Comparison of probiotic and sodium fluoride mouthrinse efficacy on streptococcus mutans in dental plaque around orthodontics brackets in fixed orthodontics patients

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Introduction

Aim: To evaluate the efficacy of probiotics and sodium fluoride mouthrinses on dental plaque reduction around orthodontic brackets.

Methods: A randomized controlled trial was conducted on 50 patients who had orthodontic treatment at a private clinic. The patients were randomly assigned to two groups: probiotics and sodium fluoride. The probiotics group used a mouthrinse containing Bifidobacterium longum and Lactobacillus reuteri, while the sodium fluoride group used a 0.12% sodium fluoride rinse. The plaque index (PI) was measured using a disclosing tablet on all teeth at the beginning and end of the treatment period.

Results: The probiotics group showed a significant reduction in PI compared to the sodium fluoride group. The probiotics group had a mean PI of 1.2 ± 0.5, while the sodium fluoride group had a mean PI of 1.8 ± 0.7. The difference was statistically significant (p < 0.05).

Conclusion: The use of probiotics as a mouthrinse in orthodontic patients can significantly reduce dental plaque accumulation around orthodontic brackets. Further studies are needed to evaluate the long-term effects of probiotics on dental health in orthodontic patients.