Effectiveness of a Community-based Periodontal Disease Prevention Program
Focused on the Use of Interdental Brushes

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\textbf{Abstract:} The purpose of this study was to evaluate the effectiveness of a community-based periodontal disease prevention program focused on the use of interdental brushes.

The subjects consisted of community residents (15 males and 41 females, with a mean age of 48.8 years) who consented to participate in a periodontal disease prevention program performed in Nishi-ward, Hamamatsu City, Shizuoka Prefecture. They participated in every guidance and the 1-year follow-up. The program was performed 3 times (initial guidance, and that after 1 and 2 months). In each guidance and the 1-year follow-up, a questionnaire was filled out and periodontal tissue was examined. The effectiveness of the program was evaluated after 1 year.

The percentage of subjects using an interdental brush every day or sometimes was 55.4\% on the initial guidance, but increased to more than 90\% after 1 and 2 months, and was still 87.5\% after 1 year.

The change in the periodontal tissue was assessed employing three indices: the CPI code, number of sextants with periodontal pockets (CPI≥3), and number of sextants with gingival bleeding. The individual CPI code improved over time, and significantly differed between the initial guidance and after 1 month, 2 months, and 1 year. The number of sextants with periodontal pockets and the number of sextants with gingival bleeding decreased over time, and further decreased after 1 year.

Because 29 subjects among all subjects underwent scaling in dental clinics between the initial guidance and 1-year follow-up, three indices for the periodontal condition used to compare the subjects who had and had not undergone scaling. The 3 indices in each group improved after 1 year compared with the initial guidance.

These results suggest that a community-based periodontal prevention program focused on the use of interdental brushes is effective for promoting the use of interdental brushes and improving periodontal disease.

\textbf{Key words:} Prevention of periodontal disease, Interdental brush, Health education, Scaling

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