

## COCHRANE-REVIEW

# Begrænsede muligheder for forebyggelse af oral mucositis ved cancerbehandling

Cochranes forfattere har dog fundet ni interventioner, som patienterne kan have nogen gavn af.

Winnie Brodam

Cancerbehandling og knoglemarvstransplantation kan forårsage oral mucositis, som er smertefuld, og som kan kompromitere synke-, spise- og drikkefunktion og øge risikoen for lokal og systemisk infektion. Oral mucositis kan forårsage så udtalte gener, at cancerbehandling må udskydes. Man har forsøgt diverse forebyggelsesstrategier, og et nyt Cochrane-review har fundet ni interventioner, som i nogen grad kunne forebygge eller reducere sværhedsgraden af mucositis.

Reviewet har fundet evidens for, at patienter, som strålebehandles i hoved-hals-regionen, kan have gavn af aloe vera, honning og PTA (polymyxin/tobramycin/amphotericin) antibiotika/antimykotika som pastiller eller pasta. Patienter med maligne hæmatologiske sygdomme, som får højdosis kemoterapi (melphalan), kan have gavn af oral kryoterapi (knust is i mundhulen under behandling med cytostatikum). Fem andre behandlinger konkluderes at kunne have nogen effekt: allopurinol, amifostin, intravenøs glutamin, keratinocytvækstfaktor (palifermin), og laserbehandling.

Reviewet omfatter 131 studier med flere end 10.000 deltagere.

**Kommentar af adjunkt, ph.d. Siri Beier Jensen, Fagområdet Oral Medicin, mv., Tandlægeskolen, Københavns Universitet:**

– Som praktiserende tandlæge vil man sjældent møde sine patienter under selve cancerbehandlingen, men det er vigtigt at have kendskab til de akutte orale gener, patienterne gennemgår. Prævalensen og sværhedsgraden af oral mucositis afhænger af stråledosis til mundslimhinden og præparattype/dosisintensiteten af cytostatika. Derudover er der individuelle forskelle i omfanget af oral mucositis. Mere end 50-60 % af patienter, der strålebehandles for hoved-hals-kraft, eller patienter med hæmatologiske cancere, der får højdosis kemoterapi/helkrops-

bestråling/stamcelletransplantation, vil udvikle alvorlig grad af oral mucositis under behandlingen, mens der ved moderatdosis kemoterapi er under 20 %, der afficeres.

Udviklingen af oral mucositis omfatter både en direkte stråle- eller cytostatika-induceret epitelial cellebeskadigelse og en kaskade af biologiske effekter involverende epitel, underliggende bindevæv og endotel med monocyt/makrofaginfiltration og frigivelse af proinflammatoriske og inflammatoriske cytokiner.

På grund af den komplekse ætiologi er der for nuværende begrænsede muligheder for at forebygge oral mucositis. Palifermin er godkendt i USA og Europa til forebyggelse af oral mucositis, og både palifermin og oral kryoterapi benyttes i Danmark til forebyggelse af oral mucositis ved behandlingen af nogle maligne hæmatologiske sygdomme. Vedrørende de øvrige tiltag, som omtales i Cochrane-reviewet, er der enten en begrænset klinisk effekt, eller der afventes yderligere kliniske randomiserede, kontrollerede studier, før der kan drages konklusioner.

Der er udarbejdet kliniske retningslinjer for forebyggelse af oral mucositis baseret på evidens og good clinical practice. De kliniske retningslinjer fra Mucositis Study Section, Multinational Association of Supportive Care in Cancer/International Society for Oral Oncology er i øjeblikket under opdatering.

### Reference

Sonis ST. Mucositis: The impact, biology and therapeutic opportunities of oral mucositis. *Oral Oncol* 2009;45:1015-20.

## Abstract

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### Background

Treatment of cancer is increasingly more effective but is associated with short and long term side effects. Oral side effects remain a major source of illness despite the use of a variety of agents to prevent them. One of these side effects is oral mucositis (mouth ulcers).

### Objectives

To evaluate the effectiveness of prophylactic agents for oral mucositis in patients with cancer receiving treatment, compared with other potentially active interventions, placebo or no treatment.

### Search strategy

Electronic searches of Cochrane Oral Health Group and PaPaS Trials Registers (to 1 June 2010), CENTRAL (*The Cochrane Library* 2010, Issue 2), MEDLINE via OVID (1950 to 1 June 2010), EMBASE via OVID (1980 to 1 June 2010), CINAHL via EBSCO (1980 to 1 June 2010), CANCELIT via PubMed (1950 to 1 June 2010), OpenSIGLE (1980 to 2005) and LILACS via the Virtual Health Library (1980 to 1 June 2010) were undertaken. Reference lists from relevant articles were searched and the authors of eligible trials were contacted to identify trials and obtain additional information.

### Selection criteria

Randomised controlled trials of interventions to prevent oral mucositis in patients receiving treatment for cancer.

### Data collection and analysis

Information regarding methods, participants, interventions, outcome measures, results and risk of bias were independently extracted, in duplicate, by two review authors. Authors were contacted for further details where these were unclear. The Cochrane Collaboration statistical guidelines were followed and risk ratios calculated using random-effects models.

### Main results

A total of 131 studies with 10,514 randomised participants are now included. Nine interventions, where there was more than one trial in the meta-analysis, showed some statistically significant evidence of a benefit (albeit sometimes weak) for either preventing or reducing the severity of mucositis, compared to either a placebo or no treatment. These nine interventions were: allopurinol, aloe vera, amifostine, cryotherapy, glutamine (intravenous), honey, keratinocyte growth factor, laser, and polymixin/tobramycin/amphotericin (PTA) antibiotic pastille/paste.

### Authors' conclusions

Nine interventions were found to have some benefit with regard to preventing or reducing the severity of mucositis associated with cancer treatment. The strength of the evidence was variable and implications for practice include consideration that benefits may be specific for certain cancer types and treatment. There is a need for further well designed, and conducted trials with sufficient numbers of participants to perform subgroup analyses by type of disease and chemotherapeutic agent.

Worthington HV, Clarkson JE, Bryan G, Furness S, Glenny A-M, Littlewood A, McCabe MG, Meyer S, Khalid T. Interventions for preventing oral mucositis for patients with cancer receiving treatment. *Cochrane Database of Systematic Reviews* 2010, Issue 12. Art. No.: CD000978. DOI: 10.1002/14651858.CD000978.pub4