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Original Research Article

Dermatological life quality index in psoriasis

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ABSTRACT

Background: Psoriasis is an immune mediated chronic inflammatory disorder characterized by chronicity of the condition and periods of relapses and remissions. Dermatological life quality index (DLQI) is a widely used measure to determine the patient reported outcome in psoriasis. This study was conducted to evaluate the quality of life in psoriasis patients depending upon their age, sex, type of the disease, duration of the disease and with treatment.
Methods: This is a cross sectional study performed in a tertiary care center in Chennai. The study was performed in 100 patients with a prepared DLQI questionnaire. The patients were asked to fill in the questionnaire and the results were graded from mild to very severe.
Results: In this study, males outnumbered women in the ratio of 1.2:1. Patients in the age group 41-60 years formed the majority in this study. Itching and soreness of the lesions worsened the DLQI in majority of the patients. Quality of life of patients with psoriasis vulgaris was much affected when compared with other types of psoriasis like erythrodermic and scalp psoriasis. Also, married patients with psoriasis had significant impairment in their quality of life compared to unmarried patients.
Conclusions: The findings of this study showed that psoriasis has a significant impairment in the quality of life and hence DLQI should be assessed at the first visit and also after treatment to improve the compliance of the patients towards the doctor as well as to the treatment.

Keywords: DLQI, Psoriasis, Dermatology

INTRODUCTION

Psoriasis is a polygenic disorder of keratinization mediated by aberrant immune response leading to the self-perpetuating cytokine networks. This disorder is characterized by periods of remissions and relapses adding to the frustration of the patients. The disorder has a significant impact on the quality of life of the patients and hampers the daily routine of the patients.[1] Various research studies have proven the association of psoriasis with psychiatric disorders like depression, anxiety and suicidal tendencies.[2] Spending adequate time with the patient and explaining the course of the disease and also explaining to the relatives and friends can improve the quality of life of the patient.

Assessment of DLQI can be fruitful for both doctor and the patient since the burden of the disease and its impact on the daily routine of the patient can be assessed by this method and also deciding the appropriate therapeutic options. The DLQI is a questionnaire which consists of a list of questions which are easily interpreted by the patient.[3] The questions are asked regarding the impact of the disease on daily activities, personal life and social life of the patient. The impact is assessed through a range of grades from very mild to very severe and the final scoring is done.[4] This study was performed to assess the DLQI in psoriasis patients with regards to age, sex, disease severity and the type of psoriasis.

METHODS

This was a cross-sectional study conducted in the Department of Dermatology, Sree Balaji Medical College and Hospital, Chennai. The study population were patients attending the outpatient department of the hospital after obtaining ethical clearance. A total of 100 patients aged above 15 years were included in this study.

Consecutive sampling method was followed and descriptive analysis of the collected data was done. Patients below 15 years and those who did not consent were excluded from the study. The included participants were subjected to detailed history taking and clinical and dermatological examination.

The study was conducted by presenting to the patient, a set of DLQI questionnaire which consists of 10 questions and each question has a highest score of 3 adding to a total score of 30 points. The questions are easily comprehended by the patients and they were asked to fill up the questionnaire.

Table 1: DLQI questionnaire.

S. No.	Questionnaire
1	Over the last week, how itchy, sore, painful or stinging has your skin been?
2	Over the last week, how embarrassed or self-conscious have you been because of your skin?
3	Over the last week, how much has your skin interfered with you going shopping or looking after your home or garden?
4	Over the last week, how much has your skin influenced the clothes you wear?
5	Over the last week, how much has your skin affected any social or leisure activities?
6	Over the last week, how much has your skin made it difficult for you to do any sport?
7	Over the last week, has your skin prevented you from working or studying? If "no", over the last week how much has your skin been a problem at work or studying?
8	Over the last week, how much has your skin created problems with your partner or any of your close friends or relatives?
9	Over the last week, how much has your skin caused any sexual difficulties?
10	Over the last week, how much of a problem has the treatment for your skin been, for example by making your home messy, or by taking up time?

Each question is graded as follows:

- Very much- grade of 3.
- A lot- grade of 2.
- A little- grade of 1.
- Not relevant- 0.

After summing up the score from each question, the DLQI is graded as follows:

- 0-1: No effect on the patient's life.
- 2-5: small effect on the patient's life.
- 6-10: moderate effect on the patient's life.
- 11-20: very large effect on the patient's life.
- 21-30: extreme effect on the patient's life.

Statistical methods used were SPSS version 22 and data entry were done in Microsoft Excel.

RESULTS

Figure 1 shows that patients in the age group 41-60 years constituted the majority followed by the age group of 21-40 years and the least from below 20 years age group.

Males (54%) formed the majority of the study population compared to females (46%), the ratio being 1.2:1.

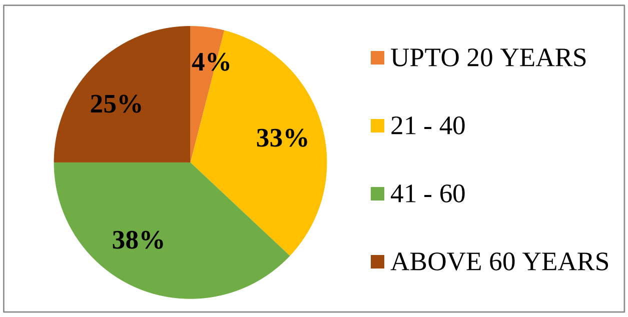

Figure 1: Age distribution.

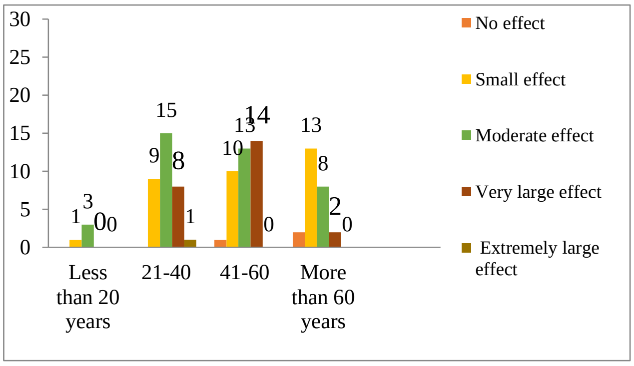

Figure 2: Impact based on age.

Figure 2 shows that the female to male ratio is 1.2:1. The impact of psoriasis on the patient's life quality based on age and sex was calculated and it was noted that the impact of psoriasis in the patients' life quality was affected more in the age group of 41-60 years.

Based on the sex, females DLQI was found to be extremely affected more than males.

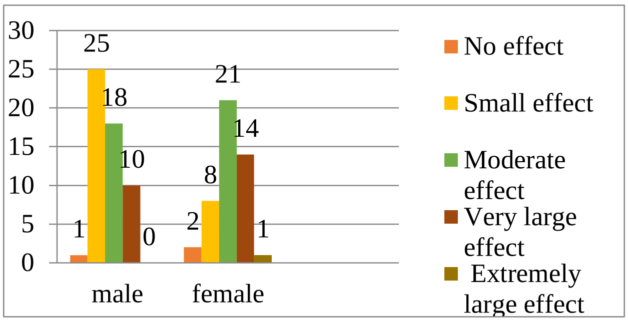

Figure 3: Impact based on sex.

Figure 3 shows that females were very much affected with the disease compared to males. The majority of the males in this study had small effect on their DLQI because of the disease process.

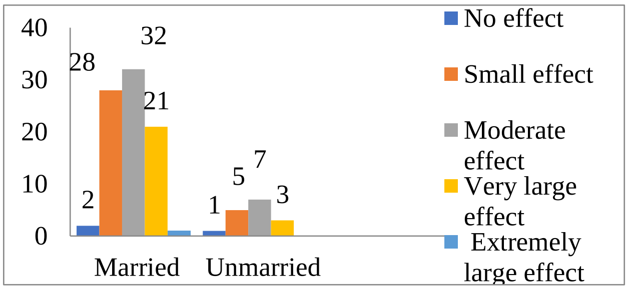

Figure 4: Impact based on marital status.

The impact of psoriasis based on the marital status showed that married patients had extremely large affect score compared to unmarried (Figure 4).

The impact of the type of psoriasis on the DLQI revealed that psoriasis vulgaris had the maximum impact on the quality of life presented by Figure 5.

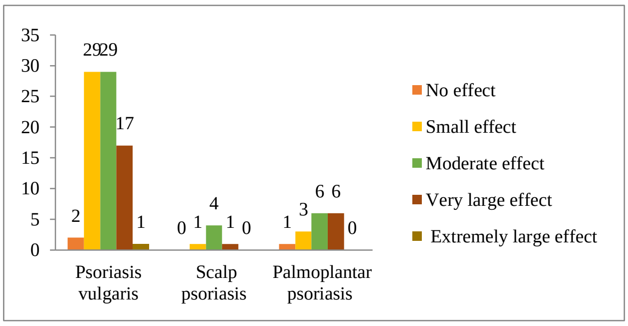

Figure 5: Impact based on type of psoriasis.

With regards to the itch, pain and soreness on their daily life almost 56% of the study population were affected a lot by the disease process.

Also, with regards to embarrassment due to the disease process, 51% of the participants had no problems like embarrassment due to the disease process.

In this study, 51% of the patients had no interference of the disease with their daily activity. Only 8% of the patients in this study were affected much by the disease process.

27% of the patients had a little affect in their leisure or social activity due to the disease process while 53% of patients had no affect at all. Only 3% of the patients with psoriasis had interference with their studies due to the disease process whereas the rest did not have any problems regarding this domain. Majority of the patients (93%) in this study had no sexual difficulties due to the disease (Figure 6).

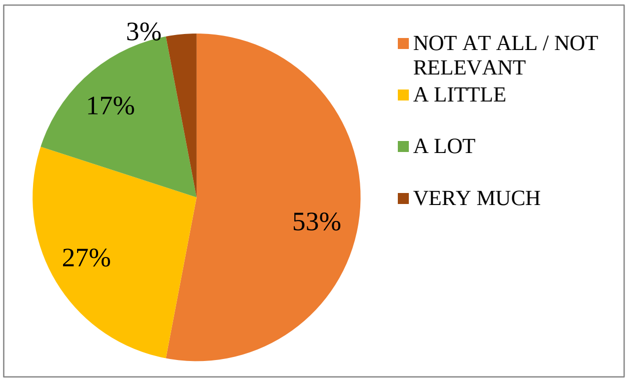

Figure 6: Effect of treatment on daily life or time.

With regards to the effect of the treatment on their daily activities, 17% of the patients had much difficulty due to the treatment while 53% had no effect at all.

DISCUSSION

Psoriasis is an immune mediated inflammatory disorder with a chronic course having a significant impact on the quality of life and work productivity. This study was performed to assess the impact of psoriasis on the quality of life of the patients affected by the disease. In this study, patients in the age group 41-60 years formed the majority and the least were below 20 years age group, the findings are almost similar in the study by Parimalam et al.[1] The DLQI was severely affected for few patients in the 21-40 years age group whereas it was very much affected in the majority in the 41-60 years age group.

With respect to sex, DLQI for the females was affected severely whereas males were affected relatively less. DLQI was affected more in married persons compared to unmarried leading to further problems in the family adding to the stress caused by the disease.

With regards to the type of psoriasis on the quality of life, psoriasis vulgaris had the maximum impact in the patients' lives compared to palmoplantar psoriasis and pustular psoriasis. This finding is similar to that mentioned in the article by Vardy et al in which the clinical severity of psoriasis correlates with the decreasing QOL in the patients.[5]

Itching was the predominant complaint from the patients affecting the quality of life. 19% of the patients had their social or leisure activity affected because of psoriasis. 22% of the patients had problems with their families or relatives because of psoriasis. The above finding is mentioned in a review article by Bhosle et al in which the patients with psoriasis had problems in their families and workplace measured by the work productivity assessment index and leading to frequent absenteeism from work.[6]

In this study, the quality of life was much affected in the 21-40 years age group compared to the other age group since this is the age when they are socially and sexually active. Various studies performed on DLQI in psoriasis have found that around 75% of the patients with psoriasis have an impaired quality of life.[7] In this study, 65% of the psoriasis patients had large effect on their quality of life due to the disease while the rest had a small effect on their quality of life. In a study by de Arruda et al, the clinical assessments do not necessarily correlate with the disease severity and even patients with limited disease can also have profound psychological and social impact.[8]

Calculation of DLQI is necessary as this indicates how much the patient is suffering in their personal and social life and this may even necessitate systemic treatment even when body surface involvement is less.[9] The assessment of DLQI helps the treating doctor to understand the suffering of the patient and helps to provide the appropriate therapy based on the physical and psychological status of the patient.

CONCLUSION

This study shows that the assessment of DLQI in psoriasis patients is of utmost importance in assessing the physical and psychological status of psoriasis patients. Many research studies have shown that psychiatric problems like anxiety, depression and suicidal ideation is commonly seen in psoriatic patients.[9] Hence assessing DLQI helps the treating doctor to understand how much the patient is affected by the disease and to plan treatment accordingly thereby improving the compliance of the patient towards the doctor as well as to treatment.

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