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Review Paper:

The Effect of Probiotic Mouthwash on Salivary PH of Patients With Fixed Orthodontic Appliances

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ABSTRACT

Background: Probiotics are defined as alive bacterial or cellular component that has beneficial effect on hast. These agents produce some products that is useful for human body. The use of probiotics may inhibit dental caries by changing oral bacterial flora and salivary pH. In this study, the effect of probiotic mouthwash on salivary pH of patients with fixed orthodontic appliances.

Methods: In this study with cross-over design, 40 fixed orthodontic patients referred to the dental clinic of the Faculty of Dentistry at Mazandaran University of Medical Sciences in March 2016-2017 were participated and divided into test (A) and control (B) groups. Group A consisted of 11(55%) males and 9 females (Mean±SD age, 15.3±1.2 years) while in group B, there was 8(40%) males and 12 females (Mean±SD age, 15.7±1.4 years). Group A used mouthwash containing probiotic dough for 2 weeks, while group B used mouthwash containing simple dough. After 2 weeks of rest period, the patients were cross-overed. Salivary pH of all patients was measured before and after mouthwash and the results were compared with each other.

Results: At baseline, the mean salivary pH in group B was 6.8 and in group A as 6.9 (P=0.1). In the second stage, the mean salivary pH changed to 7 and 7.15, respectively (P=0.05). After crossing over, it was increased to 7.05 and 7.36, respectively and the difference between groups was statically significant (P=0.001).

Conclusions: The use of mouthwashes containing probiotics like dough can increase alkalinity of the mouth's pH and prevent dental caries.

Keywords: Probiotics, Fixed orthodontic, Salivary pH