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Comparative Study of Response to Hydroxychloroquine Versus Dapsone In The Treatment Of Oral Lichen Planus

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Abstract

- ***Background****-Oral lichen planus is a chronic autoimmune disease of oral cavity.Oral LP has a prevalence rate of 0.5%-2.2% in the general population.Andreasen classified oral LP into six types;reticular, papular, plaque-like,erosive,atrophic and bullous.The lesions are found(in diminishing frequency)on buccal mucosa(often bilaterally symmetrical),lateral margins of the tongue,gingiva, lips, and hard palate.Lesions of oral LP are usually painless,though intense pain and burning sensation are associated with erosive and atrophic types.*
- ***Aims and objectives****-To comare the efficacy of Hydroxychloroquine(HCQS)and Dapsone in the treatment of oral lichen planus*
- ***Methods****-36 patients with clinically diagnosed oral lichen planus were enrolled in the study.Patients were randomly devided into 2 groups,group A and group B.18 patients were included in each group.Group A was treated with 200-400 mg of HCQS and group B was treated with 100-200 mg of Dapsone.Patients were followed up during treatment at 4 weeks, 12 weeks and 24 weeks.Serial digital photographs were all taken and findings were recorded.*
- ***Results****;Out of total 36 patients 17(47.22%)were male and 19(52.77%)were female between age of 20-60 years.Patients on HCQS showed excellent response in 66.66%cases,fair response in 26.66%cases and good response in 6.67% cases at 24 weeks of treatment.Patients on Dapsone showed excellent response in 53.33% cases,fair response in 26.67% cases and good response in 20% cases at 24 weeks of treatment.*
- ***Conclusion****; In this study both hydroxychloroquine and dapsone showed clinical improvement but hydroxychloroquine was relatively better in the treatment of oral lichen planus.*

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I. Introduction

Oral lichen planus is a chronic autoimmune disease of oral cavity.It has a prevalence rate of 0.5%-2.2% in the general population.Oral lesions occur in 70-77 % of patients with cutaneous disese. It is a disease of middle age,and is more common among women between 40 and 70 years.

- Andreasen classified oral LP into six types;reticular, papular, plaque-like,erosive,atrophic and bullous type.The lesions are found(in diminishing frequency)on the buccal mucosa(often bilaterally symmetrical),lateral margins of the tongue,lips,hard palate and gingiva.Reticular type is the most common clinical pattern and is characterized by asymptomatic,irregular,atrophic plaques with white streaks in a lacy pattern involving the posterior buccal mucosa bilaterally.The lesions are usually painless,though pain and burning sensation are usually associated with erosive and atropic lesions.
- Oral LP follows a chronic course with periodic exacerbations and remission.Several factors are implicated in the etiopathogenesis like genetic factors, stress,syestemic diseases,viruses,dental amalgam materials etc.There is a significant association of oral LP with HCV infection.
- Various modlities of treatment for oral LP have been reported to be effective such as topical,intralesional and systemic steroids,retinoids, cylosporine,hydroxychloroquine,methotrexate,PUVA, gold, interferon,dapsone,azathioprine,mycophenolate mofetil,topical tacrolimus and pimecrolimus.Corticosteroids have been the mainstay for oral LP but other modalities like hydroxychloroquine,retinoids,dapsone are also significantly effective.
- Till date limited number of studies have been conducted to evaluated the efficacy of treatment for oral LP using two modalities that is HCQS and dapsone.Hence this study designed to compare the efficacy of HCQS and dapsone in the treatment of oral lichen planus.

II. Materials and methods

- 36 patients with clinically diagnosed oral lichen planus between age group of 20-60 years were enrolled in the study.It was prospective study (approved by institutional ethical committee).The patients were randomly devided into 2 groups, group A and group B.18 patients were included in each group.Duration of study was 6months (November2020 to april 2021).
- The duration of LP was less than 6 months in 27 patients and more than 6 months in 9 patients.In group A-18 pts were treated with 200-400mg of HCQS and in Group B-18 pts were treated with 100-200mg of dapsone.Routine investigations including CBC, LFT, RFT, Blood sugar,HCV tests were done.Both drugs were given for 6 months.
- Inclusion criteria of the study were age between 20-60 years,both sexes,patients with written informed consent.Exclusion criteria of the study were patients of younger age,hypersensitivity to both drugs,patients with retinal or visual field chages,patients with systemic illness or uncontrolled diabetes mellitus,pregnant and lactating women,patients with hemoglobin less than 7%,patients with G6PD deficiency
- Patients were followed up every month and Serial digital photographs were taken.Symptoms & surface area was measured at baseline, 3 months & 6 months.Response was measured as percentage decrease in symptoms, pigmentation and total surface area of lesion.Grades of response was measured as good response-<25%,fair response-25-65% and excellent response->65%

III. Results

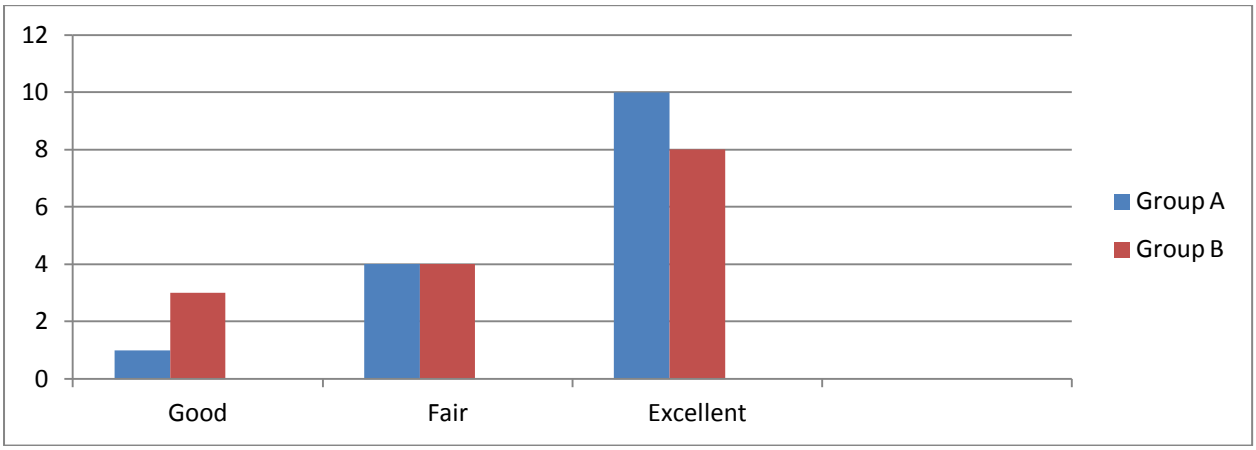
- The study was conducted on 36 patients of clinically diagnosed oral lichen planus.In both group there were 18 patients.In Group A(8 male,10 female),mean age 41.03+-10.28 and in group B(8 male,10 female)mean age 40.87+-13.16. Out of 36 patients, 6 patients dropped out of the study(2 patients in group A, 4 patients group B).Out of total 36 patients 62%lesion was found on buccal mucosa, 27 % on dorsum of tongue & 11% on palate was present.
- Each group of patients was observed separately regarding the efficacy.In group A excellent response was seen in 10 patients (66.66%),fair response in 4 patients (26.66%)and good response in 1 patient(6.67%) .In group B excellent response was seen in 8 patients(53.33%),fair response in 4 patients (26.67%)and good response in 3 patients(20 %).

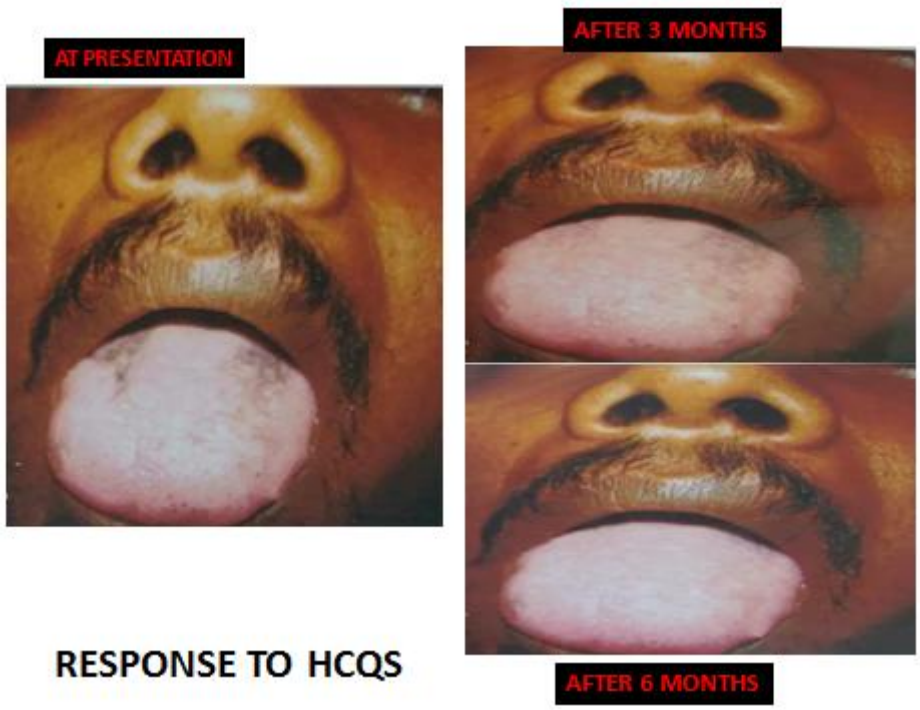
AGE (in yr)	Group A(n=15)	Group B(n=15)	P value
<30	3(20.00)	2(13.33)	
30-40	6(40.00)	5(33.33)	
40-50	4(26.66)	5(33.33)	
>50	2(13.33)	3(20.00)	
Mean +/-SD(in yr)	41.03 +/- 10.28	40.87 +/- 13.16	0.146

Sex	Group A(n=18)	Group B(n=18)
Male	8(53.33)	7(46.66)
Female	7(46.66)	8(53.33)

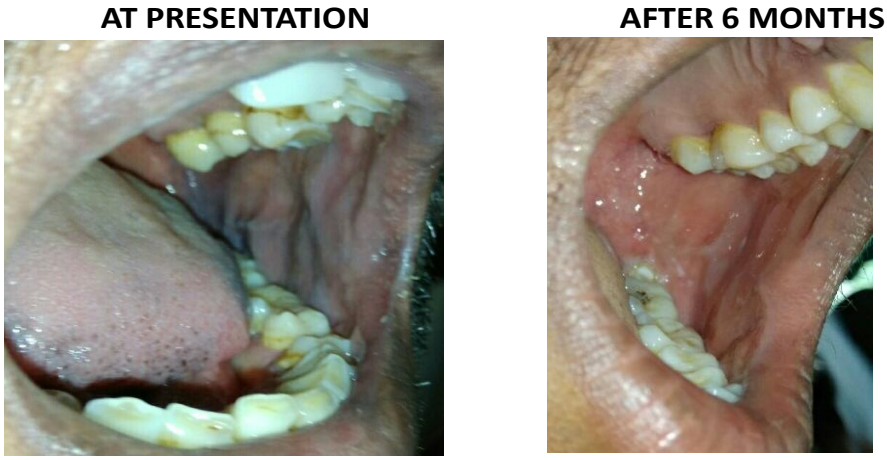
Response

Response	Group A	Group B
Good	1 (6.67%)	3 (20%)
Fair	4 (26.66%)	4 (26.67%)
Excellent	10 (66.66%)	8 (53.33%)
Total	15	15


12
10
8
6
4
2
0
Good
Fair
Excellent
Group A
Group B


AT PRESENTATION
AFTER 3 MONTHS
AFTER 6 MONTHS
RESPONSE TO HCQS

RESPONSE TO HCQS CONTINUED



IV. Discussion

• Oral LP is a chronic autoimmune disease of oral cavity and various modalities of treatment have been tried in past several months.But the treatment of the condition is often disapointing.Oral LP has different forms that may require different treatment.So large randomized control studies are difficult to perform.Even no standardized methods are present to evaluate the severity of the disease,and the course of the disease varies from one patient to another and according to various clinical form.

• Out of 36 patients of oral LP,19 patients were female and 17. were male between 15-65 years. In Group A(8 male,10 female),mean age 41.03+-10.28 and in group B(8 male,10 female)mean age 40.87+-13.16. Out of total 36 patients ,6 patients dropped out of the study.

• Out of total 36patients,in group A 93% patient with HCQS showed fair to excellent response.Study by Eisen et all observed that 9 of 10 patients(90%)of oral LP had an excellent response to HCQS.So our study is almost consistent with that study.In group B 80% patients with dapsone showed fair to excellent response Pain and burning sensation relieved after 2-3 months of treatment.Minimal side effects like nausea,vomiting,diarrhoea,abdominal pain were observed during treatment period in both groups.Study by Palleria SR and Badam RK et al gave similar results.

V. Conclusion

Hydroxychloroquine and dapsone both drugs are worth considering in patients with oral lichen planus.But in our study hydroxychloroquine is comparatively more effective than dapsone in treatment of oral lichen planus.Side effects of Both drugs are minimal & self limiting.Large scale, randomized clinical trials may be done to prove their effectiveness.

Conflicts of interests-None

References;

[1]. William D James,Timothy G Berger,Drik M Elston.Andrews disease of the skin,twelfth edition.p 209-214.
[2]. S.Sacchidanand,Chetan Oberai,Arun C Inamadar.IADVL vol 1,p 1099.
[3]. Pittelkow MR,Daoud MS. Lichen planus.
[4]. Levy A,Stempler U,Yuzuk S et al,lichen planus.
[5]. Md Abdul Wahab,Ishrat Bhuiya et all,griseofulvin and HCQS in treatment of lichen planus'
[6]. Ashwini Gajbhiye,response to topical steroid and tacrolimus in oral lp

Dr.Sumit Bhattacharjee, et. al. "Comparative Study of Response to Hydroxychloroquine Versus Dapsone In The Treatment Of Oral Lichen Planus." *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, 20(11), 2021, pp. 01-05.