COCHRANE-REVIEW

# Husk tændernes og parodontiets omgivelser

## Visuel og taktil undersøgelse er væsentlig for tidlig diagnostik af oral cancer.

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13 studier med mere end 68.000 personer viser i et nyt review, at visuelle undersøgelser kan afsløre imellem 59 % og 99 % af orale cancertilfælde.

God gammeldags visuel undersøgelse er ifølge Cochrane-reviewet det mest effektive. Nyere diagnostiske metoder (indfarvning med toluidinblå) fandt kun marginalt flere cancertilfælde og kun i et enkelt studie.

**Kommentar af professor, dr. et lic.odont. Jesper Reibel, Tandlægeskolen i København:**

– Det aktuelle review forsøger at belyse den diagnostiske præcision af konventionel undersøgelse af mundhulen (visuelt/taktilt), supplerende undersøgelsesmetoder (indfarvning af slimhinden mv.) og selvundersøgelse, anvendt hver for sig eller sammen, i forbindelse med screeningsprogrammer. De inkluderede måldiagnoser er oral cancer og præmaligne lidelser.

En forudsætning for, at screening kan være aktuel som profylaktisk foranstaltning, er naturligvis, at de sygdomme, der screenes for, kan behandles. Som bekendt er prognosen for oral cancer i sene stadier dårlig, men tidlige stadier har en væsentlig bedre prognose, og overordnet er prognosen bedret i de senere år. Der er i de senere år rejst tvivl om værdien af kirurgisk behandling af de præmaligne lidelser – en diskussion der ikke skal tages op her. Imidlertid vil diagnostik og opfølgning/behandling af disse lidelser føre til diagnostik af evt. cancerudvikling på et tidligt stadium. Rygeophør er en væsentlig del af behandlingen for såvel oral cancer som for de præmaligne lidelser. Ud fra disse overvejelser kunne screening således være et hensigtsmæssigt tiltag.

Konklusionerne i det foreliggende review er vage og derfor vanskelige at kommentere kort og meningsfyldt. En væsentlig årsag hertil er, at de inkluderede studier er meget forskelligartede, idet nogle omhandler opportunistisk screening af patienter på arbejdspladser eller i sundhedssystemet, herunder tidligere hoved-hals-cancer-patienter, mens andre er populationsbaserede organiserede screeningsprogrammer, heraf nogle i høj- og andre i lavrisikopopulationer. Undersøgerne var tandlæger, øre-næse-hals-læger og ikke akademisk uddannede "oral health care workers". Man har på denne baggrund ikke set mulighed for at lave en egentlig meta-analyse.

Den generelle opfattelse blandt fagfolk er, at screening for oral cancer kan have værdi i lande/områder med høj prævalens af oral cancer, fx Indien, mens lav prævalens af oral cancer, som i mange vestlige lande, gør befolkningsbaserede screeningsprogrammer ekstremt omkostningstunge. Således bør en uforholdsmæssig stor del af de penge, der er til rådighed for sundhedsvæsenet, ikke bruges til screening for sygdomme, som kun få mennesker har. Om end der ikke foreligger håndfast evidens, er der grund til at forvente, at screening af højrisikopopulationer, især i forbindelse med tobaks- og alkoholmisbrug, vil falde positivt ud i cost-benefit-analyser – også i et land som Danmark, hvor prævalensen af oral cancer i den samlede befolkning må betegnes som forholdsmæssig lav.

De vage konklusioner i det foreliggende Cochrane-review til trods er hovedkonklusionen en påpegning af det væsentlige i den opportunistiske screening; dvs. tandlægers grundige undersøgelse af mundslimhinden hos alle patienter ved hvert tandlægebesøg ved visuel og taktil undersøgelse. Denne konklusion kan kun hilses med glæde og således være endnu en opfordring til altid at udføre grundig klinisk undersøgelse – også af tændernes og parodontiets omgivelser. Herved øges mulighederne for at opdage også andre sygdomme og for at diskutere tobaks- og alkoholvaner med patienterne.

## ABSTRACT

### Background

The early detection and excision of potentially malignant disorders (PMD) of the lip and oral cavity that require intervention may reduce malignant transformations (though will not totally eliminate malignancy occurring), or if malignancy is detected during surveillance, there is some evidence that appropriate treatment may improve survival rates.

### Objectives

To estimate the diagnostic accuracy of conventional oral examination (COE), vital rinsing, light-based detection, biomarkers and mouth self examination (MSE), used singly or in combination, for the early detection of PMD or cancer of the lip and oral cavity in apparently healthy adults.

### Search methods

We searched MEDLINE (OVID) (1946 to April 2013) and four other electronic databases (the Cochrane Diagnostic Test Accuracy Studies Register, the Cochrane Oral Health Group's Trials Register, EMBASE (OVID), and MEDION) from inception to April 2013. The electronic databases were searched on 30 April 2013. There were no restrictions on language in the searches of the electronic databases. We conducted citation searches, and screened reference lists of included studies for additional references.

### Selection criteria

We selected studies that reported the diagnostic test accuracy of any of the aforementioned tests in detecting PMD or cancer of the lip or oral cavity. Diagnosis of PMD or cancer was made by specialist clinicians or pathologists, or alternatively through follow-up.

### Data collection and analysis

Two review authors independently screened titles and abstracts for relevance. Eligibility, data extraction and quality assessment were carried out by at least two authors independently and in duplicate. Studies were assessed for methodological quality using QUADAS-2. We reported the sensitivity and specificity of the included studies.

### Main results

Thirteen studies, recruiting 68,362 participants, were included. These studies evaluated the diagnostic accuracy of COE (10 studies), MSE (two studies). One randomised controlled of test accuracy trial directly evaluated COE and vital rinsing. There were no eligible diagnostic accuracy studies evaluating light-based detection or blood or salivary sample analysis (which tests for the presence of bio-markers of PMD and oral cancer). Given the clinical heterogeneity of the included studies in terms of the participants recruited, setting, prevalence of target condition, the application of the index test and reference standard and the flow and timing of the process, the data could not be pooled. For COE (10 studies, 25,568 participants), prevalence in the diagnostic test accuracy sample ranged from 1% to 51%. For the eight studies with prevalence of 10% or lower, the sensitivity estimates were highly variable, and ranged from 0.50 (95% confidence interval (CI) 0.07 to 0.93) to 0.99 (95% CI 0.97 to 1.00) with uniform specificity estimates around 0.98 (95% CI 0.97 to 1.00). Estimates of sensitivity and specificity were 0.95 (95% CI 0.92 to 0.97) and 0.81 (95% CI 0.79 to 0.83) for one study with prevalence of 22% and 0.97 (95% CI 0.96 to 0.98) and 0.75 (95% CI 0.73 to 0.77) for one study with prevalence of 51%. Three studies were judged to be at low risk of bias overall; two were judged to be at high risk of bias resulting from the flow and timing domain; and for five studies the overall risk of bias was judged as unclear resulting from insufficient information to form a judgement for at least one of the four quality assessment domains. Applicability was of low concern overall for two studies; high concern overall for three studies due to high risk population, and unclear overall applicability for five studies. Estimates of sensitivity for MSE (two studies, 34,819 participants) were 0.18 (95% CI 0.13 to 0.24) and 0.33 (95% CI 0.10 to 0.65); specificity for MSE was 1.00 (95% CI 1.00 to 1.00) and 0.54 (95% CI 0.37 to 0.69). One study (7975 participants) directly compared COE with COE plus vital rinsing in a randomised controlled trial. This study found a higher detection rate for oral cavity cancer in the conventional oral examination plus vital rinsing adjunct trial arm.

### Authors' conclusions

The prevalence of the target condition both between and within index tests varied considerably. For COE estimates of sensitivity over the range of prevalence levels varied widely. Observed estimates of specificity were more homogeneous. Index tests at a prevalence reported in the population (between 1% and 5%) were better at correctly classifying the absence of PMD or oral cavity cancer in disease-free individuals that classifying the presence in diseased individuals. Incorrectly classifying disease-free individuals as having the disease would have clinical and financial implications following inappropriate referral; incorrectly classifying individuals with the disease as disease-free will mean PMD or oral cavity cancer will only be diagnosed later when the disease will be more severe. General dental practitioners and dental care professionals should remain vigilant for signs of PMD and oral cancer whilst performing routine oral examinations in practice.


Walsh T, Liu JLY, Brocklehurst P, Glenny AM, Lingen M, Kerr AR, Ogden G, Warnakulasuriya S, Scully C. Clinical assessment to screen for the detection of oral cavity cancer and potentially malignant disorders in apparently healthy adults. Cochrane Database of Systematic Reviews 2013, Issue 11. Art. No.: CD010173. DOI: 10.1002/14651858.CD010173.pub2.