

UDC 57:61

CODEN PDBIAD

ISSN 0031-5362

# PERIODICUM BIOLOGORUM



**7<sup>th</sup> CROATIAN CONGRESS  
OF PHARMACOLOGY**

**WITH INTERNATIONAL PARTICIPATION**



# PERIODICUM BIOLOGORUM

An Interdisciplinary International Journal of the Societas Scientiarum Naturalium Croatica established 1885

## Published by

Croatian Society for Natural Sciences  
Ruđer Bošković Institute  
LASERplus

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## P2.1 FLUORIDE CONTENT IN BEVERAGES MADE FOR INFANTS AND YOUNG CHILDREN IN CROATIA

**Bašić K, Šutej I, Peroš K, Rošin-Grget K**

Department of Pharmacology, School of Dental Medicine, University of Zagreb, Šalata 11, 10000 Zagreb, Croatia  
basic@sfzg.hr

**Introduction:** The role of fluoride in dental caries prevention is well known. On the other hand, excessive fluoride intake during enamel formation of permanent teeth can cause dental fluorosis, hypomineralisation of enamel characterized by greater surface porosity. Current studies showed that fluoride content in beverages may be highly variable. The aim of this study was to determine the fluoride content in beverages made for infants and young children commercially available in Croatia.

**Materials and methods:** 18 juices, 8 instant teas and 7 filter bag teas were evaluated. All beverages were made for children under age of 1 year. Instant and filter bag teas were prepared according to manufacturer recommendations. Analyses were performed in triplicate with the use of ion-selective fluoride electrode.

**Results:** Fluoride concentration in most beverages did not exceed 0.1 mg F/L. Only one sample of juice had fluoride concentration over 0.1 mg F/L (0.126). Range of fluoride concentration in juices was 0.012-0.126 mg F/L; in instant teas prepared with boiling water 0.021-0.028 mg F/L and with room temperature water 0.033-0.036 mg F/L; in filter bag teas 0.021-0.035 mg F/L.

**Conclusion:** Even though fluoride concentration range of tested samples was in safe range it is recommended to list fluoride content on beverages intended for infants and young children. Considering all other sources of fluoride, decision about fluoridation treatment should be designed having in mind the amount of fluoride intake from beverages and their possible cumulative influence, so the optimal caries preventive effect can be obtained and the risk of dental fluorosis reduced.



## P2.24 CIGARETTE SMOKING AND COMMUNITY PERIODONTAL INDEX

**Sutej I, Peros K, Basic K, Rosin-Grget K.**

Department of Pharmacology, School of Dental Medicine, Šalata 11, University in Zagreb  
isutej@gmail.com

**Introduction:** Severity and degree of periodontal diseases (gingivitis, periodontitis) in an individual (or in a section of a population) are assessed, according to a WHO-recommendation, by the CPI (Community Periodontal Index) taking as its basis the three features bleeding (CPI1), dental calculus (CPI2), and gingival sulcus (CPI3,4). Aim of this study was to investigate possible influence of cigarette smoking on periodontal health of dental students.

**Materials and methods:** Study group consisted of 228 dental medicine students. The population has been characterized by a high standard of dental awareness by above average standards of dental attendance and oral hygiene. A structured questionnaire about self report smoking and oral hygiene habits were filled out. Clinical examination was performed and CPI scores recorded.

**Results:** There were 53 smokers (23%) and 175 non smokers (76.8%). CPI1 (bleeding on probing) was greater in nonsmokers 11.4% than in smokers 3.8%. CPI4 (periodontal pockets  $\geq 6$  mm) was greater in smokers, with 20% of smokers and 12% of non smokers. In CPI0, CPI2, CPI3 there were no differences between two groups. ( $p=0.396$ ) Only 10% of all subjects had CPI 0 (periodontally healthy) on all six sextants regardless of their smoking habits.

**Conclusion:** Cigarette smoking is found to be a risk factor for periodontal disease. According to our results by CPI scores, smoking tends to be a risk factor for young, healthy and dentally aware subjects independently of high oral hygiene preventive measures.