.

Conclusions. With reference to the foregoing it is possible to draw a conclusion that CGP as well as conjoint course of CGP and lichen acuminatus are accompanied by significant changes of local immunity of the oral cavity which become apparent in the form of sharp decrease of lysozyme and beta-lysins activity, reduction of the amount of C3 components of complement and increase SIgA level in the oral fluid.

Efficiency of our method of treatment of patients with CGP associated with lichen acuminatus is proved through recovery of indices of local non-specific immunity of the oral cavity such as lysozyme and beta-lysins activity and concentration of C3 fragments of complement as well as normalization of SIgA level directly after the course is finished and in 3 months after treatment.

Normalization of indices of local immunity of the oral cavity is accompanied by absence of symptoms of inflammation of parodontium tissue.

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IMMUNOHISTOCHEMICAL STUDY OF P53 AND KI-67 EXPRESSION IN GINGIVAL

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Background. It has long been postulated an association between periodontitis and atherosclerosis and it's outcomes.

Objectives. The objective of this study was to analyze the expression of Ki-67 and p53 in gingival epithelium.

Material and Methods. 29 pieces of periodontal tissues of patients who had died in Sumy Regional Hospital were evaluated for revealing Ki-67 and p53 by immunohistochemistry.

Results. Patients who had died from complications of atherosclerosis by immunohistochemistry basal cells layer were positive 93.2±1.9% ($P<0.05$) for Ki-67, whereas only 50.72±0.5% of their gingival were positive for p53 ($P<0.05$) With respect to the immunoexpression of Ki-67 in gingival of not atherosclerotic patients they had 39.85±2.77% ($P<0.01$) of positive cells. In the gingival of not atherosclerotic patients presence of p53 was positive 2.07±0.6% ($P<0.05$)

Conclusions. Proliferative gene Ki-67 expression among patients with not atherosclerotic conditions was low. Patients, who had died from complications of atherosclerosis with cellular hyperplasia, since it is merely an adaptive process, indicated an increased Ki-67 Gene and p53 expression. Among patients with atherosclerosis it is linked to cell's arrests in the G1 phase of the cell cycle and that provides time for repair of the damaged DNA before entry into S or induction of apoptosis.

Introduction. Antigen Ki - 67 is the prototypic cell cycle-related nuclear protein, expressed in proliferating cells in all phases of the active cell cycle (G1→S→G2→Mphase) and reaches its peak in the G2 and Mphases. It rapidly degrades after mitosis with a half life of detectable antigen being an hour or less. It is absent in resting (G0) cells. Antibodies of Ki - 67 are useful in the cell growing fraction in neoplasms [1] Antigen Ki-67 expression also appears when DNA synthesis is stopped or when the cell undergoes apoptosis. However, according to other investigators, the markers of proliferation that are in use recently, such as Ki-67, can only