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Research

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Quality of Life is More Affected in Psoriasis than Vitiligo: A Study of 40 Moroccan Patients

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KEY MESSAGE: Quality of Life (QoL) impairment among Moroccan psoriasis patients was higher than vitiligo. Dermatology Life Quality Index (DLQI) high scores in psoriasis were significantly associated with female sex, uncovered areas involvement, disease extent areas and low socioeconomic level but not with PASI scores.

ABSTRACT

Background: Quality of life (QoL) assessment is becoming crucial in clinical trials, particularly with psoriasis.
Objectives: The aim of this study was to evaluate QoL by the Moroccan version of the DLQI (Dermatology Life Quality Index) among psoriatic patients compared to vitiligo.
Methods: This is a prospective study of patients aged 18 or older, who consulted at the dermatology clinic for psoriasis or vitiligo, between June 2012 and October 2012. The DLQI has been used in its Moroccan version validated and published. A high score indicates an impaired QoL.
Results: Forty-Psoriatic subjects (12 Male (M), 28 Female (F)) and 28 consultants for vitiligo (5 Male (M), 23 Female (F)) completed the DLQI. The mean duration of psoriasis was 13±13 years. The main clinical type of psoriasis was plaque-type psoriasis in 19 cases (47%) followed by guttate psoriasis in 11 cases (27%). The mean Body Surface Area (BSA) was 19%. Uncovered areas were affected in psoriasis as follows: face 9 cases (22.5%), hand 11 cases (27.5%) and both 3 cases (7%). The mean PASI was 6.3±7. The total mean score of DLQI was 11.15±6.2 for psoriasis and 7.9±4.6 in vitiligo (p=0.017). DLQI high scores in psoriasis were significantly associated with female sex, uncovered areas involvement, disease extent areas (BSA) and low socioeconomic level.
Conclusion: This study showed that psoriasis was associated with a great effect on QoL in outpatient subjects. QoL impairment in psoriasis was greater than in vitiligo.

KEYWORDS: Psoriasis; Quality of Life (QoL); DLQI; Vitiligo.

INTRODUCTION

Health-Related Quality of Life (HRQoL) assessment has become an important endpoint in clinical management decision-making of skin disease,[1] particularly in psoriasis.[2]

QoL impairment in psoriasis is not limited to physical discomfort. A number of studies showed that the disease has a particularly negative effect on self-perception of body image leading to low self-esteem, stigma, and a feeling of shame in the patient because of the psoriasis lesions. These are all factors affecting quality of life, as well as having a chronic disease with treatment side effects.[3,4] Therefore, it is important to consider psoriasis as a serious disease and resist the tendency to underestimate its impact on the overall patient well-being.[2]

Several quality of life scales were used in this dermatosis known for its negative impact on the patient's health related life quality. The Dermatology Life Quality Index (DLQI) is

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one of the useful questionnaires in assessing quality of life especially in psoriasis.[5] Developed by Finlay and Khan,[6] the DLQI has been used internationally for more than 15 years and translated into more than 80 languages.[7,8] It's reliable, validated in its Moroccan version and easy to administer.[9]

This study aims at estimating health related QoL in psoriatic population which is compared to the level of disability caused by vitiligo. It is also our purpose to detect patients at risk of experiencing a poor quality of life and to identify variables that may predict this impairment.

METHODS

A prospective study was conducted at the Dermatology and Venerology Department at Ibn Rushd University Hospital from June to October 2012. Subjects were selected among patients referred to the outpatient department for psoriasis or vitiligo. Patients requiring hospitalization were excluded. All participants (≥18 years) were interviewed and examined by the dermatologist, who carried out a Body Surface Area (BSA) and Psoriasis Area and Severity Index (PASI) assessment in psoriasis. A questionnaire collecting socio-demographic data such as: age, gender, skin color, marital status and education level, lesions topography and visible areas involvement (face, hands and feet) were completed by the same dermatologist.

The validated Moroccan version Dermatology Life Quality Index (DLQI) questionnaire was implemented to determine the impact of QoL on all study subjects.[9] It includes 10 questions (Q) grouped into 6 items : Q1-2 symptoms and feelings, Q3-4 daily activities, Q5-6 leisure, Q7 work/ school, Q8-9 personal relationships and Q10 treatment over the previous week. Each item includes four possible answers: much, a lot, a little, not at all or not relevant, scored from 0 to 3, giving a total DLQI ranging from 0 (no impairment of QoL) to 30 (maximum impairment of QoL). Higher scores represented a greater impact on quality of life. Results from 0-1 show no effect of the disease on the patient's QoL, scores 2-5 show a small effect, scores 6-10 mean a moderate effect, scores 11-20 correspond to a great effect and scores 21-30 show a very important effect of the disease on the patient's QoL.[10] As required by Finlay and Khan, a specific authorization for its use was obtained by the authors.

Documentation and analysis of the data were carried out using SPSS version 16. This analysis was used to calculate descriptive statistics of the study's variables including the DLQI score, the mean and standard deviation for quantitative variables and proportions for qualitative variables.

The bi-variant analysis based on Student's test consisted of the comparison of two medium variances analysis for comparison of multiple means and Pearson correlation coefficient for the two quantitative variables comparison. A value $p<0.05$ for two-tailed test was pre-fixed as a cutoff point.

RESULTS

During the study period, 68-patients were enrolled. Psoriasis patients group included 40 consultants (28 females and 12 males, mean age 44 years, ranged from 18 to 81 years). The other group was represented by 28 patients with vitiligo (23 females and 5 males, mean age 39 years, ranged from 16 to 62 years). Demographic characteristics of the patients are summarized in Table 1. The mean duration of psoriasis was 13±13 years. The main clinical type of psoriasis was plaque psoriasis in 19 cases (47%) followed by guttate psoriasis in 11 cases (27%). Psoriasis was associated with comorbidity in 16 cases. The mean BSA was 19±2% (1 to 80%). Visible areas were affected in psoriasis as follows: face 9 cases (22.5%), hand 11 cases (27.5%) and both (face and hands) 3 cases (7%). Pruritus was noted in 34 patients. The mean PASI was 6.3±7 (range 1-38.8). In vitiligo, the main clinical type was localized vitiligo 15 cases (53.6%), followed by focal 1 case (3.6%), acrofacial 6 cases (21.4%), segmental 4 cases (14.3%) and generalized vitiligo 2 cases (7.1%). Visible areas affected were: the face in 9 cases (32%), hands in 2 cases (7%) and simultaneously face and hands in 13 cases (46%). The mean BSA in vitiligo was 29% ±28 (1 to 95%).

	Psoriasis	Vitiligo
Nb (%) Nb	(%)	
Gender		
Male	12(30)	5(18)
Female	28(70)	23 (82)
Marital status		
Married	25(62.5)	11(39)
Widower	5(12.5)	0
Single	10(25)	13(47)
Divorced	0	4(14)
Socioeconomic level		
low	10(25)	8(29)
average	24(60)	17(60)
high	6(15)	3(11)
Educational level		
illiterate	10(25)	6(21)
primary	8(20)	10(36)
secondary	16(40)	8(29)
university	6(15)	4(14)

Table 1: Sociodemographic data.

Filling the DLQI required 1-3 minutes. The total mean DLQI score was 11.15±6.2 (range 1-25) in psoriasis, which is statistically significantly higher than 7.9±4.6 (range 0-18) in vitiligo (p=0.017). Based on the result interpretation of the DLQI scale, no impairment in QoL was found in 2 cases (5%) of psoriasis and in 2 cases (7%) of vitiligo, a small impairment of QoL was found in 4 cases (10%) and in 10 cases (35.7%), moderate impairment of QoL was found in 16 cases (40%) and in 10 cases (35.7%), large impairment of QoL was found in 15 cases

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(37.5%) and in 6 cases (21.4%) respectively, a very large impairment of QoL in 3 cases (7.5%) of psoriasis (Figure 1).

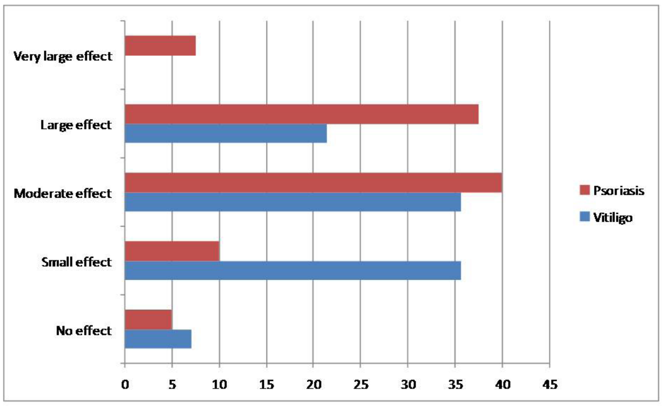

Figure 1: DLQI scores in 40 psoriasis and 28 vitiligo patients.

The highest DLQI scores in psoriasis were obtained with the symptoms and feelings as well as daily activities (Figure 2). On the other hand, vitiligo did not influence activities such as going to school or work compared with psoriasis. In psoriasis, the total DLQI score was significantly associated with female sex (p=0.013), visible areas involvement (p=0.041), disease extension (BSA) (p=0.006) and the low socioeconomic status (p=0.032).

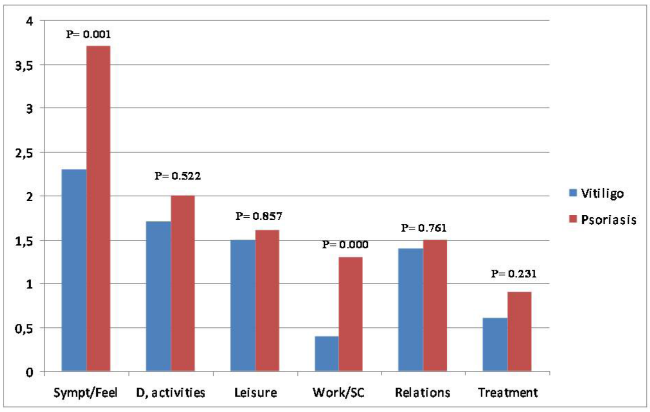

Figure 2: Items of DLQI in 40 psoriasis and 28 vitiligo patients. Symp/feel: symptoms and feelings; D activities: dialing activities.

DISCUSSION

This study demonstrates a great disease-related effect of psoriasis on QoL. The mean DLQI score was 11.1 which is significantly higher than in vitiligo (DLQI 7.9). The same results were given by different studies showing more apparent disability in psoriasis compared to vitiligo (Table 2).[11-15] These data can be explained by the fact that vitiligo has no impact on activities such as going to school or work, as pigment loss does not cause physical disability. On the contrary, besides suffering from physical discomfort, impaired emotional functioning and a negative body self-image, psoriatic patients suffer from limitations in daily activities, social contacts and work.[3] Indeed, the DLQI's questions focus on physical limitations and few items address the frequent psychological impact of skin diseases. This implies that the DLQI is better at assessing the impact of severe (inflammatory) diseases than that of diseases with a relatively mild impact or with few physical symptoms but high psychological impact such as vitiligo.[16] Besides, the DLQI lack of items assessing stress, financial cost, and addictive behavior.

Study	Psoriasis DLQI	Vitiligo DLQI	*p*
Karelson (2013)	13.1	4.7	*P*<0.0001
Ghajarzadeh (2012)	12.8	8.4	*P*<0.001
Radtke (2009)	8.6	7.0	-
Ongenae (2005)	6.26	4.95	*P*=0.01
Tejeda (2011)	15.5	13	-
Our study	**11.1**	**7.9**	**0.017**

Table 2: DLQI in studies comparing psoriasis and vitiligo.

The mean DLQI score in psoriasis in the present study (11.1) seems to be higher than the original one reported by Finlay et al,[6] as well as other studies.[11,17-21] This difference may be due to the characteristics of our patients (mean body surface area was 19% and 50% with visible areas involvement). Although having the same grade of impaired QoL, one study suggests that psoriatic patients belonging to different countries respond differently to DLQI because of language and culture diversity.[22] This point may interfere with the comparison between our results and those reported in the literature.

In other studies, the quality of life related to health in psoriatic patients was more impaired than in ours.[4,9,13,15,22] A possible inclusion of hospitalized psoriatic patients in these studies could increase the mean score of DLQI. Psoriasis has a highly significant impact on patients' QoL on the scale of symptoms, feelings and daily activities. This profile is in agreement with previous studies in which psoriasis was compared with vitiligo.[11,12,14] Predictive clinical factors for low QoL in psoriasis were: female gender, visible areas involvement, disease extension (BSA) and low socioeconomic level.

The impact of visible areas involvement and of disease extension on the QoL has been previously suggested in the literature.[22] However, we didn't find any correlation between the DLQI and the PASI as was previously described by various studies.[9,12,24-28] It has been suggested that unlike the PASI score, where each area of the body is weightest proportionally to the surface area covered, the DLQI is more heavily influenced by areas of the body that are visible. Therefore, the DLQI may provide information regarding outcomes beyond that described by the PASI score.[25] The DLQI and PASI measure different aspects of psoriasis and are useful tools to assess the severity of psoriasis and its treatment.[29,30] In addition, the small size of our sample did not reveal any other correlations.

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CONCLUSION

The impact of psoriasis on a patient's health-related quality of life is profound and has been well documented in the scientific literature. In this study, psoriasis had a great effect on QoL in outpatient psoriatic subjects using the DLQI in its Moroccan version. These patients were more disabled and showed more severe impairment in QoL compared to those with vitiligo. Psoriasis has a greater impact on QoL when the disease affects female gender, visible areas, and more extended lesions in patients with low socioeconomic level. We found, however, no correlation between QoL impairment and severity of psoriasis (PASI). A quality of life assessment in these patients is desirable to specify the most affected dimensions and set up an adequate treatment to improve quality of life and reduce the risk of psychological damage.

CONFLICTS OF INTERESTS: None.

CONSENT STATEMENT

The patients have provided written permission for publication of the case details.

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