Review: oral and intravaginal agents are equally effective for treatment of uncomplicated vulvovaginal candidiasis


QUESTION: Are oral and intravaginal antifungal agents equally effective, safe, and cost effective for treatment of uncomplicated vulvovaginal candidiasis (thrush)?

Data sources
Randomised controlled trials (RCTs) published in any language were identified by searching the Cochrane Controlled Trials Register (CENTRAL/CCR), the Cochrane Collaboration Sexually Transmitted Disease Group Specialised Register of Controlled Trials, EMBASE/Excerpta Medica (1980 to January 2000), and Medline (January 1985 to May 2000). Reference lists of each trial were reviewed and UK manufacturers of antifungal agents were contacted.

Study selection
Trials were selected if they included women ≥16 years of age with mycologically confirmed uncomplicated vulvovaginal candidiasis and they compared ≥1 oral antifungal agent with an intravaginal antifungal agent. Trials were excluded if they included only participants who were HIV positive, immunocompromised, pregnant, breast feeding, or diabetic.

Data extraction
Data were extracted on the type, dose, frequency, and duration of antifungal treatment; setting; participants; and outcome measures. Main outcomes were short and long term clinical cure rates. Secondary outcomes included mycological cure rates (smear or culture), incidence of adverse reactions, and cost effectiveness. Individual studies were assessed for methodological quality (random allocation, concealment of allocation, follow up, and blinding of outcome assessors).

Main results
17 RCTs reporting 19 comparisons were included in the analysis. The trials assessed 2 oral agents (fluconazole and itraconazole) and 4 intravaginal agents ( clotrimazole, econazole, miconazole, and terconazole).

Meta-analyses were done using a random effects model; the denominator for analyses was the number of randomised patients who had positive cultures for yeast before antifungal treatment began. Length of follow up was classified as short term (5–15 d) and long term (2–12 wks). Oral and intravaginal antifungal agents did not differ for clinical cure at short term (9 comparisons, n = 1247, 80% vs 80%) or long term (7 comparisons, n = 836, 83% vs 82%) follow up or for mycological cure at short term (17 comparisons, n = 2239, 83% vs 82%) or long term (14 comparisons, n = 1711, 72% vs 66%) follow up. Sensitivity analyses based on all randomised participants, blinded, and proportion of patients followed up did not change the effect sizes for any of the outcomes.

11 trials reported on adverse reactions. Intravaginal agents were associated with local reactions such as irritation, burning, pruritus, and some systemic effects such as headache, whereas oral agents were associated with systemic effects such as gastrointestinal effects and headaches. Data were insufficient to compare the relative safety of oral and intravaginal agents. No trials of the relative cost effectiveness of oral and intravaginal agents were found.

Conclusions
Oral and intravaginal agents are equally effective in the treatment of uncomplicated vulvovaginal candidiasis. Insufficient data exist on adverse effects and cost effectiveness of the 2 types of treatment.