P. 6 Cathodoluminescence as a tool for in vitro quantitative assessment of hard tooth tissues compositions

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**Summary:** The phenomenon of luminescence in hard tooth tissues under the hits of electrons accelerated up to 3 keV has been investigated and the nature of luminescence has been described. It has been discovered that the change in luminescence color depends on the place of primary electrons hits. The latter could be explained by different chemical compositions of compounds and complexes where luminescence is observed. Based on the analysis of RGB color bar charts, the correlation between the color of luminescence and calcium/phosphor ratio in hard tooth tissues has been studied. Thus, cathodoluminescence can be considered as a new tool for in vitro quantitative assessment of hard tooth tissues compositions.

**Keywords:** hard tooth tissues, cathodoluminescence, research methods in dentistry, chemical elemental distributions, Auger electron spectroscopy, scanning electron microscopy, RGB color bar chart analysis.

P. 12 Biomechanical aspects of emergence of changes in an alveolar bone at orthopedic treatment of patients with defects of tooth alignments with use the dental implants

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**Summary:** For each option the maximum tension of compression and stretching, the maximum shift tension and probability of destruction of biomechanical system of prosthetics of defects of the frontal site of the bottom jaw with various support (natural teeth, standard implants and miniimplants) under a fixed orthopedic design were calculated. The comparative assessment of these indicators on the basis of which conclusions about the most rational method of orthopedic treatment at patients with defects of the IV class according to Kennedy on the bottom jaw were formulated is carried out and the corresponding recommendations for practice are made.

**Keywords:** defects of tooth alignments, orthopedic design, dental implants, shift tension, bone tissue of a jaw.


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**Summary:** We carried out the analysis of activity of dentists on carrying out routine inspections and shares of the sanified patients from among examined preventively. Results of research showed that in the Volga, Central and Southern Federal districts, as well as about the country as a whole, coverage by routine inspections decreased while in North Caucasian, Uralak, the Siberian and Far East districts I grew. Practically throughout the analyzed period coverage by routine inspections exceeded the all-Russian level by 1,5 times in the Republics of Mordovia, Dagestan, Zabaykalsky and Chukotka Autonomous Area. By correlation communication the interrelation of carrying out routine inspections with number needing sanitation is established.

**Keywords:** routine inspections, sanitation, districts, analysis, growth, decrease.
P. 20 Maturing regulation of fissures' enamel of children's second teeth with the use of the fluorine-containing toothpastes


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Summary: The paper presents the results of the study of the possibility of the process maturing regulation of fissures' enamel of children's second teeth with the use of the fluorine-containing toothpastes. We have traced the influence of the fluorine-containing toothpastes on enamel maturing at various groups of teeth: the first top premolares and the first bottom premolares. Very good effect of a fluorine-containing toothpaste "Blend-a-med" on process of enamel maturing of teeth fissures gives the grounds to assume that it is possible to regulate maturing process of children's fissures.

Keywords: enamel maturing, fissures, fluorine-containing toothpastes, conductivity, second teeth.

P. 23 Complex treatment of inflammatory periodontal disease with phage products

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Summary: This essay reviews chronic periodontities medication efficacy of a new bacteriophage dental gel for local application — "Fagodent", originally formulated in Russia. The research involved 38 participants initially applied for medical attention — routine examination or periodontitis treatment.

Keywords: bacteriophage, periodontal disease, antibiotic therapy, periopathogenic bacteria, gel for local application "Fagodent".

P. 26 The use of clonidine in combination with articaine and epinephrine for anesthesia in pediatric dental practice

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Summary: It is shown in the study that including clonidine (1:100000) into 4% articaine and epinephrine (1:200000) anesthetic solution provides adequate effect by way of enhanced anesthetic effect and reduced impact on hemodynamic parameters and stress adaptation in pediatric dental practice.

Keywords: articaine, epinephrine, clonidine, pediatric dentistry.

P. 32 Hardware method of treatment in mandibular fractures bisphosphonate osteonecrosis

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Summary: Study investigates the relationship between long reception of preparations containing phosphorus and developing pathological fractures of the lower jaw and their complications. In patients, the long-term taking bisphosphonates identified specific radiographic features of fracture, manifested diffuse lesion of the bone and thinning of the cortical layer, accompanied by fractures and infiltration of the surrounding tissues. In result of studies it is established that for timely prevention described complications, producers need to expand the instructions for medical use bisphosphonates, make recommendations about carrying out regular x-ray examination of the facial bones among people who use synthetic narcotic drugs, a mandatory basis, in regulated surveys on dangerous infections for x-ray examination of the jaw bones.
Keywords: fracture of the lower jaw, bisphosphonates osteonecrosis, medicines.

P. 36 Functional and anatomical parameters in congenital and acquired deformities of the nose
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Summary: 52 patients with congenital and acquired deformities of the nose investigated indicators of nasal breathing by front active rhinomanometry (FARM) and the study of cephalometric parameters using clinical examination, computer data analysis of multislice computed tomography (MSCT). The study found that patients' subjective evaluation of nasal breathing does not always coincide with the objective data of the functional studies. Also identified anatomical features that affect the respiratory function of the nose.

Keywords: deformations of a nose, MSCT, FARM, rhinokiphoscoliosis, rhinolordoscoliosis, rinoortoscoliosis.

P. 40 Analysis of the quantitative characterization of the antibacterial activity of temporary occlusive pastes applied to c apexification (experimental study)
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Summary: The paper presents the study of the antimicrobial activity of a number of temporary occlusive pastes designed for stimulation of apexification in root canals in permanent teeth with incomplete root development in the treatment of chronic apical periodontitis in childhood. We have studied test-microbial strains isolated from the contents of the root canal of the diagnosed with "chronic apical periodontitis". The results of the study indicate pronounced antibacterial effect of temporary occlusive pastes.

Keywords: children, chronic periodontitis, permanent teeth, temporary occlusive paste, microorganisms.

P. 44 Analysis of oral cavity homeostasis clinical and laboratory parameters of preschool-age children with caries-resistancy
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Summary: Age oral cavity homeostasis clinical and laboratory parameters of children of 5—6 years old with caries-resistancy were ascertained during the research as compared with the parameters of children of elder age groups. It was established that processes of enamel mineralization, that takes place when observed the optimal electrolyte balance in oral liquid, have decisive importance in supporting of condition of caries resistance in this age. It secures physiological flow of exchange process between saliva and teeth enamel and preserves caries-resistancy of the preschooler age children.

Keywords: children with caries resistancy, caries, clinical and laboratory parameters, oral cavity homeostasis, risk factors.

P. 48 LM-Activator in practice of the orthodontist
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Summary: The article is devoted to prophylaxis of dentoalveolar anomalies and early orthodontic treatment with removable appliance LM-Activator; article contains examples of clinical cases with description and photos of patients.

Keywords: LM-Activator, orthodontics, perfect occlusion.

P. 52 Rational approaches to prosthetic treatment of patients with oral mucosa diseases
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Summary: This article describes the best practices of prosthetic treatment of patients with oral mucosa diseases. The main results of our research conducted revealed low patients' awareness about rules of use and care of orthopedic structures. This in turn affects the deterioration of patients' life as well as growth of oral mucosa diseases. The article proposes methods of prevention and treatment of these pathologies that improve the situation.

Keywords: absence of teeth, prosthetic treatment, orthopedic structures, hygienic status of dentures, tools for cleaning and fixing dentures in the oral cavity.

P. 56 Svetoterapiya of deep caries of teeth
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Summary: Treatment of caries remains to one of important problems. Now there is no uniform technique of treatment of deep caries of teeth. Therefore development of methods of diagnostics and treatment of deep caries of teeth is of great importance for a practical odontology. Now in medicine physical factors of impact on fabrics and human organs even more often find application. The positive effect in treatment of a number of diseases when using incoherent light of red range is proved. We developed the light-emitting device and applied it in clinic at treatment of deep caries of teeth.

Keywords: deep caries of teeth, LED radiation of red range, microflora of a dentinal canaliculus, digital indexes of an elektroodontometriya.