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Efficacy of Oral Itraconazole in the Treatment of Seborrheic Dermatitis in Vietnamese Adults Patients

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Keywords: Seborrheic dermatitis; Oral itraconazole

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Abstract

AIM: This longitudinal study aims to evaluate the efficacy of oral itraconazole in the treatment of seborrheic dermatitis in Vietnamese patients.

METHODS: Thirty patients were enrolled at National Hospital of Dermatology and Venereology, Hanoi, Vietnam and were treated with oral itraconazole (200 mg daily in 14 days followed by 200 mg weekly in 4 weeks). The clinical severity was assessed by a four-parameter scoring system. All patients completed the six-week regimen with good adherence.

RESULTS: At the week 2nd, 70% of the patients had moderate to severe diseases. At the week 6th, 63.4% of the patients achieve clearance of the lesions, and none had severe disease. No side effects were reported.

CONCLUSION: Oral itraconazole can be an option for seborrheic dermatitis because of good efficacy, safety profile and adherence.

Introduction

Seborrheic dermatitis (SD) is a chronic skin condition characterised by erythema and greasy scales in oily areas. It is considered multifactorial, but *Malassezia furfur* has been proved to play a role in the pathogenesis [1]. SD is not curable and tends to persist and relapse. Skin lesions, especially in the face, can affect a patient's quality of life at different degrees. Treatment of SD includes topical corticoid, topical or systemic antimycotic, vitamin A acid, and other agents [2]. The antifungal regimens have shown efficacy in the management of SD, reducing *Malassezia* proliferation and inflammation. Some studies have reported the benefit of topical ketoconazole or topical corticoid [3], but the evidence of oral itraconazole is weak. Therefore, we conducted this study to evaluate the efficacy of oral itraconazole in Vietnamese SD patients.

Methods

We conducted a longitudinal study at the National Hospital of Dermatology and Venereology on 30 seborrheic dermatitis patients who was 18-60 years old and treated with oral itraconazole (Table 1).

Table 1: Patient characteristics

Age (year), mean ± SD	36.90 ± 10.73
Male-to-female ratio	1.5
Age of onset (year), mean ± SD	34.13 ± 12.42

We excluded pregnant or lactating women and patients with hepatic, renal or cardiovascular diseases, hyperlipidemia, acute infection, malignant diseases, HIV, or ≥ 5 *Demodex* in one slide.

The standard oral itraconazole regimen was 200 mg/day in 14 days followed by a single weekly dose of 200 mg in 4 weeks. Patients were asked to return for follow-up after two, four, and six weeks. In all follow-up visits, the severity of SD was assessed by a scoring system including four parameters: pruritus, burning, erythema, and scaling-each of which is given a score from 0 to 3, corresponding to the absence or a mild, moderate, or severe presentation [4]. A total score of 0, 1-2, 3-4, and ≥ 5 was considered cure, or good, moderate, or severe disease. We also recorded side effects of oral itraconazole, including rash, nausea, vomiting, constipation, headache, and dizziness.

Results

All patients completed six-week follow-up and reported to adhere to the regimen. Changes in the severity at each follow-up visits were shown in Figure 1.

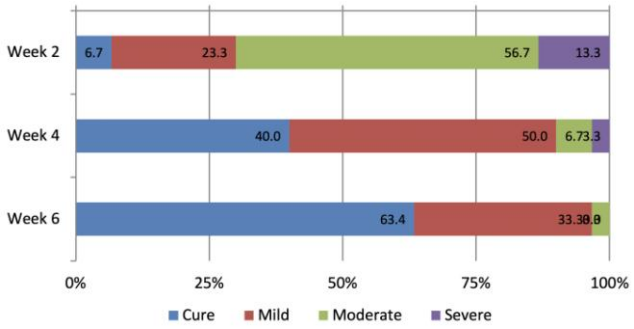

Figure 1: Changes of severity after treatment

After two weeks, 70% of the patients still had moderate to severe disease, and only 6.7% had a clearance of lesions. However, the proportion of patients with clearance of lesions consistently increased after four and six weeks. After completing the regimen, 63.4% of the patients achieved clearance and none had severe disease.

During 6 weeks of treatment, no side effect was observed in all patients.

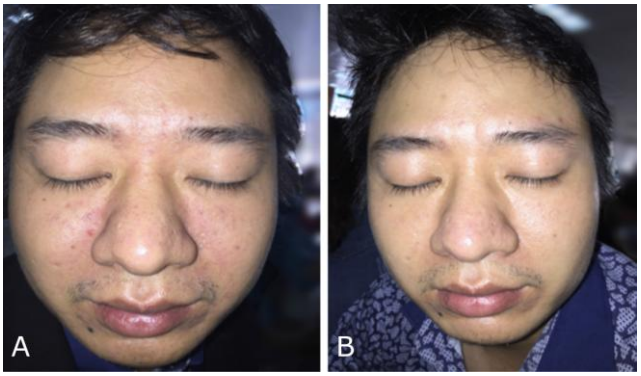

Figure 2: A) Clinical presentation at baseline; B) Clinical presentation after 6 weeks of treatment

Discussions

In this study, we evaluated the patient's response to oral itraconazole in the treatment of seborrheic dermatitis. After four weeks, less than half of the patients achieved clearance while previous studies on topical antifungals reported a high rate of clearance within 2-4 weeks [3].

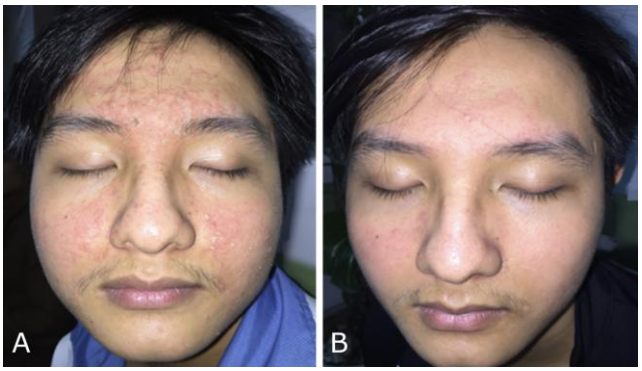

Figure 3: A) Clinical presentation at baseline; B) Clinical presentation after 6 weeks of treatment

This can be explained by the direct action of topical antifungals on the yeasts in skin lesions. Oral itraconazole is absorbed through the gastrointestinal tract, metabolised at the liver, and eventually distributed to the skin; thus, takes a longer time to exert its fungicidal activity.

Other studies reported clinical response within the first month and their effectiveness was maintained over 3-14 months [5]. Meanwhile, topical agents are also known for their high recurrence rate: patients treated with topical antifungals relapsed after 2-4 weeks [3].

Adherence is a problem in the treatment of any chronic conditions. Applying topical agents daily for months might be challenging for patients. Kruk et al., (2006) compared doses intermittently and daily and found better adherence when patients took the

intermittently dosed [6], [7]. Therefore, the current dosing regimen of oral itraconazole can benefit patients, especially those who require long-term treatment or tend to poorly adhere to therapy.

We did not record any side effects of oral itraconazole, and neither previous studies had reported any [5]. This can be a strength of oral itraconazole compared with other oral agents since adverse effects have been reported in the studies of oral terbinafine, fluconazole, and ketoconazole [5].

In conclusion, in our study oral itraconazole appears to be effective in the treatment of seborrheic dermatitis with a good safety profile and good adherence in Vietnamese patients.

References

1. Zaidi Z, Wahid Z, Cochinwala R, Soomro M, Qureishi A. Correlation of the density of yeast Malassezia with the clinical severity of seborrhoeic dermatitis. J Pak Med Assoc. 2002; 52(11):504-6. PMid:12585368

2. Cheong WK, Yeung CK, Torsekar RG, Suh DH, Ungpakorn R, Widaty S, Azizan NZ, Gabriel MT, Tran HK, Chong WS, Shih IH. Treatment of seborrhoeic dermatitis in Asia: a consensus guide. Skin appendage disorders. 2015; 1(4):187-96. https://doi.org/10.1159/000444682 PMid:27386464 PMCid:PMC4908450

3. Gupta AK, Versteeg SG. Topical treatment of facial seborrheic dermatitis: a systematic review. American journal of clinical dermatology. 2017; 18(2):193-213. https://doi.org/10.1007/s40257-016-0232-2 PMid:27804089

4. Shemer A, Kaplan B, Nathansohn N, Grunwald MH, Amichai B, Trau H. Treatment of moderate to severe facial seborrheic dermatitis with itraconazole: an open non-comparative study. The Israel Medical Association journal. 2008; 10(6):417-418. PMid:18669136

5. Gupta AK, Richardson M, Paquet M. Systematic review of oral treatments for seborrheic dermatitis. Journal of the European Academy of Dermatology and Venereology. 2014; 28(1):16-26. https://doi.org/10.1111/jdv.12197 PMid:23802806

6. Kruk ME, Schwalbe N. The relation between intermittent dosing and adherence: preliminary insights. Clinical therapeutics. 2006; 28(12):1989-95. https://doi.org/10.1016/j.clinthera.2006.12.011 PMid:17296456

7. Lotti TM, Gianfaldoni S. Ultraviolet A-1 in Dermatological Diseases. Adv Exp Med Biol. 2017; 996:105-110. https://doi.org/10.1007/978-3-319-56017-5_9 PMid:29124694