

Abstract

The preventive effect of a modified fluoride (F) toothpaste technique was investigated. Both the incidence and progression of approximal caries among Saudi adults with a high caries prevalence were evaluated after 2 years.

A total of 175 adults were randomly assigned to a test group and a control group and 106 completed the study. In the test group (n = 54), the patients were asked to use

the provided F toothpaste twice a day. They were instructed to use the "modified F toothpaste technique" as follows: (1) to use 2 cm of the toothpaste, (2) to brush for 2 min, (3) to swish the toothpaste slurry around the dentition with active movements of the cheeks, lips and tongue, forcing the slurry into the approximal area for about half a minute, before spitting it out, and (4) no post-brushing rinsing and no eating/drinking for 2 hr. The patients in the control group (n = 52) were instructed to continue using their regular F toothpaste twice a day without any further instructions.

Approximal caries and filled surfaces were scored on bitewing radiographs at baseline and after 2 years.

The mean (SD) total caries incidence for the test and control group was 1.15 (1.49) and 3.37 (2.57) respectively ($p < 0.001$). In general, the control group displayed a higher progression rate than the test group with regard to enamel lesions to dentine (NS), enamel lesions to filled surfaces ($p < 0.05$) and filled surfaces that had recurrent caries (NS). To conclude, the "modified fluoride toothpaste technique", as practised over the 2 years, had a caries preventive effect on the incidence of approximal caries, but not on the progression, in a Saudi population with a high caries prevalence. (Swed Dent J 34: 9-16)