



the same time, when studying samples of the 0-passage, a high number of CD 117 helpers ($95.0 \pm 8.64\%$) were observed that initiated the growth factor of stem cells.

The phenotypic analysis of the MMSC-AT markers of the 2nd passage demonstrated the expression of Sca-1 antigens up to $89.3 \pm 8.12\%$, CD 90 to $93.7 \pm 8.52\%$, CD 44 to $97.8 \pm 8.98\%$, that 2.7, at 9.4 and 4.0 times, respectively, exceeded the quantitative composition of the surface antigens of the 0-passage of MMSC-AT, $p < 0.01$. At the same time, the reduction of panleukocyte marker CD 45 - to $1.60 \pm 0.15\%$ of cells, CD 117 - to $4.7 \pm 0.43\%$ was determined, which indicated the absence of hematopoietic cells in the studied specimens. Consequently, the same immunophenotypic profile was researched by a number of authors for MMSC isolated from the adipose tissue.

The first signs of the influence of osteoinduction in the samples containing MMSC-AT appeared on the 7th day of cultivation, regardless of their composition. At this examination, the studied samples acquired a phenotype of bone tissue characterized by the formation of cultures with the formation of cellular aggregates, the synthesis of dense extracellular matrix with the phenomena of calcification.

The smallest optical density was found to be on the 5th day of cultivation in specimens No. 1 and No. 3 - 1.38 ± 0.27 c. u., and 2.64 ± 0.32 c.u., respectively, $p < 0.01$. At the same time, the optical density of the sample number 3 was 2.3 times and the sample number 4 - 2.8 times higher than in the culture MMSC-AT (sample number 1), $p < 0.01$.

On the 7th day of observations increase in the optical density of all the investigated tissue cultures was determined. Attention was drawn to the fact that on the 7th day of cultivation the value of the studied parameter was the same from sample number 1 and sample number 3 and varied from 2.56 ± 0.51 c. u., to 2.86 ± 0.55 c. u., $p > 0.05$. At the same time, the optical density of the tissue culture containing MMSC-AT + Platelet-Rich Plasma (PRP) was 1.5 times, $p > 0.05$ and with MMSC-AT + PRP + Kolopan was 1.9 times higher, $p < 0.05$ than the MMSC-AT sample.

Consequently, the tissue equivalent of the bone tissue based on MMSC-AT can be suggested for use in regenerative medicine, and the study of their use in experimental animals will provide an opportunity for expanding understanding of the characteristics of MMSC-AT in order to optimize their subsequent clinical application and the implementation of new approaches in different areas of dentistry.

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MICROBIOCENOSIS OF PERIODONTAL POCKETS IN PERSONS WITH COMPENSATED FORM OF CHRONIC TONSILLITIS

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Imbalance of oral microflora becomes an important factor in the development of periodontal diseases. In the oral cavity, and especially in the affected periodontal tissues, are ideal conditions for the development and reproduction of microorganisms. The same conditions are observed in the tonsils, where microorganisms can accumulate in deep lacunae and release toxic substances that cause inflammatory periodontal diseases. Finding out the features of the microbiocenosis of periodontal pockets is essential for evaluating of periodontal status and developing treatment plan.

The purpose was to study features of microbiocenosis of periodontal pockets in patients with compensated form of chronic tonsillitis in comparison with patients without tonsillar pathology.

The study involved examination of 42 patients with chronic periodontitis (CP). Two groups were formed: I main group - 28 people with CP on a background of chronic tonsillitis and II control group - 14 people with CP without tonsillar pathology. For microbiological identification, the contents of periodontal pockets were seeded into nutritious selective medium.

Common sign for all patients with periodontitis was the appearance of *Candida albicans* in periodontal pockets. In group I was determined microorganisms of the genus *Klebsiella* and *Escherichia coli*. Whereas in group II among opportunistic microorganisms also appeared



representatives of the genus *Proteus*. The presence of *Candida albicans* can be regarded as a marker of failure of local immunity of the oral cavity. Pathogenic microflora in the periodontal pockets was represented by pyogenic cocci *Str. pyogenes* and *St. aureus*. There was an increase in sowing *St. aureus* depending on the condition of palatine tonsils. The incidence rate of *St. aureus* increased from 11,5% in patients without tonsils pathology up to 22,0% in patients with periodontitis and compensated form of chronic tonsillitis.

Thus, chronic periodontitis is accompanied by significant quantitative and qualitative changes in the periodontal microbiocenosis, namely, a decrease in the content of normal microflora, an increase in the number of pathogenic staphylococci and streptococci, activation of microorganisms, which are uncharacteristic for the oral cavity (*Enterobacteriaceae*, *Candida*).

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INFLUENCE OF ORAL APPLICATIONS OF SMALL DOSES OF ADRENALINE ON THE BIOCHEMICAL INDICATORS OF PERIODONTAL TISSUES OF RATS

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Diseases of periodontal tissues are one of the most urgent problems of modern dentistry.

The aim was to investigate the condition of periodontal tissues of rats in hyperactivity of the sympathetic nervous system.

We used adrenaline to reproduce the sympathetic nervous system hyperactivity. The experiments were performed on old rats (13 months), daily, oral gel applications with an adrenaline content of 0.18 mg / ml at a dose of 0.2 mg / kg live weight were performed for 10 days. After animal euthanasia in the gum homogenates, the level of inflammatory markers was determined: the activity of the proteolytic enzyme elastase by hydrolysis of the synthetic substrate and the content of malondialdehyde (MDA) by the thiobarbitur method. Also, measurements of the activity of the bacterial enzyme urease by hydrolysis of urea (indicator of bacterial insemination), the activity of the antimicrobial enzyme lysozyme by lysis of bacterial cells of *M. lyzodeikticus*, the activity of the antioxidant enzyme catalase, and the ratio of the activity of catalase were conducted.

A significant ($p < 0.05$) effect of adrenaline showed only one indicator, namely urease activity, which increased by 30%. All other indicators did not change significantly, which may indicate a small dose of adrenaline (only 0.2 mg / kg daily for 10 days).

Thus, under the influence of small doses of adrenaline in bone tissues of periodontium, phosphatase activity and mineralization index increased significantly, other indicators remained practically unchanged.

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TREATMENT OF CONCOMITANT PATHOLOGY OF THE ORAL CAVITY IN PATIENTS WITH MAXILLOFACIAL INJURY

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Purpose: improve the efficiency of prevention and treatment of concomitant diseases of the oral cavity in patients with maxillofacial trauma by application of adaptogenic and mineralizing drugs in comprehensive therapeutic measures.

Objectives: 1. To determine the condition of the teeth, periodontal tissues, homeostasis of the oral cavity in the early period after trauma in patients with mandible fractures. 2. To assess the influence of adaptogens on the hygiene level of the oral cavity and periodontal tissues in patients with maxillofacial trauma. 3. To assess the influence of adaptogens on biochemical and immunological parameters of saliva and blood serum of patients with maxillofacial trauma. 4. To develop, substantiate and evaluate the effectiveness of a new method of prevention and treatment of concomitant pathology of the oral cavity in patients with maxillofacial trauma. Methods: clinical -