

**JUGOSLOVENSKO DRUŠTVO ZA ISHRANU
YUGOSLAV NUTRITION SOCIETY**



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Ministarstvo zdravlja



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Ministarstvo nauke i
zastita životne sredine

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**IZVODI RADOVA
BOOK OF ABSTRACTS**

**11. KONGRES O ISHRANI
sa međunarodnim učešćem**

**11th CONGRESS OF NUTRITION
with international participation**

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FOOD AND NUTRITION – NEW CHALLENGES

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sis of the obtained data, we may point out the following results pertaining to the health status of children:

- Normal nourishment status was determined in 300 girls (84,74%) and 305 boys (83,79 %)
- Undernutrition was determined in 8 girls (2,2 %) and 6 boys (1,7 %)
- Overweight (obesity) was determined in 46 girls (12,99 %) and 43 boys (11,81 %)
- Caries was observed in 62 girls (17,51 %) and 39 boys (10,71 %)

Conclusion: The obtained results suggest high incidence of caries and obesity in both sexes, with higher rates in girls. Caries prevention using fluoride preparations (as early as during pregnancy) is aimed at preventing tooth and oral diseases. Childhood obesity is determined by number of factors, such as genetic factors, dietary habits, physical activity, financial status, etc. Advices on proper nutrition provided by pediatrician and dentist are essential in preserving the oral and general health of a child since its earliest age.

Key words: nutrition, obesity, caries, children

U02.06 KLINIČKO ISPITIVANJE MIKROBNOG EFEKTA INFANT FORMULE SA DODATIM INULINOM

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Na samom rođenju započinje mikrobnna kolonizacija intestine čoveka. Važan uticaj na sastav intestinalne mikroflore novorođenčeta imaju način porođaja i ishrana. Svrha ovog ispitivanja je da objasni da li postoje i koje su razlike u mikroflori creva između novorođenčeta hranjenog majčinim mlekom i infant formulom sa dodatim inulinom.

Zdrave, u terminu rodene bebe, uključene su u četvoronedeljnu studiju, u dve grupe –grupa hranjena infant formulom sa inulinom FF i grupa hranjena isključivo majčinim mlekom (kontrolna) BM. Feces je uzorkovan pre

početka davanja infant formule (0 dan) i u toku davanja infant formule (14 i 28 dan). U uzorku fecesa je 0., 14. i 28. dana određivan broj ukupnih aeroba i anaeroba, kvasaca i plesni, *Lactobacillus* i *Bifidobacterium*.

Pre početka (0. dan) i nakon 14 dana hranjenja infant formulom srednji broj bifidobakterija nije se razlikovao među grupama. Nakon 28 dana hranjenja infant formulom, populacija bifidobakterija je bila značajno veća u grupi FF u odnosu na BM grupu. Broj laktobacila, ukupnih aerobnih i anaerobnih bakterija i kvasaca i plesni, nije se statistički značajno razlikovao između FF i BM grupa.

Prebiotik, inulin, selektivno stimuliše rast *Bifidobacterium* i *Lactobacillus* u intestini. FF- bebe hranjene infant formulom pokazale su rast *Bifidobacterium* i *Lactobacillus* sličan kao kod beba hranjenih isključivo majčinim mlekom. Infant mlečna formula koja sadrži inulin kao prebiotik indukuje mikrofloru koja je slična mikroflori odojčadi na BM ishrani. Zaključujemo da prebiotik, inulin, može da menja mikrobnii ekosistem creva u istom pravcu kao i majčino mleko.

Ključne reči: infant formule, inulin, bifidobakterije

U02.06 CLINICAL TRIAL OF MICROBIAL EFFECT OF THE INFANT FORMULAE WITH ADDED INULINE

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The microbial colonization of human intestine begins at birth. The kind of delivery and feeding have important influence on the composition of the intestinal flora of newborns. The purpose of this study was to determine if there is and what are the differences in the gut microbiota of breast-fed and formula (with added inuline)-fed newborns.

In 4 week study were enrolled healthy, term new born infants, divided in two groups - formula fed group FF and breast milk (control) group BM.

Fecal samples were obtained before formula administration (0 day) and during formula administration (14 and 28 day). At study day 0, 14 and 28 total aerobic and anaerobic bacteria, fungi, Lactobacillus and Bifidobacterium counts were performed on the fecal samples.

Before (0 day) and after 14 day of formula administration the median number of Bifidobacteria did not differ among the group. At the end of the 28 day feeding period, the population of Bifidobacterium was significantly higher in FF group versus BM group. There (during the 4 week feeding period) was no statistically significant difference between the groups in the number of Lactobacillus and no statistically significant difference was observed for the total aerobic and anaerobic bacterial and fungi populations between FF and BM groups.

Prebiotic, inuline, selectively stimulate the growth of Bifidobacterium and Lactobacillus in the intestine. The FF infants showed a Bifidobacterium and Lactobacillus growth similar to the breast-fed newborns. The infant milk formula containing inuline as prebiotic is able to induce a microbiota that closely resembles the microbiota of BM infants. We concluded that prebiotic, inuline, can modulate the gut microbial ecosystem in the same direction as breast milk.

Key words: infant formulae, inulin, bifidobacterium, lactobacillus

S03.01 GOJAZNOST U DETINJSTVU I ADOLESCENCIJI

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Prevalencija gojaznosti kod dece i adolescenata se povećava širom sveta posebno u razvijenim industrijalizovanim zemljama, ali i u brojnim zemljama u razvoju. Gojaznost u detinjstvu je povezana sa pojavom brojnih bolesti i poremećaja kao što su hipertenzija, astma, opstruktivna apneja u spavanju, dijabetes melitus tipa 2, sindrom policističnih ovarijuma, hiperlipidemija, rana ateroskleroza i psihosocijalni poremećaji, a predstavlja i značajan rizik za gojaznost i udružene poremećaja zdravlja u odraslom dobu.

Klinički kriterijumi za rano otkrivanje i procenu stepena gojaznosti kod dece različitog uzrasta su dobro definisani. Deca sa indeksom telesne mase iznad 90. percentila smatraju se prekomerno uhranjenom, odnosno u