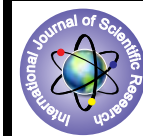


Prevalence of Depression And Anxiety in Patients with Psoriasis



Medical Science

KEYWORDS : psoriasis, anxiety, depression.

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ABSTRACT

Background: Significant psychiatric and psychological morbidity is present in dermatological patients and its recognition is essential for effective management of skin diseases. Aims: To determine the prevalence of psychiatric morbidity specially depression and anxiety in patients with psoriasis. Materials and Methods: Fifty psoriasis diagnosed patients attending skin OPD were screened for depression with Brief PRIME-MD PHQ (gujarati version); severity of depression assessed by Zung's self rating scale (gujarati version). Anxiety symptoms were assessed by hamilton rating scale for anxiety. These were compared with control group and the data collected on above tools was statistically analyzed by chi-square test and t-test. Results: Majority of patients were in age group of 21-45yrs (64%), Depression was seen in 58% and anxiety in 36% of patients. Conclusions: Psychiatric co morbidity is present in significant no. of psoriasis pt. in form of anxiety and depression.

Introduction

Psoriasis is a skin disorder affecting approximately 1–6% (mean 3%) of populations in the world. Two-peak age of onset was considered for the disease; the early age of onset is between 16–22 years, and latent age of onset is between 57–60 years. The incidence of psoriasis in adult men and women and among different races is equal. However, females tend to develop the disease earlier than males. There are several classes of psoriasis including: psoriasis vulgaris, guttate psoriasis, generalized pustular psoriasis, disseminated erythrodermic psoriasis, scalp psoriasis, palms and soles psoriasis, nail psoriasis, arthropathic psoriasis, and verse psoriasis. It is believed that a combination of several factors contribute to the development of this disease. Genetic factors, trauma, infection, certain medicines, such as nonsteroid anti-inflammatory drugs (NSAIDs), beta-blockers, antimalaria medicine, and lithium, endocrine factors, sunlight, metabolic factors, alcohol, cigarette, and psychological factors have been found in development of psoriasis [1].

There is strongly clinical evidence that stress can play a role on the onset and exacerbation of psoriasis [2–5]. In a study on psoriatic patients, 60% of the patients strongly believed that stress was a causal factor for their psoriasis [6].

Psoriasis makes stress itself, and in turn, stress can worsen psoriasis. However, most Psoriatic patients who reported episodes of psoriasis precipitated by stress describe disease-related stress, resulting from the cosmetic disfigurement and social stigma of psoriasis [1].

Psoriasis is associated with a variety of psychological problems. So, considering the psychosocial aspects of the disease is very important in psoriatic patients [7].

According to previous controlled studies, the prevalence of depression was ranged from 0 to 58% in psoriasis patients [3]. One study has demonstrated that female psoriatic patients appear to be more vulnerable to develop depression than males. The prevalence of anxiety is higher than depression in psoriatic patients. Even psoriatic patients have reported significantly higher degrees of anxiety than other chronic diseases such as cancers. Furthermore, the severity of anxiety would be greater in patients with palms and soles psoriasis [3].

Psoriasis is associated with a variety of personality disorders. On the other hand, psychological stress can induce resistance to regular psoriatic treatment and causes psoriasis to appear worse. In this view, psoriasis is an inflammatory disease with expensive and long-term therapies, and as mentioned before, psychosocial stress can exacerbate the disease. So that, recognition and treatment of the psychosocial problems can decrease health care costs and shorten the therapeutic period. Therefore, we decided to compare depression and anxiety disorders in patients with psoriasis and the control group.

Material and Methods:

This study was conducted at Guru Gobind Singh hospital, affiliated with Shree M.P.Shah Medical College, Jamnagar. It is the largest government run hospital in saurashtra region.

Sample: Sample for the study was drawn from two source ;

- A. Outpatient department of dermatology Shree M.P. Shah Medical College, Jamnagar will constitute study group.
- B. General population constituting control group.

Inclusion criteria:

For drawing experimental group all the patient attending dermatology outpatient department of Shree M.P.Shah medical college, Jamnagar during august 2009 to august 2010 who were suffering from Psoriasis were administered demographic screening. Screening was designated to include:

- A. Patient between age group 12-65, as it is commonly diagnosed between age group of 12-35 year and second peak between age of 60-69 years. Moreover children above age 12 years may answer the questionnaires properly.
- B. Sex : both male and female sex were taken for study.

Exclusion criteria:

Patient not fulfilling above inclusion criteria were excluded by using following clinical screening

- A. Chronic debilitating disease like cancer, liver, renal, cardiac disease, hypertension, diabetes, HIV, mental illness and patient having any serious physical illness.
- B. Patient who were unwilling to cooperate with study.
- C. Patient having concomitant other skin disease
- D. Patient having age above 65 years.

Procedure:

All the cases in study, were explained about the investigation, its purpose and were assured of confidentiality of the information. All interviews were done in skin department or in examination chamber. Interview of experimental and control group were done concurrently.

Instruments used in this study :

1. Semi structured Proforma for recording socio-demographic variables including details of chief complaints, medical and psychiatric history.
2. Prime MD Brief patient health questionnaire (Gujarati version is used) (Spietzer KL, Williams JB -1999).
3. Zung's self rating scale for depression (ZRDS) (Zung WWK, Richards CB, short MF-1965).
4. Hamilton Anxiety Rating Scale(HAM-A) (Hamilton M – 1959).

F PRIME MD BRIEF PATIENT HEALTH QUESTIONNAIRE : (Spietzer KL, Kroenke K, Williams JB-1999).

This is extensively used screening instrument for major depres-

sion. It consists of nine items, each corresponding to items on DSM-IV Criteria for major depressive disorder. This instrument is validated in 3000 primary care and 3000 obstetrics and gynaecology outpatients. It has been translated in 13 Indian languages including Gujarati. Correlation coefficient between BPHQ and clinician interview had varied from 0.54 to 0.80 suggesting its high validity.

F ZUNG'S SELF RATING DEPRESSION SCALE (ZRDS) : (Zung WWK, Richards CB, Short MF-1965).

The Zung Self Rating depression Scale(ZRDS), developed by W. Zung(1965) is a 20 items self-rated scale for the assessment of depression in adult. The Zung is rated on a 1 to 4 spectrum(1=none , 4=severe); half of the items were worded positively and half negatively. Scores are expressed as a percentage of maximum score and therefore ranges from 25 to 100. correlation with Hamilton Scale is 0.62 and with global judgement 0.69. score of 50 or more was taken as cut off point as recommended by Zung(1967). For those who couldn't read, the investigator read the items and recorded patient's responses.

Grading : <50 = No depression
 50-59 = Minimal to mild depression
 60-69 =Moderate to marked depression
 >70 =Severe to most extreme depression

F HAMILTON ANXIETY RATING SCALE (HAM-A) : (Hamilton M. 1959)

HAM-A is a 14 item test measuring the severity of anxiety symptoms present in children and adult's .It can be administered prior to medication dosage and then again during follow up visits so that medication dosage can be changed in part based on patient's test score. It provides the measure of overall anxiety, psychiatric anxiety (mental agitation and psychological distress), somatic anxiety (physical complaints related to anxiety).

Grading : <9= No anxiety
 10-17= mild anxiety
 18-24= moderate anxiety
 25-30= severe anxiety

F PRASAD'S CLASSIFICATION OF SOCIAL CLASS:

[Prasad's classification of social class revised December 2008]

Social class: total income of family had been recorded and per capita income was calculated from it. Social classification was done on basis of Prasad's classification which takes in to consideration consumer price index (CPI) of that particular month.

Analysis: Patients who score 5 or more criteria present on BPHQ and score 50 or more on Zung self rating depression scale were considered as suffering from major depression and patients who had score more than 9 on HAM-A were considered to have anxiety. Data so collected were compared for demographic characteristics. Chi square test was applied to find out statically significant differences.

Results and discussion

Table 1: Distribution according to Sex

Sex	Study Group	Control Group
Male	29 (58%)	26 (52%)
Female	21 (42%)	24 (48%)
Total	50	50

Chi square (χ^2)= 0.162 df=1 p=0.6877

Table 1 shows distribution according to sex. In study group (Psoriasis patients) 42% of patients were females and 58% males, while in control group 48% were females and 52% males. However, other studies determined that women were more frequently reported physician diagnosis of Psoriasis than some other.^[8] Possible explanations include recall bias and diagnostic bias which may reflect women being more likely to seek medical care, for example women accounts for nearly 60 % of ambulatory visits to dermatologist. The difference between sex distribution of Psoriasis patients is not statistically significant (p=0.6877).

Table-2 : Distribution According to Age

Age	Study Group	Control Group
12-20	6 (12%)	14 (28%)
21-45	32 (64%)	16 (32%)
46-65	12 (24%)	20 (40%)
Total	50	50

Chi square (χ^2)=10.533 df= 2 p= 0.0052

Table 2 .shows the distribution of subjects according to age group. It is evident from the table that 24% of Psoriasis patients were between age 12-20years and 64% were in between 21-45years and rest 24% were between age 45-65years. The difference in the study group was statistically very significant (p=0.0052). This finding is supported by study of Barker J.N.W.N. 1991^[9], which show that Psoriasis commonly begins between age 20-45 years. These findings are also in concordance with Smith AE. et al,1993^[10], who studied the bimodality in age of onset of Psoriasis, in both patients and their relatives

Table3: Distribution according to ZRDS score

ZRDS score	Study Group	Control Group
<50 (no depression)	11 (22%)	39 (78%)
50-59 (mild depression)	31 (62%)	7 (14%)
60-69 (moderate depression)	6 (12%)	2 (4%)
>70 (severe depression)	2 (4%)	2 (4%)
Total	50	50

Chi square (χ^2)= 31.97 df=3 p= 0.0001

Table3. shows distribution of severity of depression for both groups as measured through scores on ZRDS. It was evident that 22% of Psoriasis patients and 78 % of controls scored <50 on ZRDS scale, i.e. they suffered from minimal or no depression. 64% of Psoriasis patients and 14% of controls suffered from mild depression, i.e. they scored 50-59 on ZRDS scale, while 12% of Psoriasis patients and 4% of controls suffered from moderate depression, i.e. they scored 60--69 on ZRDS scale. It was observed that 4 % subject in experimental group also suffered from severe depression. The difference between both groups was extremely significant; p=0.0001, i.e. Psoriasis group was significantly more depressed than controls. Our finding are supported by findings of Devrimici-Ozguven H. et al 2000^[11], which reports higher rates of depression in Psoriasis patients. Most of Psoriasis patients in our study scored poorly on the item of self image and felt that there are permanent changes in their appearance and they look unattractive. This is supported by findings of Gupta MA et.al 1990^[12] found that improvement of Psoriasis appears to be associated with decreased depression and greater satisfaction with aspects of self image.

Table 4 : Distribution according to HAM-A score

HAM-A score	Study Group	Control Group
<9 (no anxiety)	32 (6%)	44 (88%)
10-17 (mild anxiety)	12 (24%)	5 (10%)
18-24 (mild - moderate anxiety)	4 (8%)	1 (2%)
25-30 (mod - severe anxiety)	2 (4%)	0 (0%)
Total	50	50

Chi square(χ^2)= 8.577 df= 3 p=0.035

Table 4. Shows distribution of severity of anxiety for both groups as measured through scores on Hamilton anxiety scale. It was evident that 64% of Psoriasis patients and 88% of controls scored 0-9 on HAM-A scale, i.e. they suffered from no anxiety. 24% of Psoriasis patients and 10% of controls suffered from mild anxiety , i.e. they scored 10-17 on HAM-A scale, while 8% of Psoriasis patients and 4% of controls suffered from mild to moderate anxiety, i.e. they scored 18-24 , rest 4% of Psoriasis pt. and no one in control group suffered from moderate to severe anxiety i.e. 25-30 on HAM-A scale. It was observed that no sub-

ject in both the groups suffered from severe anxiety (score >30). The difference between both groups was significant, $p=0.0355$ i.e. Psoriasis group was significantly more anxious than controls. Our findings, supports the findings of Salem H.M. et.al 2008[13] which reported higher rates of anxiety in Psoriasis patients. Krowchuk DP 1991 found patients with Psoriasis to be more socially inhibited. Gupta MA et.al 1990 found that improvement of Psoriasis appears to be associated with decreased anxiety.

Summary and conclusion:

The purpose of this study was to assess the prevalence of psychiatric morbidity especially anxiety and depression in patients suffering from Psoriasis. An appropriate sample of 50 patients from dermatology department of G.G Hospital, Shree M. P. Shah medical college completed especially designed Proforma which includes Brief Patient Health Questionnaire(BPHQ), Hamilton Anxiety Rating Scale(HAM-A), Zung's Self Rating Depression Scale.

The information thus gathered was presented in various tables & subjected to suitable statistical analyses. Following important

conclusions were drawn from the present study: Results of the present study suggest that 58% of the Psoriasis patients were males and 42% were females.

1. 64% of the Psoriasis patients in experimental group was between 21-45 years of the age and 24% between 45-65 years.
2. Results of the present study suggest that 58% of the Psoriasis patients were males and 42% were females.
3. The results of Zung's Self Rating Depression Scale revealed that 11% of Psoriasis patients suffered from minimal or no depression. 64% of Psoriasis patients suffered from mild depression while 12% of Psoriasis patients suffered from moderate depression. It was observed that only 4% subject in experimental group suffered from severe depression.
4. The results of Hamilton Anxiety Rating Scale revealed that 24% of Psoriasis patients scored 10-17 on HAM-A scale indicating that they suffered from mild anxiety. 8% of Psoriasis patients suffered from mild to moderate anxiety, while 4% of Psoriasis patients suffered from moderate to severe anxiety.

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