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STUDY OF PREVALENCE OF PSYCHIATRIC MORBIDITY, ESPECIALLY DEPRESSIVE & ANXIETY DISORDERS IN ACNE VULGARIS PATIENTS IN HADOTI REGION

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ABSTRACT: BACKGROUND: Acne Vulgaris is a ubiquitous affliction that can leave physical & emotional scars that can persist throughout the life of the affected individual. Patients with acne had greater impairment in mental health scores compared with those with asthma, epilepsy, diabetes, back pain, arthritis, or coronary artery disease. **AIMS & OBJECTIVES:** 1. To determine the Prevalence of psychiatric morbidity especially depressive & anxiety disorders among acne patients. 2. To find out relationship, if any between these symptoms & severity of acne. **MATERIAS & METHODS:** 50 randomly selected patients of Acne vulgaris and 50 suitably matched controls (preferably relatives) attending Skin & VD OPD of MBS hospital Kota, were studied for presence of Depressive and Anxiety disorders using detailed history, mental state examination, GHQ-12, BDI, HAM-A. Data so collected were analyzed using Chi-square and Pearson coefficient of correlation. **RESULTS:** Study revealed significantly higher Depressive disorder in acne patients (48%) than in controls (24%). Similarly, significantly higher numbers of acne patients were having Anxiety disorder (30%) than controls (16%). Also severity of Depression & severity of Anxiety showed a high positive correlation to the severity of acne ($r=0.8986$) & ($r=0.998$) respectively. **CONCLUSION:** Depressive & Anxiety disorders were significantly higher in acne patients in contrast to controls. Severity of Depressive & Anxiety disorders increased significantly with the increase in severity of acne.

KEYWORDS: Acne, Depression, Anxiety, Severity.

INTRODUCTION: The interaction of acne and psychosocial issues is complex and, in adolescence, can be associated with developmental issues of body image, socialization and sexuality.¹ Acne Vulgaris is an inflammatory disease of the skin; caused by changes in the pilosebaceous units (skin structures consisting of a hair follicle and its associated sebaceous gland). Acne lesions are commonly referred to as pimples, spots, or zits. Acne vulgaris is a common skin disorder that most frequently affects the face, making it impossible to hide.² It is most prevalent in young adults at the time when individuals undergo maximum development of social skills and interpersonal relationships.

A potentially disfiguring disorder such as acne can result in self-deprecating feelings that are buttressed by insensitive comments from others & experiences of interpersonal rejection.³ Patients with acne had greater impairment in mental health scores compared with those with asthma, epilepsy, diabetes, back pain, arthritis, or coronary artery disease.⁴

Furthermore, acne patients reported higher depression and anxiety scores when compared to psoriasis patients and those attending oncology or general dermatology clinics.⁵ Several studies have demonstrated psychological abnormalities including depression, suicidal ideation, anxiety, psychosomatic symptoms, including pain and discomfort, embarrassment and social inhibition.

Acne negatively affects quality of life, and the greater the impairment of quality of life due to

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acne, the greater the level of anxiety and depression. Effective treatment of acne was accompanied by improvement in self-esteem, affect, obsessive-compulsiveness, shame, embarrassment, body image, social assertiveness and self-confidence. Since there is paucity of studies showing psychological & psychiatric problems related to acne, especially in our country, hence this study was planned.

MATERIAS & METHODS: To fulfill above aims and objectives, this study was conducted in the OPD of Skin & V.D. Department in M.B.S. Hospital Kota attached to Govt. Medical College Kota. Before starting the study approval of the Principal & Controller Medical College & ethical committee was taken.

Sample of study: 50 acne patients attending skin OPD who fulfilled inclusion criteria were taken for the study & interviewed in detail (group A). They were compared with 50 matched normal healthy controls (group B) preferably relatives of acne patients.

Patients were assured that information revealed by them will be kept confidential and will be used for research purpose only.

Inclusion Criteria:

1. Persons over age 13.
2. Literacy level such that he/she could understand the questionnaire.
3. Persons who gave informed consent. Those patients who were below 16 years of age consent was taken from parents/guardians.
4. Diagnosis and grading of acne confirmed by consultant Dermatologist (M.D. skin & V.D.)

Exclusion Criteria:

1. Persons suffering from major medical or surgical illness.
2. Persons suffering from other dermatologic disorders.
3. Persons with known psychiatric disorders.

The selected patients (group A) & controls (group B) were interviewed in detail by using a specially designed proforma which included: Identification & Sociodemographic data, history of the patient, details related to illness like site of lesion, where appeared first, progress, whether involve face, habit of acne picking & treatment history. Clinical diagnosis & severity of acne grading was confirmed by a consultant Dermatologist.

Subjects from both the group were administered Goldberg's Health Questionnaire (GHQ-12). Cut-off score of the test was taken as equal to, or more than 2. The subjects who crossed this cut-off mark were termed GHQ positive cases. GHQ positive cases were shown to a consultant Psychiatrist & a psychiatric diagnosis was made according to ICD-10 criteria.

Those patient who met the ICD-10 criteria for depression & anxiety disorder were subjected to detailed evaluation by administering BDI & HAM-A respectively & severity of depression & anxiety was assessed. Information so gained and data so collected were subjected to suitable statistical analysis (Chi square test, Pearson coefficient of correlation) and conclusions were drawn.

OBSERVATIONS: Most of acne patients (60%) in our study were adolescents (age 13-19 years) & nearly all patients fell in age group 13-30 year. Gender distribution showed 56% of acne patients were males & 44% were females. Majority were Hindus (76%), most (90%) of acne patients were

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unmarried & majority (92%) were from urban background.

In study group 80% acne patients were found to score 2 or more than 2 on GHQ12, while only 60% participants in control group were GHQ positive. These GHQ positive cases were evaluated in detail; psychiatric diagnosis was made by a consultant psychiatrist according to ICD10. Depression & anxiety were found to be common psychiatric diagnosis in our study.

Depression was found in 30% of patients of acne, anxiety disorders in 12% & mixed anxiety depressive disorders were found in 18%. Bipolar disorder was found in 4%, psychotic disorder in 2% & other neurotic disorders in 6%. Prevalence of psychiatric disorders was higher in acne patients when compared to control group, which was statistically significant.

In our study 30% patients suffered from mild acne, 42% from moderate acne & 28% from severe acne. Table 2 shows severity of acne with severity of depression & anxiety.

Score on GHQ-12		Study Group	Control Group	P value
	>2	40(80%)	30(60%)	P < 0.5
	<2	10(20%)	20(40%)	
Psychiatric Diagnosis acc. To ICD-10	Organic disorders	0	0	P < 0.5
	Schizophrenia & related disorders	0	0	
	Bipolar affective Disorder	2(4%)	1(2%)	
	Depressive episode	15(30%)	06(12%)	
	Gen. Anxiety Dis.	06(12%)	02(04%)	
	Mixed Anxiety Dep. Disorder	09(18%)	06(12%)	
	OCD	0	0	
	Dissociative Disorder (Conversion disorder)	3(6%)	1(2%)	
Table 1: shows distribution according to GHQ-12 & psychiatric diagnosis according to ICD10				

Score on BDI		Mild Acne	Moderate Acne	Severe Acne
	0-9	08(53.33%)	12(57.14%)	6(42.85%)
	10-16	04(26.67%)	05(23.81%)	4(28.57%)
	17-30	03(20%)	04(19.05%)	4(28.57%)
	>30	00	00	00
Score on HAM-A	0-17	12(80%)	15(71.42%)	08(57.14%)
	18-24	03(20%)	05(23.80%)	04(28.57%)
	25-30	00	01(4.78%)	02(14.29%)
	>30	00	00	00
Table 2: shows distribution of depression & anxiety according to severity of acne				

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Graph 1 showing correlation coefficient between severity of acne & severity of depression
(Pearson coefficient of correlation: 0.898675)

Graph 1

Graph 2 showing correlation coefficient between severity of acne & severity of anxiety
(Pearson coefficient of correlation: 0.999897)

Graph 2

DISCUSSION: Several studies have demonstrated psychological abnormalities including depression, suicidal ideation, anxiety, psychosomatic symptoms, including pain and discomfort, embarrassment and social inhibition among patients of acne.⁶⁻¹² Effective treatment of acne was accompanied by improvement in self-esteem, affect, obsessive-compulsiveness, shame, embarrassment, body image, social assertiveness and self-confidence. Acne is associated with a greater psychological burden than a variety of other disparate chronic disorders. The results of our study show that acne patients suffer from considerable psychiatric morbidity when compared to normal controls, which is consistent with the findings of Aktan S et.al 2000,⁵ Hughes JE et.al 1983,⁷ Khan MZ et.al 2001,⁸ Picardi A et.al 2000.¹³

The severity of depression was positively correlated with severity of acne & pearson coefficient of correlation was found to be 0.8986. Our findings are consistent with the findings of Wu SF et.al 1988¹⁴ & Cunliffe WJ et.al 1989¹⁵ who found direct link between acne severity & level of clinical depression. However, Niemeier V et.al 1998¹⁶ concluded that impairment is not correlated with the objective severity of acne. Layton AM et.al 2002¹⁷ found that even mild to moderate disease can be associated with significant depression and suicidal ideation and psychologic change does not

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necessarily correlate with disease severity. The severity of anxiety showed high positive correlation with severity of acne & pearson coefficient of correlation was found to be 0.9998. Our findings are consistent with the findings of Wu SF et.al 1988.¹⁴ Yazici K et.al 2004¹⁸ concluded that greater impairment of dermatologic quality of life seems to put the patient at an increased risk for anxiety disorder. However, Niemeier V et.al 1998¹⁶ concluded that impairment is not correlated with the objective severity of acne.

CONCLUSION: Acne patients suffered from higher psychiatric morbidity as compared to control group. Severity of acne was found to be positively correlated to severity of depression & anxiety.

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