www.jmscr.igmpublication.org
Impact Factor 5.84
Index Copernicus Value: 71.58
ISSN (e)-2347-176x ISSN (p) 2455-0450
crossref DOI: https://dx.doi.org/10.18535/jmscr/v5i11.130

IGM Publication
Journal Of Medical Science And Clinical Research
An Official Publication Of IGM Publication

Comparison of PASI and DLQI among Out-Patients Andin-Patients with Psoriasis in a Tertiary Care Centre

Authors
Karpagavalli.R[1], Prasad P.V.S[2], Kaviarasan.P.K[3], Dr Asokkumar[4], Kannambal.K[5]
[*1]Post Graduate, Department of Dermatology Venereology and Leprosy, Rajah Muthiah Medical College & Hospital, Annamalai University, Chidambaram, India – 608002
[2]Professor, Department of Dermatology Venereology and Leprosy, Rajah Muthiah Medical College & Hospital, Annamalai University, Chidambaram, India – 608002
[3]Head of the Department, Department of Dermatology Venereology and Leprosy, Rajah Muthiah Medical College & Hospital, Annamalai University, Chidambaram, India – 608002
[4]Professor, Dept of Psychiatry, Rajah Muthiah Medical College & Hospital, Chidambaram, India – 608002
[5]Reader, Department of Dermatology Venereology and Leprosy, Rajah Muthiah Medical College & Hospital, Annamalai University, Chidambaram, India – 608002

Abstract
Psoriasis is a chronic condition strongly affecting social stigmatization, comfort, physical disability and psychological distress. It is important to define the severity of psoriasis, but it is also important to identify psoriasis, that severely affects the quality of life. Psoriasis causes great physical, emotional and social burden.[1]
Aim: *To compare the DLQI at the time of presentation and follow up the inpatients and outpatients of the tertiary care centre.*
Materials and Methods: *This study consisted of 60 patients (30 out-patients and 30 in-patients) with psoriasis. In all patients, clinical severity and quality of life were assessed using PASI and DLQI questionnaire respectively. Psychiatric status was assessed for all patients individually with the help of psychiatric (MHC) department using Hamilton scoring systems. The quality of life was assessed in all patients using DLQI questionnaire again, after one week.*
Results: *On comparison, the DLQI of in-patients was decreased from the mean of 15.5 to 10.63 with a 'p' value of 0.005, and in patients attending outpatient department there was no significant improvement with DLQI after one week of follow up. It shows that, hospitalization had improved the quality of life in psoriatic patients due to adequate treatment care, psychiatric intervention (counselling), Physical medicine and rehabilitation (Yoga therapy) and absence of precipitating factors like alcohol, smoking and stress affecting the quality of life during the stay.*
Keywords: *Psoriasis, PASI, DLQI, Psychiatric morbidity.*

Introduction

Psoriasis is a chronic, recurrent disease with intense impact on all aspects of quality of life because over years patients are handling, not only with disease severity, but also with a number of limitations imposed by the disease in their work, social and emotional life.[1] When quality of life is severely impaired, patients become discouraged to

treat themselves efficiently, the psoriasis remains active or becomes worse, thus affecting the therapeutic efficacy.[2]

When assessing psoriasis severity and treatment efficacy it is necessary to include the evaluation of psychosocial morbidity because of the considerable role that psychosocial burden plays in the patient's perception of disease severity, quality of life, and disease course.[3]

Hence the assessment of the extent of clinical severity alone is not sufficient, it is necessary to assess the quality of life among psoriatic patients in a holistic way.

Although the PASI has its drawbacks, it is the most adequate instrument available to evaluate clinical severity in plaque type psoriasis.[4] PASI and PDI are popular tools used to assess QOL in psoriasis all over the world.

The Dermatology Life Quality Index (DLQI) is a commonly used tool to assess QOL in psoriasis. Despite the referred limitations, the PASI score is the most accepted and widely used measure in clinical trials and in clinical practice.[5]

In this study we have evaluated the DLQI (dermatological life quality index) of psoriatic patients who attended the out-patients department and patients in admission after assessing the clinical severity using PASI (psoriasis area severity index) score.

Materials and Methods

This study consisted of 60 patients with chronic plaque psoriasis attending Dermatology venereology leprosy department of Rajah Muthiah Medical College and Hospital, between October 2016 & October 2017 for a period of one year. Ethical clearance was obtained from the institutional ethics committee before the start of the study.

Inclusion criteria for the study were patients manifested with psoriasis showing clinical activity of the disease except pustular psoriasis, psoriatic arthritis alone, guttate psoriasis and age group between 30- 60 years. Exclusion criteria were, patients age group less than 30, patients with other chronic conditions like malignancy, chronic renal and liver disease, and immunocompromised patients and patients not willing to participate in the study and patients with no history of other skin diseases.

In our study 60 patients – 30 out-patients and 30 in-patients of the Dermatology department, clinically manifesting with psoriasis, were subjected to cross sectional and descriptive study on the basis of inclusion and exclusion criteria after obtaining written informed consent for clinical photographs and assessment in their own language. A detailed history and findings of clinical examination were enrolled in the preformed proforma. The clinical severity was assessed by psoriasis area severity index (PASI). They were further subjected to evaluate their quality of life using DLQI questionnaire. The exact underlying psychological status of the patients with psoriasis was assessed separately by psychiatrist, by using Hamilton scoring system. All patients with psoriasis continued their medications during the course of the study. Whereas, the in-patients acquired proper counselling, high protein diet, adequate rest and yoga therapy. After one week, the quality of life of all the patients were evaluated by using dermatology quality of life index questionnaire.

Statistical Analysis

Data analysis was done with the help of computer using SPSS 16 and Sigma Stat 3.5 version. Using this software range, frequencies, percentages, means, standard deviations and 'p' values were calculated through one way ANOVA and Chi-square test was used to test the significance of difference between variables and correlation coefficient was calculated by Pearson correlation.

A 'p' value less than 0.05 is taken to denote significant relationship.

Assessment of Clinical Severity

The extent of clinical severity of the disease was assessed by the psoriasis area severity index (PASI).

Assessment of Quality of Life Index

Patients quality of life assessed by the standard DLQI questionnaire which was translated to Tamil and validated by back translation to English by unbiased individual.

It consists of 10 questions focusing on different aspects of life quality and classified into five subscales: symptoms and feelings, daily activities, leisure, work and school, personal relationships and treatment.[6]

Assessment of Psychiatric Morbidity

Patients were assessed for psychiatric morbidity by a psychiatrist and Hamilton scoring systems (HAM-D, and HAM-A) were used for scoring, after assessing the clinical severity and quality of life.

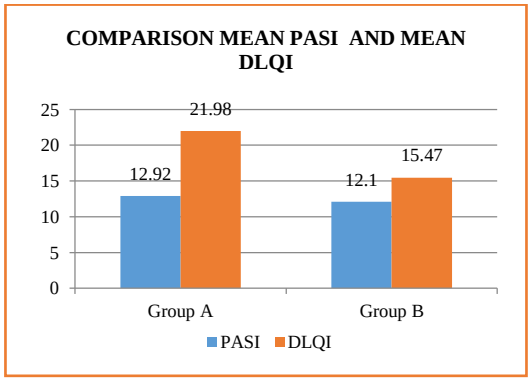
Results

Sixty patients with psoriasis of varying severity from dermatology department, RMMCH, Annamalai university were under taken for the PASI and DLQI analysis after grouped into two (group A and group B) with 30 patients in each group. The mean age of the patients was 46.7 (Standard deviation 11.2), with 78.3% were male and 21.7% were female (M:F 4:1), 43.3% were self-employed, 88.3% had psoriasis vulgaris with mean age of onset of disease 3rd-4th decade, mean disease duration 1 year to 5 years with majority had <3 episodes per year. The mean PASI in group A was 12.92 (standard deviation 13.49) and group B was 21.98 (SD 15.21). (Figure 1) The mean DLQI in group A was 12.1 and in group B was 15.47. (Table -1)

Table 1 Summary of the Details

	GROUP A	GROUP B
No. Of patients	30	30
No of males (%)	73.3	83.3
No of females (%)	26.7	16.7
Mean age of onset	42.3	43.43
Mean duration	1-5 years	1-5 years
Mean PASI	12.92	21.98
Mean DLQI	12.1	15.47
Mean DLQI after 1 week	10.62	9.78

Figure -1



Psychological Morbidity

In this study, 70% of the patients had depression, 10% had anxiety and 1.7% had suicidal tendency. In group A, 80% had psychiatric manifestations after the onset of psoriasis. Out of this 80%, 73.3% had depression and 6.7% had anxiety. 6.7% had depression even before psoriasis onset.

In group B, 73.3% had psychiatric manifestations after the onset of psoriasis. Out of this, 60% had depression, 10% had anxiety and 3.3% had suicidal tendency. 6.7% had depression even before psoriasis onset.

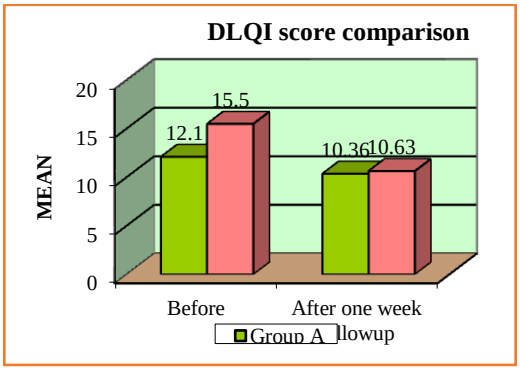
Comparison of Follow up DLQI

On comparing the quality of life in both group of our study after one week, the psoriatic patients in admission showed drastic improvement in quality of life when compared to the patients attending the outpatient department. On comparison, the DLQI of inpatients have been decreased from mean of 15.5 to 10.63 with p value of 0.005 and in patients attending outpatient department there was no significant improvement with DLQI after one week of follow up. Mean DLQI at the time of first visit was 12.1 and after one week the mean DLQI was 10.36. It shows that hospitalization had improved the quality of life in psoriatic patients due to adequate treatment care, psychiatric intervention (counselling), Physical medicine and rehabilitation (Yoga therapy) and absence of precipitating factors like alcohol, smoking and stress affecting the quality of life during the stay. (Table 2, Figure -2)

Table 2 DLQI Score comparison in both groups

DLQI score	At the time of presentation	After one week follow up	p value
Group A	12.1	10.36	0.328
Group B	15.5	10.63	0.005

Figure -2



Discussion

Psoriasis is a chronic inflammatory immune mediated hyperproliferative disorder that affects the well-being of the patients and has emotional and social consequences. Psoriasis is a persistent, disfiguring and stigmatizing disease, that leads to psychological and emotional impact in the patients, that needs to be substantiated.[7]

Psoriatic patients, not only have severe psychological disability, but they also have substantial impairment of health related quality of life. It is thought that HRQOL is more resolute by how an individual mentally handles the disease than by the amount of skin affected.[9]Psoriasis is a chronic and relapsing condition that considerably affects the quality of life of the patients.[10]

Psoriasis can occur at any age. Psoriasis is bimodal in onset, with two peaks at 16- 22 and other at 57-60 years of age.[7] The mean age of onset of psoriasis vulgaris is 33 years.[11] But Dogra S, Savita Y et al, inferred that in India most of the patients are in their third or fourth decade at the time of presentation.[12] Dogra found that in India, psoriasis is twice more common in males compared to females.[12]

Gaikwad R et al, in her study of 45 patients inferred that the occupational background showed that, 37% were dependent, 12% were labourers, 16% had a small business, and 35% were in the service class.[13] Bedi analysed that Chronic plaque type psoriasis was the most common (90%) clinical phenotype in India.[14]

Kimball et al, found that patients with psoriasis were significantly more at risk of developing psychiatric disorder than control subjects, (5.13 % Vs 407) especially depression (3.01% Vs 2.42) and anxiety (1.81% Vs 1.35%).[15]

The term quality of life, or health related quality of life (HRQOL), refers to a quantitative estimation of the global impact of a disease on physical, social, and psychological well-being of a patient. It appears that, there is not always a strong correlation between the HRQOL and the severity of the disease, as defined by PASI.[7]

Thus it is revealed that the clinical severity had positive correlation with psychiatric morbidity and quality of life. The patients from inpatient department showed that severe depression had moderate PASI score with high DLQI, so this revealed the fact that distortion of quality of life of psoriatic patients not only involves the clinical severity, but other factors like duration of the disease, disease chronicity, expense of treatment, moral support also influence the quality of life.

Eric Vensel et al, (2000) found that hospitalized patients with psoriasis have a significant improvement in quality of life, more than outpatients. It showed that hospitalization had improved the quality of life in psoriatic patients due to adequate treatment care and absence of many factors affecting the quality of life during the stay.[16]

Conclusion

In our study, we found that quality of life was not only affected by clinical severity but by other factors like financial burden, social stigma, disease chronicity, psychological support, loss of productivity that had a substantial role.

The present study also showed that hospitalization of patient had showed drastic improvement in quality of life after one week. This might be due the adequate treatment, psychiatric intervention,

proper care, healthy life style and abstinence from other factors affecting the quality of life.

Thus the management of psoriasis not only requires dermatological intervention but also it is mandatory for the patients to have psychiatric, physical medicine and rehabilitation intervention for better effectiveness of the treatment.

References

1. Finally AY. Quality of life measurement in dermatology: A practical guide Br J Dermatol 1997; 136:305-4.
2. Finlay AY. Quality of life indices. Indian J Dermatol Venereol Leprol 2004; 70:143-8. 43.
3. Gupta MA, Schork NJ, Gupta AK, Kirkby S, Ellis CN: Suicidal ideation in psoriasis. Int J Dermatol 1993, 32: 188–190.
4. Henseler, T. and E. Christophers (1985). "Psoriasis of early and late onset: characterization of two types of psoriasis vulgaris." J Am Acad Dermatol 13(3): 450-6.
5. Ashcroft, D. M., A. L. Wan Po, et al. (1999). "Clinical measures of disease severity and outcome in psoriasis: a critical appraisal of their quality." Br J Dermatol 141(2): 18591 20.
6. Lewis V, Finlay ten years of experience of dermatology life quality index (DLQ1). J Invest Dermatolsympproc 2004;9:169-80.1
7. Susana Coimbra1, Hugo Oliveira, Américo Figueiredo, Petronila Rocha-Pereira1, and Alice Santos-Silva1,. Psoriasis: Epidemiology, Clinical and Histological Features, Triggering Factors, Assessment of Severity and Psychosocial Aspects. www.intechopen.com.
8. Lewis V, Finlay AY 20 years' experience of psoriasis disability index under (po1) Br. J Dermatol 2004; 151 (suppl 68): 50-1
9. Stern, R. S., T. Nijsten, et al. (2004). "Psoriasis is common, carries a substantial burden even when not extensive, and is associated with widespread treatment dissatisfaction." J Investig Dermatol Symp Proc 9(2): 136-9.
10. Burns, Tony, Breathnach, Stephen; Cox, Neil, Griffiths, Christopher, Rook Text Book of Dermatology, 8th Edition.
11. Nevitt, G. J. and P. E. Hutchinson (1996). "Psoriasis in the community: prevalence, severity and patients' beliefs and attitudes towards the disease." Br J Dermatol 135(4): 533-7.
12. Dogra S, Yadav. S, Psoriasis in India: Prevalence and Pattern. Indian J Dermatol Venerol Leprol. 2010; 76: 595-601.
13. Gaikwad R, Deshpande S, Raje S, Dhamdhere DV, Ghate MR. Evaluation of functional impairment in psoriasis. Indian J Dermatol Venereol Leprol 2006;72:37-40.
14. Bedi TR. Psoriasis in north India. Geographical variations. Dermatologica 1977; 155:310-4.
15. Kimball AB, Jacobson C, Weiss S, et al. The psychosocial burden of psoriasis. Am J Clin Dermatol 2005; 6 (6): 383–92
16. Vensel E, Hilley T, Trent J, Taylor JR, Kirsner RS, Kerdel FA, et al. Sustained improvement of quality of life of patients with psoriasis after hospitalization. J Am Acad Dermatol 2000;43:858-60.