

TREAT OR DO NOT TREAT THE INITIAL FORMS OF FLUOROSIS

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Introduction: Some authors argue that there is no point in treating the initial forms of dental fluorosis, since they disappear on their own over time. However, there are currently no studies to confirm or refute this statement. To study the changes that occur with untreated . of the enamel, we conducted a study of 80 maxillary incisors with manifestations of the initial forms of fluorosis in children from Poltava.

The aim: To study the dynamics of enamel changes arising from untreated initial fluorotic lesions of enamel in children.

Materials and methods: Evaluation of the manifestations of dental fluorosis was carried out according to the Dean criteria, as recommended by WHO experts. Determination of the area of chalk spots was carried out by our proposed method. At the same time, the initial ones were considered to be very mild forms of fluorosis, when chalk changes in enamel occupied less than 25% of the tooth surface, and light ones - with damage from 25% to 50% of the tooth surface. The criterion for improving the condition of the affected enamel was the disappearance or reduction in the size of chalk spots. The criterion for deterioration was considered to be an increase in the size of the enamel affected by fluorosis, the appearance of new chalky spots, pigmentation or erosion. When the process was stabilized, the size of the fluorotic spots, their color and the integrity of the enamel did not change.

Results: We have been monitoring the dynamics of untreated fluorotic lesions for two years. During the first year of observation, no improvement in the condition of the enamel affected by fluorosis was not registered in any tooth. Stabilization was found in $45.0 \pm 5.6\%$ of the teeth, among which very light fluorosis was previously diagnosed in $30.0 \pm 5.1\%$ of the teeth, light - in $15.0 \pm 3.9\%$ of the teeth. Stability of the state of enamel affected by fluorosis was diagnosed in $55.0 \pm 5.6\%$ of the teeth. Of these, $20.0 \pm 4.5\%$ initially had manifestations of very light fluorosis, and $35.0 \pm 5.3\%$ - light. Deterioration was manifested not only by an increase in the size of fluorosis spots in $20.0 \pm 4.5\%$ of the teeth, but also by the appearance of new chalk spots in $10.0 \pm 3.4\%$ of them, pigmentation in $10.0 \pm 3.4\%$, and in $15.0 \pm 3.9\%$ - even destructive changes in the enamel surface. During the second year of observation, improvement in the state of fluorosis lesions was also not diagnosed in any of the teeth. Stabilization of fluorosis, in comparison with the data of the first year, significantly decreased ($p < 0.001$) and was found only in $18.8 \pm 4.4\%$ of the teeth. Deterioration of the state of the enamel affected by fluorosis was registered already in $81.3 \pm 4.4\%$ of the teeth, which is 1.48 more than in the first year of observation ($p < 0.001$). At the same time, the occurrence of new chalk spots was diagnosed in $17.5 \pm 4.3\%$, pigmentation - in $21.3 \pm 4.6\%$, and destructive changes - in $27.5 \pm 4.9\%$ of the teeth relative to the initial data.

Conclusion: Thus, with age in children, the initial forms of fluorosis disappear not because they «self-heal», but because they are transformed into more severe forms, which dictates the need for secondary prevention of fluorosis as early as possible after teething.

KEY WORDS: Chalk changes, fluorotic lesions, destructive changes, enamel.

MORTALITY OF THE UKRAINIAN POPULATION FROM ROAD TRAFFIC ACCIDENTS AS A PROBLEM OF PUBLIC HEALTH

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Introduction: According to the WHO global report on road safety, more than 1.2 million people worldwide die each year from road traffic accidents (RTA), and another 20-50 million are injured. Studies indicate that over 90% of deaths due to RTA worldwide occur in low- and middle-income countries, even though there are less than half of all vehicles in the world. Almost half of worldwide RTA deaths are among pedestrians, cyclists, and motorcyclists. RTA injuries are the leading cause of death among people aged 5-29 years.

The aim: To conduct an analysis of population mortality from RTA and to identify ways of behavioural correction in population as one of the problems of the public health system in Ukraine.

Materials and methods: The materials of the study were data from Patrol Police of Ukraine. Methods of descriptive epidemiology and statistical methods (time series analysis) were used to achieve the stated aim.

Results: According to the data of the Patrol Police of Ukraine, there were 168107 RTA in 2020 (in 2019 – 160675, which indicates 4.6% growth), including accidents with victims 26140 (in 2019 – 26052, which indicates 0.3% growth) where 3541 people died (in 2019 - 3454, which indicates 2.5% growth).

The total number of RTA caused by pedestrians is declining in Ukraine. Thus, in 2020 there were 705 cases (in 2019 – 776, which is -9.7%). At the same time, the number of deaths resulted from such RTA is increasing: in 2020 – 117 (in 2019 – 107, which is +9.3%). There is a marked concern for an amount of RTA involving children. During 2020 there were 3574 traffic accidents where 168 children under the age of 18 died. It's important to highlight that the amount of RTA where children were involved, considerably decreased in 2020 compared to 2019 (-8.4%), while the number of child fatalities increased by 2.4%.

The most common causes of accidents caused by drivers are illegal driving manoeuvres – 22%; excess speed – 34%; not maintaining the driving safety distance – 8%; violation of the rules on crossroads – 8%; drunk driving – 3.23%; wrong-way driving – 1.35%; violation of the rules while driving across a pedestrian crossing – 6%.