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Відповідальність за вірогідність фактів, цитат, прізвищ, імен та інших даних несуть автори. У тезах збережено авторське подання матеріалів.

radiation exposure, they still cannot determine a three-dimensional (3D) architecture of osseous defects. Hence, an imaging modality which would give an undistorted 3D vision of a tooth and surrounding structures is essential to improve the diagnostic potential. Cone-beam computed tomography (CBCT) provides 3D images that facilitate the transition of dental imaging from initial diagnosis to image guidance throughout the treatment phase. CBCT provides rapid volumetric image acquisition taken at different points in time that are similar in geometry and contrast, making it possible to evaluate differences occurring in the fourth dimension time. In its various dental applications, images of jaws and teeth can be visualized accurately with excellent resolution, can be restructured three dimensionally, and can be viewed from any angle. Most significantly, patient radiation dose is five times lower than normal CT. Today, CBCT scanning has become a valuable imaging modality in periodontology as well as implantology. For the detection of smallest osseous defects, CBCT can display the image in all its three dimensions by removing the disturbing anatomical structures and making it possible to evaluate each root and surrounding bone. In implant treatment, appropriate site or size can be chosen before placement, and osseointegration can be studied over a period of time.

Conclusion. The extent of periodontal marginal bone loss is not always easy to determine and certainly not the extent with which furcation areas are involved. CBCT images provide better diagnostic and quantitative information on periodontal bone levels in three dimensions than conventional radiography. CBCT is found to be as accurate as direct measurements using a periodontal probe and as reliable as radiographs for interproximal areas. So, when buccal and lingual defects cannot be diagnosed with radiography, CBCT is a superior technique.

THE PREDICTING THE DEVELOPMENT OF ANEMIA OF INFLAMMATION IN YOUNG CHILDREN WITH ACUTE INFLAMMATORY BACTERIAL DISEASES OF THE RESPIRATORY ORGANS

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Introduction. We investigated the interrelationships between factors that, according to our assumption, would play a significant role in the development of anemia of inflammation in young children with acute inflammatory bacterial diseases of the respiratory organs in order to create a mathematical model for predicting the development of anemia of inflammation in a cohort of

children. that were under investigation.

The aim of the study. Analysis of pathogenetic relationships in the mechanism of the development of anemia of inflammation in young children with acute inflammatory bacterial diseases of the respiratory organs, and creation of a prognostic mathematical model regarding the probability of its development.

Materials and methods. Used the method of the Kettel stony scree criterion, 5 factors were determined, which have eigenvalues greater than 1 and describe 70.5% of the total variance. The method of principal components was used to create a matrix of factor loadings. We used the factor analysis method using the Spearman correlation matrix and the VARIMAX orthogonal rotation method. Cluster analysis was carried out using hierarchical clustering using the method of centroid clustering. The analysis of the prognostic significance of individual features as risk factors for the development of anemia of inflammation was performed based on the calculation of the relative risk ratio in 2x2 correlation tables with the definition of 95% confidence intervals (95% CI) and the Pearson chi-square test ($\chi 2$). A logistic regression equation was used to predict the probability of developing anemia of inflammation. The quality of the constructed model was assessed by its sensitivity and specificity. The statistical significance of the model was evaluated by the Omnibus Test and the predictive categorical validity of the test. ROC analysis was used to determine the quality of the obtained prediction model.

The results. On the basis of factor and cluster analysis, we discovered the relationships between factors that have a significant role in the pathogenesis of the development of anemia of inflammation, which allowed us to single out 5 leading factors: iron metabolism factor, anemia factor, oxidative stress factor, pro-inflammatory factor, iron deposition factor.

Using the method of hierarchical cluster analysis, the leading pathogenetic factors were differentiated into 2 clusters. We observed the formation of an associative relationship between hemoglobin and ferritin in blood serum (cluster 1) and agglomeration between markers of inflammation (PLA2 and IL-6), the severity of the course of the inflammatory disease, the marker of iron metabolism, hepcidin, and the number of erythrocytes (cluster 2). The resulting mathematical model for predicting the development of inflammatory anemia in young children with acute inflammatory bacterial diseases of the respiratory organs had the following equation: $Z = 1/(1 + \exp(-2.2629 + 0.03314X1-0.09066X2 + 0.494X3 + 0.2473X4 + 0.00534X5)$, where the regression coefficients for each of the marker features are presented for each variable "X1-X5", and the coefficient (-2.2629) is a constant: X1 – ferritin (regression coefficient 0.03314); X2 – gram-negative microflora of the pathogen (regression coefficient 0.09066) (1 – gram-negative microflora; 2 – gram-positive microflora); X3 – febrile fever (regression coefficient 0.097) (1 – febrile fever detected; 2 – febrile fever not detected); X4 – repeated episode of the disease

(regression coefficient 0.494) (1 – repeated episode of the disease; 2 – the first episode of the disease); X5 – hepcidin (regression coefficient 0.00534).

The patient should be included in the group of patients who are highly likely to develop inflammatory anemia if the calculated value of "p" ≥ 0.5. The probability of the manifestation of anemia of inflammation is low in the case when the value of "p" < 0.5.

The classification ability of the model was determined based on the data of the training sample and was 74.8%. The sensitivity of the model was 78.3%, and the specificity was 80.5%. The results of the Omnibus Test confirmed the statistical significance of this model ($\chi 2 = 32.325$; df = 5; p = 0.015). The coefficient of predictive categorical validity of the test was r = 0.52. The diagnostic significance of the obtained mathematical model was determined by conducting ROC analysis. The logistic regression equation is represented by the Area Under Curve. The area of the ROC curve that corresponded to our mathematical model was equal to 0.846. The Gini index was 69.2%. The obtained results indicate that this model is qualitative ("good quality").

Conclusions. Determination of the risk factors for the development of anemia of inflammation in children with acute inflammatory bacterial diseases of the respiratory organs, using the results of the proposed logistic regression equation, make it possible to predict the probability of its manifestation. The obtained results of the study are important for determining the therapeutic and preventive tactics for a specific patient in order to prevent the occurrence and/or progression of anemia of inflammation.

THE STATE OF ACID-BASE BALANCE OF THE ORAL CAVITY OF PATIENTS USING TOBACCO-HEATING SYSTEMS

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Introduction. Smoking is one of the most urgent problems of today and remains the cause of the development of severe general somatic diseases. However, despite this, new and not yet fully studied methods of smoking are gaining considerable popularity, especially among young people.

The aim of the study: to determine the acid-base state of the oral cavity based on the indicators of the rate of saliva secretion and the pH of the oral fluid in people who use tobacco-heating systems.

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