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STRUCTURE OF PERIODONTIC TISSUE DISEASES IN CHILDREN WITH INSULIN DEPENDENCE DIABETES MELLITUS

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One of the main common factors stipulating the occurrence and severity of periodontal diseases in children is general somatic pathology and DM in particular.

To evaluate the state of the periodontal tissue, 170 children aged from 12 to 16 were examined, including 130 of them suffering from DM, and 40 without comorbid somatic pathology.

The stomatological examination of children was conducted by means of the common clinical methods recommended by the WHO. To make the diagnosis, M.F.Danylevsky classification of periodontal diseases (1994) was used. Assessment of the state of the periodontal tissue was performed according to the papillary-marginal-alveolar index – PMA (C. Parma, 1960).

Results of the stomatological examination are indicative of the fact that the number of children suffering from DM with intact periodontal tissue is considerably less $(8,46\pm2.44)\%$ in comparison with somatically healthy children $(55,0\pm7.87)\%$. The signs of the inflammatory process in the periodontal tissue in the form of CCG on an average were found in $(83,85\pm3,23)\%$ of DM children, which is practically twice as often concerning those without comorbid pathology – $(45,0\pm7,87)\%$. CCG complications in DM children were found to be diagnosed in $(2,32\pm1,32)\%$ of cases, hypertrophic gingivitis – in $(2,32\pm1,32)\%$, and periodontitis – in $(3,08\pm1,52)\%$, contrary to somatically healthy children who do not develop these forms of periodontal diseases.

The results of the analysis of the periodontal tissues in the examined children depending on the duration of the underlying disease demonstrated that a part of children with intact periodontal tissue is smaller in the group with DM of more than 5 years duration. It was $(7,14\pm3,44)\%$ in comparison with $(9,46\pm3,40)\%$ in the group with the period of the underlying disease less than 5 years. At the same time, CCG was more often registered in children suffering from DM less than 5 years $(87,84\pm3,80)\%$ in comparison with children $(78,57\pm5,48)\%$ suffering from DM more than 5 years. It is caused by the fact that other more severe forms of periodontal diseases were found in children suffering from DM for more than 5 years. For example, CCG exacerbations and hypertrophic gingivitis in children suffering from DM longer than 5 years were found twice as often than in those afflicted with the disease for less than 5 years. Thus, they were registered in $(3,57\pm2,48)\%$ and $(1,35\pm1,34)\%$ cases respectively. Periodontitis was diagnosed only in $(7,14\pm3,44)\%$ of children with DM longer than 5 years.

Analysis of the state of the periodontal tissues in children with DM depending on glycemic control level found that the highest percentage of children with intact periodontal tissue was found in the group with OGC, and it was $(75,00\pm21,65)\%$ in comparison with $(8,11\pm3,17)\%$ the group with SOGC and $(3,85\pm2,67)\%$ in the group with HRFL. At the same time, the biggest amount of children with CCG was registered in the group with SOGC – $(89,19\pm3,61)\%$, which is considerably bigger than among children from the groups of comparison, where this index was $(25,00\pm21,65)\%$ with SOGC and $(80,77\pm5,47)\%$ in children with HRFL. Though, other forms of periodontal diseases were more often found in the group of children with HRFL. Thus, hypertrophic gingivitis was found three times as often in children with HRFL $(3,85\pm2,67)\%$, than in children with SOGC $(1,35\pm1,34)\%$, periodontitis was found four times as often – $(5,77\pm3,23)\%$ and $(1,35\pm1,34)\%$, CCg exacerbations were diagnosed only in $(5,77\pm3,23)\%$ of children with HRFL.

CCG prevailed in the structure of periodontal diseases. CCG was most often diagnosed in children who suffered from DM for less than 5 years and those who had a suboptimal level of glycemic control. It is explained by the fact that children with a duration of DM over 5 years and children with glycemic control level and high risk for life had a higher occurrence of other forms of periodontal diseases. Children with an optimal level of glycemic control had lower CCG occurrence compared to the greater number of children with intact periodontal tissue.