



SALIVA ANTIOXIDANT CAPACITY AND DENTAL CARIES IN CHILDREN BETWEEN THE AGE 4 TO 6

SANJA NASHKOVA, KATERINA ZLATANOVSKA, VERICA TONEVA, SANDRA ATANASOVA, NATASHA LONGUROVA

Background: The saliva has various defence mechanisms such as the immune and enzyme systems, defence against bacteria, viruses, fungi and protection of the oral mucosa as it promotes its curative features. Our research is focused on the correlation of the DMF index and the antioxidant capacity of saliva.



Aim: 100 children from both genders, aged between 4 and 6 from the local nurseries from the town Shtip were the examinees. The first group of 30 were children with DMF =0 divided in a control group and 70 children with DMF – experimental group. For the detection of the DMF we used the Klein – Palmer index, DMFT.



Materials and Methods: We used prepared sets Total Antioxidant Capacity (PAO) Assay, Biomedica Company, USA and the method is due to the substance 2,2'-azino-bis (3-ethylbenzothiazoline-6-sulphonic acid) or ABTS which we incubated with peroxidase and hydrogen peroxide whereupon radical cation, ABTS⁺ were formed with relatively stable blue-green colour and a measured intensity of 600 nm.

Results: The tested ration between the total antioxidants in the saliva of children with first dentition and the presence of dental caries is $R = -0,44 (p < 0,05)$, whereupon a medium strong negative relevant correlation was determined in both tested groups. The increase of the total presence of antioxidants in the saliva of children is followed with a decreased presence of dental caries of children.

Conclusion: The antioxidant activity of the saliva is related to the increase of the suspension of proteins and cariogenic activity, the total antioxidant capacity is increased in children with caries compared to the caries-free children it showed no statistical importance.

