QUALITY OF LIFE IN PATIENTS WITH DERMATOPHYTOSIS

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ABSTRACT Background: Dermatophytosis has attained unprecedented dimensions recently, especially in India. Dermatophytosis also significantly affects the relationship of patients with other people owing to the social stigma of itching and large scaly visible patches.The objective was to evaluate the impact of dermatophytosis on quality of life. **Materials & Methods:** This was a cross-sectional, questionnaire-based study conducted on a cohort of 100 patients with dermatophytosis. Demographic details, clinical features and other relevant details were recorded in a preformed case record form. **Results:** One hundred patients aged 14 to 62 years (mean:31.46) were included in the study. The mean dermatology life quality index score was 12.06±3.46(range 2-19). Dermatology life quality index score pertaining to symptoms and feelings, daily activities, leisure and personal relationships significantly impacted patients. Dermatology life quality index score was considerably influenced by the age of the patient, duration of the disease and areas of involvement ($p \leq 0.05$). **Conclusion:** Study revealed a significant ramification of quality of life in patients with dermatophytosis and thus underscored the importance of counselling in controlling the disease-related psychosocial sequelae.

KEYWORDS dermatophytosis, DLQI, dermatology life quality index

Introduction

Dermatophytosis has attained unprecedented dimensions in recent years, especially in India, reaching epidemic proportions[1]. Dermatophytosis also significantly affects the relationship of patients as they are often extremely distressed and stigmatized by their condition, especially in relation to social and sexual activities. Sociodemographic factors, such as unsteady socioeconomic status, and poor hygiene conditions, also contribute to the high incidence and transmission of these infections[2]. Furthermore, they profoundly affect the quality of life of the patients, causing disfigurement with impacts on self-esteem and vanity, culminating in social discrimination[3].

The aim of the study was to evaluate the impact on the QoL in patients burdened with dermatophytosis.

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Material and Methods

100 consecutive patient of dermatophytosis was encouraged to partake after obtaining written informed consent. Diagnosis was established based on medical history and clinical examination. Demographic data were obtained from the patient. The severity of the disease is evaluated by body surface area involvement using the rule of palm. Purpose of the study will be explained to the patients/their relatives, and written informed consent will be taken after assuring the confidentiality of data. Patients completed questionnaires on socio-demographics and DLQI. Data will be collected using a predesigned proforma.

- Inclusion Criteria:
  1. Self-reported cases of both sexes of all ages.
- Exclusion Criteria:
  1. Patients with known systemic disorders such as liver or renal impairment, psychiatric illnesses, and other skin disorders.
  2. Pregnant and lactating women.

Results

One hundred patients aged 14 to 62 years (mean:31.46) were included in the study. The mean age of the participants was 31.46 years (Stdev:12.11 years). The median age was 29 years, ranging from 14 to 62 years.

Table 1 Demographic data

Number of patients	100
Male: Female (M:F)	1.1 :1
Mean age (years)	31.46±12.11
Education status	
a) Uneducated	10%
b)Primary/secondary	41%
c)Graduate/postgraduate	49%
Body surface area involved	
<5%	68 %
5-10%	25%
>10%	7 %
Areas of Involvement	
Groin	85%
Legs	10%
Face	7%
Hands	13%
Incognito	15%

Table 2 Bands of DLQI scores

Grading/ DLQI score	Impact on QoL	No of subjects	Percentage
Grade 1(2-5)	Small	3	3%
Grade 2(6-10)	Moderate	31	31%
Grade 3(11-20)	Very-large	66	66%

Age distribution was evaluated. Patients between 14-19 years were 15 in number, 35 patients were between 20-29 years, 23 were between 30-39 years, 19 were between 40-49 years, and 8 were between 50-62 years. The mean duration of dermatophytosis was 100 days at the presentation time (SD:120.81), with a median of 60 days.

66% of patients had less than 5% total BSA involvement,13% had 5-10% BSA involvement, and 7% had more than 10% BSA involvement. Our study could not attain a positive correlation between the severity of the disease and QoL.

85% of patients had groin involvement. Furthermore, 30% of patients had involvement of the face, hands and legs.15% of patients presented with incognito lesions.

The mean DLQI score was 12.06±3.46(range 2-19).3% of patients(band 2-5) had a small effect on QoL,31% (band6-10) had a moderate effect, and 66% (band 11-20) had a very large effect on QoL.

QoL was estimated against the age of the patients. For patients between 14-19, years 1 had a grade-1 impact,5 had a grade-2 impact, and 9 had a grade-3 impact. Patients between 20-29 years:15 had a grade 2 impact, and 20 had a grade 3 impact. For patients between 30-39, years:1 had a grade 1 impact,8 had a grade 2 impact, and 14 had a grade 3 impact. For patients between 40-49 years: 1 had a grade 1 impact,3 had a grade 2 impact, and 15 had a grade 3 impact.For patients between 50-62 years 8 had a grade 3 impact.

The patient's age, disease duration, and areas of involvement had a critical positive correlation with the QoL in our study ($p \leq 0.05$).

Discussion

The current study was done at a tertiary care centre over a period of 90 days. We screened 250 patients, among which 100 met the inclusion and exclusion criteria. The current study was a cross-sectional, questionnaire-based study to evaluate the QoL in subjects suffering from dermatophytosis. Demographic details, clinical features, Severity of the disease determined by BSA involvement using the rule of palm and other relevant details were recorded in a preformed case record form. Patients were included after satisfying the inclusion criteria of the study and obtaining informed consent after explaining the study's objectives and procedure. Consent was obtained from parents/guardians in the case of minors. QoL measures are vital to evaluate the patient's outlook on the disease, necessity for treatment, healthcare and desire for an outcome. There is a paucity in the literature evaluating the impact of QOL in patients with dermatophytosis. The QoL assessment was done with the help of a modified, and prevalidated questionnaire based on the "Dermatological Life Quality Index" (DLQI) proposed by Finley and Kahn. The questionnaire consists of 10 questions, each with 4 response options graded from 0 to 3 (0 being no effect, 1 minimal effect, 2-moderate effect, and 3 severe effects).

Thus a maximum score of 3 and a minimum score of 0 will be accorded to each question, thereby permitting a maximum and a minimum score of 30 and 0, respectively, for the modified DLQI score. Based on the grading used in DLQI, the final modified score will be categorized into 5 grades, i.e., 0 to 4.

The mean DLQI was 6.88 in a study among patients with psoriasis conducted in North India[4].In a similar study among the Indian population, the mean DLQI was estimated from 4.84 to 10.67 in patients with vitiligo[5]. These studies show the

profound impact of QoL in patients with chronic dermatological conditions while indicating insufficient data on acute infections.

Dermatophytosis has been considered an innoxious condition with a copacetic and swift reaction to antifungals. Hence there are no studies on QOL so far. However, it has acquired menacing proportions with a significant impact on the QoL of the patients.

The study consists of 53 males(53%) and 47 females(47%) with a mean age of 31.46 ± 12.11 years. The study was slightly male preponderant. Age distribution was evaluated. Patients between 14-19 years were 15 in number,35 patients were between 20-29 years,23 were between 30-39 years,19 were between 40-49 years, and 8 were between 50-62 years. The mean duration of the disease is 100.08 days. The areas of involvement were the groin and buttocks in 85 patients,hands in 13 patients ,legs in 10 patients, and face in 7 patients. It is to be noted that some patients had involvement in more than one site. Long-term follow-up was not conducted in the patients. The study sample was small to extrapolate to regional and national trends.

Conclusion

Dermatophytosis has been considered an innoxious condition with a copacetic and swift reaction to antifungals. Hence there are no studies on QOL so far. However, it has acquired menacing proportions with a significant impact on the QoL of the patients. The QoL was observed to be significantly impacted, with most of the patients having a very large impact on quality of life. It underlined the importance of counselling in controlling disease-related psychosocial sequelae. We suggest conducting similar studies with a higher sample size and correlating the findings with controls for further conclusive evaluation of dermatophytosis.

Abbreviations

QoL	:	Quality of Life
DLQI	:	Dermatology Life Quality
Index Stdev	:	Standard deviation
BSA	:	Body Surface Area

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Statement of Conflict of Interest

None.

Ethical approval

the study was approved by the institutional ethical committee.

References

1. Madhu Rengarajan, Janaki Chellam,Sentamilselvi Ganapati.Changing and Rising Scenario of Dermatophytosis in India: Causes and Solutions.World Clin Dermatol.2016;3(1):220-50

2. Ranganathan S, Menon T, Sentamil G S. Effect of socioeconomic status on the prevalence of dermatophytosis in Madras. Indian J Dermatol Venereol Leprol.1995;61(1):16-8

3. Patro N, Panda M, Jena AK.The menace of superficial dermatophytosis on the quality of life of patients attending referral hospital in Eastern India: A cross-sectional observational study.Indian Dermatol Online J.2019;10(3):262-6.

4. Singh SM, Narang T, Dogra S, Verma AK, Gupta S, Handa S. Screening for depressive disorders in outpatients with mild to moderate psoriasis: a study from North India. Indian J Dermatol Venereol Leprol.2015;81(2):148-50.

5. Mishra N, Rastogi MK, Gahalaut P, Agrawal S. Dermatology Specific Quality of Life in Vitiligo Patients and Its Relation with Various Variables: A Hospital Based Cross-sectional Study. J Clin Diagn Res.2014;8(6):YC01 3.