THE LEVEL OF IMMUNOGLOBULIN E IN SALIVA IN CHILDREN

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Background: Immunoglobulin E (IgE), which assumes a pivotal role in the etiology of allergic reactions, could also influence the onset of specific dental conditions. For instance, elevated levels of IgE might be linked to the development of inflammatory conditions in the oral cavity, such as gingivitis, stomatitis, and periodontitis. At the same time, even data on the normal level of immunoglobulin E in saliva in children are very heterogeneous and not clear. It complicates the use of salivatory immunoglobulin E as a marker of oral pathology.

Objective: Investigating the concentration of IgE in the saliva of children.

Materials and methods: The study was conducted on the saliva of children aged 8 to 13 years (10 girls and 10 boys). The average age for girls is 9.38 years, and the average age for boys is 10.57 years. Saliva sampling was performed on an empty stomach without additional stimulation by placing a cotton swab in the oral cavity for 2 minutes without chewing. The saliva collection tubes were then centrifuged for 5 minutes 1000g. The isolated saliva was poured into aliquots of 500 ml and stored at a temperature of -80°C for ≤2 months before analysis. The enzyme-linked immunosorbent assay (ELISA) was conducted using the Fine Test ELISA kit for human IgE according to the provided instructions. The photometric analysis was performed using the Multiscan SkyHigh instrument.

Results and discussion: The average value of the IgE level is 25.1ng/ml. In males, the average IgE level was 24.5 ng/ml (min = 12.5, max = 41.9). In the female, the average IgE level was 25.8 ng/ml (min = 8.8, max = 41.0). The study demonstrated that the level of IgE in the saliva of this particular group of children is not influenced by gender. There was also no significant correlation between the levels of IgE in children's saliva and their age.

Conclusion: The findings suggest the necessity for further investigation, considering factors such as oral health, diet, and other variables that can impact the concentration of IgE in children's saliva, in order to gain a more thorough comprehension.

Keywords: Immunoglobulin E, saliva, children.

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