

Quality of Life Assessment in Iraqi Patients with Acne Vulgaris and Psoriasis

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ABSTRACT:

BACKGROUND:

Skin diseases may affect daily lives of individuals and their psychological and social relationships. Appropriate measurement systems are required to evaluate the impact of the disease on the quality of life. The Dermatology Life Quality Index (DLQI) is an important and commonly used dermatology specific quality of life instrument.

OBJECTIVE:

To assess the quality of life in 2 common dermatological disorders (acne and psoriasis) in Iraqi patients attending dermatological outpatient clinic, Baghdad Teaching Hospital.

PATIENTS AND METHODS:

A case series study of 400 patients with 2 dermatological diseases (acne and psoriasis); 200 patients for each disease were evaluated. Information related to socio-demographic data and disease severity were recorded and quality of life was assessed by means of the Dermatology Life Quality Index.

RESULTS:

The DLQI of patients with acne and psoriasis were comparable; 7.71+/-4.64 and 8.52+/-4.48 respectively. In patients with acne the DLQI was significantly affected by higher level of education $P=0.002$, also in unmarried patients $P=0.0001$. Increased disease severity also affected DLQI ($P=0.003$). In patients with psoriasis the only factor which was associated with a higher DLQI was female gender.

CONCLUSION:

Acne and psoriasis affect significantly the DLQI of patients. DLQI is a good indicator of the impact of the disease on the life of the patient.

KEY WORDS :quality of life, psoriasis, acne vulgaris.

INTRODUCTION:

Skin diseases have great impact on the life of the patient. Virtually all aspects of the patient's life can be affected including physical, functional, and emotional⁽¹⁾. Taking into consideration that many skin diseases are common, their effect on the community in general cannot be overestimated. Two common skin diseases have great impact on the quality of life; acne vulgaris and psoriasis. Acne vulgaris is one of the most frequent inflammatory skin diseases encountered in daily practice. The clinical picture can vary significantly, from mild comedonal acne to fulminant systemic disease. Although all age groups may be affected by its many variants, acne is primarily a disorder of adolescence. Acne has an undeniable psychosocial impact, and affected individuals have an increased likelihood of self-consciousness, social isolation, depression and even suicidal ideation.^(2,3)

Psoriasis is a common, chronic, inflammatory and proliferative condition of the skin, in which both genetic and environmental influences have critical role. The disease is variable in duration, periodicity of flares and extent⁽⁴⁾. The effect of these 2 diseases on the quality of life was assessed using a standardized Dermatology life quality index (DLQI).

Patient oriented quality of life (QOL) measures are particularly beneficial in chronic diseases as they assess how the diseases affect a person socially, psychologically and physically. There are many tests that measure QOL. Some tests are general, while others are specific for skin diseases. Dermatology quality of life index (DLQI) is frequently used to assess the impact of skin diseases. In the present study DLQI was measured in acne and psoriasis patients. In addition the effect of disease severity and some other factors on DLQI was assessed.

PATIENTS AND METHODS:

A total of 400 patients were included in the study; 200 patients with acne vulgaris and 200 patients with psoriasis. Patients were selected

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randomly from the outpatient clinic of the Dermatology Department Baghdad Teaching Hospital during the period from January 2015 through June 2015.

Approval for the study was granted by the Scientific Council of Dermatology /Iraqi Board for Medical Specializations. The nature of the study was explained to the patients. Demographic and socioeconomic data were recorded, such as age, gender, marital status and level of education. For acne patients the severity of disease was calculated according to Lehmann et al ⁽⁵⁾ (table

1). Only patients with facial acne were included, patients with acne scars were excluded.

For patients with psoriasis PASI score was calculated and represented disease severity ⁽⁴⁾ Dermatology life quality index (DLQI) was assessed using a 10 questions test, obtained from www.dermatology.org.UK. An Arabic version was used. Table (2) shows the interpretation of DLQI in relation to the effect on patient's life quality.

Pearson Chi-square test was employed for statistical analysis. SPSS-22 version computer program was used for this purpose.

Table 1: Acne severity scoring.

Severity	Comedones	Inflammatory lesion	Total
Mild	<20	<15	<30
Moderate	20-100	15-50	30-125
Severe	>100	>50 or >5 pseudo cyst	>125

Table 2: Interpretation of DLQI score in relation to effect on patient's quality of life.

DLQI score	Effect on patient's life
0-1	No effect
2-5	Small effect
6-10	Moderate effect
11-20	Large effect
21-30	Extremely large effect

RESULTS:

A total 125 male and 75 female patients with acne vulgaris and 170 males and 30 females with psoriasis participated in the study. Their age and

DLQI are shown in table (3). There was no significant difference in DLQI between acne and psoriasis patients (P= .076).

Table 3: Age and Dermatology life quality index of patients with acne and psoriasis.

		Range	Median	Mean± SD
Acne	Age (years)	16-30	19	19.88±4.18
	DLQI	1-23	7	7.71±4.64
Psoriasis	Age (years)	16-73	44	44.79±13.11
	DLQI	1-20	8	8.52±4.48

The impact of the diseases (acne and psoriasis) on the quality of life is shown in table (4).

Table 4: Effect of disease (acne and psoriasis) on the life quality.

DLQI interpretation	Acne	Psoriasis
No effect	16 (8%)	15 (7.5%)
Small effect	36 (18%)	21(10.5%)
Moderate effect	121 (60.5%)	99(49.5%)
Very large	23 (11.5%)	65(32.5%)
Extremely large	4 (2%)	0
Total	200	200

Gender did not affect DLQI in patients with acne p=0.295, while a greater percentage of women

with psoriasis had moderate to very large impact than men p=0.005, table (5).

Table 5: The effect of gender on DLQI in acne, psoriasis patients.

		DLQI	
		No effect-small effect	Moderate-very large-extremely large effect
Acne	Male	36(28.8%)	89(71.2%)
	Female	16(21.3%)	59(78.75)
Psoriasis	Male	36(21.2%)	134(78.8%)
	Female	0	30(100%)

Unmarried acne patients scored higher than married patients $p=0.0001$, while no such difference exists in patients with psoriasis $p=0.525$. Table (6).

Table 6: The effect of marital status on DLQI scores in acne and psoriasis patients.

		DLQI	
		No effect-small effect	Moderate-very large-extremely large effect
Acne	Single	24(14.8%)	144(85.7%)
	Married	28(87.5%)	4(12.5%)
Psoriasis	Single	8(21.6%)	29(78.4%)
	Married	28(17.2%)	135(82.8%)

Education seems to affect DLQI in acne patients, a greater effect was observed in patients with college education. While psoriatic patients with secondary school education were more affected regarding DLQI. Table (7)

Table 7: The effect of education on DLQI scores in acne, psoriasis patients.

Education		DLQI	
		No effect-Small effect	Moderate-very large-extremely large effect
Acne	Primary	4(20%)	16(80%)
	Secondary	32(38.5%)	51(61.4%)
	College	16(16.4%)	81(83.5%)
Psoriasis	Primary	29(24.6%)	89(75.4%)
	Secondary	0	21(100%)
	College	7(11.5%)	54(88.5%)

Acne patients with moderate and severe disease showed higher effect on DLQI than those with mild disease $p=0.003$. In psoriasis no difference was observed between patients with $PASI < 10$ or $PASI \geq 10$ $p=0.610$, table (8).

Table 8: The relation of disease severity with DLQI scores in acne and psoriasis patients.

Severity		DLQI	
		No effect-small effect	Moderate-very large- extremely large effect
Acne	Mild	26(43.4%)	34(56.7%)
	Moderate	19(18.2%)	85(81.8%)
	Severe	7(19.4%)	29(80.6%)
Psoriasis (PASI)	<10	21(19.3%)	88(80.7%)
	≥ 10	15(16.5%)	76(83.5%)

DISCUSSION:

DLQI was first developed in the United Kingdom in 1994. It is available now in over 90 languages and has been described in over 1000 publications (6). It has been employed for more than 40 skin conditions. It can be downloaded freely. In the present study the DLQI was measured in 2 common skin diseases; acne and psoriasis.

Acne has remarkable effect on self-image and influence on the quality of life (7,8). Studies have shown that patients with acne have similar level of social, psychological and emotional impairment as those with asthma and epilepsy (9). In the present study, patients with acne had a mean DLQI of 7.7. Patients with college

education and unmarried patients had more profound effect of the disease on the quality of life. This is expected because they are more concerned with their cosmetic appearance. Patients with severe acne also had higher scores compared to those with mild disease.

Regarding psoriasis, a study has shown that the impact of psoriasis on life quality is similar to that of other major medical diseases such as cancer, arthritis, hypertension, heart failure and depression⁽¹⁰⁾. In our study the mean DLQI was 8.5. Of the factors that may affect life quality; gender was shown to be significant (females scored higher). The severity of the disease did not show a significant effect on DLQI. This was also demonstrated by other investigators^(4, 11). It can be assumed that the mere presence of disease affects the quality of life regardless of its severity.

Measuring DLQI can help in clinical assessment of the disease. It can be employed in researches and can be used to guide political and financial medical plans.

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