e-ISSN: 0975-5160, p-ISSN: 2820-2651

Available online on www.ijtpr.com

International Journal of Toxicological and Pharmacological Research 2022; 12 (11); 131-135

Original Research Article

Quality of Life of Psoriasis Patients of a Tertiary Care Centre of Eastern India

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Received: 25-09-2022 / Revised: 25-10-2022 / Accepted: 15-11-2022

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Conflict of interest: Nil

Abstract

Background: Psoriasis is a chronic immune mediated inflammatory skin disease. It is common in both sexes and leaves a significant effect on the quality of life (QOL) of the affected patients.

Aim: This study is conducted to determine the correlation between psoriasis and its impact on the quality of life and also the relation between the QOL and certain demographic and clinical factors.

Method: The study was conducted in 78 patients who were diagnosed with psoriasis from outpatient department of Dermatology department and the disease impact on the quality of life by using the Dermatology Life Quality Index (DLQI) questionnaire.

Result- 39.73% patients were severely affected with psoriasis and they had an equal impact on the quality of life. Effect of quality of life varied in different sexes, however, females were majorly effected. Age of the patient did not have any relevance to the disease progression or QOL. Duration of disease and body surface area involved had significant impacts on QOL.

Conclusion: Quality of life was affected and had major impact on female population suffering from psoriasis. Age correlation was not established. However body surface area involved in psoriasis also impacted on QOL. Early diagnosis and proper counseling would lower the impact of psoriasis on the population exposed. Research and introduction to latest techniques are essential in minimizing the duration of treatment.

Keywords: Psoriasis, Quality of life (QOL), Dermatology Life Quality Index (DLQI).

Introduction:

Skin is the outer covering of body and also the largest integumentary organ system. People having skin diseases have to deal with the disease process & also the stigmatization associated with it because of its easy visibility. [1] Psoriasis is a chronic disfiguring inflammatory skin disease. [2] Psoriasis can be categorized as Chronic Plaque Psoriasis, Nail Psoriasis, Pustular Psoriasis, Flexural Psoriasis, Palmoplantar Psoriasis, Scalp Psoriasis, Guttate Psoriasis, Annular Psoriasis and Psoriatic Erythroderma. [3] The commonest among these is the Chronic Plaque Psoriasis. [3] Clinically, lesions are well defined, scaling, erythematous and itchy plaques. Lesions are commonly seen on the knees, scalp, elbows, trunk, buttocks etc. [4] Pathogenesis of psoriasis includes uncontrolled keratinocyte

proliferation and differentiation. [5] Autoimmune & inflammatory processes usually overlap in psoriasis. [6] Any gender or age could be a potentially affected by psoriasis. Psoriasis can affect daily activities like going to work place or going to any public place [7]. Social and sexual relations are also majorly affected. Since the disease is chronic, long term treatment could severely impact the quality of life. [7] A major portion of population in the country are on the fine line or below poverty line and so the quality of life as well as the health is completely neglected. The quality assessment of life is very important for the successful treatment and rehabilitation of the patients. The present study was undertaken with the objective to find out the impact of psoriasis on the quality of life of affected patients.

Materials and Methods

The study was conducted in the Department of Dermatology, Venereology and leprosy, Pacific Institute of Medical Sciences, Umarda, Udaipur, Rajasthan for a period of 4 months from March 2022 to June 2022 which included 78 patients. This is an institute based cross sectional study of all patients attending the Dermatology OPD within the study period & also fulfilling the inclusion criteria which is All new adult patients presenting with clinical signs of psoriasis and willing to participate in the study through a written informed consent were included in the study. During this study, patients attending the OPD were firstly screened for Psoriasis and written informed consent was taken from the patients. Patients were asked to answer the questions of DLQI questionnaire after clearly explaining them the question in their preferred language. Later DQLI score was calculated. Body Surface Area involvement was calculated using the 'Rule of palm 'which is palmar surface of palm and five digits of the patient was together taken equivalent to 1%. [9] The Dermatology Life Quality Index (DLQI) [8], developed by Professor Finlay and colleagues, had been used as the tool for assessing the QOL in Psoriasis patients. The responses to each question were scored as, not at all / not relevant 0, a little 1, a lot 2 and very much 3. The DLQI was calculated by adding up the score of each item with minimum score of 0 and the maximum of 30. Lower the score, better is the quality of life. The grading of DLQI score was done as below:

1. 0–1 -- no effect
2. 2–5 -- small effect
3. 6–10 -- moderate effect
4. 11–20 -- very large effect
5. 21–30 -- extremely large effect

The study protocol was approved by Institutional Ethics Committee of Pacific Institute of Medical Sciences, Umarda, Udaipur, Rajasthan.

Results

The total number of patients in this study was 78. There were 42 male patients and 36 female patients. Quality of Life (QOL) was not affected at all in (10.25%) patients. There was a small effect on (16.66%) patients. There was moderate effect on (33.33%) patients. Psoriasis had a very large effect on the QOL of (34.61%) patients. Taking into consideration of both sexes, majority of patients suffered either moderate or very large effect on QOLs. (5.12%) patients suffered an extremely large effect (Table 1).

Table 1: Distribution of patients according to effect of Quality of Life and Gender

Effect of QOL	Male patients	Female patients	All patients
No effect	16.66%	2.77%	10.25%
Small effect	21.42%	11.11%	16.66%
Moderate effect	30.95%	36.11%	33.33%

Very large effect	26.19%	44.44%	34.61%
Extreme large effect	4.76%	5.55%	5.12%
Chi square=6.14 ; p=0.0463dF=2			

Table 2: Central tendency and dispersion of DLQI scores according to gender

	Mean ± SD of DLQI score		Median of DLQI score
Male	7.95±5.69	T=2.24	8.5
Female	10.78±5.40	dF =76	10.5
all	9.26±5.70	p=0.0279	9.0

It was clear from the table that female patients had much more impairment in QOL due to Psoriasis. 49.9% of female patients had very large and extremely large effect while 31.1% of male patients had such high effect. The Mean DLQI Score among all the patients was 9.26 ± 5.70 and the median Score was 9.00. The mean DLQI score among the male patients was 7.95 ± 5.69 and the median DLQI Score of the male patients was 8.50. Mean DLQI score among the female patients was 10.78 ± 5.40 and the median DLQI score of the female patients was 10.50. The figures indicated that female patients are having degraded QOL due to psoriasis. There was significant difference between the mean scores of both male and female patients. (Table 2) With increase in body surface area involvement in Psoriasis, DLQI score is elevated which shows that quality of life (QOL) is more impaired. Similarly with increasing duration of Psoriasis, DLQI score increases and quality of life is more adversely affected.

Discussion

Psoriasis is a chronic immune mediated disease that affects the skin, nails & joints.[10] Robert Willan was the first person who gave a detailed description of the clinical features of Psoriasis.[11] About 2-3% of the total population of the world is affected by psoriasis [12] A study which was conducted by Kaur found that 2.3% of the total Outpatient department in the Dermatology department suffered with Psoriasis. According to their study, most of the psoriasis patients were males. [13] Another study found that 2.8% of the patients attending the dermatology outpatient department had Psoriasis. They also found that among psoriasis patients, male preponderance was seen. They also noted that the disease aggravated and caused more suffering to the patients in winter season. [14] In this study, we have used the Dermatological Life Quality Index (DLQI) [8] for assessment of the effect of psoriasis on QOL of the patients. The DLQI [8] has been used to measure the effect on the QOL of patients affected by many dermatological diseases. DLQI is also used as a tool to assess the quality of life in patients with acne [15], vitiligo [16], hand eczema [17], superficial dermatophytosis infection [18], seborrheic dermatitis [19]. According to this study, we found that Psoriasis has an adverse effect on QOL of the patients. A study conducted by Sarkar R found that psoriasis is associated with loss of self-confidence, social stigmatization, discomfort, physical disability, pain, and psychological distress. [20] Another study reported that 82.9% of the patients in their study often felt the need to hide their disease and 74.3% of the patients felt that their self-confidence has reduced due to psoriasis [21]. It has been reported by several other studies that psoriasis has an adverse effect on the QOL of the affected patients [2,9,22]. The reason behind this significant adverse effect of psoriasis on the quality of life is because the disease is chronic. Treatment continues for a prolonged period and often throughout the whole life of the patient. Moreover presence of the lesions on the visible areas of the body also leads to social stigmatisation. According to this study, QOL due to psoriasis is more impaired in case of females than in males.

Similar findings were reported by other studies. [9,23] However there are studies which reported that there is no correlation between gender and effect on quality of life. [2,23] The present study showed that there is a significant correlation between the duration of disease and the effect on QOL, which is more adversely affected in chronic cases. A positive correlation has been found between duration of the disease and DLQI score ($R = 0.73$, $p<0.05$). Disease duration and progression is bound to affect the QOL of patients, because the sufferings continue for a longer period. In this study there is a significant positive correlation between the extent of body surface area involved and the impairment in QOL ($R = 0.74$, $p<0.05$) i.e. with increasing body surface area involvement, QOL is bound to suffer. Similar findings were reported by Çakmur and Derviş from Turkey which found a linear positive correlation between body surface area involved and DLQI but not between Psoriasis Area Severity Index (PASI) and DLQI [24]. The fact that disease severity greatly impacted the QOL documented by DLQI scores has been reported by Nagrani P [9-12] in Dehradun, as well as by Mabuchi [23]. More involvement of body surface area in psoriasis means that the extent of disease is more and this leads to more scaling and itching. [24] Along with this more body surface area involvement results in more visible lesions which results in greater stigmatization which ultimately leads to impaired QOL. The treatment also gets more prolonged and complicated in case of greater body surface area involvement. All these together may cause larger adverse effects on the QOL of a psoriasis patient. [25]

Conclusion

Several treatment procedures have been developed for Psoriasis which are quite effective. However it is a chronic disease with remissions and exacerbations. The present study showed that majority of patients' experienced moderate, very large or extremely large adverse effects on the QOL. Female patients experienced major impairment of QOL than males and it may be related to difference in body image perception between the sexes. As expected, duration of disease and body surface area involved had a positive linear correlation with the effect on one's QOL. Research and latest techniques should be introduced to find out methods for early diagnosis & treatment of psoriasis. Awareness programs regarding the disease must also be introduced among the general population. Adequate information regarding the impact of psoriasis on QOL might help increasing patient compliance and boost further efforts to find out overall better management of the affected patients.

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