

## **The influence of magnesium drugs to oral liquid mikrocrystallization function in persons with a high caries level.**

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**Introduction.** Saliva has a mineralizing function to enamel, because it is a supersaturated liquid by calcium ions and hydrogen phosphate anion. In an unfavorable situation in the oral cavity breaks down the saliva structure, changes its mineralized function. The results of the mikrocrystallization study represent a certain interest, because it can characterize remineralization capacity of saliva. The aim of the study was to investigated peculiarities of the influence of magnesium containing drug to the oral liquid mikrocrystallization in persons with a high level of caries.

**The materials and methods of research.** 45 young persons from 19 to 27 years old with a high level of caries (CFE = more then 12) were examined. All patients within one month had following events: application of 5 % solution of magnesium sulfate for 10 minutes and rubbing to the hard tooth tissues 1 - 2 drops of mineral balm based on Poltava's Bischofite – «Elixir for oral cavity» by toothbrush for 3 minutes in the morning and evening. The oral liquid mikrocrystallization was studied by P.A. Leus techniques before and after the prophylactic course and a month later.

**Results.** As a result of clinical - laboratory studies, all patients with a high level of caries had the dominance of III and II types of mikrokrystallization – 53,6% and 39,4% respectively and the 7% of the I type of mikrokrystallization. Mineral rate of saliva (MRS) was in low condition – 1,72. After the caries preventive measures were dominates the I and II types of mikrokrystallization – 72% and 28% respectively, increased mineral indicator of saliva to high rate – 3,4. After one month of caries preventive measures the indicators of MRS is on the high rate – 3,1, dominates the I type of mikrokrystallization – 74%.

**Conclusion.** We found that persons with a high level of caries had reduced the mineral potential of the saliva with a predominance of III type of mikrokristallization. Using this caries prevention complex containing of 5 % magnesium sulfate solution and mineral balm, helps to increase recover of mineral component of oral liquid structure, thereby reducing the development of dental caries.