



“STUDY OF KETOCONAZOLE 2% IN A SHAMPOO BASE CLEARS PITYRIASIS VERSICOLOR”

Dr. Atul Mohankar*

MBBS, MD (Dermatology, Venereology and Leprosy), Assistant Professor, Dept of Dermatology, Venereology and Leprosy, Chhattishgarh Institute of Medical Sciences (CIMS), Bilaspur, Chhattishgarh (CG), India, 495001 *Corresponding Author

ABSTRACT

Pityriasis versicolor is a common cutaneous fungal infection caused by a lipophilic yeast *Malassezia Furfur*. The aim of the study was to evaluate the efficacy of ketoconazole 2% in a shampoo base in the treatment of pityriasis versicolor. For that fifty patients were included in the study. The shampoo was applied daily for 15 days and found to be very effective in clearing the Pityriasis Versicolor. There were no side effects.

KEYWORDS : Pityriasis versicolor, ketoconazole, *Malassezia furfur*

Intorduction

Pityriasis versicolor (PV) is a common cutaneous fungal infection and caused by the lipophilic yeast *Malassezia furfur*¹. It is characterized by discrete scaly, discoloured or hypopigmented macules mainly on the upper trunk, proximal extremities and face². There were so many topical antifungal creams available for its treatment, but so difficult to apply creams to such a wide body surface area. A possible solution to this is provided by the development of ketoconazole (2%) in a shampoo base and applications of the shampoo appear to clear most infections³. Also the efficacy of oral ketoconazole in PV is well documented^{4,5}. The present study was conducted to evaluate the efficacy of ketoconazole 2% shampoo in the treatment of PV.

Material and Methods

Fifty clinically diagnosed patients of pityriasis versicolor were included in the study. The signs and symptoms in the form of scaling, itching, erythema and hypo or hyperpigmentation were noted in each patient. Exclusion criteria included patients who had other skin problems, use of systemic and/or topical corticosteroids and antifungals, preceding 2 weeks. The patients were asked to apply ketoconazole 2% shampoo, was left in place for 10 minutes and then washed thoroughly. All adverse events that occurred during the study were recorded. The patients were evaluated after 15 days. On follow up almost 90% of clinical signs and symptoms were cleared.

Results

Fifty patients were enrolled in the study. Out of which 36 males and 14 were females, Age ranged from 20 years to 40 years. Average duration of problem was 3 months (1 month – 6month). All the patients had hypopigmented macules and scaling; 13 patients complained of mild itching which worsened after sweating. The lesions were distributed mainly on upper back, shoulders, neck and chest. No patients showed hyperpigmented lesions or erythema. After 15 days, itching and scaling subsided in all, while there was approximately 90% less in hyperpigmentation. Three patients complained of mild irritation and pruritus after shampoo application on lesional sites, which lasted for half an hour and then subsided.

Discussion

Very few trials have been tried for ketoconazole 2% shampoo in PV. In earlier studies, ketoconazole 2% shampoo was shown to be highly effective and well tolerated for the treatment of PV, with significant reduction in scaling and elimination of the causative agent⁶ Lange et al⁷ concluded that ketokonazole 2% shampoo, used as a single application daily for 3 days, is safe and highly effective in the treatment of PV. This study also corroborates the same for fifteen days application regimen. The advantage of shampoo is its ease of application, can be applied to larger area of involvement (unlike topical antifungals) and requires shorter duration of treatment. The treatment regimen was tolerated in this study, except three patients

complained of pruitus and irritation but not so much severe to stop the treatment. In this open trial the number of patients was less. Hence it would be interesting to explore further by comparing ketokonazole 2% shampoo with other treatment modalities in the treatment of PV, taking more number of patients. Further large controlled trials are required to establish its efficacy in pityriasis versicolor.

References

1. Hay RJ, Moore M. Mycology. In: Champion RH, Burton JL, Burns DA, Breathnach SM eds. *Textbook of Dermatology*. 6th ed. Blackwell Scientific Publications, Oxford, 1998: 1286 – 1289
2. Borelli D, Jacobs PH, Nall L. Tinea versicolor: epidemiologic, clinical, and therapeutic aspects. *J Am Acad Dermatol* 1991;25:300-305.
3. David SL, Henry MR, et al. Ketoconazole 2% shampoo in the treatment of Tinea versicolor: A Multicentre Randomized Double blind, placebo controlled trial. *J Am Acad Dermatol* 1998; 39:944-950
4. Sadeque JBMZ, Shohidullah M, Shah OR, et al. Systemic Ketoconazole in the treatment of tinea versicolor. *Int J Dermatol* 1995;34:504-505.
5. Nagpal VB, Jain VK, Aggarwal K, Comparative study of oral and topical ketoconazole therapy in pityriasis versicolor. *Indian J Dermatol, Venerol, Leprol* 2003 Jul-Aug 69(4):287-288
6. Rekocewicz I, Guillaume JC, Benkhra F, et al. Double-blind, placebo controlled study of 2% ketoconazole as a single application in the treatment of tinea versicolor. *Ann Dermatol Venerol* 1990; 117: 709-711
7. Lange DS, Richards HM, Guarnieri J, et al. Ketoconazole 2% shampoo in the treatment of tinea versicolor: A multicentre randomized, double blind, placebo controlled trial. *J Am Acad Dermatol* 1998;39: 944-950.