A Study of Prevalence of Psychiatric Morbidities in Patients with Dermatological Disorders

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ABSTRACT

Introduction: Skin has a special place in psychiatry with its responsiveness to emotional stimuli and ability to express emotions such as anger, fear, shame and frustration. Disfiguring skin disorders may prove to be psychological disasters because these would not only have a negative impact on the patient's body image but also lead to stigmatization. Aim: (1). To study the prevalence of psychiatric morbidity in dermatological disorders. (2). To study the correlation between the type of psychiatric morbidity and diagnosis of dermatological disorders. Study design: Hospital based prospective study carried out at the OPD and indoor ward of dermatology department, Rama Medical college, Kanpur

Material and methods: Out of total 138 cases of different dermatological disorders,100 cases were included in the study fulfilling the inclusion criterias that were laid for the study during a period of 12 months from August 2018 to August 2019.Patients were diagnosed by consultant dermatologist and then they were assessed by MINI plus for diagnosis of psychiatric morbidity. Statistical analysis: Data has been analyses using statistical package for the social sciences (SPSS) version 16 for windows

Results: Prevalence of psychiatric morbidity was 33%. Depression was most common 45.5%,followed by anxiety disorder 18.2%,adjustment disorder 12.1%,social phobia and suicidality 9% each and dysthymia and panic disorder 3%.

Keywords: Prevalence of Psychiatric Morbidities, Dermatological Disorders

INTRODUCTION

Skin is the largest organ of the body and determines to great extent its appearance. A healthy normal skin is essential for a person's physical and mental well being and sense of self confidence.[1] Skin has a special place in psychiatry with its responsiveness to emotional stimuli and ability to express emotions such as anger, fear, shame and frustration.[2] Psychological factors affect many dermatologic conditions including atopic dermatitis, psoriasis, alopecia areata, urticaria, angioedema and acne vulgaris. Some primary psychiatric disorders present with primarily physical symptoms to dermatologists, including body dysmorphic disorder (BDD) and delusional disorder, somatic type (eg, delusions of parasitosis or of a foul body odour. Dermatologists also see patients with compulsive behaviors that may be part of obsessive-compulsive disorder (OCD), trichotillomania and psychogenic excoriation. Another important aspect of the interface between psychiatry and dermatology is the range of dermatologic adverse reactions to psychotropic drugs.[3,4]

The relationship between skin and brain exists due more than a fact that the brain acts as the centre of psychological functions and the skin have same ectodermal origin and are affected by the same hormones and neurotransmitters. Connecting the two disciplines is a complex interplay between neuroendocrine and immune systems that has been described as the NICS, or the neuro-immuno-cutaneous system.[5] The interaction between nervous system,skin and immunity has been explained by release of mediators from neuro-immunocutaneous system.[6]

Psychological factors may be of particular concern in chronic intractable dermatologic conditions such eczema, prurigo and psoriasis.[7] Disfiguring skin disorders like vitiligo, leprosy or psoriasis may prove to be psychological disasters because these would not only have a negative impact on the patient's body image but also lead to stigmatization.[8] Chronicity of the disease may add enough to the plethora of the depressed patients. Regardless of psychiatric morbidity, skin diseases can greatly affect patients' quality of life.[9]

Patients with psychocutaneous disorders frequently resist psychiatric referral, and the liaison among primary care physicians, psychiatrists and dermatologists can prove very useful in the management of these conditions. Liaison therapy enables multidisciplinary approach with the cooperation of psychiatric and dermatologic terms and simultaneous diagnostic procedures and treatment of patients with psycho-dermatologic disorders.[8]

Previous studies show high prevalence of psychiatric morbidity in dermatological disorders. In a study conducted by Picardi et al (2001) on 1389 patients 0f dermatology outpatient clinics showed a prevalence of 20.6%.[10] Hughes et al conducted a study which was later on published in Indian journal of psychiatry showed a high prevalence rate of 30% psychiatric morbidity in outdoor patients attending dermatological clinics.[11] Study conducted by Kessler et al(2005) also shows a prevalence of 30%.[12]

With the above discussion it is clear that psychiatric

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morbidity in dermatological disorders cannot be ignored and need proper attention by both sides. Early recognition and treatment of these disorders will definitely improve person's living standard and quality of life and thus precise understanding of this problem is necessary. There is no such study conducted in our set up on this topic in recent past. Keeping this in mind this study is a step forward in this direction.

The present study was undertaken with the following aims and objectives:

1.To study the prevalence of psychiatric morbidity in dermatological disorders.

2.To study the correlation between the psychiatric morbidity and diagnosis of dermatological disorder.

Materials and Methods:

This study was conducted in Department of Psychiatry, Rama Medical college and hospital within a period of twelve months from 1st August 2018 to 31st July 2019. This was a hospital based prospective study and the study sample were selected from the patients that were diagnosed and confirmed by senior consultant of Out Patient Department (OPD) and indoor ward of dermatology department.

Sample size: The sample size for the study is as follows-

Total cases of dermatological disorder taken: 138

Cases included for the study: 100

So, out of total 138 cases of different dermatological disorders, 100 cases were included in the study fulfilling the inclusion criteria's that were laid for the study. The cases available were mostly from the rural and urban areas of Kanpur, Farrukhabad, Unnao, Kannauj and Hardoi

Inclusion Criteria

1. Patients of age group 18-65yrs.
2. Both male and female population.
3. Diagnosed case of dermatological disorder as diagnosed by the consultant dermatologist.

Exclusion Criteria

Adults fulfilling any of these will be excluded from the study

1. Psychiatric illness prior to onset of dermatological disorder.
2. Patients suffering from chronic medical debilitating illnesses.
3. Mental sub-normality.
4. Adults receiving or those who received steroids in last 6 mths

Tools used

Informed consent form

A semi structured proforma for socio-demographic data developed and used in department of psychiatry.

Mini international neuropsychiatric interview(MINI-PLUS)

Diagnostic and statistical manual of mental disorders TR IV.

Description of tools

1. Informed consent form

A self designed informed consent form, which explained the nature of the study, the contents of which were explained in vernacular language, was read out to the subjects of study and their signature or left thumb prints in case of illiterates was obtained.

2. Proforma for socio-economic data

A self designed form to collect personal and socio-demographic details of the subjects has been used. This contains details about identification data like name, age, sex, residential address, marital status. The family history records type of family, number of persons in the family, and the details of earning family members like their age, sex, occupation, the total monthly income of the family from all sources.

Mini international neuropsychiatric interview - plus (mini-plus)

MINI PLUS (Mini International Neuropsychiatric Interview, English version 5.0.0): This brief structured diagnostic interview developed by Dr. David V. Sheehan of USA and Dr. Y. Lecrubier of France, aimed at the identification of a set of DSM-IV and ICD-10 mental disorders in multicenter clinical trials and epidemiological studies and it showed an acceptably high validation and reliability scores.

It elicits all the symptoms listed in the symptom criteria for the major Axis I psychiatric disorder in DSM-IV and ICD-10. Its diagnostic algorithms are considered with DSM-IV diagnostic algorithms.

Procedure

Patients attending the Out Patient Department (OPD) and admitted in indoor ward of the dermatology of Rama Medical college were assessed and diagnosed as per the different diagnostic criterias of dermatological disorders and meeting the inclusion criteria were recruited for the study.

The confirmation of the diagnosis was made after discussing the cases with senior consultants of the dermatology department. After obtaining the consent the cases were assessed for demographic variables and psychiatric morbidity and disease activity by using the MINI-PLUS. The diagnosis thus made was confirmed with DSM IV. The time required for interviewing each patient ranged between thirty (30) to forty five (45) minutes. The coding for the responses was made as per the provisions made for the study.

Finally, the results and observation was done by using Chi-square test to assess categorical data, Spearman's correlation for comparing categorical relationship and Pearson's correlation for comparing quantitative relationship.

RESULTS

Out of the total 100 number of cases, 33 cases (percentage as high as 54.29%) found to have psychiatric morbidity (both current and lifetime prevalence of psychiatric morbidity) during the course of the illness as shown in pie chart 1.

Among the psychiatric morbidities 15% of the cases had Major Depressive Episodes. As many as 15 cases with a percentage of (34.29%) had such episodes (both current and lifetime prevalence of Major Depressive Episodes were included as per the MINI-PLUS assessment). This was followed by generalized Anxiety Disorder, as 6 (11.43%) cases had such type of manifestations during the course of

Psychiatric morbidity	n	Percentage (%)
Major depressive episode	15	15%
Dysthymia	1	1%
Suicidality	3	3%
Panic disorder	1	1%
Social phobia	3	3%
Generalised anxiety disorder	6	6%
Adjustment disorder	4	4%

Table-2: Psychiatric diagnosis of patients

Dermatological disorder	Psychiatric morbidity according to MINI Plus						
	A	B	C	E	G	P	X
Urticaria	0.83*					0.82*	0.56
Psoriasis	0.95*	0.31	0.60				0.63
Pemphigus	0.87*		0.61				
Acne vulgaris	0.74*			0.27	0.77*	0.76*	
Vitiligo						0.76*	

A - Depresssion, B- Dysthymia, C - Suicidality, E - Panic disorder, G - Social phobia; P - Generalised anxiety disorder, X - Adjustment disorder

Table-3: Correlation of psychiatric morbidity with type of dermatological disorder

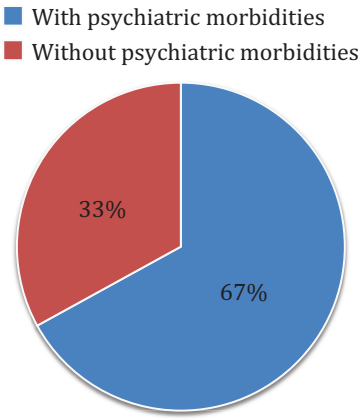

Figure-1:

the illness. Then 4 (5.71%) cases had adjustment disorder and similarly 3 (5.71%) cases had social phobia and suicidality each.Panic disorder and dysthymia was diagnosed in 1(1%) of cases each.

The table below shows the correlation of one type of psychiatric morbidity with dermatological disorders. Factor A i.e depression is strongly correlated with all types of dermatological disorders, factor loading ranges from 0.74 to 0.95 which is statistically highly significant. Most strong correlation is with psoriasis. Factor G, social phobia is strongly correlated with acne vulgaris, factor loading is 0.77. Factor P, Generalised anxiety disorder is strongly correlated with urticaria, acne vulgaris and vitiligo. Factor loading ranges from 0.76 to 0.82 which is statistically significant. Most strong correlation of generalized anxiety disorder is with Urticaria.

Factor C has significant correlation with psoriasis and pemphigus factor loading is 0.60 and 0.61 respectively for psoriasis and pemphigus. Factor X has correlation only with psoriasis, factor loading is 0.63 which is statistically significant. Factor B and Factor E do not have statistically significant correlation with any of dermatological disorders

DISCUSSION

A relationship between psychological features and skin diseases has long been hypothesiszed. Studies regarding the relationship between psoriasis and psychiatric morbidity are known since 1946[6]. Psychological factors may be of particular concern in chronic intractable dermatological conditions like eczema, prurigo and psoriasis[13].

In this study a total of 100 patients with different dermatological disorders were examined with an aim to assess the prevalence of psychiatric morbidities in dermatological disorders and socio-demographic variables of the study group and also to examine the correlation of type and duration of dermatological disorder with psychiatric morbidity. Overall during the study, 33 cases out of total 100 cases of dermatological disorders had psychiatric morbidity showing a percentage as high as 33%.this finding is in accordance with few earlier findings of Aktan et al[14] (2000) and Gupta et al (2003) as they reported a prevalence of 33.4% and 30% respectively. The findings of current study is also corroborated by other studies like Matoo et al[15] (2001) and that of Bashir and Rana et al[16] (2006) who found a prevalence of psychiatric morbidities as high as 33.3% and 34.11% respectively. But the current study findings differed from two studies done by Picardi et al[17] and Muamer et al[18] who reported a lower prevalence of 20% and 15% respectively. The difference in findings may be due different methodological approach and due to the smaller number of patients examined in current study.

Different psychiatric morbidities in dermatological disorders

In our current study 15 out of 33 patients diagnosed with psychiatric morbidity had major depressive episode with a percentage of 45.5% among other psychiatric morbidities.

This finding is in accordance with the study of Bharat et al[19] (1997) who reported depressive neurosis to e the most common psychiatric illness in leprosy and psoriasis and that of Woodruff et al[20] (1997) who reported 44% prevalence of depression in dermatological disorders. In current study depression is the most common morbidity in psoriasis and pemphigus patients.8 (36.36%) of psoriasis cases had depressive episode. This finding is similar to Schmidt et al[21] in Australia who found that 32% of patients suffering from psoriasis screened positive for depression. It is also supported by the study conducted by Md Harun Rashid[22] (2011) who found that the proportion of major depressive disorder was higher among psoriasis patients.

4 cases (4%) out of total patients examined were diagnosed as adjustment disorder. It comprised of 12.1% of total psychiatric morbidities. This finding is similar to that of Seyhan et al[23] (2006) and Matoo et al[24](2001) who reported that out of total patients who had psychopathological problems 15.5% and 14% of cases had adjustment disorder.6 subjects had generalised anxiety disorder with a percentage of 18.1% among other psychiatric morbidities. This is in accordance to what was observed by Muamer Syhan and Tuba Aki[25] (2006) who found that out of 15.3% patients who had psychiatric problems 13.4% patients had anxiety disorder. 3 (3%) cases out of total patients examined had social phobia, a finding which has not been reported in earlier studies. All cases of social phobia were seen in patients of Acne Vulgaris. This finding indicates that disfigurement and lesions on exposed areas of body lead to more shame and frustration.

Type of dermatological disorders and psychiatric morbidities

In our study psychiatric morbidities were most prevalent in Chronic urticaria,6 (60%) cases of Urticaria had psychiatric morbidity followed by psoriasis in which 13(59.5%) cases had psychiatric morbidity. This was followed by Pemphigus vulgaris which had 6 (40%) cases of psychiatric morbidity. Acne vulgaris had 7 (38.88%) patients with psychiatric morbidity. This finding is corroborated by Pulimood et al[26] (1996) whose study showed 75% of cases of urticaria having psychiatric morbidity. Similar findings were seen in the study of Robina et al[27] (2007) who showed that 58% cases of psoriasis had psychiatric morbidity. As mentioned in different studies the higher prevalence of psychiatric morbidities found in psoriasis patients might be due to psychological stress related to onset and exacerbation of the disease, reported by Levenson and Domonkos[28,29]. Though the findings differ from that of Mehta et al[30] in whose study 34% patients of psoriasis as well as urticaria had psychiatric morbidities.

In few studies there is negative correlation between the duration of dermatological disorder and psychiatric morbidity. In a study conducted by Muamer et al[25] (2006) psychiatric morbidity in patients having illness more than 1 year had low prevalence of psychiatric morbidity while those having illness for less than 1 year had greater prevalence of psychiatric illness. The reason they mentioned in the study was that later on patients get accustomed and adapted to their illness and thus have lower morbidity while in acute stage patients get more stressed and felt greater shame and guilt.

CONCLUSION

The present study makes it clear that a significant number of patients suffering from dermatological disorders suffer from some sort of psychiatric morbidities and need attention of psychiatrist. The treatment of psycho-dermatological disorders should be carried out through liaison therapy which enables multidisciplinary approach including family physician, dermatologist, psychiatrist and psychologist. Further research is required in this area to assess the impact of the problem on quality of life of patients, progression of the disorder and impact of severity of dermatological condition on psychiatric morbidity.

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