51. PREVALENCE OF CORONAL DENTAL TRAUMA OF YOUNG PERMANENT TEETH IN CHILDREN FROM FLUOROSIS ENDEMIC AREAS

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Introduction. Hard tissue trauma is a common problem among children and adolescents, having a significant impact on long-term oral health. The influence of prolonged exposure to fluoride on the child's body in general and on dental hard tissues in particular and the association with dental trauma has become a topic of increased interest in fluorosis endemic communities. Due to the long exposure to high concentrations of fluoride during the formation and development of dental hard tissues, the structure and strength of tooth enamel changes, becoming more fragile and more susceptible to fractures.

Aim of study. Evaluation of the prevalence of dental coronal trauma of young permanent teeth in children and adolescents from fluorosis endemic areas.

Methods and materials. The study material served the data obtained as a result of the examinations of 299 children: 144 (48%) boys and 155 (52%) girls from two age groups: 163 (54.5%) 12-year-old children and 136 (45 .5%) of 15-year-old adolescents from different fluorosis endemic areas of the Republic of Moldova. The methodology of the examination of the patients included the collection of accusations and data from the anamnesis and the objective clinical examination. The data were obtained by specialists in pediatric dentistry and included in the patient record. The type of trauma was determined according to the TDP Classification according to the WHO. The data was collected during the years 2022-2023.

Results. Coronary dental traumas were diagnosed in 30 (10.03%) subjects from the total number of examined children. The prevalence of trauma increased with age: dental trauma was detected in 5 (16.7%) 12-year-old children and in 25 (83.3%) 15-year-old children. Also, the prevalence of trauma increased with the severity of dental fluorosis - in 6.7% of cases dental trauma was present in subjects with questionable or incipient forms of fluorosis, and 93.3% of cases in subjects with erosive or destructive forms of dental fluorosis.

Conclusion. Although fluoride is the main chemical element in the prevention of tooth decay, its excess can cause dental fluorosis. The higher the dose of fluoride, the more essential are the changes in the tooth enamel structure. In severe forms of fluorosis, teeth can be susceptible to the action of mechanical factors and can easily be fractured.