|| ISSN(online): 2589-8698 || ISSN(print): 2589-868X ||
International Journal of Medical and Biomedical Studies
Available Online at www.ijmbs.info
PubMed (National Library of Medicine ID: 101738825)
Index Copernicus Value 2018: 75.71
Original Research Article
Volume 4, Issue 3; March: 2020; Page No. 48-51

EVALUATION OF QUALITY OF LIFE AND PSYCHOLOGICAL IMPLICATIONS IN PATIENTS WITH ROSACEA USING DERMATOLOGY LIFE QUALITY INDEX (DLQI) AND THE HOSPITAL ANXIETY AND DEPRESSION SCALE (HADS)

Dr. Alpana Mohta[1], Dr. Asha Nyati[2], Dr. Aditi Agrawal[3], Dr. Suresh Kumar Jain[4], Dr. Ramesh Kumar Kushwaha[5], Dr. Umesh Gautam[1], Dr. Priti Sharma[1]

[1]MBBS, 3rd Year Resident, Department of Dermatology, Venereology and Leprology, Government Medical College, Kota, Rajasthan.

[2]MBBS, MD, Associate Professor, Department of Dermatology, Venereology and Leprology, Government Medical College, Kota, Rajasthan.

[3]MBBS, MD, Department of Dermatology, Venereology and Leprology, Government Medical College, Kota, Rajasthan.

[4]Senior Professor, Head of the Department of Dermatology, Venereology and Leprology, Government Medical College, Kota, Rajasthan

[5]MBBS, MD, Assistant Professor, Department of Dermatology, Venereology and Leprology, Government Medical College, Kota, Rajasthan.

Article Info: Received 14 February 2020; Accepted 06 March 2020
DOI: DOI https://doi.org/10.32553/ijmbs.v4i3.979
Corresponding author: Dr. Suresh Kumar Jain
Conflict of interest: No conflict of interest.

Abstract

Introduction: Rosacea is a chronic skin disease associated with high levels of psychological distress and a significant impact on quality of life.

Objective: To evaluate the quality of life, depression and anxiety in patients with rosacea.

Material and Methods- Seventy-three patients, aged 18 years or above, with a clinical diagnosis of rosacea were included in the study. All patients completed a Dermatology Life Quality Index (DLQI) questionnaire and a Hospital Anxiety and Depression Scale (HADS) quessionaire.

Results: The mean DLQI score of patients was 7.98 ± 5.86 which signified a moderate impact on quality of life. The mean HADS-A (anxiety) score was 4.83 ± 4.42, while the mean HADS-D (depression) score was 5.22 ± 4.04. Thirteen (17.81%) patients had anxiety HADS-A (≥11 points) while 11 (15.07%) patients had depression HADS-D (≥11 points). Total DLQI score of patients with rosacea correlated positively with anxiety (r = 0.67, p value- <0.001) and depression (r = 0.49, p value- <0.001)

Conclusion: Rosacea is a distressing disease which has a moderate impact on patient's QOL. Dermatologists must always be vigilant of the psychosocial aspects of rosacea and should opt for the self-perception of rosacea by patients while prescribing a treatment regimen.

Keywords: Rosacea, dermatology life quality index, DLQI, Hospital Anxiety and Depression Scale, HADS

Introduction

Rosacea is a chronic skin disorder with characteristic signs and symptoms, including facial erythema, flushing, telengectasia, inflammatory papules and pustules, edema seen commonly in middle-age patients. It has four clinical subtypes, namely, erythematotelangiectatic, papulopustular, phymatous, and ocular rosacea. It has a prevalence of aroud 22%. [1] Various studies in the past have demonstrated rosacea to have a severe impact on patient's quality of life (QOL) ranging from embarrassment, emotional stress, low self-esteem and social isolation as well as development of psychiatric symptoms like depression anxiety. [2,3,4] Although the data of rosacea's impact on QOL and the mental health conditions in Indian population is still scarce.

Material and Methods

Ethical Approvals

A formal permission from Professor Andrew Y Finlay, Department of Dermatology, Cardiff University School of Medicine, Heath Park, Cardiff, UK to use the validated Hindi version of DLQI questionnaire was taken. Additionally the Institutional Ethical Committee approved the study.[5] All of the patients gave written consent before being enrolled in the study.

PATIENTS

This prospective, cross-section, non-interventional study included 73 patients, aged 18 years or above, diagnosed

with rosacea according to the 2004 NRS criteria enrolled between December 2017 to November 2019. Only those patients who could read and understand the content of the questionnaire were included. Patients with similar looking facial dermatoses like acne, seborrheic dermatitis, eczema, contact dermatitis, photodermatitis, rash due to lupus erythematosus, tinea faciei, or any other inflammatory skin disease of face were excluded from the study.

The patients were asked to fill a hard copies of the two questionnaires. Data collection took place between April 2018 and March 2019.

QUESTIONNAIRES

1. Dermatology Life Quality Index (DLQI)

The DLQI questionnaire consisted of 10 questions, each had a maximum score of 3. Following possible scores existed for each question: 0-not at all or not relevant or unanswered, 1-a little, 2- lot and 3-very much or prevented work or studying. The maximum score for DLQI was 30, denoting the maximum negative impact on skin-related quality of life. The questions were concerned with 6 domains of life, namely, symptoms & feelings (question 1 and 2), day-to-day activities (question 3 and 4), leisure time (question 5 and 6), work & school (question 7), interpersonal relationships (question 8 and 9) and treatment satisfaction (question 10).[5]

Score interpretation was done as follows: 0-1: no effect at all on patient's life, 2-5: small effect, 6-10: moderate effect, 11—20: very large effect and 21-30: extremely large effect.

2. The Hospital Anxiety and Depression Scale (HADS)

HADS was divided into following subscales: the Anxiety subscale (HADS-A) and the Depression subscale (HADS-D), each containing seven intermingled items. Each question was scored 0-3. Both HADS-A and HADS-D were calculated separately. A score of 8-10 was considered borderline, and ≥11 was considered abnormal. [6]

STATISTICAL ANALYSIS

Statistical analysis of the data was done using SPSS version 20.0. Mean and standard deviation were calculated to find the distribution of the continuous numbers while proportion or percentages were used for qualitative variables. R value were calculated wherever required and P value <0.05 was considered statistically significant.

A thorough history taking in the form of age, sex, involved sites, type of lesions and severity of disease was done. The patients were asked to fill a hard copy of the questionnaire.

Results

The study included 73 patients. The mean age of patients was 39.6 ± 14.3 years. There was a female preponderance in our study with 45 (62.64%) females and 28 (38.36%) males (Table 1). The mean DLQI score of female patients was 8.03 ± 5.61, while that of male patients was 7.98 ± 6.01. However, there was no significant difference between the two genders (p value- 0.86). The overall average DLQI score was 7.98 ± 5.86 (TABLE 2). Although, in question 2, females had a significantly higher average score 1.39 ± 0.91 compared to males patients 0.98 ± 0.86 (p value- 0.06).

The domains affected most severely were symptoms and feeling (DLQI score 2.76 ± 0.97) followed by leisure activities (DLQI score 1.96 ± 1.59). Chiefly male patients scored higher in the domain of leisure (DLQI in males 2.31 ± 1.80; DLQI in females 1.74 ± 1.02), since they tend to play more outdoor sports and tend to spend more time out of the house. A significant proportion of patients complained that plantar and palmar warts made it difficult for them to engage in sports like cricket, etc. of patients who often have to work under sunlight which exacerbates the disease.(TABLE 2, FIGURE 1)

As far as HADS scoring was concerned, patients with rosacea a significant percentage of patients had higher score in terms of anxiety and depression. The mean HADS-A (anxiety) score was 4.83 ± 4.42, while the mean HADS-D (depression) score was 5.22 ± 4.04. Thirteen (17.81%) patients had anxiety HADS-A (≥11 points) while 11 (15.07%) patients had depression HADS-D (≥11 points). Total DLQI score of patients with rosacea correlated positively with anxiety (r = 0.67, p value- <0.001) and depression (r = 0.49, p value- <0.001).(TABLE 3)

Table 1: CLINICO-EPDIEMIOLOGICAL PROFILE OF PATIENTS

GENDER	**NUMBER OF PATIENTS**
Female	45 (61.64%)
Male	28 (38.36%)
SKIN TYPES	**NUMBER OF PATIENTS**
Type I-II	3 (4.11%)
Type III-IV	49 (67.12%)
Type V-VI	21 (28.77%)
TYPE OF ROSACEA	**NUMBER OF PATIENTS**
Erythematotelangiectatic Rosacea	29 (39.72%)
Papulopustular Rosacea	37 (50.68%)
Phymatous Rosacea	7 (9.60%)

Table 2: MEAN DLQI SCORE PER DOMAIN

DOMAINS	**DLQI SCORE (MEAN ± SD)**
Symptoms & feelings (question 1 and 2)	2.76 ± 0.97
Daily activities (question 3 and 4)	0.91 ± 1.03
Leisure (question 5 and 6)	1.96 ± 1.59
Work & school (question 7)	0.97 ± 0.44
Personal relationships (question 8 and 9)	0.68 ± 1.36
Treatment (question 10)	0.70 ± 0.68
Total score	**7.98 ± 5.86**

Table 3: ANXIETY AND DEPRESSION SCORE ACCORDING TO HADS

ANXIETY SCORE	**4.83 ± 4.42**
<11	60 (82.19%)
≥11	13 (17.81%)
DEPRESSION SCORE	**5.22 ± 4.04**
<11	62 (84.93%)
≥11	11 (15.07%)

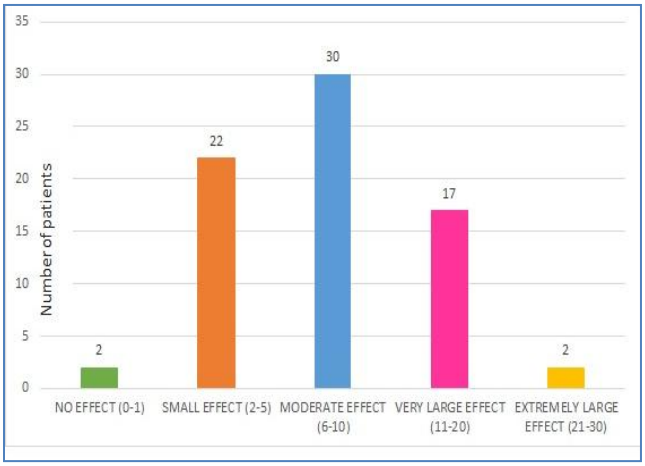

Figure 1: The distribution of patients according to severity

Discussion

Various studies over the years have proved that rosacea affect patients` QOL.[7,8] Since rosacea predominantly affects the face, affecting the patients' physical, it has a negative influence their emotional health, resulting in psychological comorbidities like anxiety disorders and social phobias. [9] Its influence may have varied presentation like anxiety, depression, embarrassment, withdrawal from society and low self-estimation, to name a few. [7,8] In our study, just like most other studies, rosacea had a moderate effect on patients` QOL. Although some of the studies have found females to be affected more significant than males by rosacea according to DLQI scores rosacea patients had higher DLQI score than male patients [9,10] the results of our study were similar to those of Wu et al.[7] who also, just like us, found no difference in total DLQI scores between the two genders.

The domain affected most severely was the symptomatology experienced by the patients. The sudden flushes and burning sensation along with itching associated with rosacea had a moderate to extremely large effect on patients' QOL in more than 43% patients. In question 2, which talks about the experiences of embarrassment and self-conscientiousness owing to the disease, females had a significantly higher average score 1.39 ± 0.91 compared to males patients 0.98 ± 0.86 (p value- 0.06). It is, therefore, quintessential to do psychological counselling of such patients apart from just their treatment.

Next in line was the domain of leisure time activities. Chiefly male patients suffered the most as they play sports involving sun exposure along with consumption of hot beverages and alcohol. The DLQI score of male patients in this domain was significantly higher (1.01 ± 0.63) compare to females (0.72 ± 0.36) (p value 0.03).

We also observed that the HADS-A and HADS-D scores were higher in women than men. Out of total thirteen (17.81%) patients who had anxiety (≥11 points), 9 were females while only 4 were males. Similarly amongst the 11 (15.07%) patients who had depression (≥11 points) 8 were females and 3 were male. Total DLQI score of patients with rosacea correlated positively with anxiety (r = 0.67, p value- <0.001) and depression (r = 0.49, p value- <0.001). These findings of positive correlation were similar to Wu et al.[7] and Böhm et al. [11]

It has already been stated by past studies that the clinical severity of rosacea does not correlate with the level of patient's psychosocial distress reporting higher rates of depression amongst the patients. [12,13,14] According to an analysis 65.1% of patients with rosacea with comorbid psychiatric illnesses were also diagnosed with depression.[15]

This rate is significantly higher than the 29.9% prevalence of depression being reported in association with psychiatric patient visits.[15]

Conclusions

Rosacea runs a protracted course, despite treatment, and adversely affects the emotional health and quality of life of patients.[16] Even though studies and surveys have indicated that affected individuals perceive this disease to be a burden, and patients are motivated to address its adverse effects on their quality of life, only a handful of patients tend to seek professional advice and treatment. Dermatologists must always be vigilant of the psychosocial aspects of rosacea and should opt for the self-perception of rosacea by patients while prescribing a treatment regimen. [16]

Our study was, however, limited by a small sample size and lack of a control group.

References

1. Tan J, Berg M. Rosacea: current state of epidemiology. J Am Acad Dermatol. 2013;69:S27–S35.
2. Bewley A, Fowler J, Schöfer H, Kerrouche N, Rives V. Erythema of rosacea impairs health-related quality of life: Results of a meta-analysis. Dermatology and Therapy. 2016;6:237–47.
3. Egeberg A, Hansen PR, Gislason GH, & Thyssen JP. Patients with rosacea have increased risk of depression and anxiety disorders: A Danish nationwide cohort study. Dermatology, 2016;232: 208–13.
4. Halioua B, Cribier B, Frey M, Tan J. Feeling of stigmatization in patients with rosacea. J Eur Acad Dermatol Venereol. 2017;31:163–8.

5. Finlay AY. Quality of life measurement in dermatology: A practical guide. Br J Dermatol 1997;136:305-14.
6. Zigmond AS, Snaith RP: The Hospital Anxiety And Depression Scale. Acta Psychiatr Scand 1983,67:361–70.
7. Wu Y, Fu C, Zhang W, Li C, Zhang J. The dermatology life quality index (DLQI) and the hospital anxiety and depression (HADS) in Chinese rosacea patients. Psychol Health Med. 2018; 23;369-74.
8. Krasuska M, Millings A, Lavda A, Thompson A. Psychosocial well-being and quality of life in rosacea: A systematic literature review. In: British Journal of Dermatology. British Association of Dermatologists 95th Annual Meeting, 7–9 July 2015, Manchester, UK. Wiley , p. 206.
9. Su D, Drummond PD. Blushing propensity and psychological distress in people with rosacea. Clin Psychol Psychother. 2012;19:488-495.
10. Aksoy, B., Altaykan-Hapa, A., Egemen, D., Karagöz, F., & Atakan, N. (2010). The impact of rosacea on quality of life: Effects of demographic and clinical characteristics and various treatment modalities. British Journal of Dermatology, 163, 719–725.
11. Böhm, D., Schwanitz, P., Stock Gissendanner, S., Schmid-Ott, G., & Schulz, W. (2014). Symptom severity and psychological sequelae in rosacea: Results of a survey. Psychology, Health & Medicine, 19, 586–591.
12. Beikert, F. C., Langenbruch, A. K., Radtke, M. A., & Augustin, M. (2013). Willingness to pay and quality of life in patients with rosacea. Journal of the European Academy of Dermatology and Venereology, 27, 734–738.
13. Yanyu Wu, Chaowei Fu, Wei Zhang, Caixia Li & Jie Zhang (2017): The dermatology life quality index (DLQI) and the hospital anxiety and depression (HADS) in Chinese rosacea patients, Psychology, Health & Medicine.
14. Marks R. Concepts in the pathogenesis of rosacea. Br J Dermatol. 1968;80:170-7.
15. Gupta MA, Gupta AK, Chen SJ, Johnson AM. Comorbidity of rosacea and depression: an analysis of the National Ambulatory Medical Care Survey and National Hospital Ambulatory Care Survey—Outpatient Department data collected by the US National Center for Health Statistics from 1995 to 2002. Br J Dermatol. 2005; 153:1176-81.
16. Huynh TT. Burden of Disease: The Psychosocial Impact of Rosacea on a Patient's Quality of Life. Am Health Drug Benefits. 2013;6:348–54.