



Association of quality of life with disease severity in psoriasis

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Abstract

Background: Psoriasis has been shown to affect physically, socially as well as psychologically, thus affecting the day to day life of patients.

Aims and Objective: To measure quality of life and its relationship with severity of disease in psoriasis patients.

Materials and Method: Hundred and ten patients with psoriasis were studied at the Department of Dermatology, Era's Lucknow Medical College and Hospital, Lucknow for one year. Disease severity using Psoriasis Area and Severity Index (PASI) was compared with quality of life of patients which was measured using WHO-BREF Quality of life scale standardized to 100-point with lower scores indicating poor quality and higher scores indicating good quality of life. Detailed demographic and clinical profile of each patient was also recorded.

Results: Mean age of patients was 33.64±8.55 years, majority were males (62%) and urban residents (73%). Housewives (42%) were the most common occupational groups. Majority had gradual onset (59%), maximum (47%) had onset of symptoms for <1 year, 11% had pruritus, >3 sites were involved in 52% and koebernisation in 45%. A total of 46% reported of seasonal variability. Severity of disease (PASI) scores were 0-24, 25-48 and >48 in 61%, 28% and 11% cases respectively. Mean overall QOL score of study population was 59.23± 7.28. Mean scores for physical, psychological, social and environmental domains were 16.12±1.62, 13.19± 4.24, 7.11±1.42 and 22.61± 6.11 respectively. Mean quality of life scores of patients with higher PASI scores (25-48 and >48) were significantly lower as compared to those for lower PASI scores (0-24) (p<0.001).

Conclusion: The findings of study showed that quality of life of patients with psoriasis was highly impaired and it was related with the severity of disease too.

Keywords: psoriasis, quality of life, PASI, WHO-BREF

Introduction

Psoriasis is relatively common, chronic, inflammatory and hyper-proliferative skin disease that affects 1.4 % to 2.0 % of the population and comprises 2.6% of skin related visits to primary care physicians [1]. Almost 3% of the world's population is estimated to be affected by Psoriasis [2]. Psoriasis is a cause of great concern and disability that affects the normal life of patients. Many tolerate constant pain from cracking and bleeding lesions, and bear the discomfort caused by continuously flaking skin.

Although there are numerous treatments for Psoriasis, majority of patients has poor quality of life because of many reasons like i.e. treatments do not work, work poorly, too expensive, or not easily available to them. Especially in developing countries, people with Psoriasis have to face severe problems with stigmatization, discrimination and negative attitudes in society and their relatives, and often bear the brunt of public rejection. Many people with Psoriasis isolate themselves because of such a deep sense of shame, embarrassment and low self-esteem [2].

Psoriasis is associated with a significant psychiatric morbidity. Tools used to quantify this psychological burden, such as quality of life measures, indicate that the psychosocial impact of Psoriasis is comparable with that of chronic obstructive pulmonary disease (COPD), diabetes mellitus, heart disease,

and even cancer [3, 4].

Hence, the present study was carried out with an aim to measure the quality of life of psoriasis patients and to associate it with severity of disease.

Materials and methods

The present study was performed on 100 patients with confirmed diagnosis of psoriasis at Department of Psychiatry, Era's Lucknow Medical College and Hospital, Lucknow in collaboration with Department of Dermatology, Era's Lucknow Medical College and Hospital, Lucknow for one year.

Subjects with age between 18-60 years and those who have given a written informed consent were included in the present study. Subjects with other skin disease with visible patches, pregnant and lactating women, those with mental retardation and those having major physical illness involving Central Nervous System were excluded from the study.

A detailed demographic information and clinical history including history of Psoriasis regarding age of onset, period since onset and history of present complaints was recorded.

A thorough general physical and clinical examination was carried out in which site and area involved, type of Psoriasis, koebernization, seasonal variability were noted. Severity of psoriasis was measured using Psoriasis Area and Severity

Index (PASI) [5]. Quality of Life of patient was measured using WHO-Quality of Life-BREF Scale [6]. QOL scores were standardized to a 100-scale with lower scores representing lower quality of life and higher scores representing higher quality of life.

All the data analysis was performed using IBM SPSS ver. 20 software. Data is expressed as Mean±standard deviation (SD). Two way ANOVA was used to compare the mean. Level of significance was assessed at 5% level.

Results

Age of study cohort ranged from between 15-60 years. Male (62%) preponderance was observed. Maximum patients were from the urban area (73%) and majority of them were housewives (42%). More than half of the patients had gradual onset (59%) of disease.

Out of 100 patients, pruritus was present in 11%. Duration of disease was <1 year in 47%, >1-5 years in 39% and 5-10 years

in 14% cases. Involvement of >3 sites was seen in 52% and Koeberisation in 45 patients. A total of 46% patients reported seasonal variability.

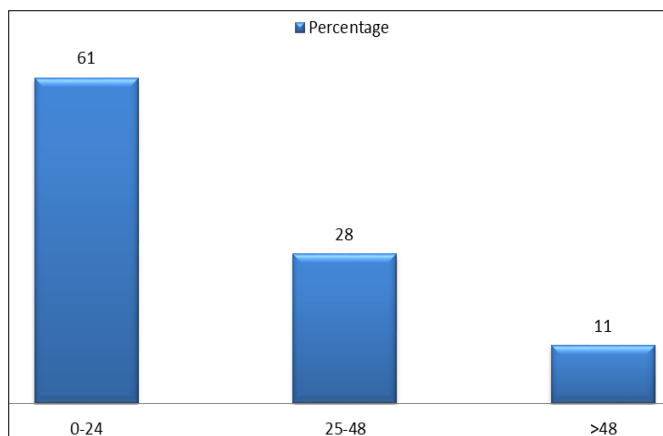


Fig 1: Severity of disease among study cohort

Table 1: Overall and Domain wise QOL Scores and their association with severity of disease

Disease severity (PASI Index)	Domains				
	Overall score	Physical	Psychological	Social	Environmental
Overall (n=100)	59.26+ 11.62	16.12+ 1.62	13.19+ 4.24	7.11+ 1.42	22.61+ 6.11
Psoriasis Area and Severity Index					
0-24 (n=61)	59.23+ 7.28	17.88+ 1.72	11.82+ 1.84	7.82+ 2.73	21.12+ 2.68
25-48 (n=28)	54.22+ 16.56	14.86+ 3.42	12.98+ 4.57	7.24+ 2.33	18.18+ 5.34
>48 (n=11)	56.82+ 15.46	18.24+ 2.26	12.23+ 6.56	8.24+ 1.42	17.76+ 6.46
P value	<0.001	<0.001	0.002	<0.001	<0.001

Data is expressed and Mean ± SD, QOL; quality of life, PASI; Psoriasis Area and Severity Index

Discussion

Psoriasis has a significant negative impact on patients' health related quality of life (HRQoL). In a survey by the National Psoriasis Foundation, almost 75% of patients believed that psoriasis had moderate to large negative impact on their quality of life (QoL), with alterations in their daily activities [7]. The demographic profile of patients in present study was predominantly urban and constituted youth population with a mean age of 33.64 years. The quality of life of patients was affected to a great extent. In present study, standardized on a 100-scale, the overall mean QOL scores of study population was just 59.26+ 11.62 years, indicating a great impairment of quality of life in these patients. It must be borne in mind that though psoriasis generally does not affect survival, it is an issue of concern as it has a number of negative effects on patients [8]. Impairment of quality of life has been highlighted particularly by the work of Finlay [9, 10], who opined that patients with psoriasis have a reduction in their quality of life similar to or worse than patients with other chronic diseases, such as ischaemic heart disease and diabetes. The findings of present study also highlight the impact of psoriasis on quality of life of affected patients.

The present study also showed that quality of life indices of psoriasis patients are significantly affected by the severity of disease but failed to show a systematic decline in quality of life with progressive scores. It was seen that the quality of life scores were in general maximum for lowest severity (PASI 0-24) followed by moderate severity (scores 25-48) but were in

between these two extremes for maximum severity (PASI >48), thus implying that the relationship lacked a linearity. However, it might be attributable to the fewer cases in maximum severity scores (n=11 for PASI >48). As a matter of fact, quality of life is a highly individualized perception that is affected by not only the disease severity but is also affected by the lifestage, social, physical and gender roles as well as duration of illness and other comorbidities, and hence finding a systematic decline in QOL with increasing severity order of disease might be difficult in view of a small sample size for the highest severity order (n=11 for PASI >48) in present study. Despite this limitation, the present study showed that there was a significant generalized trend of declining quality of life of psoriasis patients with increasing severity of disease. In their study, Fortune *et al* had shown that it was not the disease severity only but anatomical location (social visibility) that was associated with impairment in quality of life [11]. Wahl *et al* in another study had also highlighted the importance of coping strategies on the quality of life of psoriasis patients. Incidentally, it was out of domain of present study which was mainly focused on severity of disease and quality of life relationship [12]. The findings in present study were in agreement with the observations of Grozdev *et al* who also showed a significant association between increasing psoriasis severity and declining quality of life of patients [13]. Similar observations were also made by Kotsis *et al* too in their study among patients with psoriatic arthritis [14].

Conclusion

The findings of present study highlighted the importance of addressing quality of life impairment in psoriasis patients. Quality of life is highly individual oriented yet it affects a person in various dimensions and has negative effect which can be seen throughout the assessment, however, it is not directly correlated with the psoriasis severity. This may be attributed to difference in coping strategies of individuals. However, despite this rider, the quality of life measurement in psoriasis patients could be used for the purpose of treatment outcome measure in view of their relationship with disease severity. Further studies to evaluate the role of QOL as a treatment outcome measure among psoriasis patients are recommended.

References

1. Ragab HM, El Maksoud NA, Roaiah MMF. Biochemical Significance of Proinflammatory Cytokines in Psoriasis vulgaris among Egyptian Patients. *Journal of American Science*. 2010; 6(11):374-380.
2. International Federation of Psoriasis Associations (IFPA). Psoriasis is a Serious Disease Deserving Global Attention. IFPA, 2012, 3.
3. Rapp SR, Feldman SR, Exum ML, Fleischer AB Jr, Reboussin DM. Psoriasis causes as much disability as other major medical diseases. *J Am Acad Dermatol*. 1999; 41:401-7.
4. Menter A, Gottlieb A, Feldman SR, Van Voorhees AS, Leonardi CL, Gordon KB *et al*. Guidelines of care for the management of Psoriasis and psoriatic arthritis. Section 1. Overview of Psoriasis and guidelines of care for the treatment of Psoriasis with biologics. *J Am Acad Dermatol*. 2008; 58:826-50.
5. Fredriksson T, Pettersson U. Severe psoriasis-oral therapy with a new retinoid. *Dermatologica*. 1978; 157(4):238-244.
6. WHOQOL Group. Study protocol for the World Health Organization project to develop a Quality of life assessment instrument (WHOQOL) *Qual Life Res*. 1993; 2:153-159.
7. Bhosle MJ, Kulkarni A, Steven R, Feldman SR, Balkrishnan R. Quality of life in patients with psoriasis. *Health Qual Life Outcomes*. 2006; 4:35.
8. Krueger GG, Feldman SR, Camisa C, Duvic M, Elder JT, Gottlieb AB, *et al*. Two considerations for patients with psoriasis and their clinicians: what defines mild, moderate, and severe psoriasis? What constitutes a clinically significant improvement when treating psoriasis? *J Am Acad Dermatol*. 2000; 43:281-5.
9. Finlay AY, Kelly SE. Psoriasis-an index of disability. *Clin Exp Dermatol*. 1987; 12:8-11.
10. Finlay AY, Coles EC. The effect of severe psoriasis on the quality of life of 369 patients. *Br J Dermatol*. 1995; 132:236-44.
11. Fortune DG, Main CJ, O'Sullivan TM, Griffiths CE. Quality of life in patients with psoriasis: the contribution of clinical variables and psoriasis-specific stress. *Br J Dermatol*. 1997; 137(5):755-60.
12. Wahl A, Hanestad BR, Wiklund I, Moum T. Coping and quality of life in patients with psoriasis. *Qual Life Res*. 1999; 8(5):427-33.
13. Grozdev I, Kast D, Cao L, Carlson D, Pujari P, Schmotzer B, *et al*. Physical and mental impact of psoriasis severity as measured by the compact Short Form-12 Health Survey (SF-12) quality of life tool. *J Invest Dermatol*. 2012; 132(4):1111-6.
14. Kotsis K, Voulgari PV, Tsifetaki N, Machado MO, Carvalho AF, Creed F, *et al*. Anxiety and depressive symptoms and illness perceptions in psoriatic arthritis and associations with physical health-related quality of life. *Arthritis Care Res (Hoboken)*. 2012; 64(10):1593-601.