Treatment of tinea capitis
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Authors' objectives
To review the clinical effectiveness of treatments for tinea capitis.

Searching
MEDLINE was searched for English-language articles published between 1966 and 1996. Unspecified journal references were also searched.

Study selection
Study designs of evaluations included in the review
Randomised controlled trials (RCTs), case reports and uncontrolled trials were included.

Specific interventions included in the review
Ketoconazole, itraconazole, terbinafine, griseofulvin.

Participants included in the review
Patients with tinea capitis were included.

Outcomes assessed in the review
Clinical cure rate, mean time to clinical cure and mycologic cure rate were assessed.

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?
The studies were combined through a narrative discussion.

How were differences between studies investigated?
The authors do not state how differences between the studies were investigated.

Results of the review
Nine studies were included.

Clinical effectiveness.

Clinical controlled trials suggest that griseofulvin is equal to, if not more effective, than ketoconazole. In one study,
griseofulvin has been shown to have a higher clinical cure rate than ketoconazole (96% vs 73%), although mycologic cure rates appeared similar. Data from case reports and a single uncontrolled trial suggest that itraconazole is effective. Two open-label trials suggest that terbinafine results in clinical cure rates between 80 and 100%. In a single comparative trial with griseofulvin, cultures at 8 weeks were negative in 89% of patients receiving terbinafine and 90% in those receiving griseofulvin. By 12 weeks, 93% of patients taking terbinafine and 88% of those on griseofulvin were mycologically cured.

Adverse events.

Treatment with griseofulvin can result in 20% of patients experiencing adverse events. These include gastrointestinal distress and headaches. More serious events are rare but can include toxic epidermal necrolysis, photodermatitis, exacerbation or precipitation of lupus-like symptoms, myositis and peripheral neuropathy. Ketoconazole can cause hepatotoxicity in 1 out of 15,000 cases, mild asymptomatic elevations in liver enzymes occur in 5-10% of patients. Anorexia, malaise, nausea and vomiting may be useful early indicators for hepatotoxicity. In addition dermatologic eruptions, myopathy, adrenal insufficiency, hallucinations and haemolytic anaemia have all been reported. Itraconazole has also been reported to result in hepatotoxicity occurring in 1 out of 500,000 patients. The most common adverse events are headaches and gastrointestinal upset, but more serious events have been documented which include hallucinations, hypokalemia and marked edema. Terbinafine can cause gastrointestinal upset and skin reactions in 2-7% of patients and loss of taste may occur in 1 out of 800 cases. Hepatitis has also been reported, but it is less frequent than with ketoconazole, severe hepatotoxicity occurring in 1 out of 120,000 patients. Other severe side effects are dermatologic eruptions, Stevens-Johnson syndrome and blood dyscrasia, including leukopenia and pancytopenia.

Cost information
The authors comment that ketoconazole is more expensive than griseofulvin in the USA.

Authors' conclusions
Presently there is insufficient data available to suggest the use of alternative treatments in preference to griseofulvin with a selenium sulphide shampoo.

CRD commentary
The review presents a good overview of treatments for tinea capitis that also considers epidemiology, pharmacology, mycology, clinical features and diagnosis, drug interactions and adjunctive therapy in addition to the subjects covered in this abstract. However, in covering so many areas the review fails to provide a detailed evaluation for clinical effectiveness and the methodological design of the review is not explicit. The search is poorly described. Search terms are not stated, and there is no mention of which journals were searched. Inclusion criteria are not stated and the variety of study designs included suggests that there may have been none. Similarly, validity assessment of the individual primary studies appears to have been neglected. The method of data extraction is not stated. Data synthesis through a narrative discussion is acceptable but statistical data essential for evaluating the results is rarely reported. Although the review covers several topics of interest, it does not provide compelling evidence for the effectiveness of the treatments reviewed. Many of the included studies were undertaken in the USA, where the indigenous fungal species responsible for tinea capitis is different to that in the UK, suggesting that the results from these trials may not be directly applicable.

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Bibliographic details