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Original Research Article

Assessment of griseofulvin in the management of lichen planus

Devendra Parmar[1]*, Kinnari Thacker[2], Jay Shah[2]

[1]Department of Dermatology, Gujarat Adani Institute of Medical Science, Bhuj, Gujarat, India
[2]M K Shah Medical College, Ahmedabad, Gujarat, India

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***Correspondence:**
Dr. Devendra Parmar,
E-mail: researchguide86@gmail.com

ABSTRACT

Background: Oral lichen planus (OLP) is a common mucocutaneous disorder that affects 1-2% of the adult general population and slight predominance in females has been observed. The success rate is not satisfactory with these modalities of treatment, so there is a clear need for alternative therapy. This study was done to evaluate the efficacy of griseofulvin in the treatment of lichen planus.
Methods: The present study was conducted in the department of dermatology in the medical institution for the period of one year. The study included the initial assessment of 60 patients who were diagnosed with lichen planus (LP). Patients with both sexes and age between 15-60 years who agreed to come on follow up examination were included. All patients were treated with griseofulvin 500 mg/day for 6 months. Response of treatment was assessed by clinical examination at each subsequent visit (every two weeks).
Results: Among patients with OLP, there was complete response in 27%, moderate improvement in 51%, and no response in 22% of cases. Complete clinical response of cutaneous LP was seen in 18% cases, no response was found in same number of patient, 64% no. of cases showed moderate response.
Conclusions: Griseofulvin gives complete improvement in 27% cases and moderate improvement in 51% cases in OLP and it gives complete improvement in 16% cases in cutaneous LP after treatment of 6 months. This study was done on a small scale and without any control group, so conclusive comments could not be passed.

Keywords: Griseofulvin, Lichen planus, Pathologically, Treatment

INTRODUCTION

Oral lichen planus (OLP) is a common mucocutaneous disorder that affects 1-2% of the adult general population and slight predominance in females has been observed. It is a chronic inflammatory condition that is probably of multifactorial origin.[1] It affects the skin, mucous membranes, nails and hair. It can affect all body areas and the sites of predilection are flexor surfaces, mucous membrane and genitalia. In some cases, the eruption is very extensive. The buccal mucosa, tongue and the gingiva are commonly involved intra-oral sites although other sites may be rarely affected.[2]

The prevalence of OLP has been reported to be 1.27% in general adult population and in Indian population it is 1.5% and is more frequently seen in women aged between 30-60 years. OLP has been found to be associated with diseases and agents, such as viral and bacterial infections, autoimmune diseases, medications, vaccinations and dental restorative materials.[3] Carrozzo et al have demonstrated a strong association between hepatitis C viral infection and OLP.[4]

OLP can cause oral discomfort, and is characterized by white reticular changes, erythema, and ulcers. OLP lesions may be disabling enough to create a negative impact on the quality of life; hence, it is essential for the health care provider to provide adequate treatment to the patient. Oral mucosal lesions present alone or with concomitant skin lesions. The skin lesions present as violaceous flat-topped papules in ankles, wrist, and genitalia, but characteristically the facial skin is spared.[5,6]

The main focus in the management of OLP is the use of drugs that counter tissue inflammation and the underlying immunological mechanisms with minimal side effects. Oral mucosal lesions present alone or with concomitant skin lesions. The skin lesions present as violaceous flat-topped papules in ankles, wrist, and genitalia, but characteristically the facial skin is spared. Treatment of symptomatic OLP remains a challenging problem.[7]

Various modalities of treatment are available but none is curative. Mild cases can be treated with rest, topical steroids with or without wet dressing or occlusion. Widespread lesions respond well to systemic corticosteroids but tend to relapse as the dose is reduced. Other therapeutics are griseofulvin, levamisole, metronidazole, dapsone, hydroxychloroquine, cyclophosphamide, cyclosporine, PUVA etc. The success rate is not satisfactory with these modalities of treatment, so there is a clear need for alternative therapy. This study was done to evaluate the efficacy of griseofulvin in the treatment of lichen planus (LP).

METHODS

The present study was conducted in the department of dermatology in the medical institution for the period of one year. The study included the initial assessment of 60 patients who were diagnosed with LP. The following exclusion criteria were included in the study: Patients of age younger than 18 years; and patient having hypersensitivity to griseofulvin, pregnant and lactating mothers were excluded from this study. Histopathological features with atypical or lichenoid dysplastic features; asymptomatic oral lesions and specific treatment within one month prior to the study. Patients were diagnosed clinically and confirmed histologically. Patients with both sexes and age between 15-60 years who agreed to come on follow up examination were included. All patients were treated with griseofulvin 500 mg/day for 6 months. Response of treatment was assessed by clinical examination at each subsequent visit (every two weeks). Treatment of all the patients was done for two months. Treatment was discontinued earlier when patients showed a complete healing. The follow-up period was for at least 3 months. Treatments were randomly allocated to patients in order of inclusion according to a predetermined randomization-list stratified by sex. Ethical approval was taken from institutional ethical committee and written consent was obtained in written after explaining in detail the entire research protocol.

RESULTS

Out of 50 patients, 26 patients were in the age group of 15-30 years, 17 patients were in age group 30–50 years and 7 patients were of age more than 50 years of age (Table 1).

Table 1: Distribution of LP by age (n= 50).

Sr. No.	Age group included	No. of patients
1.	15–30 years	26
2.	30–50 years	17
3.	More than 50 years	7
4.	Total	50

According to site of involvement, 27 patients had only skin lesion, 23 had oral mucosal involvement and none had nail involvement (Table 2).

Table 2: Distribution of LP by the site of the lesions (n=50).

Sr. No.	Site of lesions	No. of patients
1.	Oral lesions	23
2.	Skin	27
3.	Nails	0
4.	Total	50

Regarding therapeutic response, out of 8 patients with OLP (25%) showed complete response, 3 (37.5%) showed moderate improvement and rest 3 (37.5%) patients showed no response (Table 3). But among 12 patients with cutaneous LP, none showed complete response, 4 (33.3%) showed moderate improvement, 4 (33.3%) had no response and 4 (33.3%) patients rather worsened with treatment (Table 4).

Table 3: Distribution of OLP by the therapeutic response (n=23).

Sr. No.	Therapeutics response	No. of patients
1.	Complete response	7
2.	Moderate improvement	10
3.	No response	6
4.	Total	23

Table 4: Distribution of cutaneous LP by the therapeutic response (n=27).

Sr. No.	Therapeutics response	No. of patients
1.	Complete response	4
2.	Moderate improvement	15
3.	No response	4
4.	Total	23

DISCUSSION

Lichen planus (LP) is a comparatively common, muco-cutaneous disorder that is mediated immunologically. It

can also be autoimmune in pathogenesis. It is chronic in occurrence, with periods of exacerbations and remission.[8] OLP is classically present as lesion with radiating whitish gray lines thread like papules, velvety appearance, bilateral in presentation. They can be lacy or reticular, annular, patches or strings. Several treatment modalities have been proposed for the treatment of OLP.[9]

The main aim of the current therapies for OLP is to reduce pain and eliminate the lesions. Although it is believed that there is no definitive cure for OLP, the basic treatment in mild to moderate cases is corticosteroid therapy.[10] Treatment is primarily aimed at reducing the severity and duration of lesions because there is no convinced cure for the disease, the therapy that has its use at the least side effects is most favourable. Although steroid therapy remains the backbone of treatment of OLP, its use must be justified. Steroid therapy either topical or systemic can cause adrenal suppression if used for prolonged periods. A thorough medical history should be taken before the commencement of the steroid therapy to avoid medical complications.[11]

In the present study it was found that, among patients with OLP, there was complete response in 27%, moderate improvement in 51%, and no response in 22% of cases. Thus total 73% of patients showed clinical response. Bhuiyan et al showed clinical response in 66.66% cases with oral involvement.[12] In the study done by Bagan et al no case was improved and on the contrary, in four patients (two with erosive and two with reticular forms) the condition worsened.[13] Mass found 54% complete improvement in oral lesion.[14] In a study by Cribier et al 3 cases out of 7 showed dramatic response with griseofulvin in OLP.[15] Naylor failed to show any benefit in 4 patients with erosive oral LP treated with griseofulvin.

In this study, complete clinical response of cutaneous LP was seen in 18% cases, no response was found in same number of patients 64% no. of cases showed moderate response. Bhuiyan et al showed moderate improvement in 37.5%.[12] Thus our study is comparable to the study done by Ishrat Bhuiyan. Cribier and Chosidow first reported 12% improvement with 1 gm/day griseofulvin administered for 1 to 10 months and in their second study 86% of the patients had complete disappearance of the lesions after 3 months. Sehgal et al showed encouraging results using griseofulvin in cutaneous lichen planus.[16]

CONCLUSION

Griseofulvin gives complete improvement in 27% cases and moderate improvement in 51% cases in oral lichen planus and it gives complete improvement in 16% cases in cutaneous lichen planus after treatment of 6 months. This study was done on a small scale and without any control group, so conclusive comments could not be passed. Further study is needed with large sample size and control population for finding the actual therapeutic effects of griseofulvin on lichen planus.

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