An Open Study of Tioconazole 1% Dermal Cream in Patients with Pityriasis Versicolor

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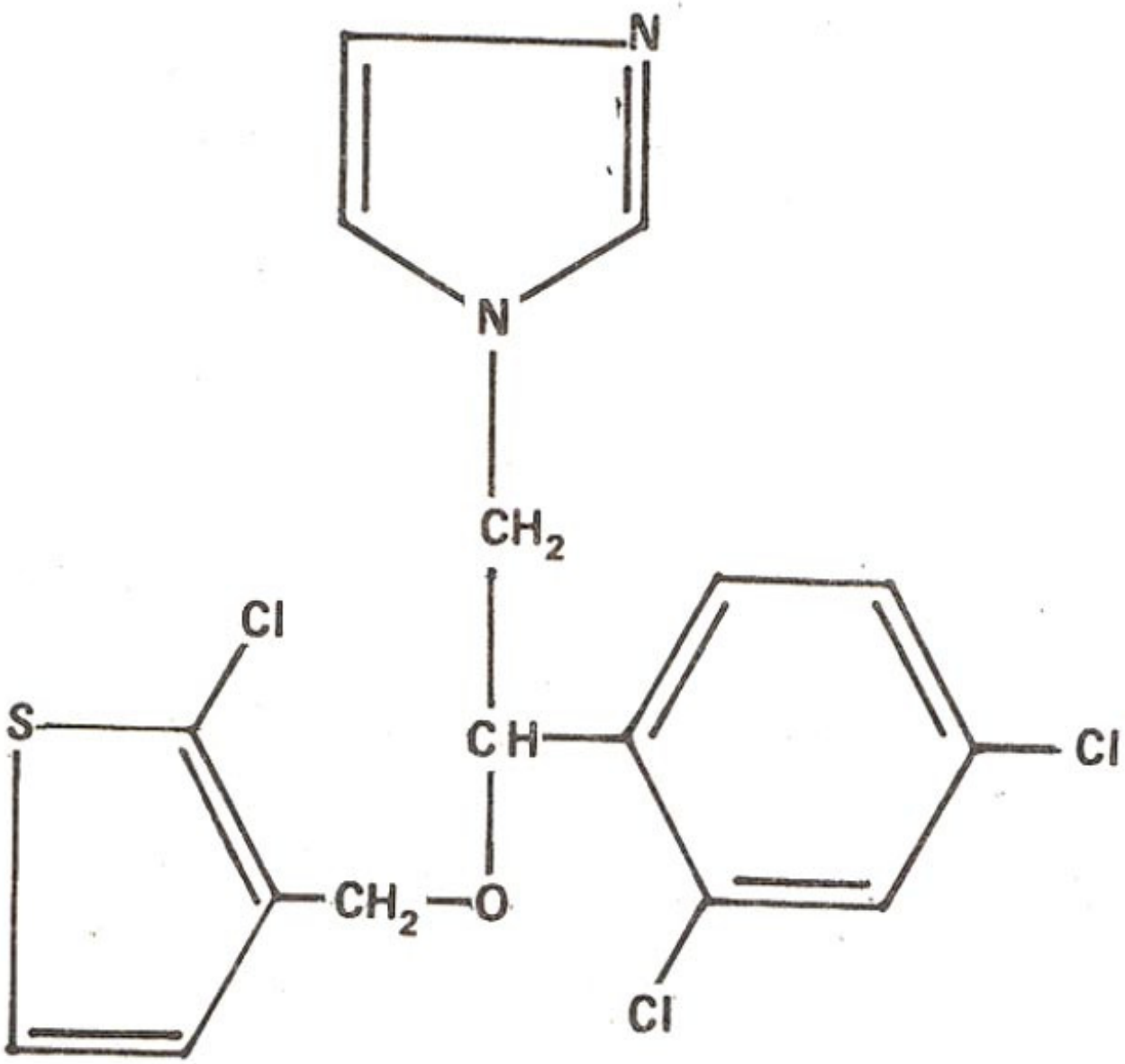
Abstract

Sixty five cases of pityriasis versicolor were treated with 1% Tioconazole dermal cream twice daily for three weeks in an open study to determine its efficacy. They were assessed before treatment and at one, two, three and six weeks after initiation of therapy. Fifty three patients (81.5%) were completely cured while twelve patients (18.5%) had recurrence on discontinuation of therapy. Five patients (7.5%) had side effects in the form of itching and burning which however, did not necessitate interruption of treatment (JPMA 34: 361 1984).

Introduction

Tioconazole is a member of the imidazole class of compounds. It has the clinical name of 1 2- (2-Chloro-3-thienyl) methoxy-2-(2,4- dichiorophenyl) ethyl]- IH- imidazole with the following structural formula:
Tioconazole. is an anti-fungal agent which also shows some antibacterial activity. It is effective against pityriasis versicolor, dermatophyte infections, candidiasis and erythrasma. The geographical position and climatic condition of Karachi[1] coupled with poor standards of hygiene[2] are conducive to the high prevalence of dermatomycoses.



The objectives of the study were to establish the efficacy of tioconazole, treatment period, frequency of recurrence and side effects in cases of pityriasis versicolor.

Material and Methods

Sixty five patients suffering from pityriasis versicolor were included in the study. Patients were seen at the Department of Dermatology and the diagnosis was confirmed microscopically at Microbiology Department of Basic Medical Sciences Institute, Jinnah Postgraduate Medical Centre, Karachi. Patients were supplied with 1% Tioconazole dermal cream for local application twice daily after taking bath to the affected area for a period of three weeks. They were reviewed for clinical as well as mycological response before and at one, two and three weeks during the treatment period. Follow up visit three weeks after the conclusion of therapy was to determine any clinical or mycological relapse. Patients with no clinical symptoms and negative mycology were considered cured. Those showing reappearance of clinical symptoms with positive mycology Cl were considered as recurrences.

Phases of Study

The study was divided into two phases. The first phase included the clinical diagnosis of the patients suffering from pityriasis versicolor and observation of the chemotherapeutic effect of Tioconazole 1% dermal cream by local application after bath. The second phase comprised of microscopic demonstration of aetiological agent in clinical material before and after treatment.

a) Clinical

The criteria for the inclusion of the patients in the study were: male and non-pregnant females between the ages of fourteen and sixty fIv6 years and patients with positive mycology for Malassezia furfur. A medical history was taken and physical examination carried out prior to inclusion. The criteria for the exclusion of the patients in the study were a history of allergy to imidazole antifungal agents presence of other dermatoses or patients on any other antifungal or antibacterial therapy.

Complete record of clinical and mycological diagnosis, evaluation of clinical and my cological response for three weeks during treatment and follow-up visit three weeks after the conclusion of therapy, side effects and patients self-assessment were recorded on specific forms prepared for this purpose.

b) Mycological

Skin scrapings were obtained on a glass slide after cleaning the lesion with 70% alcohol. The scrapings were treated with 20% KOH solution and observed under the microscope for morphology of the fungus.

Results

The therapeutic effect of the drug was determined by observing the clinical symptoms (Table I)

Table I

Clinical Responses to Treatment
Number of Cases Showing Symptoms.

Symptoms	Before treatment	One week after	Two weeks after	Three weeks after
Scaling	65	46	3	1
Itching	30	11	3	1
Redness	4	–	–	–
Burning	3	1	1	1

and microscopic examination for fungus every week for three weeks and after six weeks. The treatment period never extended beyond three weeks. Age and sex distribution is shown in Table II.

Table II Age & Sex.

Age:	14 – 20 years	20 – 30 Years	30 – 50 years	Total
	30	31	4	65
Sex:	M : F	M : F	M : F	M : F
	14 : 16	25 : 6	4 : 0	43 : 22

Of sixty five mycologically proven cases of pityriasis versicolor treated with Tioconazole 1% dermal cream, fifty three (81.5%) were completely cured. Twelve (18.5%) had recurrence with positive myc6logy. Only five cases (7.5%) showed side effects in the form of mild to moderate itching and burning. These symptoms were tolerable, short lived and reported only on direct questioning and did not require interruption in therapy. No systemic side effects were noted. Microscopic examination revealed all cases negative for fungus after first week of therapy. However, twelve cases became positive after six weeks.

Discussion

Encouraging therapeutic results with Tioconazole 1 % dermal cream were obtained in patients suffering from pityriasis versicolor. Our cure rate of 81.5% is comparable to that of 86% quoted in a multicentre international study[3]. In the latter study a total of forty three out of fifty cases of pityriasis versicolor were cured with 1% Tioconazole cream. However, the treatment period varied mostly between 25-3 1 days in various centres. We also felt that our cure rate would have been higher if the therapy was prolonged beyond three weeks.

The preparation is also free of serious side effects. Mild to moderate burning and itching seen in 7.5% of our cases was not sufficiently severe to cause interruption in therapy. Tioconazole 1% dermal cream seems to be an effective and safe local therapy for pityriasis versicolor.

Acknowledgement

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