

62. THE RISK OF DENTAL CARIES IN CHILDREN BORN PREMATURE



Author: Sandu Marina; **Co-author:** Bălțeanu Olga

Scientific advisor: Spinei Aurelia, PhD, Associate Professor, „Ion Lupan” Department of Pediatric Oral-Maxillofacial Surgery and Pedodontics, *Nicolae Testemițanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova

Introduction. Premature birth represents a major public health problem, associated with increased neonatal morbidity and mortality. Premature birth is a current problem, following it, the fetus is diagnosed with a series of functional disorders from different systems of organs, including the stomatognathic system. According to clinical observations, children born prematurely are susceptible to dental caries (CD). In this sense, it is current the study which evaluates the risk of caries in children born prematurely.

Aim of study. Personalized assessment of the risk of dental caries in newborns premature.

Methods and materials. A clinical study was carried out on a sample of 68 children aged between 1 and 3 years, divided into 2 identical groups according to structure. The research group (Gr 1) consisted of 34 children born prematurely (according to the anamnesis data). The control group (Gr 0) was identical in structure to Gr 1 and consisting of 34 conventionally healthy children. Children were clinically examined, and the clinical data recorded according to the criteria of the World Health Organization. Behavioral risk factors from the family environment of children were identified (the particularities of food and hygienic care, the level of knowledge regarding oral health and mothers' sanogenic attitudes, etc.). Acidogenic bacterial plaque was identified and estimated rates of frequency and intensity of dental caries. Complex caries risk assessment was performed using the Cariogram Software application. The study was conducted in accordance with ethical requirements, with the written consent of the children's parents or their legal representatives.

Results. Dental caries was detected in 47.06% of children from Gr 1 and in 29.41% of subjects from Gr 0. The personalized assessment of the caries risk with the Cariogram Software application allowed us to analyze comparing the risk of dental caries in subjects from Gr 1 and Gr 0. Thus, in the children born preterm high and very high caries risk prevailed and was 32.57% higher, comparatively with conventionally healthy children. In most children from Gr 1, the cumulative influence of a complex of risk factors: the impact of systemic pathology and its medication, as well as unsatisfactory state of oral hygiene, number of *Streptococcus mutans* in saliva $>5 \times 10^5$ CFU/ml, decreased flow of oral fluid. The lack or insufficiency of the implementation of preventive measures detected in children from both groups.

Conclusion. Personalized and complex CD prediction revealed high and very high caries risk in most premature babies. Personalized caries risk assessment is necessary for the development and application of effective CD prevention methods.