

COCHRANE-REVIEW

Nogen evidens for effekt af interdentalbørster

Med stort forbehold, fordi der er tale om få og små studier, konkluderer et nyt review, at interdentalbørster er et godt supplement til tandbørsten.

Winnie Brodam

Et nyt review har undersøgt effekten af interdentalbørstning som supplement til almindelig tandbørstning og sammenlignet den med tandbørstning alene og tandbørstning med samtidig brug af tandtråd.

Metaanalyse af syv studier med i alt 354 deltagere viste en lav evidens for, at interdentalbørster forbedrer effekten af tandbørstning. Der var også lav evidens for, at interdentalbørster var mere effektive end tandtråd. I begge tilfælde var opfølgningstiden kun på en måned – så kort, at der ikke kan konkluderes noget mht. cariesudvikling.

Kommentar af Skolechef Bo Danielsen, Skolen for Klinikassistenter og Tandplejere i København:

– Effekten af interdentalbørster er svarende til effekten af andre mundhygiejnehjælpemidler afhængig af mindst tre faktorer. For det første er det af stor betydning, i hvilket omfang de bliver brugt. For det andet er det af betydning, hvor kompetent de bliver brugt, og for det tredje har det meget at sige, hvor gode de er til formålet i den konkrete situation.

Der findes god klinisk emperi for, at interdentalbørster i nogle hænder er effektive til at reducere oral biofilm og kontrollere udviklingen af caries og marginal parodontitis. Tilsvarende er det også en klinisk erfaring, at det langt fra er alle, som opnår en sådan effekt ved at blive introduceret til interdentalbørster. Ligeledes er det ikke alle, som har morfologi og tandstilling, der favoriserer brugen af interdentalbørster.

Ønskes sikker evidens for, at interdentalbørster er mere effektive end tandtråd til at reducere udviklingen af caries og marginal parodontitis, kræves lange studier med et meget stort antal deltagere i randomiserede kliniske forsøg. Studiet af, om brugen af interdentalbørster i tillæg til almindelig tandbørstning vil være forbundet med en effekt i forhold til tandbørstning alene, kræver lidt færre deltagere. Ønskes sådanne studier med høj kvalitet, vil det være både tidskrævende og bekosteligt, hvorfor næppe nogen vil inlade sig på dette. Derimod kan man forvente, at kortvarige produktafprøvninger på mindre grupper støttet af producenterne vil blive gennemført og promoveret af markedsføringsgrunde.

ABSTRACT

Background

Effective oral hygiene is a crucial factor in maintaining good oral health, which is associated with overall health and health-related quality of life. Dental floss has been used for many years in conjunction with toothbrushing for removing dental plaque in between teeth, however, interdental brushes have been developed which many people find easier to use than floss, providing there is sufficient space between the teeth.

Objectives

To evaluate the effects of interdental brushing in addition to toothbrushing, as compared with toothbrushing alone or toothbrushing and flossing for the prevention and control of periodontal diseases, dental plaque and dental caries.

Search methods

We searched the following electronic databases: the Cochrane Oral Health Group's Trials Register (to 7 March 2013), the Cochrane Central Register of Controlled Trials (CENTRAL) (The Cochrane Library 2013, Issue 2), MEDLINE via OVID (1946 to 7 March 2013), EMBASE via OVID (1980 to 7 March 2013), CINAHL via EBSCO (1980 to 7 March 2013), LILACS via BIREME (1982 to 7 March 2013), ZETOC Conference Proceedings (1980 to 7 March 2013) and Web of Science Conference Proceedings (1990 to 7 March 2013). We searched the US National Institutes of Health Trials Register (<http://clinicaltrials.gov>) and the metaRegister of Controlled Trials (<http://www.controlled-trials.com/mrct/>) for ongoing trials to 7 March 2013. No restrictions were placed on the language or date of publication when searching the electronic databases.

Selection criteria

We included randomised controlled trials (including split-mouth design, cross-over and cluster-randomised trials) of dentate adult patients. The interventions were a combination of toothbrushing and any interdental brushing procedure compared with toothbrushing only or toothbrushing and flossing.

Data collection and analysis

At least two review authors assessed each of the included studies to confirm eligibility, assessed risk of bias and extracted data using a piloted data extraction form. We calculated standardised mean difference (SMD) and 95% confidence interval (CI) for continuous outcomes where different scales were used to assess an outcome. We attempted to extract data on adverse effects of interventions. Where data were missing or unclear we attempted to contact study authors to obtain further information.

Main results

There were seven studies (total 354 participants analysed) included in this review. We assessed one study as being low, three studies as being high and three studies as being at unclear risk of bias. Studies only reported the clinical outcome gingivitis and plaque data, with no studies providing data on many of the outcomes: periodontitis, caries, halitosis and quality of life. Three studies reported that no adverse events were observed or reported during the study. Two other studies provided some data on adverse events but we were unable to pool the data due to lack of detail. Two studies did not report whether adverse events occurred.

Interdental brushing in addition to toothbrushing, as compared with toothbrushing alone

Only one high risk of bias study (62 participants in analysis) looked at this comparison and there was very low-quality evidence for a reduction in gingivitis (0 to 4 scale, mean in control): mean difference (MD) 0.53 (95% CI 0.23 to 0.83) and plaque (0 to 5 scale): MD 0.95 (95% CI 0.56 to 1.34) at one month, favouring of use of interdental brushes. This represents a 34% reduction in gingivitis and a 32% reduction in plaque.

Interdental brushing in addition to toothbrushing, as compared with toothbrushing and flossing

Seven studies provided data showing a reduction in gingivitis in favour of interdental brushing at one month: SMD -0.53 (95% CI -0.81 to -0.24, seven studies, 326 participants, low-quality evidence). This translates to a 52% reduction in gingivitis (Eastman Bleeding Index). Although a high effect size in the same direction was observed at three months (SMD -1.98, 95% CI -5.42 to 1.47, two studies, 107 participants, very low quality), the confidence interval was wide and did not exclude the possibility of no difference. There was insufficient evidence to claim a benefit for either interdental brushing or flossing for reducing plaque (SMD at one month 0.10, 95% CI -0.13 to 0.33, seven studies, 326 participants, low-quality evidence) and insufficient evidence at three months (SMD -2.14, 95% CI -5.25 to 0.97, two studies, 107 participants very low-quality evidence).

Authors' conclusions

Only one study looked at whether toothbrushing with interdental brushing was better than toothbrushing alone, and there was very low-quality evidence for a reduction in gingivitis and plaque at one month. There is also low-quality evidence from seven studies that interdental brushing reduces gingivitis when compared with flossing, but these results were only found at one month. There was insufficient evidence to determine whether interdental brushing reduced or increased levels of plaque when compared to flossing.

Poklepovic T, Worthington HV, Johnson TM, Sambunjak D, Imai P, Clarkson JE, Tugwell P. Interdental brushing for the prevention and control of periodontal diseases and dental caries in adults. Cochrane Database of Systematic Reviews 2013, Issue 12. Art. No.: CD009857. DOI: 10.1002/14651858.CD009857.pub2.