

Treatment of Pityriasis Versicolor with a single dose of Fluconazole

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Twenty-four patients with extensive or recurrent pityriasis versicolor were treated with a single oral dose of 400 mg of fluconazole. Twenty-three patients returned for follow up. Seventeen or 74%, were free of lesions 3 weeks after treatment and no recurrences were seen 6 weeks after treatment. The majority of the patients found the treatment effective, safe and convenient. Key words: 400 mg; culture.

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Pityriasis versicolor is a chronic superficial fungal disease. The etiological agent is the lipophilic yeast *Pityrosporum ovale* (1,2,3). *P. ovale* is a member of the normal human cutaneous flora in adults (4,5) and also an opportunistic pathogen associated with several diseases such as pityriasis versicolor, *Pityrosporum* folliculit, seborrhoeic dermatitis, some forms of atopic dermatitis and confluent and reticulate papillomatosis (1-3,6-9).

There are numerous ways of treating pityriasis versicolor topically and systemically (10,11). Systemically, even in short term therapy, ketoconazole and itraconazole, 2 imidazoles, are effective in the treatment of pityriasis versicolor (12-15).

Fluconazole is a novel, bis-triazole oral or parenteral antifungal agent developed by Pfizer Central Research, Sandwich, U.K. (16). It has a selective action against cytochrome P 450, leading to a disturbance in ergosterol biosynthesis (16). It is active in vitro and in vivo against dermatophytes, yeasts and various other fungi (16). Experience in over 2000 patients has shown that it is effective and safe in the treatment of vaginal candidiasis, dermatomycoses due to *Candida* species or dermatophytes and systemic candidiasis (16). The present study is a pilot study using a single oral dose of 400 mg fluconazole in 24 patients with pityriasis versicolor.

MATERIAL AND METHODS

Patient selection

Twenty-four consecutive patients with recurrent and/or extensive pityriasis versicolor (16 females and 8 males; mean age 35 years; range 19-68 years), admitted to the Department of Dermatology, University of Gothenburg, Sahlgren's Hospital, were included in the study. The diagnosis was based on the clinical picture in combination with fluorescence in Wood's light and positive microscopic identification. Specimens for light microscopy were obtained using cellophane tape and stained with 1 per cent methylene blue. Skin scrapings for culture were taken with a curette before and after treatment. Scales were transferred to a glucose-neopeptone-yeast extract medium containing olive oil (2%), Tween 80 (0.2%) and glycerol monostearate (2.5 g/l), previously described (2).

Treatment with fluconazole

All patients received a single dose of 400 mg fluconazole, given as four 100 mg capsules shortly after breakfast, together with at least one glass of water and under supervision by the investigator. The patients returned for follow-up after 3 and 6 weeks. Before and 3 weeks after treatment, blood tests for signs of toxicity were taken, and possible signs of side effects were recorded.

RESULTS

Twenty-three patients returned for follow-up 3 and 6 weeks after treatment. Seventeen patients, or 74%, were free of lesions at the 3-week follow-up visit and no recurrences were seen at the visit 3 weeks later. One patient complained of a slight itch and another of mild gastrointestinal upset on the day of treatment. One patient had a slight increase in liver enzymes before treatment that remained unchanged at control 3 weeks later. Blood tests in all other patients were normal before and after treatment.

Culture for *P. ovale* was positive in all patients before treatment. Three weeks after treatment, culture was still positive in 9 patients, including the 6 patients who were not cured. Six weeks after treatment, culture was positive in 12 of the 17 patients who were free of lesions.

DISCUSSION

Pityriasis versicolor can often be treated successfully with topical preparations but this treatment is time consuming, often difficult if the patient is single and the preparation may be greasy or have a bad odour (10-11). In a relatively benign skin disease such as pityriasis versicolor, systemic therapy is primarily indicated for extensive lesions, for lesions resistant to topical treatment, and for frequent relapse. However, if systemic treatment is safe, effective and of short duration, it will be an elegant alternative to topical treatment. Both ketoconazole and itraconazole have been given in courses of 5 to 10 days for the treatment of pityriasis versicolor (13, 15). Even a single dose of 400 mg of ketoconazole has been tried (14) but in a later report this dose regimen was not very successful (17). A potential risk with ketoconazole is also its liver toxicity, although this is minimised with short-term therapy.

In the present study, a single dose of 400 mg of fluconazole was effective in 74% of the treated patients, and the majority of the patients found the treatment effective, convenient and safe. The presence of positive cultures after treatment is to be expected and has also been seen in earlier studies with other systemic antifungal agents (12, 18). The fast reappearance of *P. ovale* after antifungal therapy is probably one explanation for the high rate of relapse seen in this disease (10). To avoid this, prophylactic therapy will be mandatory. This investiga-

tion indicates that fluconazole is a safe and effective treatment for pityriasis versicolor. Further studies are needed to evaluate the best dosage schedules for both treatment and prophylaxis of the disease.

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