



PSYCHIATRIC MORBIDITY IN PATIENTS WITH VITILIGO PERTAINING SPECIFICALLY TO ASSOCIATION WITH ANXIETY AND DEPRESSION IN THESE PATIENTS.

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ABSTRACT **Introduction:** Vitiligo, a dermatological problem, affects a person's emotional and psychological well being, having major consequences on patient's life. It can lead to various psychiatric conditions like depression anxiety, social phobia on account of the severity and location of the lesions. Most of the patients of Vitiligo report embarrassment, helpless and low self esteem. **Aims:** To study Socio-Demographic profile & psychiatric conditions specifically pertaining to presence of Anxiety and depression & their correlation with site of lesion in vitiligo patients. **Methods and Material:** 100 vitiligo patients and 100 subjects as control group who were well enough to complete the assessment were assessed with a semi-structured self designed Proforma, Hospital Anxiety Depression Scale (HADS) to obtain the relevant information. Data so obtained were tabulated, analyzed & conclusions were drawn using suitable statistics (i.e. chi square). **Results:** 79% of vitiligo patients were between age 13 to 45 years, 67% were males, 33% were females patients in study group. In comparison to healthy controls, the psychiatric morbidity was found to be significantly higher in the vitiligo group (62% v/s 25%). 37%, 18%, & 7% vitiligo patients suffered from Mixed anxiety and depressive disorder, Depressive disorder & Generalized anxiety disorder respectively. Incidence of psychiatric morbidity was higher in patients who had lesions more on exposed body areas. **Conclusions:** Vitiligo affected the persons marital life, sex life and intimacy in relationships. This generates psychological distress and disrupts the social relationship & creates a vicious stress-vitiligo cycle. Among vitiligo cases, psychiatric morbidity was found more frequent in younger age participants and higher in patients having lesions on exposed body areas compared to other sites affected.

KEYWORDS : vitiligo, anxiety, depression, self esteem, psychiatric aspects, lesions

Introduction:

The disorders and lesions in skin can have a detrimental outcome in a person's life. Skin has a role in our appearance, social communication and sexual attractiveness. So any disease affecting skin, creates emotional and psychological problems. On one hand psychological factors (stress, negative emotions, adverse life events) can influence the generation and aggravation of skin disorders (vitiligo, urticaria) while on the other hand psychological disorders can result in some skin diseases (psoriasis, atopic dermatitis).

Vitiligo, in India, is referred to as "ven kushtam" meaning white leprosy.^[1,2] Vitiligo occurs worldwide with an overall prevalence of 1%. However, its incidence ranges from 0.1% to > 8.8% across the country and in different countries of the globe.^[3,4,5] Positive family history is considered to be a poor prognostic factor for vitiligo.^[6]

Psycho-dermatologic disorders fall into three categories. (1) Psychophysiological disorders (e.g., acne, vitiligo, psoriasis and eczema) are associated with skin problems that are not directly connected to the mind but that react to emotional states, such as stress. (2) Primary psychiatric disorders involve psychiatric conditions that result in self-induced cutaneous manifestations, such as trichotillomania and delusions of parasitosis. (3) Secondary psychiatric disorders are associated with disfiguring skin disorders. The disfigurement results in psychological problems, such as decreased self-esteem, depression or social phobia.

Almost half the patients present before the age of 20 years and nearly 70-80% before the age of 30 years.^[7,8] The patients of vitiligo report embarrassment, helpless and low self esteem leading to emotional stress and social isolation, particularly if the disease develops on exposed areas of the body. These feelings can affect their relationships with friends, co-workers and even family members, which in turn increases the risk of depression and other psychosocial disorders.^[9,10,11,12] Keeping in view the psychological factors and stress related to vitiligo, this study has been planned.

Materials and Methods:

Present study has been planned to study the socio-demographic characteristics of patients with vitiligo, incidence of psychiatric comorbidity & co-relation between psychiatric co-morbidity with site of lesion in Vitiligo patients.

The present study was a single centre, cross sectional, single interview study that was approved by the institutional ethics board. 100 Vitiligo patients attending OPD in department of Dermatology aged 13 years and above, who were ready to give informed consent & literate enough to understand the questionnaire constituted study group & 100 suitably matched subjects preferably the relatives of the patients constituted the control group, who had no known dermatological or psychiatric disorders. Subjects with mental retardation, psychotic disorder, dementia, delirium and other amnesic disorders and who had not given consent after preliminary interview were not included in the study.

The selected patients (study group) & controls (control group) were interviewed in detail and were evaluated on a specially designed semi structured proforma to collect identification data, socio-demographic data, past history of psychiatric illness, illness characteristics, clinical diagnosis (confirmed by Dermatologist). All the subjects were evaluated on Hospital Anxiety and Depression Scale (HADS) to determine level of depression and anxiety, which had seven items related to anxiety and seven related to depression & a person can score between 0-21 for either disorder. Bjelland *et al.*,^[13] who identified a cut-off point of 8/21 for anxiety or depression. Also the study group subjects were subjected to Percentage Body Surface Area occupied by VITILIGO (% BSA) scale to determine the percentage of vitiligo involvement of body region.

Information and data so collected were tabulated, analyzed & subjected to suitable statistical methods (percentage, Chi square test etc.) and conclusions were drawn.

Results:

We had collected data/information from patients after applying proforma & other tools. Finally the results of the study have been depicted in table 1, 2, 3A & 3B.

Discussion:

79% of vitiligo patients were between age 13 to 45 years and 21% were in 45 years & above. The difference in the both groups was statistically highly significant ($p < 0.0001$). This was because of the fact that majority of population was of parents or guardians in control group. This finding was supported by the study of Hita Shah *et al.*,^[9] which showed that the majority (32.82%) of the patients were in their second decade of life. In our study group 67% were males and 33% females, while in the control

group 69% were male and 31% females, which was supported by Wang X et al.^[10] In study group 56% were married, 43% unmarried, 1% were divorcee while in control group respective percentages were 72%, 26%, 2%. The difference between study and control group was statistically significant ($p < 0.05$). These findings were supported by the study of Hita Shah et al,^[9] which showed that 58.63% of the patients were unmarried. 38% of vitiligo patients agreed that the vitiligo affected their marital & sex life and intimacy. These factors generate psychological distress and disrupts the social relationship, which creates a vicious stress-vitiligo cycle [Table1].

Most common psychiatric disorder found in our study was Mixed anxiety and depressive disorder (37%) followed by Depressive disorder (18%), & Generalized anxiety disorder (7%). On comparing with control group only 10%, 4%, & 11% patients suffered from Mixed anxiety and depressive disorder, Depressive disorder & Generalized anxiety disorder respectively, which was statistically significant ($p < 0.05$). It was consistent with the study of Amir Mufaddel et al,^[14] who found anxiety disorder in 28.6% and depression in 21.9% vitiligo patients [Table 2].

Table 3A show Anxiety scores of vitiligo patients on Hospital Anxiety And Depression Scales (HADS) according to de-pigmentation on exposed body areas, covered body areas or both. Out of 100 vitiligo patients 53 had de-pigmentation on both exposed & covered body parts, 44 patient had de-pigmentation only on exposed areas & rest 3 patients had de-pigmentation only on covered areas. Of 38 patients who scored 0-7 on HADS-A 22 (58%) had vitiligo spots on both body areas, 15(39%) had vitiligo spots only on exposed body parts & 1(2%) patients had vitiligo spots only on covered body areas. While of 36 patients who scored 8-14 on HADS-A the respective figures were 12(33%), 24 (67%) & 0(0%) Rest 26 patients who had anxiety score >14, the respective figures were 19 (73%), 5 (19%) & 2 (8%). The difference in these groups was statistically significant.

Table 3B shows Depression scores of vitiligo patients on Hospital Anxiety and Depression Scales (HADS) according to de-pigmentation on exposed body areas, covered body areas or both. Of 46 patients having depression score 0-7 on HADS-D 28(61%) had vitiligo spots on both body areas, 17(37%) had only on exposed body parts & 1(2%) patients had vitiligo spots only on covered body areas, while of 27 patients who scored 8-14 on HADS-D had respective figures as 6 (22%), 19 (70%) & 2 (8%) where as rest 27 patients who had depression score >14, the respective figure were 19 (70%), 8(30%) & 0(0%). The difference in these groups was statistically significant. This shows that patients having vitiligo on exposed body areas tend to be more prone for onset of psychiatric co morbidities.

This study was a point prevalence study and it included all cases from Government hospital located in an urban centre, hence the results cannot be generalized. So a prospective study with a large sample from different centres and also considering rural population may be carried out to explore psychiatric morbidity of different population affected by vitiligo. Similarly effect of treatment of vitiligo on psychiatric morbidity was not taken in to consideration in this study. Therefore a case-control prospective study should be planned, which may demonstrate reduction in psychiatric morbidity if any after successful treatment of vitiligo.

Conclusion:

The study revealed that vitiligo patients had higher rate of anxiety and depression disorders. Anxiety and Depression scores were significantly higher in patients having vitiligo on exposed body areas than patients with vitiligo on covered areas. Vitiligo generates psychological distress and disrupts the social relationship, which creates a vicious stress-vitiligo cycle.

Standardized instruments with proven reliability and validity were used for assessment. All the variables on which data were collected were truly reflective of the problem and have got practical implication.

In view of the paucity of studies in our country concerning psychiatric morbidity in Vitiligo, our attempt to have a close look at psychiatric morbidities in a reasonable sample of Vitiligo patients may serve a platform for future research.

Table 1: Distribution According to socio-demographic characteristics

characteristics	Study group (n = 100)	Control group (n = 100)
Age group (in years)		
13 – 25	50	28
26 – 45	29	64
46 – 60	12	8
>60	9	0
$\chi^2 = 29.18, (P 0.0001), d/f=3, \text{Highly Significant}$		
Sex		
Male	67	69
Female	33	31
$\chi^2 = 0.09, (P 0.76), d/f = 1, \text{Not Significant}$		
Marital Status		
Married	56	72
Unmarried	43	26
Divorcee	1	2
$\chi^2 = 6.52, (P 0.03), d/f = 2, \text{Significant}$		
Occupation		
Unemployed	8	27
Retired	3	30
Employed	17	16
House Wife	39	17
Student	33	10
$\chi^2=53.38, (P 0.00001), d/f=4, \text{Highly Significant}$		

Table 2: Distribution of psychiatric morbidity as per ICD-10 (Major Categories)

Psychiatric morbidity	Study group (n = 100)	Control group (n = 100)
Mixed anxiety and depressive disorder	37	10
Depressive disorder	18	4
Generalized anxiety disorder	7	11
$\chi^2 = 11.69, (P 0.03), d/f = 2, \text{Significant}$		

Table 3A: Anxiety scores by Hospital Anxiety And Depression Scales (HADS) of patients according to de-pigmentation on exposed body area, covered body area or both

ANXIETY SCORE ON HADS-A	Patient having de-pigmentation on both areas	Patient having de-pigmentation only on exposed areas	Patient having de-pigmentation only on covered areas	Total (n=100)
0-7	22 (58%)	15 (39%)	1 (2%)	38(38%)
8 – 14	12 (33%)	24 (67%)	0 (0%)	36(36%)
>14	19 (73%)	5 (19%)	2 (8%)	26(26%)
$\chi^2 = 15.79, (P 0.003), d/f = 4, \text{Significant}$				

Table3B: Depression scores by Hospital Anxiety And Depression Scales (HADS) of patients according to de-pigmentation on exposed body area, covered body area or both

DEPRESSI ON SCORE ON HADS-D	Patient having de-pigmentation on both areas	Patient having de-pigmentation only on exposed areas	Patient having de-pigmentation only on covered areas	Total (N=100)
0-7	28 (61%)	17 (37%)	1 (2%)	46(46%)
8 – 14	6 (22%)	19 (70%)	2 (8%)	27(27%)
>14	19(70%)	8(30%)	0(0%)	27(27%)
$\chi^2 = 15.62, (P 0.003), d/f = 4, \text{Significant}$				

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