Value of antifungal prophylaxis with antifungal drugs against oropharyngeal candidiasis in cancer patients

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Authors' objectives
The authors appear to study whether antifungal prophylaxis with antifungal drugs are of value in preventing oropharyngeal candidiasis in cancer patients.

Searching
MEDLINE was searched from 1975 to 1991 for articles published in the English language. The authors' own library was also checked.

Study selection
Study designs of evaluations included in the review
Randomised controlled trials (RCTs) were included.

Specific interventions included in the review
Various antifungal agents possessing either systemic or topical antifungal properties (miconazole, amphotericin, ketoconazole, clotrimazole, fluconazole) versus placebo.

Participants included in the review
Non-AIDS immunocompromised cancer patients, not selected according to their fungal colonisation status. Data concerning children were not included in this review.

Outcomes assessed in the review
Occurrence of oropharyngeal candidiasis and eventual oropharyngeal colonisation status with yeasts.

How were decisions on the relevance of primary studies made?
The authors do not state how the papers were selected for the review, or how many of the authors performed the selection.

Assessment of study quality
The authors do not state that they assessed validity.

Data extraction
The authors do not state how the data were extracted for the review, or how many of the authors performed the data extraction.

Methods of synthesis
How were the studies combined?
Odds ratios (ORs) and 95% confidence intervals (CIs) were calculated for the individual studies and combined using the Peto method (see Other Publications of Related Interest).

How were differences between studies investigated?
A chi-squared test was used to test for heterogeneity between treatment effects among the selected trials. This did not take into account the heterogeneity of patient populations and drugs used in each trial.
Results of the review
Nine RCTs involving a total of 710 patients were considered (370 patients and 338 controls).

The proportion of patients developing oropharyngeal candidiasis was lower in the prophylaxis group in all selected trials (0.06 versus 0.44), with an estimated OR of 0.15 (95% CI: 0.10, 0.22, P<0.0001). The summary OR for colonisation status as a risk factor for oropharyngeal candidiasis was 3.66 (95% CI: 1.74, 5.18, P<0.0001).

Authors’ conclusions
There is a strong beneficial effect of antifungal prophylaxis against the occurrence of oropharyngeal candidiasis. A positive culture for Candida albicans before initiation of prophylaxis is a risk factor for oropharyngeal candidiasis, and the development of thrush is more likely to occur when colonisation of the throat by Candida albicans persists or occurs after initiation of antifungal prophylaxis.

CRD commentary
The search strategy is poor and does not indicate the search terms used. However, the inclusion and exclusion criteria for the primary studies are well documented, and the trials are combined appropriately. It may be important to present more details of individual studies, such as duration of follow-up, underlying disease of patients and method of outcome assessment.

Bibliographic details

PubMedID
7920166

Other publications of related interest

Indexing Status
Subject indexing assigned by NLM

MeSH
Antifungal Agents /therapeutic use; Candida albicans /isolation & purification; Candidiasis /prevention & control; Candidiasis, Oral /prevention & control; Humans; Neoplasms /complications; Odds Ratio; Opportunistic Infections /prevention & control; Pharyngeal Diseases /prevention & control; Pharynx /microbiology; Prospective Studies; Randomized Controlled Trials as Topic; Risk Factors

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Record Status
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on
the reliability of the review and the conclusions drawn.