ORIGINAL CONTRIBUTIONS

SHORT-TERM TREATMENT OF PITYROSPORUM FOLLICULITIS WITH ITRACONAZOLE

D Parsad, R Saini, KS Negi

We compared the efficacy and safety of short-term itraconazole with that of placebo in 26 patients of pityrosporum folliculitis. Twenty-six patients of mycologically proven pityrosporum folliculitis entered a double-blind placebo-controlled trial. Patients were randomly assigned to 7 days of treatment with either itraconazole, 200 mg once daily, or placebo. A global clinical assessment and mycological examination (KOH and smear examination) were performed at baseline and at 4 weeks after treatment. In this study, itraconazole in a dose of 200mg for 7 days produced a distinct and statistically significant improvement over placebo ($p<0.01$). 84.6% of itraconazole treated patients were considered to be healed or markedly improved at the study's end point compared with 8.3% of placebo treated group ($p<0.01$). Eighty-four percent of patients receiving active treatment showed negative mycological examination as compared to 8.3% of placebo-treated group ($p<0.01$). Short-term treatment with itraconazole is effective and well tolerated in the management of pityrosporum folliculitis.

Key Words: Itraconazole, Pityrosporum, Folliculitis

Introduction

Pityrosporum folliculitis is a clinically distinct condition most often seen in young adult males. Pityrosporum yeast can hydrolyze triglycerides into free fatty acids, and it has been postulated that an overgrowth of the yeast in a follicle produces folliculitis by a combination of fatty acid production and blockage of follicular ostium by scale.[1,2] The lesions consist mostly of small dome shaped follicular papules and scarce intermingling small pustules with minute inflammatory reactions. They are localized most frequently to the upper portion of the back, shoulders and chest. In recent years, oral antifungal therapy has gained growing acceptance for the treatment of pityriasis versicolor,[3] but there is paucity of controlled trials of oral antifungals in pityrosporum folliculitis.

From the Department of Dermatology and Department of PSM (Biostatistics), Himalayan Institute of Medical Sciences, Jolly Grant, Dehradun, India.

Address correspondence to :

Dr. D. Parsad,
Dept. of Dermatology, Himalayan Institute of Medical Sciences, Jolly Grant, Dehradun, U.P. - 248 140, India
e-mail: dpirsain@ndc.vsnl.net.in

This study employed a randomized, double blind parallel group design to compare the efficacy of a 7-day regimen of oral itraconazole in patients with pityrosporum folliculitis.

Patients and Methods

Twenty-six patients of pityrosporum folliculitis with a positive direct microscopy (potassium hydroxide and smear examination) at the baseline visit were enrolled in this study. Informed consent was obtained from all patients. The following patients were excluded from trial: pregnant patients or women of child-bearing age who were not using reliable contraceptive methods; patients who had used any oral or topical antifungal, or selenium sulfide within past six weeks; and patients who were receiving concurrent therapy with rifampin, phenytoin, digoxin, oral anticoagulants and cyclosporine.

Patients were randomly assigned in a double-blind fashion to receive either itraconazole 200mg/day for 7 days or placebo for same duration. Skin smears from follicular pustules were stained with Gram's stain and KOH examination was performed at baseline visit and at 5 weeks.

On the initial evaluation each patient's disease was graded numerically for severity on a scale of 0 to 3 with 0=clear or none, 1= mild, 2= moderate, and 3= severe to assess the degree of pruritus, erythema, active papules and pustules. A global clinical assessment was carried out at 5 weeks, using the following categories: "healed" (no visual evidence of disease), "markedly improved" (mild residual lesions, but no visual evidence of active disease), "moderately" improved" (active disease with some improvement), "unchanged" or "deteriorated". Patients who had a negative mycological examination and a global clinical assessment of healed or markedly improved were considered to be cured.

Results

In this study 13 patients (9 male, 4 female) were randomly assigned to treatment with itraconazole and 13 (7 male, 6 female) to treatment with placebo. Twenty-five patients completed the study as one patient in the placebo group withdrew for reason unrelated to the study. Baseline patient characteristics were comparable for the two treatment groups.

At 5 weeks, patients treated with itraconazole demonstrated statistically significant clinical improvement in all parameters whereas no significant changes from baseline were seen in the placebo treated group. Nine of the 13 (69.2%) itraconazole-treated patients were rated as healed, two (15.4%) as markedly improved, one (7.7%) as moderately improved and one as unchanged. In the second group (placebo treated), only one of 12 patients (8.3%) was rated as markedly improved and none was rated as healed. Three patients were evaluated as moderately improved (25%) and 8 (66.7%) were evaluated as unchanged or deteriorated.

Eleven patients (84.6%) in the itraconazole treated group showed negative mycological examination whereas only one patient (8.3%) in placebo-treated group showed negative mycological examination at week5. Overall 11 patients (84.6%) treated with itraconazole were considered to be cured or clinical responders as compared to only one patient (8.3%) in placebo-treated group ($P<0.01$).

None of the patients reported any significant side effects; all patients evaluated the tolerability of itraconazole as being "very good".

Discussion

The pityrosporum yeasts (P. orbiculare and P. ovale) have been mentioned earlier in relation to folliculitis and acne, but Potter et al,[4] were the first to really link the organisms to a special type of folliculitis. This was later confirmed by Back et al.[5] The excellent effect of oral ketoconazole treatment further corroborates the role of the pityrosporum yeast in the etiology of pityrosporum folliculitis.[6]

Itraconazole is a broad-spectrum triazole derivative that is highly lipophilic and keratophilic, with good oral absorption, and it has extensive tissue distribution. It has been shown to be higly effective in the treatment of pityriasis versicolor.[7] In this study, itraconazole in a dose of 200mg for 7 days produced a distinct and statistically significant improvement over placebo in the treatment of pityrosporum folliculitis ($p<0.01$). A significantly greater percentage of patients in the itraconazole-treated group than in the placebo-treated group had negative mycological examination at week 5 (84.6% vs 8.3%). The drug was well accepted and tolerated by patients with excellent compliance.

References

1. Goodfield MJD, Saihan EM, Crowley J. Experimental folliculitis with *Pityrosporum orbiculare*; the influence of host response. Acta Derm Venereol 1987; 67: 445-447.

2. Hill MK, Goodfield MJ, Rodgers FG, et al. Skin surface electron microscopy in pityrosporum folliculitis. Arch Dermatol 1990;126: 181-184.

3. Hickman JG. A double blind, randomized, placebo-controlled evaluation of short term treatment with oral itraconazole in patients with tinea versicolor. J Am Acad Dermatol 1996; 34:785-787.

4. Potter BS, Burgoon CF, Johnson WC. Pityrosporum folliculitis. Arch Dermatol 1973;107:388-391.

5. Back O, Faergemann J, Homqvist R. Pityrosporum folliculitis: A common disease of the young and middle aged. J Am Acad Dermatol 1985;12 : 56-61.

6. Ford GP, Ive FA, Midgley G. Pityrosporum folliculitis and ketoconazole. Br J Dermatol 1982; 107: 691-695.

7. Delescluse J. Itraconazole in tinea versicolor: a review. J Am Acad Dermatol 1990; 23:551-554.