

Title: Effects of Probiotic Drop containing *L. rhamnosus, B. infantis* and *L.reuteri* on Salivary *Streptococcus mutans* and *Lactobacillus* levels

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Abstract

Aims: The aim of the present study was to evaluate the effect of a probiotic drop containing *L. rhamnosus, B. infantis* and *L. reuteri* on salivary counts of *Streptococcus mutans (SM*) and *Lactobacillus (LB)* in children 3–6 years of age.

Settings and Design: Sixty one healthy children were randomly allocated into two parallel blocks in this double-blind randomized controlled trial (IRCT2014120320202N1) from May to June 2015.

Methods and Material: Finally 53 subjects consumed 5 drops of placebo (n=23) or probiotic (n=30) every night for 2 weeks. Before intervention and one day after completion of the intervention, unstimulated salivary samples were collected and microbiologic evaluations were carried out.

Statistical analysis: Data were analyzed with descriptive statistical methods, Wilcoxon Signed Ranks, Mann-Whitney and logistic regression.

Results: *SM* level decreased significantly in probiotic group after intervention (P=0.045) and there were significant differences in salivary *SM* counts after intervention between two groups (P=0.04). In probiotic group, *LB* counts decreased significantly after intervention (P=0.048); however, there were no significant differences between two groups (P=0.216).

Conclusions: Use of this probiotic drop decreased salivary counts of *SM*; however, *LB* counts did not change. In addition, use of the drop in children with higher salivary counts appeared to be more effective.

Key words: *Streptococcus mutans*, *Lactobacillus*, probiotic, Drop

Biography

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Najmeh Akhlaghi has completed her general dentistry at the age of 24 years and postdoctoral studies from School of Dentistry, Isfahan University of Medical Sciences, Isfahan, Iran.She is **Assistant Professor** of pediatric dentistry.She has published more than 11 papers in reputed journals.

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