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Original Research Article

Relationship between Depression and Quality of Life with Disease Severity in Patients with Vitiligo

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Abstract

Objective: An autoimmune pigmentary condition called vitiligo causes localized or widespread skin depigmentation. It has a negative effect on patients' quality of life (QoL) and psychological health and is strongly stigmatized. Studying the prevalence of depression in vitiligo patients, determining the association between the severity of the condition and major depressive disorder, and evaluating patients' quality of life were among the objectives.

Method: The research consisted of 60 Vitiligo patients aged ≥18 years who attended the OPD at the Out-patient department of Dermatology and Psychiatry at Katihar Medical College from February 2022 to June 2022. The Vitiligo area severity index (VASI) was used to assess the disease severity and then Quality of Life was measured using Dermatology Life Quality Index Questionnaire (DLQI) and diagnosis of depression was made as per ICD10 and was rated on Hamilton rating scale of depression (HAM-D).

Results: 60 patients were included in this study. The 18-30 age range was the most prevalent. Mean DLQI scores were 7.4 in VASI ≤5 and 9.3 in VASI ≥5. The DLQI indicated that QoL was somewhat impacted. 76% of people had only mild depression.

Conclusion: Younger patients had higher degrees of depression and QoL impairment. Offering psychiatric consultation and counselling in addition to particular treatment might be beneficial.

Keywords: depression, patients with vitiligo, and quality of life

Introduction

Melanocytes, which determine the colour of the skin, hair, and eyes, gradually disappear in vitiligo, an acquired, chronic depigmenting condition of the skin. Melanocytes are destroyed by the immune system, causing vitiligo. It also shows up clinically as distinct milky-white spots of skin [Figure 1]. Worldwide, vitiligo affects between 0.1% and 2% of people, including both adults and children [1]. It has a significant psychological impact on the patient's life by affecting the person's emotional and psychosocial well-being.

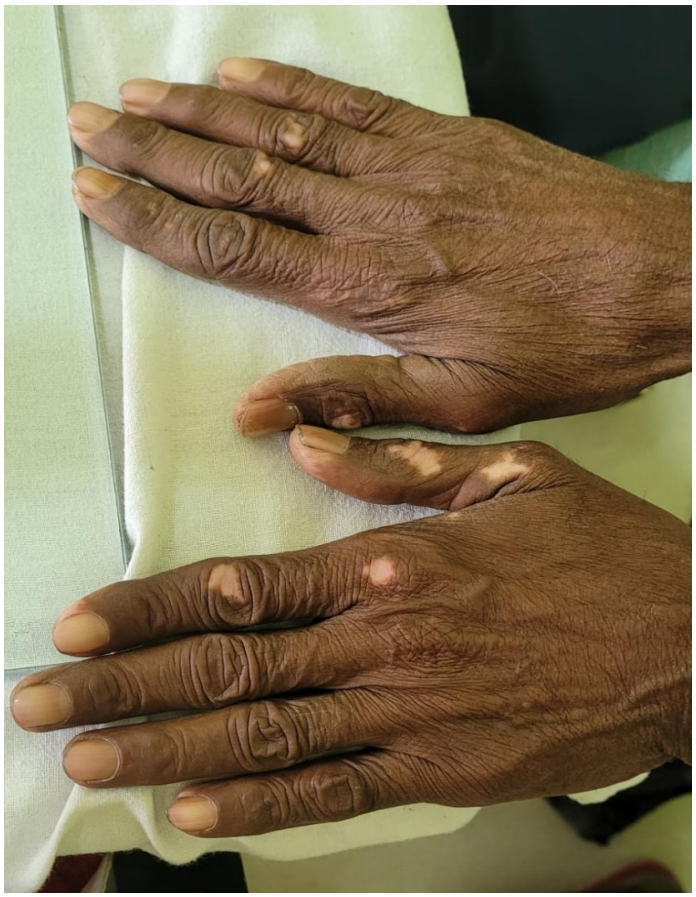

Figure 1: A characteristic Vitiligo Macule

There may be an epidemiological connection between vitiligo and psychiatric morbidities including depression, according to numerous observational research.8-10 However, other research have been unable to prove such a connection. According on study demographic, sample size, and outcome measures, the prevalence of depression among vitiligo patients ranges from 10% to approximately 60%. Patients with vitiligo had poorer self-esteem than the general population [8]. In fact, investigations have revealed that up to 25% of vitiligo patients suffer psychological illness (depressive episodes, adjustment difficulties, anxiety). There have been reports of severe despair and even suicide attempts as a result of vitiligo. Anxiety disorders currently have a prevalence of 3.6%, and depressive disorders have a prevalence of 0.8%, according to the National Mental Health Survey of India 2015-2016. It is not surprising that patients with vitiligo may encounter stigma and have a greater likelihood of developing major depressive disorder (MDD), considering the highly visible nature of the ailment. It is interesting to note that vitiligo and MDD may have comparable Human Leukocyte Antigen (HLA) signatures, and MDD has been reported to increase systemic inflammation without being associated with an underlying autoimmune disease.

The aim and objective of this study are:

1) To study the prevalence of Depression in patients with vitiligo
2) To assess the relationship between the severity of vitiligo with Major Depressive Disorder
3) To assess QoL in vitiligo patients and its various variables.

METHODS:

Study Design: This was a cross-sectional study carried out in the Outpatient department of Dermatology and Psychiatry at Katihar medical college from February 2022 to June 2022.

Methodology: The quality of life was evaluated using the Dermatology Life Quality Index Questionnaire (DLQI) [4]. Depression was identified using the ICD10 and assessed using the Hamilton depression rating scale (HAM-D) [5]. The Vitiligo area severity index (VASI) was used to assess the disease severity.

Data collection: After receiving informed consent from diagnosed cases of vitiligo, data were gathered using a pre-designed, pre-tested questionnaire.

Sample Size: This study consisted of 60 Vitiligo Patients that met the inclusion criteria.

Inclusion criteria: Patients with vitiligo who were willing to participate in the research and were over the age of 18 and visited the OPD.

Exclusion criteria: Individuals with known histories of psychiatric problems and those with depigmented patches caused by illnesses other than vitiligo.

Statistical analysis: Using SPSS Statistics version 18.0, the data were examined. To examine the relationship between two quantitative variables, Pearson's correlation coefficient was utilised. In order to compare continuous and categorical data, independent t-tests, chi-squared tests, and ANOVA were used and was calculated using a logistic regression analysis to identify the possible causes of depression. We considered all p-values <0.03 to be statistically significant.

RESULTS:

The study comprised a total of 60 patients- 31 females (51.66%) and 29 males (48.33%) **[Figure 2].**

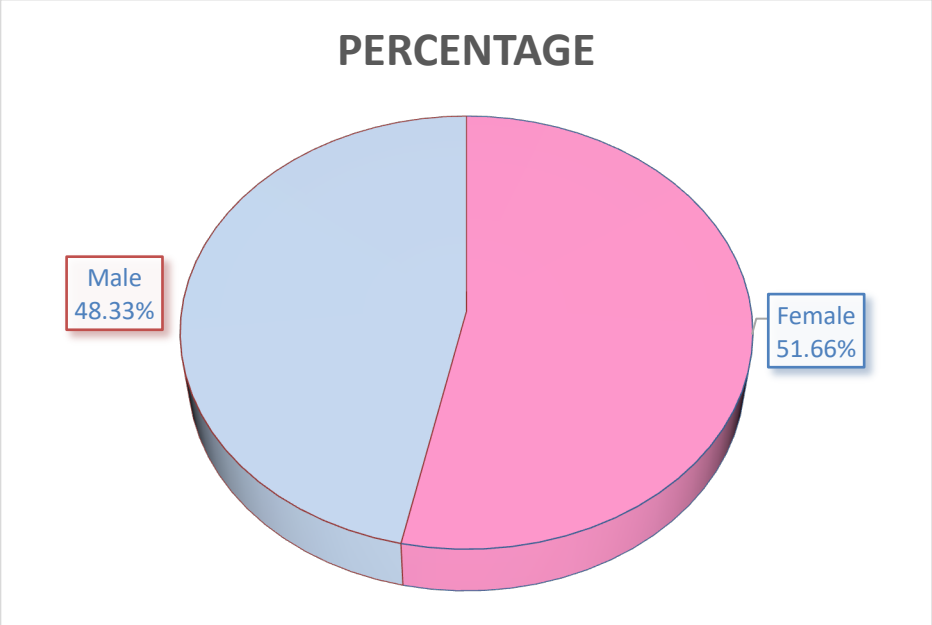

Figure 2: Frequency of age distribution

56.66% of the study population had a young age distribution (18–30 years), followed by middle age population (31-50) with 26.67% and old age population (≥50) with 16.67%. The distribution of patients by age group is shown in **Table 1** below.

Table 1: Age distribution among the patients

Age Group	N (%)
18-30	56.66%
31-50	26.67%
≥50	16.67%

The DLQI was determined to be 7.4 and 9.3 on VASI score-based categorization (≤5 and ≥5), respectively **[Table 2]. VASI score of** ≤5 was prevalent in most patients.

Table 2: Frequency of VASI score

VASI	N (%)	DLQI (Mean)
≤5	50 (83.33%)	7.4
≥5	10 (16.67%)	9.3

According to HAM-D Scale, Moderate depression was seen in the greatest number of patients (40) under the VASI scale of ≤5, whereas, under the VASI Scale of ≥5, severe depression was seen in 18 patients [P-Value = 0.0278757; **Table 3]**.

Table 3: HAM-D SCALE DEPRESSION

Mean DLQI	HAM-D		
	No Depression	Mild Depression	Severe Depression
7.4	2 (4%)	38 (76%)	10 (20%)
9.3	0	2 (20%)	8 (80%)
P-Value = 0.0278757			

Major depressive disorder accounted for 55% (n = 33). 40% (n = 24) of people had both major depressive disorder. Chi-square test on this data shows that exposed vitiligo and major depressive disorder are significantly related.

Discussion:

The pathogenesis of vitiligo today is complicated and mostly involves CD8+ effector and memory T cells, heat shock protein 70, interferon-gamma, JAK-STAT, and CXCL10 [6]. Topical corticosteroids, calcineurin inhibitors, systemic immunosuppressants, UVB phototherapy, and surgery were all used to treat vitiligo [7-9]. With some effectiveness, novel targeted therapy used a JAK inhibitor. Nevertheless, there is currently no cure for the illness. The recurrent recurrence of vitiligo lesions after stopping treatment lends credence to the idea that the vitiligo is a site of autoimmune memory [10]. The main goals of treatment should be to stabilise the disease and promote repigmentation. This should be done as soon as the first lesions occur. The location of the disease and the start of treatment are connected to prognosis. Vitiligo surely has an impact on the psychosocial impact on and quality of life because of the unpredictable clinical course and ongoing treatment.

Mean DLQI values in earlier research conducted around the world ranged from 1.82 to 14.72 [11–13]. Our study's mean (SD) DLQI was 7.4, which indicates a modest impact of the illness on quality of life. Similar results were obtained in other studies [12, 13]. Our population's lack of gender effects on QoL was consistent with earlier research

[14]. While numerous earlier research has linked sensitivity to one's looks to higher QoL impairment in female patients [15].

Vitiligo prevalence was highest in patients between the ages of 22 and 30 (56.66%). This study is comparable to others [16]. This age group is the one where the look is more important. Patients with vitiligo worry about being rejected and find it difficult to get married. This may account for the high DLQI and high attendance rate of vitiligo patients of this age at dermatological clinics. By utilizing semi-structured interviews to analyse the psychological impacts of vitiligo, Pahwa et al. discovered that the condition was regarded as a serious sickness since it can have a negative impact on getting married and finding employment [17]. In this study, patients with regressive illness had statistically substantially lower mean DLQI scores than non-patients (P = 0.0278757). Several studies have linked illness progression to a worse quality of life [18].

Depression rates in people with vitiligo range from 10% to 69%, according to earlier research conducted around the world using various evaluation instruments such as the Psychiatric Assessment Schedule and General Health Questionnaire (GHQ) [19]. According to past findings by other studies, younger age groups (18 to 30 years) have higher rates of depression and suicide ideation [20, 21]. Depression may be more prevalent in this younger age group because of issues with getting married, finding a job, or fear of being rejected.

Major depressive condition affected every person with dark skin. Major depressive illness have a significant frequency with vitiligo lesions. Lesions were closely linked to poorer quality of life and reduced self-esteem, as well as a high incidence of major depressive disorder.

Conclusion:

Patients with vitiligo had a markedly worse quality of life and were more likely to experience depression. For a higher quality of life, patients with vitiligo should routinely check for depression and receive psychiatric consultation in addition to their disease-specific treatment. The drop in depression levels (on the HAM-D) in patients leads to a considerable improvement in quality of life and offers a comprehensive strategy to combat and cure this persistent, obvious, and unexpected disorder.

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