

COCHRANE-REVIEW

Antibakterielle ingredienser uden evidens

Det lyder som en god ide: fyldningsmaterialer, som indeholder antibakterielle stoffer, og som dermed modvirker sekundær caries. Men der er ikke fundet evidens for, at det virker.

Winnie Brodam

Et helt nyt Cochrane-review har forfatterne gennemført the Cochrane Oral Health Group's Trials Register, the Cochrane Central Register of Controlled Trials, MEDLINE samt OVID uden at finde en eneste relevant undersøgelse, som kunne opfylde kravene: randomiserede, kontrollerede, kliniske forsøg, som sammenligner kompositte resin-restaureringer indeholdende antibakterielle stoffer med resinfyldninger uden antibakterielle stoffer.

Cochranes reviewere konkluderer, at der mangler evidens for effektivitet af materialerne, og at der er brug for veldefinerede undersøgelser på området.

Kommentar af professor Stig Karlsson, NIOM:

– Ved søgning i et antal databaser kunne forfatterne ikke finde nogen relevante videnskabelige artikler, som opfyldte kriterierne for RCT-studier (Randomized Controlled Clinical Trials). De konkluderer, at der i dag ikke findes holdbar evidens for, at

antibakterielle stoffer i kompositmaterialer kan modvirke sekundær caries i klinisk praksis.

Forfatterne baserer deres konklusion på fravær af RCT-studier, hvilket ikke nødvendigvis betyder, at antibakterielle stoffer er uden effekt. Andre veldefinerede kliniske studier kunne give vejledning og til en vis grad evidens for en gavnlig virkning, men i dette tilfælde savnes også den type studier.

RCT-studier repræsenterer det ønskværdige niveau af kliniske studier – noget som ofte er umuligt at opnå inden for odontologien, fordi fx blinding ofte ikke er muligt; og mundhulens kompleksitet gør det også vanskeligt at isolere effekten af enkelte faktorer.

At inkludere antibakterielle stoffer baseret på kemi og/eller nanoteknologi i cement og kompositmaterialer har stort udviklingspotentiale. Fremtiden må i veldefinerede studier vise stof-fernes kliniske relevans.

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Abstract

Background

Dental caries is a multifactorial disease in which the fermentation of food sugars by bacteria from the biofilm (dental plaque) leads to localised demineralisation of tooth surfaces, which may ultimately result in cavity formation. Resin composites are widely used in dentistry to restore teeth. These restorations can fail for a number of reasons, such as secondary caries, excessive wear, marginal degradation, tooth sensitivity, pulpal death, and restorative material fracture. Caries adjacent to restorations is one of the main causes for restoration replacement. The presence of antibacterials in both the filling material and the bonding systems would theoretically be able to affect the initiation and progression of caries adjacent to restorations.

Objectives

To assess the effects of antibacterial agents incorporated into composite restorations for the prevention of dental caries.

Search strategy

We searched the following databases in February 2009: the Cochrane Oral Health Group's Trials Register; the Cochrane Central Register of Controlled Trials (CENTRAL) (The Cochrane Library 2009, Issue 1); MEDLINE via OVID (1950 to February 2009) without filter; and EMBASE via OVID (1980 to February 2009) without filter.

Selection criteria

Randomised controlled clinical trials (RCTs) comparing resin composite restorations containing antibacterial agents with non-antibacterial containing composite restorations.

Data collection and analysis

Two review authors conducted screening of studies in duplicate and independently, and although no eligible trials were identified, the two authors had planned to extract data independently and assess trial quality using standard Cochrane Collaboration methodologies.

Main results

We retrieved 128 references to studies, none of which matched the inclusion criteria for this review and all of which were excluded.

Authors' conclusions

We were unable to identify any randomised controlled trials on the effects of antibacterial agents incorporated into composite restorations for the prevention of dental caries. The absence of high level evidence for the effectiveness of this intervention emphasises the need for well designed, adequately powered, randomised controlled clinical trials.

Pereira-Cenci T, Cenci MS, Fedorowicz Z, Marchesan MA. Antibacterial agents in composite restorations for the prevention of dental caries. Cochrane Database of Systematic Reviews 2009, Issue 3. Art. No.: CD007819. DOI: 10.1002/14651858.CD007819.pub2