

prevents contracture and ankylosis in the temporal-mandibular joint, respiratory and thromboembolism complications, normalizes emotional state, possibilities at home and at work.

Thus, the methods of physical rehabilitation used in a comprehensive treatment of inflammatory processes of the maxillofacial area during the early postoperative period produce a positive effect on resolution of an inflammatory exudate, prevent development of marked scars, increase general nonspecific response of the body and provide restoration of the functions lost.

Hodovanets O.I.

**CLINICAL ASPECTS OF DENTAL DISEASES
IN CHILDREN WITH ENOCRINE PATHOLOGY**

*Department of Pediatric Dentistry
Bukovinian State Medical University*

In recent years, the problem of the prevalence of thyroid pathology, its impact on health and intellectual development of the population has become extremely relevant.

The aim of our study was to investigate the clinical features of dental diseases in children with thyropathology. For this purpose, a dental examination was performed among children aged from 12 to 15 years who had thyropathology (diffuse non-toxic goiter, autoimmune thyroiditis, hypothyroidism). The control group consisted of somatically healthy children of the same age.

The highest prevalence of dental caries has been reported in children with hypothyroidism and diffuse nontoxic goiter. The rate was over 90% and was probably higher than in the control group ($p < 0.05$). There was a high level of caries intensity in both somatically healthy and children with concomitant pathology of the thyroid gland. However, in children of the control group, the CPV index and its individual components were probably lower ($p < 0.05$). This figure in hypothyroidism was characterized as very high. Complications of dental caries in children with thyropathology were recorded 2 times more often than in the control group ($p < 0.05$),

Non-carious dental lesions occurred in 27.85% of children with thyroid disease, which was much more common than in somatically healthy children ($p < 0.05$). The main form of hard tissue damage was systemic hypoplasia, which occurred in more than 70% of cases.

Periodontal tissue diseases were diagnosed in the vast majority of examined children. Their prevalence in diffuse nontoxic goiter, autoimmune thyroiditis and hypothyroidism significantly outweighed the control group ($p < 0.05$). The structure of periodontal diseases was dominated by chronic catarrhal gingivitis, which accounted 83-89% of cases.

The study revealed a high prevalence of dental anomalies and deformities in children with endocrine pathology (72.87%). In the group of comparison, this figure was 51.67%. The highest rate was registered in hypothyroidism (80.00%). Analysis of the frequency of detection of various anomalies and deformations of the dental area showed that the highest level of morphological disorders was observed in diffuse nontoxic goiter and hypothyroidism. Among orthodontic problems, anomalies of teething came forward, which were found in 57.14% of examined children with hypothyroidism and in 45.92% with diffuse non-toxic goiter.

Thus, the prevalence of dental disease in children with thyroid pathology is high and it demands the development of treatment and prevention programs.

Honcharenko V.A.

**FREE RADICAL OXIDATION PECULIARITIES AND ANTIOXIDANT PROTECTION
PARAMETERS OF THE ORAL FLUID IN CHILDREN WITH CHRONIC CATARRHAL
GINGIVITIS WITH UNDERLYING DIABETES MELLITUS**

*Department of Pediatric Dentistry
Bukovinian State Medical University*

The research objective was to study free radical oxidation peculiarities and antioxidant protection parameters of the oral fluid in children with chronic catarrhal gingivitis with underlying diabetes mellitus.

In order to solve this task, dental and laboratory examination of 105 children aged 12 was carried out. 65 children suffering from diabetes mellitus treated at the Pediatric Endocrinology Department of the Municipal Institution "Regional Pediatric Clinical Hospital" were examined including 35 patients with diabetes lasting up to 5 years (group 3), and 30 patients with diabetes mellitus lasting longer than 5 years (group 4). The groups of comparison consisted of children without underlying pathology with healthy periodontium (group 1 contained 22 patients) and with chronic catarrhal gingivitis (group 2 contained 18 patients).

Children's oral fluid from the observation groups was the material for additional examination. The following parameters were determined: the level of diene conjugates, Malone dialdehyde by N.D. Stalna's method [1977]; catalase activity with the use of ammonia molybdate [. . Koroliuk,1988]; SOD activity by S.Chevari's method [1985]; POM [E.E.Dubynina, S. . Burmistrov,1995] in modification [.F. Meshchyshen,1998]; whole protein; ceruloplasmin; S-group.

The parameters of lipid peroxide oxidation of the oral fluid of children from the observed groups possessed a reliable difference depending on the general health state and periodontal tissue condition. The best parameters were observed among somatically healthy children and intact periodontium. The worst parameters were found among children with chronic catarrhal gingivitis and diabetes mellitus lasting longer than 5 years.

Protein oxidative modification degree in children from group 1 is 1,28 times lower than in children from group 2. The parameter increases among children suffering from diabetes mellitus lasting up to 5 years (1,15 times) and those with the duration more than 5 years (1,22 times). The concentration of diene conjugates was the highest among patients with chronic catarrhal gingivitis and duration of diabetes mellitus more than 5 years. In comparison with somatically and stomatologically healthy children this parameter increased 3,73 times ($5,18 \pm 1,45$ mcM/ml in group 1 against $19,31 \pm 0,81$ mcM/ml in group 4). A similar tendency was found concerning Malone dialdehyde. The numerical values deteriorate among children with chronic catarrhal gingivitis, and it becomes of a maximum value among patients with inflammatory processes in the periodontal tissue and diabetes mellitus lasting more than 5 years.

The whole protein parameter is of a special attention, since it increases 5,3 times among the patients from group 4 in comparison with group 1, and the parameter of catalase activity decreases 3,8 times ($6,69 \pm 1,15$ nmol/min*mg of protein in group 1 against $1,75 \pm 0,02$ in group 4). Our research found its decrease among the patients from groups 2, 3 and 4 in comparison with healthy children (group 1). The worst parameter was found among children from group 4. A probable difference of superoxide dismutase enzyme activity among children with different duration of diabetes mellitus was not found, but the parameters were worse among patients suffering from diabetes mellitus more than 5 years ($5,03 \pm 0,13$ UN/min* mg of protein in group 3 against $4,42 \pm 0,05$ in group 4).

The parameters of activity of S-groups and ceruloplasmin decrease in case of inflammatory processes in the periodontal tissue, especially among children suffering from diabetes mellitus longer than 5 years.

Thus, the results obtained force us to regulate the processes of antioxidant protection among children with chronic catarrhal gingivitis especially with diabetes mellitus by means of development of therapeutic complexes which is a subject of the further research.

Kasiyanchuk .V.

NEUROLOGICAL MANIFESTATIONS IN THE CLINIC OF DENTISTRY: FEATURES OF COMPUTER SUPPORT IN PRECLINICAL AND CLINICAL RESEARCHES

Department of Prosthetic Dentistry

Bukovinian State Medical University

Surgical trauma is known to provoke loss of the osseous tissue at the first and second stage of implantation which is evidenced by many literary reviews. We believe that one of the ways to