Original Research Article

Depression and demographic characteristics in patients with dermatological disease attending to outpatient department

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Abstract

Background: There is strong association seen between dermatological disease and psychiatry comorbidity. Depression worsens dermatological condition and impact quality of life of patient. **Objective:** To find depression and demographic data in patients with dermatological diseases **Methods:** The prospective cross sectional study was conducted at Govt. Medical College and Hospital Rajnandgaon (C G) during period of April 2016 to July 2016. Two fifty patients attending to dermatological outpatient included in study. Demographic data obtained and PHQ 9 applied. Data is tabulated in Microsoft excel and analysis done by SPSS version 17. **Result:** There is significance association between dermatological disease and depression. . In this study of 250 patients, depression present in 61.6 % cases. Among that 32% (80) patients having mild depression, moderate depression present in 28.8% (72) patients of dermatological diseases. **Conclusion:** Dermatological disease significantly associated with depression. So dermatologist and physician should be aware about depression and patient's treatment through liaison therapy to improve quality of life of patients.

Key Word: Psychiatric comorbidity, Dermatological disease, Depression, India.

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INTRODUCTION

Psychodermatology define relation between psychiatry and dermatology. Depending upon relation between skin disease and psychiatry disorder psychodermatology classified into three branches 1) Psychophysiologic -skin disease triggering different emotional stages, for example psoriasis 2) Primary psychiatry disorder- self induced skin disorder like trichotillomania 3) Secondary psychiatry disorder caused by disfiguring skin for example ichthyosis, acne conglobata, vitiligo [1]. Both brain and skin origin from ectoderm. Relationship between skin and psychiatry disorder can be seen from two aspects. psychiatric illness influences the development and course of dermatologic diseases by the effects of depression, anxiety and stress [2]. And cosmetically disfiguring dermatologic illness may cause significant psychosocial distress for patients [3]. It is prove that psychological stress leads to activation of the hypothylemic pituitary axis (HPA) which can result in undesirable physiological responses including sympatheic activation, release of cortisol and noepneprine that exacerbate dermatological conditions. Nervous system can modulate the cutaneous immune responses, and the psychological stress can affect development and progression of skin diseases[4]. The incidence of psychiatric disorders is estimated at about 30 to 60% among dermatological patients [5]. Patients with acne, body dysmorphic disorder, psoriasis, and particularly person with facial conditions are more likely to have reactive depression and be at risk of suicide[6,7]. In Mohammad Arbabi *et al*. study of outpatient and inpatient

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414 dermatological patients, prevalence of psychiatry comorbidity found in 51.3% cases[8].Patients with dermatological disease prone for depression, anxiety and suicidal thoughts. The prevalence of depression is 2 to 3 times greater in acne patients compare to general population, which is more common in patients older than 36 years and female patients[9]. The prevalence of psychiatric illness in the patients presenting to dermatology clinics has been reported as 25-43%.[10,11.] Stress may aggravate the dermatological disease in 40-100% of patients.[12] In general, patients prefer to take treatment of their dermatological diseases rather than psychiatric disease and prefer to visit dermatologist. The drugs used in the treatment of skin diseases such as steroid and retinoid may cause psychiatric symptoms[12]. Thus, the patients with psychopathologies taking steroid treatment should be closely observed.

MATERIAL AND METHODS

The present cross sectional observational hospital based study was conducted at tertiary care hospital at Government Medical College and Hospital Rajnandgaon (C G), India. Sample size of study population was 250. Sample was selected by simple random sampling method. Duration of study was April 2016 to July 2016. Those who given written informed consent were included in the study. Institutional Ethical Committee approved the study. Those who were younger than 15 years of age and who did not give informed consent were excluded. Those patients whose history and mental status examination suggested Psychosis, Mental retardation, and any organic illness were also excluded. Patients attending to dermatological outpatient department on every wednesday and thursday examined by assistant professor of dermatology who is a second and corresponding author of this study. Dermatologist examined the patient and concluded dermatological disease and also detailed demographic data like name, age, sex, marital status, residence, religion and occupation. The Patient Health Questionnaire (PHQ-9) the 9-item depression screen in Hindi were applied[13]. Major depression was diagnosed if 5 or more of the 9 depressive symptom criteria were present at least "more than half the days" in the past 2 weeks, and one of the symptoms is depressed mood or lack of interest must be there. One of the 9 symptom criteria ("thoughts that you would be better off dead or of hurting yourself in some way" counts if present at all, regardless of duration. Other dermatological disease mentioned in study include cutaneous lishmaniasis, pemphigus urticaria and scabies. The data was tabulated and Microsoft excel was used for further analysis. SPSS version 17 used for data analysis.

RESULTS

Younger patients were involved in this study. Most of study patients were Hindu by religion and out of 250 patients 130 were from urban and 120 were from rural background. 164 patients were unemployed and 84 patients were employed

Table1: Demographic characteristics of study subjects

Variable	Frequency	Percent
Age group		
16 to 30yr	200	80.0
31 to 65yr	50	20.0
Sex		
Male	138	55.2
Female	112	44.8
Marital Status		
Single	164	65.6
Married	86	34.4
Residence		
Urban	130	52.0
Rural	210	48.0
Religion		
Hindu	234	93.6
Muslim	16	65.6
Occupation		
Unemployed	164	65.6
Employed	86	34.4

Among 250 patients acne vulgaris is the common diagnosis 84 patients (33.6%), followed by fungal infection (66) patients , followed by pigmentary disorder (30)

Table 2: Dermatological disease among study subjects

Dermatological problems	Frequency	Percent
Acne	84	33.6
Tinea cruiris and Tinea carporis	66	26.4
Vitiligo and Melasma	30	12.0
Psoriasis	20	8.0
Hair Fall/ Alopecia	12	4.8
Eczema	8	3.2
Dhat syndrome	8	3.2
Bacterial Infections	6	2.4
Keloid	4	1.6
Others	12	4.8
Total	250	100.0

In study population of 250 patients, depression present in 61.6 % cases. Among that 32% (80) patients having mild depression , moderate depression present in 28.8% (72) patients of dermatological diseases. There is significance association between dermatological disease and depression (Chi square test- 126.77, P value < 0.001)

Table 3: Depression among dermatological patients by PHQ-9

Dermatological disease		None	Mild	Mode	Sever	Total
Acne Vulgaris	Frequency	34	22	28	00	84
	%	13.6%	8.8%	11.2%	00	33.6%
Tinea cruris and	Frequency	32	18	16	00	66.0
Tinea corporis	%	12.8%	07.2%	06.4%	00	26.4%
Psoriasis	Frequency	00	20	00	00	20
	%	00	08%	00	00	08%
Melasma and	Frequency	10	12	08	00	30
Vitilligo	%	04%	4.8%	3.2%	00	12%
Alopesia	Frequency	04	04	04	00	12
	%	1.6%	1.6%	1.6%	00	4.8%
Dhat syndrome	Frequency	04	00	02	02	08
	%	1.6%	00	0.8%	0.8%	3.2%
Eczema	Frequency	04	00	04	00	08
	%	1.6%	00	1.6%	00	3.2%
Bacterial Infection	Frequency	02	02	02	00	06
	%	0.8%	0.8%	0.8%	00	2.4%
Keloid	Frequency	02	02	00	00	04
	%	0.8%	0.8%	00	00	1.6%
Others	Frequency	04	00	08	00	12
	%	1.6%	00	3.2%	00	4.8%

DISCUSSION

This was cross sectional study conducted in outpatient dermatological patients. In study of 250 dermatological patients 200 patients belong to 16 to 30 years age group and 50 patients belongs to 31 to 65 years age group. It indicate younger patients were involved in this study. Most of study patients were Hindu by religion and out of 250 patients 130 were rom urban and 120 were from rural background. 164 patients were unemployed and 84 patients were employed. In study of 250 dermatological patients more were male (138) than female (112). Similar pattern of more male patients found in the study conducted by Kar *et al*[14]. However more female proportion found in study Murthy Kosaraju , Rami Reddy *et al.*[14] In this study of 250 patients 65.6 % (164) were single and 34.4 % (138) were married. In Mohammad Arbabi *et al.*[8] study married patients were more. In our study among 250 patients acne vulgaris is the common diagnosis 84 patients (33.6%), followed by fungal infection (66) patients, followed by pigmentary disorder (30) patients. In Murthy Kosaraju , Rami Reddy *et al*,[15]study, the most common diagnosis was acne, followed by eczema and psoriasis. Various study shows relation between psychiatric disease and dermatological disease. Woodruff *et al* reported 30-40% prevalence of psychiatry disease in dermatology patients attend to their clinic[11]. And Picadi *et al*, have reported 25.2% prevalence of psychiatry morbidity in dermatological patients [10]. Also study by Aktan, prevalence of psychiatry illness was 33.45% in 256 dermatological out patients [16]. In our study there was significance association found between dermatological disease and depression. In this study of

250 patients depression present in 61.6 % cases. Among that 32% (80) patient having mild depression , moderate depression present in 28.8% (72) patient and severe depression present only in two patient of dhat syndrome (Chi square test- 126.77, P value < 0.001). Similarly in study Murthy Kosaraju, Rami Reddy et. al,[15] found depression in most of study population ,89% cases of their study population. In that 31.5% cases having mild depression[15] Also Kim *et al*. study found that nearly 62.5% of the patients with dermatological diseases had clinical depression[17]. In study by Sasha Raikhy, Shiv Gautam and Sanjay Kanodia found depression in 36.32 % cases of dermatological patients[18]. Also in study by Seyhan M et. al. in 636 dermatological patients, 32.% patients suffering from depression.[19] In our study Depression was found significantly in acne vulgaris followed by fungal infection(tinea cruris, tinea corporis), followed by psoriasis and pigmentary disorder compare to other dermatological disease. Severe depression was present among two dhat syndrome patients only. In Mufaddel, A. and Abdelghani, A.E. et. al. study shows hospital anxiety depression scale to asses depression (HADS-D) scores above the cut off points were significantly higher in patients with psoriasis (P = 0.0062), vitiligo (P = 0.0054), acne (P = 0.0103) and eczema (P = 0.0359) compared with healthy subjects and depression shows in 21.9% cases .[20] Most of study shows significant relation between psoriasis and psychiatry co morbidity. In this study all 20 patients of psoriasis were suffering from depression. In Mufaddel, A. et. al. study psychiatric diagnoses was significantly higher in patients with psoriasis (P = 0.0032) compared with the miscellaneous group of dermatological conditions[20]. On SKINDEX scale poor quality of life in emotional and psychological sphere more seen in eczema and psoriasis patients and severity of depression by PHQ- 9 seen more in psoriasis and eczema patients[15]. Patients with psychodermatoligical disorders frequently resist psychiatric consultation, so liaison among family physicians, psychiatrists and dermatologists can be very useful in the management of these conditions. Thus considerations of psychosocial and psychiatric factors are important for the management of psychodermatologic disorders.

LIMITATION

Other psychiatry comorbidities such as anxiety disorder & psychotic disorder were not assessed, which should be included in further studies.

CONCLUSION

Dermatological disease significantly associated with depression. So dermatologist and physician should be aware about depression and patient's treatment through liaison therapy to improve quality of life of patients.

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