

COCHRANE-REVIEW

Parodontalbehandling gavner diabetespatienters blodsukkerkontrol

Cochranes forfattere savner veldesignede studier, men de tør alligevel godt konkludere, at behandling af parodontitis hjælper patienter med type 2-diabetes til bedre glykæmisk kontrol.

Winnie Brodam

Kontrol af blodsukkerniveauet hos diabetespatienter er essentiel for forebyggelse af komplikationer, og der har været forsket i, om behandling af parodontal sygdom kan være til hjælp.

Et helt nyt Cochrane-review har undersøgt, om der er en sammenhæng, og Cochranes forfattere er kommet til den konklusion, at der synes at være nogen evidens for, at behandling af eksisterende parodontal sygdom kan give små, men dog signifikante forbedringer af blodsukkerkontrol hos patienter med type 2-diabetes.

Cochranes forfattere erkender dog, at deres review lider under det relativt lille (7) antal studier, som indgår. De efterlyser store, veludførte undersøgelser.

Kommentar ved professor Palle Holmstrup, Afdelingerne for Parodontologi, Tandlægeskolerne, Københavns og Aarhus Universiteter:

– Diabetes er en af de bedst dokumenterede prædisponerende faktorer for marginal parodontitis. Det er derfor helt afgørende, at vi som tandlæger er opmærksomme på, at en svær parodontitis kan have sammenhæng med en bagvedliggende diabetes. Problemet er større, end vi umiddelbart kan ane, da ca. halvdelen af patienterne med type 2-diabetes har sygdommen uden at vide af det. I en verden, hvor udviklingen af type 2-diabetes i befolkningerne har pandemisk karakter, er problemet hastigt voksende. Hvis vi som tandlæger derfor opdager forværring af forholdene i mundhulen uden anden forklaring, kan opstået diabetes være en del af problemet.

Sagen er yderligere væsentlig, fordi flere studier tyder på, at behandlingen af den kroniske infektion i mundhulen kan medføre

bedre kontrol med blodsukkeret hos diabetikere. Det er dette, Cochrane-oversigten nu har vist, om end flere studier med større og veldefinerede patientmaterialer er ønskelige.

Vi kender ikke den patogenetiske mekanisme bag dette, men der samarbejdes med diabetologer om at udvikle forståelsen af sammenhængen, bl.a. i tidligere og nuværende ph.d.-projekter på Tandlægeskolerne i København og Århus (1-4). Der er ingen tvivl om, at samarbejdet mellem tandlæger og læger om dette tema bør styrkes i forbindelse med den daglige håndtering af patienterne i klinikken (5). Fundet af nyreforandringer i prædiabetiske rotter, der fik påført eksperimentel parodontitis (3), understreger, at den kroniske infektion i mundhulen kan påvirke udviklingen af sygdom i andre af organismens organer.

Litteratur

1. Andersen CCP, Buschard C, Flyvbjerg A, Stoltze K, Holmstrup P: Periodontitis deteriorates metabolic control in type 2 diabetic Goto-Kakizaki rats. *J Periodontol* 2006; 77: 350-6.
2. Andersen CCP, Flyvbjerg A, Buschard K, Holmstrup P: Relationship between periodontitis and diabetes: Lessons From Rodent Studies. *J Periodontol* 2007; 78: 1264-75.
3. Andersen CCP, Holmstrup P, Buschard K, Flyvbjerg A: Renal alterations in prediabetic rats with periodontitis. *J Periodontol* 2008; 79: 684-90.
4. Andersen CCP, Flyvbjerg A, Buschard K, Holmstrup P: Periodontitis is associated with aggravation of prediabetes in Zucker fatty rats. *J Periodontol* 2007; 78: 559-65.
5. Holmstrup P: Parodontose kan påvirke diabetesregulering. *Diabetesforeningen, Behandlerbladet* 2010; 30:20-4.

Abstract

Background

Glycaemic control is a key issue in the care of people with diabetes mellitus (DM). Some studies have suggested a bidirectional relationship between glycaemic control and periodontal disease.

Objectives

To investigate the relationship between periodontal therapy and glycaemic control in people with diabetes and to identify the appropriate future strategy for this question.

Search strategy

A comprehensive approach was adopted employing handsearching; searching of electronic databases including the Cochrane Oral Health Group's Trials Register, CENTRAL, MEDLINE, EMBASE, CINAHL, ZETOC, ISI Web of Knowledge and LILACS; contact with appropriate non-English language healthcare professionals; authors and organisations. The final date for searching for studies was 24th March 2010.

Selection criteria

This review studied randomised controlled trials of people with Type 1 or 2 diabetes mellitus (DM) with a diagnosis of periodontitis. Suitable interventions included mechanical periodontal therapy with or without adjunctives and oral hygiene education.

Data collection and analysis

The titles and abstracts of 690 papers were examined by two review authors independently. Ultimately, seven studies were included and 19 excluded after full text scrutiny. All trials were assessed for risk of bias.

Main results

Three studies had results pooled into a meta-analysis. The effect for the mean percentage difference in HbA1c for scaling/root planing and oral hygiene (+/- antibiotic therapy) versus no treatment/usual treatment after 3/4 months was -0.40 % (95 % confidence interval (CI) fixed effect -0.78 % to -0.01 %), representing a statistically significant reduction in HbA1c ($P = 0.04$) for scaling/root planing. One study was assessed as being at low risk of bias with the other two at moderate to high risk of bias. A subgroup analysis examined studies without adjunctive antibiotics -0.80 % (one study: 95 % CI -1.73 % to 0.13 %; $P = 0.09$), with adjunctive antibiotics in the test group -0.36 % (one study: 95 % CI -0.83 % to 0.11 %; $P = 0.14$), and with antibiotics in both test and control groups after 3/4 months -0.15 % (one study: 95 % CI -1.04 % to 0.74 %; $P = 0.74$).

Authors' conclusions

There is some evidence of improvement in metabolic control in people with diabetes, after treating periodontal disease. There are few studies available and individually these lacked the power to detect a significant effect. Most of the participants in the study had poorly controlled Type 2 DM with little data from randomised trials on the effects on people with Type 1 DM.

Improving periodontal health is an important objective in itself. However, in order to understand the potential of this treatment to improve glycaemic control among people with diabetes, larger, carefully conducted and reported studies are needed.

Simpson TC, Needleman I, Wild SH, Moles DR, Mills EJ. Treatment of periodontal disease for glycaemic control in people with diabetes. Cochrane Database of Systematic Reviews 2010, Issue 5. Art. No.: CD004714. DOI: 10.1002/14651858.CD004714.pub2.