

COCHRANE-REVIEW

Reparere fyldninger eller skifte ud?

To nye Cochrane-reviews har ledt efter evidens for, hvor radikalt man skal gå til værks ved defekte amalgam- eller kompositfyldninger.

Winnie Brodam

Reviewerne fandt ingen studier, som levede op til Cochranes krav om randomisering og kontrol. Derfor må de nøjes med at konkludere, at der er behov for veldesignede studier både af det fyldningstekniske og af, hvordan patienter forholder sig til spørgsmålet: ny fyldning eller reparation af den gamle.

Kommentar af professor Asbjørn Jokstad, Department of Prosthodontics, Faculty of Dentistry, University of Toronto, Canada:

– Reviewerne har undersøgt, om der findes randomiserede, kontrollerede studier, som afklarer, om defekte amalgam- eller kompositfyldninger i molarer bør repareres eller revideres med det identiske fyldningsmateriale. De fandt ingen egnede studier – og det er måske godt det samme, for forfatterne skriver ikke, hvad de mener med ”defective”.

Hvorfor én type fyldningsmateriale ikke skulle kunne kombineres med en anden, er et mysterium – og dertil kommer, at det hævdes, at alle fyldninger har et ”finite life-span”, hvad det så end betyder. Desuden diskuterer forfatterne slet ikke, at intentionen med en fyldning primært er at beskytte og bevare resttand efter et cariesangreb eller efter traume.

Undertegnede mener, at reparation eller revision af en fyldning først bliver aktuelt, når der er øget risiko for plakbetinget tandsygdom, symptomer, ny caries eller traume. Ellers bør fyldninger forblive intakte eller til nød korrigeres med tanke på reduktion af plakakkumulering. Totalvurderingen inkluderer hensyn

til patientens tidligere og nuværende risikoadfærd og eget ansvar for oral hygiejne, tandsættets totaltilstand og enkelttænders og -fyldningers kvaliteter.

Det er et centralt forskningsetisk koncept, at interventionsstudier kun kan gennemføres, når både deltagere og forskere er genuint usikre, hvad angår fordele og ulemper ved valg af studiets kontrol og den eksperimentelle del. Det kan ikke totalt udelukkes, at der kan være enkeltsituationer, hvor en fyldning ikke længere bevarer reststanden, og hvor både patient og tandlæge er oprigtigt usikre eller indifferente, mht. hvad der er den optimale intervention. Men der må være tale om meget begrænsede tilfælde, og med det som perspektiv overlader jeg det til den kvalificerede læser at bedømme sandsynligheden for, at dobbeltblinde, randomiserede, kontrollerede, kliniske studier om denne problemstilling vil blive gennemført i fremtiden.

Læs mere om temaet her:

1. Chadwick B, Treasure E, Dummer P, Dunstan F, Gilmour A, Jones R et al. Challenges with studies investigating longevity of dental restorations – a critique of a systematic review. *J Dent* 2001; 29: 155-61.
2. Jokstad A, Bayne S, Blunck U, Tyas M, Wilson N. Quality of dental restorations. FDI Commission Project 2-95. *Int Dent J* 2001; 51: 117-58.
3. Hickel R, Roulet JF, Bayne S, Heintze SD, Mjör IA, Peters M et al. Recommendations for conducting controlled clinical studies of dental restorative materials. *J Adhes Dent* 2007; 9 (Suppl 1): 121-47.

Abstract

Background

Amalgam is a common filling material for posterior teeth, as with any restoration amalgams have a finite life-span. Traditionally replacement was the ideal approach to treat defective amalgam restorations, however, repair offers an alternative more conservative approach where restorations are only partially defective. Repairing a restoration has the potential of taking less time and may sometimes be performed without the use of local anaesthesia hence it may be less distressing for a patient when compared with replacement.

Objectives

To evaluate the effectiveness of replacement (with amalgam) versus repair (with amalgam) in the management of defective amalgam dental restorations in permanent molar and premolar teeth.

Search strategy

For the identification of studies relevant to this review we searched the Cochrane Oral Health Group Trials Register (to 23rd September 2009); CENTRAL (The Cochrane Library 2009, Issue 4); MEDLINE (1950 to 23rd September 2009); EMBASE (1980 to 23rd September 2009); ISI Web of Science (SCIE, SSCI) (1981 to 22nd December 2009); ISI Web of Science Conference Proceedings (1990 to 22nd December 2009); BIOSIS (1985 to 22nd December 2009); and OpenSIGLE (1980 to 2005). Researchers, experts and organisations known to be involved in this field were contacted in order to trace unpublished or ongoing studies. There were no language limitations.

Selection criteria

Trials were selected if they met the following criteria: randomised or quasi-randomised controlled trial, involving replacement and repair of amalgam restorations.

Data collection and analysis

Two review authors independently assessed titles and abstracts for each article identified by the searches in order to decide whether the article was likely to be relevant. Full papers were obtained for relevant articles and both review authors studied these. The Cochrane Collaboration statistical guidelines were to be followed for data synthesis.

Main results

The search strategy retrieved 145 potentially eligible studies, after de-duplication and examination of the titles and abstracts all but three studies were deemed irrelevant. After further analysis of the full texts of the three studies identified, none of the retrieved studies met the inclusion criteria and all were excluded from this review.

Authors' conclusions

There are no published randomised controlled clinical trials relevant to this review question. There is therefore a need for methodologically sound randomised controlled clinical trials that are reported according to the Consolidated Standards of Reporting Trials (CONSORT) statement (www.consort-statement.org/). Further research also needs to explore qualitatively the views of patients on repairing versus replacement and investigate themes around pain, distress and anxiety, time and costs.

Sharif MO, Merry A, Catleugh M, Tickle M, Brunton P, Dunne SM, Aggarwal VR. Replacement versus repair of defective restorations in adults: amalgam. Cochrane Database of Systematic Reviews 2010, Issue 2. Art. No.: CD005970. DOI: 10.1002/14651858.CD005970.pub2.

Abstract

Background

Composite filling materials have been increasingly used for the restoration of posterior teeth in recent years as a tooth coloured alternative to amalgam. As with any filling material composites have a finite life-span. Traditionally, replacement was the ideal approach to treat defective composite restorations, however, repairing composites offers an alternative more conservative approach where restorations are partly still serviceable. Repairing the restoration has the potential of taking less time and may sometimes be performed without the use of local anaesthesia hence it may be less distressing for a patient when compared with replacement.

Objectives

To evaluate the effectiveness of replacement (with resin composite) versus repair (with resin composite) in the management of defective resin composite dental restorations in permanent molar and premolar teeth.

Search strategy

For the identification of studies relevant to this review we searched the Cochrane Oral Health Group Trials Register (to 23rd September 2009); CENTRAL (The Cochrane Library 2009, Issue 4); MEDLINE (1950 to 23rd September 2009); EMBASE (1980 to 23rd September 2009); ISI Web of Science (SCIE, SSCI) (1981 to 22nd December 2009); ISI Web of Science Conference Proceedings (1990 to 22nd December 2009); BIOSIS (1985 to 22nd December 2009); and OpenSIGLE (1980 to 2005). Researchers, experts and organisations known to be involved in this field were contacted in order to trace unpublished or ongoing studies. There were no language limitations.

Selection criteria

Trials were selected if they met the following criteria: randomised or quasi-randomised controlled trial, involving replacement and repair of resin composite restorations.

Data collection and analysis

Two review authors independently assessed titles and abstracts for each article identified by the searches in order to decide whether the article was likely to be relevant. Full papers were obtained for relevant articles and both review authors studied these. The Cochrane Collaboration statistical guidelines were to be followed for data synthesis.

Main results

The search strategy retrieved 279 potentially eligible studies, after de-duplication and examination of the titles and abstracts all but four studies were deemed irrelevant. After further analysis of the full texts of the four studies identified, none of the retrieved studies met the inclusion criteria and all were excluded from this review.

Authors' conclusions

There are no published randomised controlled clinical trials relevant to this review question. There is therefore a need for methodologically sound randomised controlled clinical trials that are reported according to the Consolidated Standards of Reporting Trials (CONSORT) statement (www.consort-statement.org/). Further research also needs to explore qualitatively the views of patients on repairing versus replacement and investigate themes around pain, anxiety and distress, time and costs.

Sharif MO, Catleugh M, Merry A, Tickle M, Dunne SM, Brunton P, Aggarwal VR. Replacement versus repair of defective restorations in adults: resin composite. Cochrane Database of Systematic Reviews 2010, Issue 2. Art. No.: CD005971. DOI: 10.1002/14651858.CD005971.pub2.