QUALITY OF LIFE IN VITILIGO PATIENTS AT H. ADAM MALIK GENERAL HOSPITAL MEDAN, INDONESIA

Nelva Karmila Jusuf 1, Imam Budi Puta 2, Dina Rizki Utami 2*

1Department of Dermatology and Venereology Faculty of Medicine Universitas of Sumatera Utara Medan, North Sumatera, Indonesia
2Post graduate of Dermatology and Venereology, Faculty of Medicine, University of Sumatera Utara , Medan, North Sumatera, Indonesia
dina.afif.almahdaly@gmail.com

Abstract — Background: Vitiligo is an acquired depigmenting skin disorder that can affect the patients’ quality of life (QOL). Objectives: The aim of this study was to evaluate the QOL in patients with vitiligo. Patients and Methods: This study included 30 patients with vitiligo. All the patients filled out questionnaires Skindex-29. Data were compiled and analyzed statistically. Results: Among the 30 vitiligo patients, 73.3 % were women and 26.7 % were men. Mean age of patients were 40.53 ± 12. 91 years old. The mean duration of vitiligo was 9.07 ± 7.643 years. The mean total Skindex-29 score of the subjects was 24.68 ± 7.72. There was significant difference according to age's group (p = 0.035) and sex ( p = 0.01) but there is no significant difference according to duration of disease’s group ( p = 0.582 ). Conclusions: The study findings showed that vitiligo has a significant effect on the patients’ QOL. It seems counselling is needed as part of treatment in vitiligo patients.

Keywords — Vitiligo, Quality of life; Skindex-29

I. INTRODUCTION

A healthy normal skin is essential for a person's physical and mental well being. It is an important aspect of their sexual attractiveness, a sense of well being and a sense of self confidence. 1 Vitiligo is a common condition seen in a dermatology office, which has a variety of comorbidities. Worldwide, the prevalence of vitiligo ranges from 0.4% to 2.0 %, with regions of greater or lesser prevalence.2 Jusuf and Meher based on medical records found in 2012 total vitiligo patients were 18.09% of total visits in Cosmetic Division of Outpatient Dermatology and Venereology Clinic in H. Adam Malik General Hospital Medan, Indonesia from June 2016 to September 2016. Those who were referred to the clinic and met the eligibility criteria were recruited. Each subjects were explained about the study and asked to answer the questions in Skindex-29. This tool inquires about how often (never, rarely, sometimes, often, all the time) during the previous 4 weeks the patient experienced the effect described in each item.
Seven items address the symptoms domain, 10 items the emotional domain, and 12 items the functioning domain. All responses are transformed to a linear scale of 100, varying from 0 (no effect) to 100 (effect experienced all the time). Skindex scores are reported as three scale scores, corresponding to the three domains; a scale score is the average of a patient’s responses to items in a given domain. All data from subjects then were analyzed statistically.

III. RESULTS

Among the 30 vitiligo patients, 8 patients were men and 22 were women. Most patients were 40-49 years old (40%) with mean age was 40.53 ± 12.91 years old. 40% of participants had vitiligo for 1-5 years with mean duration of vitiligo was 9.07 ± 7.643 years. Most subjects were working as private employee and finishing high school (Table 1). Based on categorization of total scores, most patients were in moderately affected category (70%) (Table 2). The mean total skindex-29 score of the subjects was 24.68 ± 7.72 (Table 3). There is significant difference according to age (p = 0.035) and sex (p = 0.01) but there is no significant difference according to duration of disease (p = 0.582). According to age category, the highest mean total score was found in <20 years old group (35.00 ± 0.00) and based on gender, female attained higher mean score (27.13 ± 7.55) than male (17.95 ± 2.31) (Table 4).

Distribution quality of life scores in this study showed 38 (76%) subjects had a very high quality of life and 12 (24%) subjects had a high quality of life and we didn’t find a moderate or low quality of life score in all subjects (Table 2), furthermore based on the characteristics of the skin tag lesions we also didn’t find a significant difference in the quality of life score from all subject (table 4).
Table 3. Total Score of SkinIndex-29

|        | n  | Minimum | Maximum | Mean  | Std. Deviation |
|--------|----|---------|---------|-------|----------------|
| Total  | 30 | 16.70   | 35.00   | 24.6800 | 7.7224         |

Table 4. Distribution Category of Quality of Life

| Variable               | Mean of total score ± SD | P     |
|------------------------|--------------------------|-------|
| Sex                    |                          |       |
| Male                   | 17.95 ± 2.31             | 0.001 |
| Female                 | 27.13 ± 7.55             |       |
| Age (years old)        |                          |       |
| <20                    | 35.00 ± 0.00             |       |
| 20-29                  | 31.95±7.47               |       |
| 30-39                  | 21.70±0.00               |       |
| 40-49                  | 20.84±5.18               | 0.035 |
| 50-59                  | 16.70±9.15               |       |
| ≥60                    | 24.68±0.00               |       |
| Duration of Disease    |                          |       |
| (years)                |                          |       |
| 1-5                    | 23.64±7.69               |       |
| 6-10                   | 23.08±6.17               |       |
| 11-15                  | 25.97±8.69               | 0.582 |
| 16-20                  | 28.68±8.83               |       |
| ≥20                    | 16.70±0.00               |       |

IV. DISCUSSION

Vitiligo considerably influences the psychological well-being of patients. Disease-induced disfigurement can cause patients to experience a high level of stigmatization, which can lead to psychosocial stresses and negative impacts on quality of life (QOL). Vitiligo is a multi-factorial pigmented skin disorder. Recently, the importance of emotional and psychological issues is proposed in incidence, progression, relapse and remission of vitiligo. There are limited studies conducted in developing countries, which assess life quality of patients with vitiligo.

Kim et al in Korea conducted a study regarding the impact of vitiligo in patient’ life with similar tool. This study was involving one hundred and thirty-three vitiligo patients and 112 patients with mild skin disorders. They found the symptom scale of SkinIndex-29 was significantly lower in vitiligo patients than in controls, but the function scale and the emotion scale were significantly higher in the vitiligo group than in controls. However, the difference in function scales between groups was significant in female patients, but not in male patients. Several clinical profiles, such as duration of disease, severity scores and previous history of treatments, showed close correlations with the function scale. Family history of vitiligo, Köebner phenomenon, patients’ perspectives on disease prognosis, and discordance of the severity scores between physicians and patients also influenced the Skinindex-29 subscales differently. In their conclusion, the study suggests that patients with vitiligo were highly affected in the functional and emotional aspects of QOL, with some sex differences and perhaps various clinical features may play an important role in the QOL of vitiligo patients.

Study by Ghaderi and Saadatjo in Iran involved 70 patients with vitiligo. All the patients filled out two questionnaires: Short Form 36 (SF-36) and Dermatology Life Quality Index (DLQI). The mean score of patients with vitiligo on DLQI scale was 8.40 ± 5.76 (range, 0-23). Although males scores on SF-36 scale was higher than females, the difference was not statistically significant. With regard to age, the mean total score of SF-36 indicated insignificant differences among age groups. Their findings showed that vitiligo has a significant effect on the patients’ QOL.

Hedayat et al conducted a study on 25 patients as a pilot and another 173 patients as the main study group, in Razi Hospital, Tehran, Iran, 2013–2014. Persian version of Vitiligo Quality of Life index (VitiQoL) was developed with backward-forward method. The Vitiligo Area and Score Index (VASI), VitiQoL, and their relationship, demographic and clinical characteristic of patients were measured. The Mean and standard deviation of the VitiQoL score was 30.5 ± 14.5 (range 0–60 in Persian version). They found a significant relationship between VASI score and VitiQoL (p = 0.015, r = 0.187. Based on behavior factor, female patients had poorer quality of life (p = 0.02). Concomitant psychiatric problems, e.g. anxiety and depression, were not associated with QOL; however, they were near to being meaning (p =0.06, r =0.14).

A study by Karia et al tried to determine the psychiatric morbidity and the QOL in patients suffering from vitiligo and to determine the factors related with psychiatric morbidity and those
A study group comprised of 54 subjects with vitiligo, 57 with psoriasis and 57 unaffected controls with all subjects were examined and interviewed using the DLQI and Emotional State questionnaires. They found total mean DLQI score in vitiligo was 4.7, compared with 0.6 in healthy controls ($p < 0.001$) and 13.1 in psoriasis ($p < 0.001$). In vitiligo, females experienced a greater impact on feelings and men experienced a greater impact on relationships. Lower quality of life in vitiligo was associated with active stage of the disease, extension of pigment loss, depigmentation on the hands, and earlier onset of disease. The results demonstrate that vitiligo has less impact on quality of life than psoriasis. This case-control study of fair-skinned subjects demonstrates the low level of disease-related impairment in QOL in vitiligo compared with the severe impairment in QOL in psoriasis. 13

In our study we found the mean total skin-index-29 score of the subjects was 24.68 ± 7.72. According to Nijsten categorization, it fell on moderate category. 14 There is significant difference according to age’s group ($p = 0.035$) and sex ($p = 0.01$) but there is no significant difference according to duration of disease ($p = 0.582$). This might be because women and younger people are more concern in appearance than men and older ones.

V. CONCLUSIONS

Vitiligo can affect patient’s quality of life because cosmically disturbing. Counselling may be needed as part of treatment to improve subjects and their families’ attitude toward this disease.

REFERENCES

[1] Parsad D, Dogra S, Kanwar AJ. Quality of life in patients with vitiligo. Health and Quality of Life Outcomes. 2003; 1:58. Available from : http://www.hqlo.com/content/1/1/58
[2] Silverberg NB. The Epidemiology of Vitiligo. Curr Derm Rep. 2015 Jan; 4:36-43. doi: 10.1007/s13671-014-0098-6.
[3] Jusuf NK, Meher C. Pola Kelainan Pigmentasi di Poliklinik Kulit dan Kelamin Divisi Kosmetik RSUP H. Adam Malik Medan Tahun 2012-2015. Pertemuan Ilmiah Tahunan XV Ilmu Kesehatan Kulit dan Kelamin. Padang. Indonesia.
[4] Yaghoobi R, Omidian M, Bagherani N, Vitiligo: A review of the published work. Journal of Dermatology. 2011; 38: 419-31. doi: 10.1111/j.1346-8138.2010.01139.x.
[5] Liana Manolache (2011). The Psychosocial Aspects of Vitiligo: A Focus on Stress Involvement in Children with Vitiligo. Vitiligo - Management and Therapy, Dr. Kelly KyungHwa Park (Ed.), ISBN: 978-953-307-731-4, InTech, Available from: http://www.intechopen.com/books/vitiligo-management-and
therapy/theschosocial aspects-of-vitiligo-a-focus-on-stress-involvement-in-children-with-vitiligo

[6] Hamdani SM, Jusuf NK. Gambaran kualitas hidup penderita kelainan pigmenasi wajah pada pengunjung Poyandu di Kecamatan Medan Labuhan. Karya tulis ilmiah. Fakultas Kedokteran Universitas Sumatera Utara. 2015.

[7] Chren M. The Skindex Instruments to Measure the Effects of Skin Disease on Quality of Life. Dermatol Clin. 2012; 30: 231-6. doi:10.1016/j.det.2011.11.003.

[8] Kim YD, Lee JW, Whang SH, Park YK, Hann S, Shin YJ. Quality of life for Korean patients with vitiligo: Skindex-29 and its correlation with clinical profiles. Journal of Dermatology. 2009; 36: 317-22. doi: 10.1111/j.1346-8138.2009.00646.x

[9] Hedayat K, Karbakhsh M, Ghiassi M, Goodarzi A, Fakour Y, Ghayoumi A, et al. Health and Quality of Life Outcomes. 2016; 14: 86. doi: 10.1186/s12955-016-0490-y. Quality of life in patients with vitiligo: a cross-sectional study based on Vitiligo Quality of Life index (VitiQoL)

[10] Ghaderi R, Saadatjoo. Evaluating of Life Quality in Iranian Patients With Vitiligo Using Generic and Special Questionnaires. Shiraz E-Med J. 2014 July; 15(3): e22359. doi: 10.17795/semj22359

[11] Karia S, Sousa AD, Shah N, Sonavane S, Bharati A. Psychological Morbidity in Vitiligo-A Case Control Study. Pigmentary Disorders 2: 170. doi:10.4172/2376-0427.1000170

[12] Mateen A, Syed R, Alharbi KK, Khan IA. An Overview of Quality of Life in Vitiligo Patients – At Glance. Pigmentary Disorders S3: 003.2005. doi:10.4172/2376-0427.S3-003.

[13] Karelson M, Silm H, Kingo K. Quality of Life and Emotional State in Vitiligo in an Estonian Sample: Comparison with Psoriasis and Healthy Controls. Acta Derm Venereol. 2013; 93: 446–50.

[14] Nijsten T, Sampogna F, Abeni D. Categorization of Skindex-29 Scores Using Mixture Analysis. Dermatology. 2009 ; 218 :151-4. doi: 10.1159/000182253.