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Original Article

A comparative assessment of different drugs in management of cases of psoriasis

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ABSTRACT:
Background: Psoriasis is a common chronic inflammatory, immune - mediated disease that predominantly affects the skin and joints. The present study was conducted to compare different drugs in management of cases of psoriasis. **Materials & Methods:** 78 patients of psoriasis of both genderswere classified into 2 groups of 39 each. Patients ingroup Ireceived clobetasol propionate (0.05%) + salicylic acid (3%) lotion for scalp application and betamethasone valerate (0.05%) cream for body surface application and patients in group II receivedtablet methotrexate (7.5 mg/week) along with topical treatment; clobetasol propionate (0.05%) + salicylic acid (3%) lotion for scalp application and betamethasone valerate (0.05%) cream for body surface application. Psoriasis area severity index (PASI) was assessed in both groups. **Results:** Group I had 19 males and 20 females and group II had 15 males and 24 females. Common clinical features were scalingseen in 14 in group I and 12 in group II, red lesion seen 10 in group I and 11 in group II, burning pain seen 6 in group I and 9 in group II, thick lesions seen 8 in group I and 4 in group II, itching seen in 25 in group I and 22 in group II and joint pain seen in 10in group I and 12 in group II respectively. The mean PASI score in group I and group II was 13.6, 15.4 at baseline, 13.2 and 12.1 at 1 month and 13.0 and 7.92 at 2 months respectively. The difference was significant (P< 0.05). **Conclusion:** Combination therapy is more effective in management of cases of psoriasis.Methotrexate found to be superior than clobetasol propionate.
Key words: psoriasis, Methotrexate, clobetasol propionate

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INTRODUCTION

Psoriasis is a common chronic inflammatory, immune - mediated disease that predominantly affects the skin and joints. It is genetically determined dermatological disorder which follows a relapsing and remitting course. Although the exact prevalence and incidence of psoriasis in old people is difficult to estimate, it represents a significant percentage of cases.[1]Because the disease is generally persistent and patients with psoriasis have a similar life expectancy to the general population, prevalence of psoriasis is expected to increase with age, comorbidities and treatments for other diseases have great influence on the evolution and therapy of psoriasis and it seems obvious that these inconveniences are commoner in aged people.[2]

The World Health Organization (WHO) defines QOL as "Individual perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.[3]The conventional treatment for psoriasis depends upon the severity and location of lesions. First line topical treatments were suggested for mild to moderate psoriasis.[4] This includes corticosteroids, vitamin D3 analogues and calcipotriol betamethasone dipropionate combination products. Calcipotriol, a vitamin D3 analogue is the choice for plaque psoriasis and scalp psoriasis.[5]The present study was conducted to compare different drugs in management of cases of psoriasis.

MATERIALS & METHODS

The present study comprised of 78patients of psoriasis of both genders. The consent was obtained from all enrolled patients.

Data such as name, age, gender etc. was recorded. Patients were classified into 2 groups of 39 each. Patients ingroup Ireceived clobetasol propionate (0.05%) + salicylic acid (3%) lotion for scalp application and betamethasone valerate (0.05%) cream for body surface application and patients in group II receivedtablet methotrexate (7.5 mg/week) along with topical treatment; clobetasol propionate (0.05%) + salicylic acid (3%) lotion for scalp application and betamethasone valerate (0.05%) cream for body surface application. In group II, each patient has given folic acid along with methotrexate. Psoriasis area severity index (PASI) was assessed in both groups. Its value ranges from 0 to 72. Higher the score more will be severity of psoriasis. The score in each question ranges from 0 to 3, and total score ranges from 0 to 45. A Higher score indicates greater impairment of QOL. All the recruited patients were followed up at 1 month and 6 months of treatment.Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Groups	Group I	Group II
Drug	clobetasol propionate (0.05%) + salicylic acid (3%) lotion+ betamethasone valerate (0.05%)	Methotrexate+ clobetasol propionate (0.05%) + salicylic acid (3%) lotion+ betamethasone valerate (0.05%) cream
M:F	19:20	15:24

Table I shows that group I had 19 males and 20 females and group II had 15 males and 24 females.

Table II Assessment of clinical features

Clinical features	Group I	Group II	P value
Scaling	14	12	0.07
Red lesion	10	11	
Burning pain	6	9	
Thick lesions	8	4	
Itching	25	22	
Joint pain	10	12	

Table II, graph I shows that common clinical features were scaling seen in 14 in group I and 12 in group II, red lesion seen 10 in group I and 11 in group II, burning pain seen 6in group I and 9in group II, thick lesions seen 8in group I and 4in group II, itching seen in 25in group I and 22in group II and joint pain seen in 10 in group I and 12in group II respectively. The difference was non- significant (P> 0.05).

Graph I Assessment of clinical features

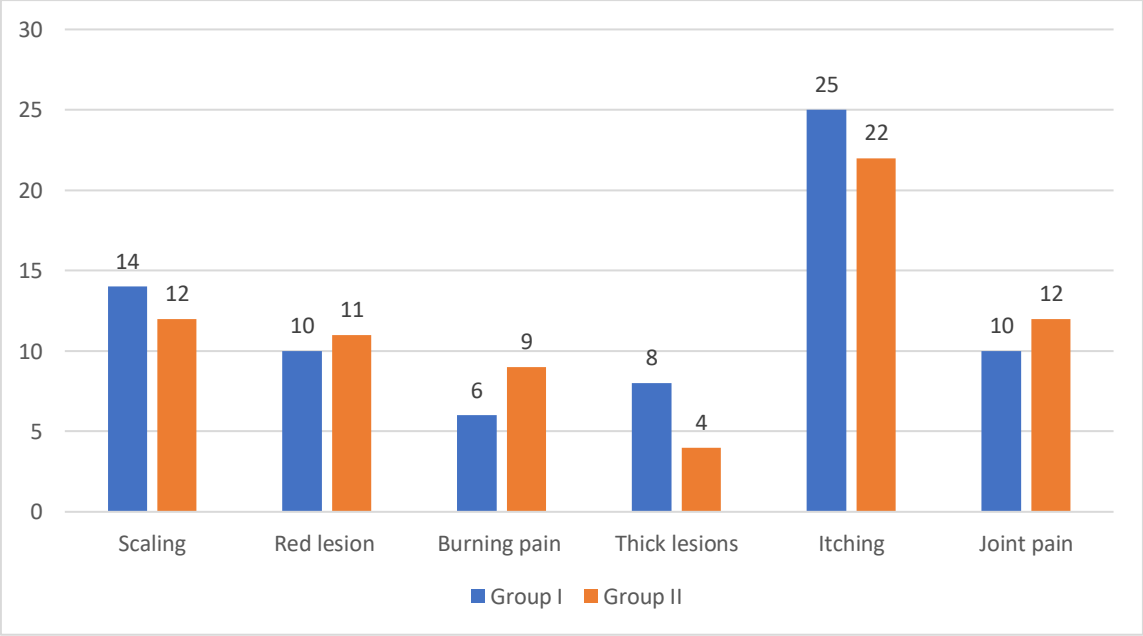
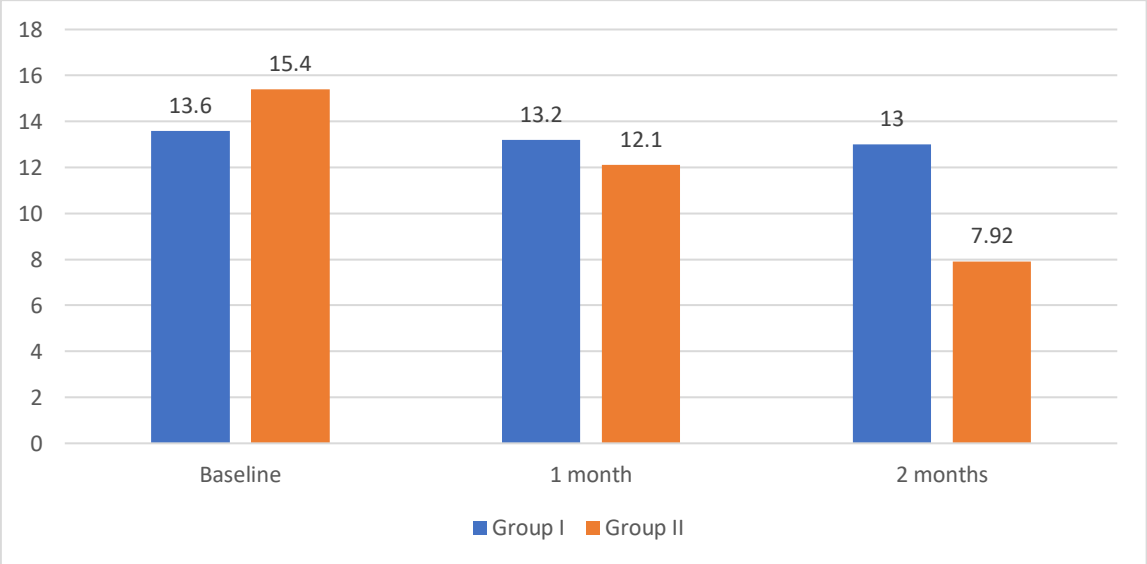


Table III Comparison of PASI score

PASI	Group I	Group II	P value
Baseline	13.6	15.4	0.05
1 month	13.2	12.1	0.04
2 months	13.0	7.92	0.01

Table III, graph II shows that mean PASI score in group I and group II was 13.6, 15.4 at baseline, 13.2 and 12.1 at 1 month and 13.0 and 7.92 at 2 months respectively. The difference was significant (P< 0.05).



DISCUSSION

Psoriasis occurs because the overactive immune system speeds up skin cell growth. Normal skin cell completely grows and shed (fall off) in a month.[6] With psoriasis, skin cell does this in only three or four days. Instead of shedding, the skin cell piles up on the surface of the skin. Some people report that psoriasis plaque itch, burn and sting. Plaques and scales may appear on any part of the body. Although they are commonly found on elbows, knees, and scalp. Inflammation caused by psoriasis can impact other organs and tissues in the body.The disease is triggered by several factors and tends to worsen with time. Various factors that lead to the start of psoriasis.[7] The sites on the skin, which are exposed to the friction or minor trauma, such as the extensive areas of knees, elbow, etc are the areas prone to psoriasis. Psoriasis is known to be induced by various physical, chemical and inflammatory skin disruptions.[8] These include abrasions, incisions, rubbing, shaving, etc. Certain toxins, such as bacterial toxins that activate Tcells tend to induce the appearance of cutaneous lymphocyte antigen, which produces psoriatic lesions.[9] The incidence of disease due to infection ranged from 15-76%. A study is evidenced showing a strong correlation between psoriasis infections with S. pyro genes.[10]Some study reports suggested that obesity is the causative agent of the disease, while some others revealed that psoriasis leads to obesity. Some studies suggest that adipocyte proliferation of pro-inflammatory cytokines leads to psoriasis.[11]The present study was conducted to compare different drugs in management of cases of psoriasis.

We found that group I had 19 males and 20 females and group II had 15 males and 24 females.Karamata et al[12] conducted a study in which 114 patients were divided into three groups: Group A: topical therapy alone, Group B: methotrexate with topical therapy, and Group C: cyclosporine with topical therapy. The efficacy of drug was measured using Psoriasis Area Severity Index (PASI). QOL was measured using Psoriasis Disability Index. Patients were followed up at 1 month and 6 months of treatment. A total 126 patients were enrolled, out of which 114 patients completed the study. PASI score was reduced significantly (P < 0.001) in each treatment group and QOL score was significantly (P< 0.001) decrease in Group B and C as compared to baseline at the end of 6 months. A significant (P< 0.001) reduction in PASI score and QOL was observed in patients of Group B and C as compared to Group A. Correlation between efficacy and QOL was not significant in all three treatment groups.

We observed that common clinical features were scalingseen in 14 in group I and 12 in group II, red lesion seen 10 in group I and 11 in group II, burning pain seen 6 in group I and 9 in group II, thick lesions seen 8 in group I and 4 in group II, itching seen in 25 in group I and 22 in group II and joint pain seen in 10in group I and 12 in group II respectively.We found that mean PASI score in group I and group II was 13.6, 15.4 at baseline, 13.2 and 12.1 at 1 month and 13.0 and 7.92 at 2 months respectively.

Fernandez-Torres et al[13] conducted a study in which a total of 371 patients were included (218 males and 153 females) with ages ranging from 18 to 85 years, of whom 70 were older than 65 years. Patients older than 65 years have statistically significant higher prevalence of hypertension, left ventricular hypertrophy, waist-hip ratio, diabetes mellitus and raised blood glucose levels. There was also association between clinical severity of psoriasis and smoking and alcohol intake as well as between quality of life and type of psoriasis treatment.

CONCLUSION

Authors found that combination therapy is more effective in management of cases of psoriasis.Methotrexate found to be superior than clobetasol propionate.

REFERENCES

1. liao YH, chen KH, Tseng MP, sun cc. Pattern of skin diseases in a geriatric patient group in Taiwan: a 7-year survey from the outpatient clinic of a University Medical centre. dermatology 2001;203:308-13.
2. McFadden n, Hande Ko. á survey of elderly new patients at a dermatology outpatient clinic. áctadermVenereol1989;69:260-2.
3. Kaur I, Handa s, Kumar B. natural history of psoriasis: a study form Indian subcontinent. J dermatol1997;24:230-4.
4. Kavli G, FørdeoH, árnesen e, stenvold se. Psoriasis: familial predisposition and environmental factors. Br Med J (clin Res ed). 1985;291(6501):999-1000.
5. Ferrandiz c, Pujol RM, García-Patos V, Bordas X, smandiaJá. Psoriasis of early and late onset: á clinical and epidemiologic study form spain. J ámácaddermatol2002;46:867-73.
6. Ibrahim G, Waxman R, Helliwel Ps. The prevalence of psoriasis arthritis in people with psoriasis. árthritis Rheum 2009; 61 (10):1373-8.
7. Tey Hl, ee Hl, Tan ás, Theng Ts, Wong sn, Khoo sW. Risk factor associated with having psoriatic arthritis in patients with cutaneous psoriasis. J dermatol 2010;37(5):426-30.
8. Grossman RM, chevret s, ábi-Rached J, Blanchet F, dubertret l. long term safety of cyclosporine in the treatment of psoriasis. árchdermatol1996;132:623-9.
9. Bissonnette R, Ho V, langley RG. safety of conventional systemic agents and biologic agents in the treatment of psoriasis. J cutan Med surg 2009;13:s2(67-76).
10. AlsufyaniMá, Golantál, lebwohl M. Psoriasis and the metabolic syndrome. dermatolTher2010;23:137-43. 19. Vena Gá, Vestita M, cassano n. Psoriasis and cardiovascular disease. dermatolTher2010;23:144-51.
11. Hayes J, Koo J. Psoriasis: depression, anxiety, smoking, and drinking habits. dermatolTher2010;23:174-80.
12. Karamata VV, Gandhi AM,Patel PP, Sutaria A, Desai MK. A study of the useof drugs in patients suffering from psoriasis andtheir impact on quality of life. Indian J Pharmacol2017;49:84-8.
13. Fernandez-Torres RM, Paradela S, Fonseca E. Psoriasis in patients older than 65 years. A comparative study with younger adult psoriatic patients. The journal of nutrition, health & aging. 2012 Jun;16(6):586-91.