



To Study Influence of Various Stressful Life events and Coping Strategies on the Course of Psoriasis and Psychiatric Comorbidity among the patients of Psoriasis

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Abstract

Psoriasis has been classified under the psychophysiological disorders; other examples being atopic dermatitis and alopecia areata. These are bonafide skin disease with demonstrable skin lesions that can be worsened by such psychological factors such as emotional stress.

Aims and Objectives: *To study influence of various stressful life events and coping strategies on the course of psoriasis and psychiatric comorbidity among the patients of psoriasis. A comparative study between patients of psoriasis (study group) and matched control group consisting of people without psoriasis, was planned.*

Results: *A sample of 30 patients diagnosed as having psoriasis, attending the skin outpatient department of a general hospital were randomly selected for the study. Among the cases, 66.67% patients used fatalism while 16.67% used problem solving coping skills whereas among the controls, 46.67% people used problem solving and expressive action coping skills while 16.67% used fatalism coping skills. Z test shows a statistically significant difference in coping skills used in the 2 groups suggesting use of psychotherapeutic measures in management of psoriasis. 33.3% of patients of psoriasis had psychiatric comorbidity, commonest being adjustment disorder.*

Conclusion: *The presence of a coexisting psychiatric disorder greatly affects the quality of life, treatment, and outcome of the disease. Emotional factors and poor coping strategies are associated with poorer prognosis. Patients can be encouraged to become active on their own behalf, and to take a proactive rather than passive role, which would increase their self esteem and sense of control.*

Introduction

At least one third of the patients seen in dermatology clinics present with a complaint that involves a significant psychological component. The prevalence of psychodermatological cases in dermatological practice reveals that the skin and the psyche interact in many ways. For example, the skin, as an organ, is highly reactive to

emotion. Not only does the skin blanch in response to fear and blush in response to embarrassment, but many chronic skin disorders such as psoriasis and eczema, can be exacerbated by emotional stress. Moreover, disfigurement resulting from a skin disease may have profound psychosocial consequences not only by negatively

affecting the patient's body image but also by leading to social stigma⁰¹.

Psoriasis has been classified under the psychophysiological disorders; other examples being atopic dermatitis and alopecia areata. These are bonafide skin disease with demonstrable skin lesions that can be worsened by such psychological factors such as emotional stress. The basic causative factors are thought to involve genetic or constitutional predispositions. Examples of other non-dermatological psychophysiological disorders include, asthma, peptic ulcer disease etc. In DSM-IV, it falls under the diagnosis of stress related physiological response affecting medical condition⁰².

Many factors can aggravate psoriasis Kantor⁰³ delineates three primary sources of stress; environmental stress (noise and air pollution, overcrowding, cold, dry weather etc.), physiological stress (disease, injury, medications eg. Lithium) ; and psychological stress (anxieties, depression, work-, family- or friend-related dysfunctions) Any of these factors in the presence of a genetic predispositions to psoriasis can activate pathways that account for the appearance of exacerbation of the disorder. In addition, some patients report feeling stressed by the presence of a symptomatic and unsightly skin disease. Patients distress resulting from the skin disease appears to contribute to the persistence of the disease activity. About 40% of psoriasis patients report so. Studies by Gupta et al (1987, 1989)^{04, 05}, servile (1978)⁰⁶, Farber, Nall (1993)⁰⁷ supported this observation.

Psychoneuroimmunology: Farber et al reported that the number of cutaneous sensory nerves known to release neuropeptides such as substance P, are increased in patients with psoriasis, which may be in response to emotional stress. These studies present evidence that the central and peripheral nervous systems in association with the immune system play roles in modulating the course of the disease.

The contribution of psychosomatic factors towards the morbidity associated with psoriasis

should be evaluated in the context of the patient's developmental stage and life situation. The skin as a sensory organ, plays a critical role in an individual's physical and emotional growth in early life. The skin also plays an integral role as an organ of communication throughout life and greatly affects an individual's body image and self-esteem. If these factors are not taken into consideration, the morbidity associated with psoriasis may increase, or the patient may remain dissatisfied with treatment even in the face of clinically satisfactory treatment outcome. The presence of depression in psoriasis may modulate its perception, exacerbate pruritus and lead to difficulties with initiating and maintaining steps⁰⁸. In a study done by Gupta et al (1989)²⁴, 46% of psoriasis patients believed they had many daily problems because of their psoriasis, 43% reported effect on work performance, effect on patients ability to find jobs that they linked in 64%, overall socialisation in 37% relationship with spouse or partner in 26% and sexual activity in 41.5% of patients.

A study of stigma, defined as a discrediting biologic or social mark that sets a person off from other and disrupts their social interactions, depicted six dimensions of the stigma experience : anticipation of rejection, feeling flawed, sensitivity to others opinions and attitudes, guilt and shame, secretiveness, and positive attitudes, as well as the separate category of psoriasis related despair. The most frequent predictors of the stigma experience were age at onset, extent of bleeding of lesions, employment status duration, and the experience of rejection^{09, 10}. In addition to the dermatological line of treatment, treating the psychological comorbidity gives a more favourable outcome. Appropriate liaison psychiatry consultation, judicious use of anxiolytics and antidepressants helps. Besides, the invaluable role of open and empathic doctor-patient relationship, education of the patient and community about the actual nature of the disease is well known. Various studies support use of more structured therapeutic strategies such as

individual, group or behavioral therapy. Bremer Schulte et al, 1985¹¹ has demonstrated the efficacy of group treatment with the duo formula in which a fellow sufferer is a co-helper with a professional specialist as co-worker. The patients showed a change in the dimensions examined, as well as in their illness behavior and insight into the value of problem-solving in groups.

Leuteritz and Shimshoni, 1982¹² have observed the beneficial effects of relaxation and visualisation program as a part of group therapy. Other techniques advocated are biofeedback training meditation, autogenic training, hypnosis and self-help and mutual aid groups^{13,14,15}. Sharon Kantor, 1990 has emphasized the need for psoriasis patients to consider lifestyle changes a program of physical exercise, which strengthens the cardiovascular system, encourages the production of endorphins, acts as a mood-elevator, and is psychologically and physically distressing. Patients should be informed about the ways in which nicotine, caffeine, alcohol, drugs, and irregular eating patterns can increase stress levels. Self-help groups^{16,17} offer patients an opportunity to learn about their disease, to discuss treatment options, to share experiences related to having psoriasis and hopefully, to expand their repertoire of coping mechanisms. It not only serves to reduce their anxiety and sense of stigmatisation but it also increases their compliance with medical regimen.

Aims and Objectives

1. To study influence of various stressful life events and coping strategies on the course of psoriasis.
2. To study the psychiatric comorbidity among the patients of psoriasis.

Material and Methods

A comparative study between patients of psoriasis (study group) and matched control group consisting of people without psoriasis, was planned. A sample of 30 patients diagnosed as having psoriasis, attending the skin outpatient

department of a general hospital were randomly selected for the study. The control group consisted of relatives of patients matched for age and sex. An informed consent was obtained.

They were administered a semi-structured proforma which consisted of socio-demographic profile, details about the disease, questions on psychosocial consequences like worry stigmatisation, attempts to hide the disease and impact on various spheres of life. The psychiatric comorbidity was clinically assessed based on Diagnostic and Statistical Manual – IV criteria; the prevalence of anxiety, depression, emotional factor, stressful life events, life stress score and coping mechanisms were assessed. The scales used were:

1. Presumptive stressful life events scale (PSLES)¹⁸:

The PSLES was derived from the Holme's and Rahe's social readjustment Rating Schedule by Gurmeet Singh et al, for the Indian population. The scale items have a presumption stress score. By adding this score during a year, a life-crisis score can be obtained for that year. As the severity of life crisis increases from mild (150 – 199) to moderate (200 – 299), to major (over 300), susceptibility to illness rises progressively.

2. Mechanism of coping scale (MOCS)¹⁹:

The mechanism of coping scale was derived from the ways of coping scale of Folkman and Lazarus. The original scale consists of 65 items out of which 24 items were selected by Rajesh Parikh et al and 6 more items relating to fatalism, were added to obtain a 30 item scale which assessed the following five type of coping mechanisms:

- a. Problem solving.
- b. Expressive action.
- c. Passivity.
- d. Escape avoidance.
- e. Fatalism.

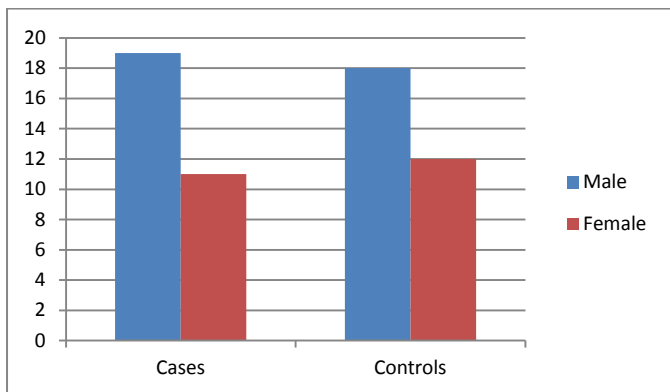
The results obtained were analysed using tests of significance such as chi-square and Z tests.

Results

Sociodemographic Profile

Table -1: Sex Distribution

	Cases	Controls
Male	19	18
Female	11	12



63.3% of patients were males and 36.7% were females. in cases whereas in controls 60% were males and 40% were females

Table – 2: Age Distribution

Age (yrs)	Cases	Controls
<20 yrs	3	4
21-40	13	13
41-61	11	10
>60	3	3

On the 30 patients, 10% were below 2 years of age, 43.3% were between 21-40 years, 36.7% were between 41-60% and 10 years were above 60 years age.

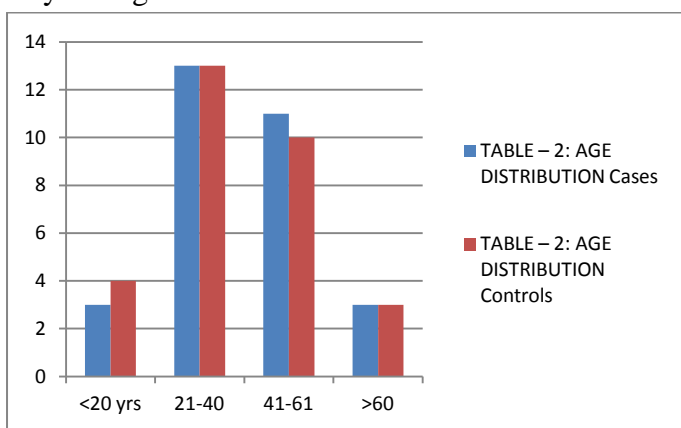


Table – 3: Educational Status

	Cases	Controls
Uneducated	4	4
Primary	9	8
Secondary and above	17	18

13.3% patients were uneducated, 30% patients had primary education and 56.7%, patients had minimum secondary education.

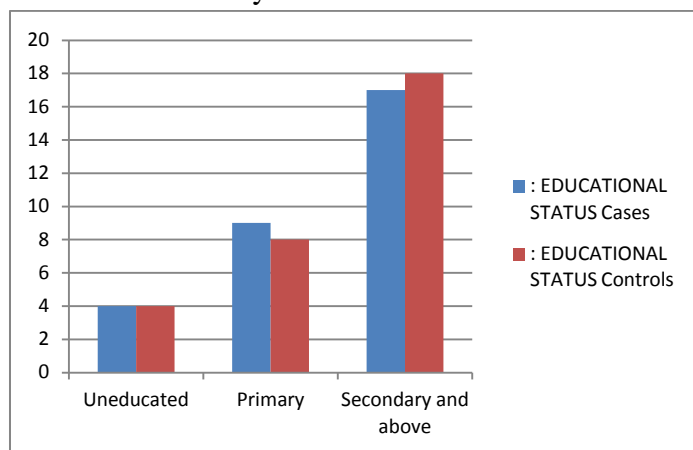


Table – 4: Occupational Status

Occupation	Cases	Controls
Unemployed	7	3
Employed	16	18
Retired	1	2
Housewife	6	7

23.3% patients were unemployed 53.4% were employed, 20% were housewives and 3.3% were retired people.

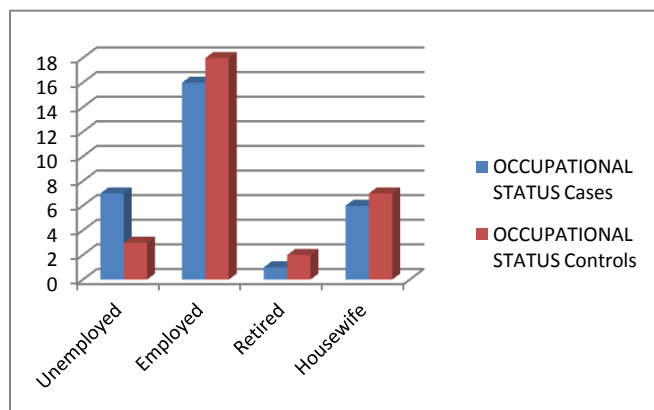


Table – 5 Age At Onset

Age at onset (yrs)	Cases	Axis I Diagnosis
Early (<40)	23	9
Late (>40)	7	1

Chi-square test with Yate’s correction: P>0.005.

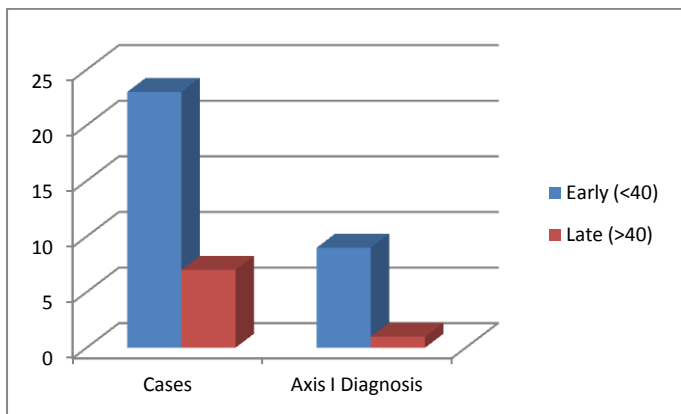
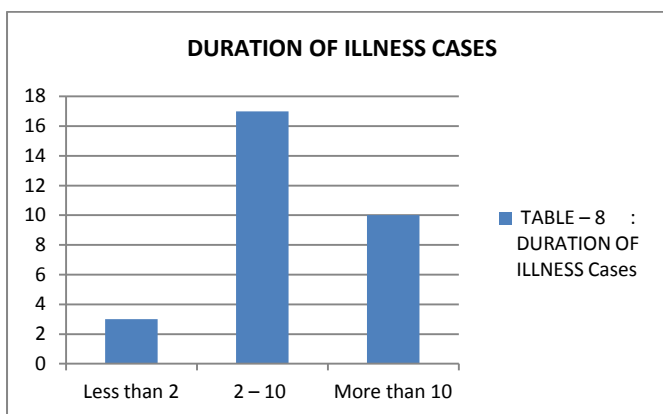


Table – 06: Duration of Illness

Duration	Cases
Less than 2	3
2 – 10	17
More than 10	10



10% of the patients had psoriasis for less than 2 years, 56.7% were suffering for 2–10 years and 33.3% for more than 10 years.

Table – 7 Number of Exacerbations

Exacerbations	Cases
Less than five	18
More than five	12

60% patients had history of 5 or less exacerbations while 40% patients had more than 5 exacerbations.

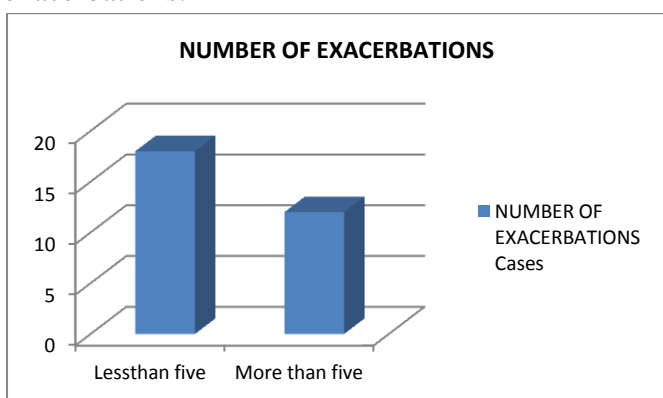


Table – 08 Course of Psoriasis

Course of disease	Cases	Axis I Diagnosis	Nilactive psychiatry
Exacerbation	9	6	3
Remission	21	4	17

Chi-square (Yate’s correction) = 4.45, df = 1 P <0.05 = statistically significant

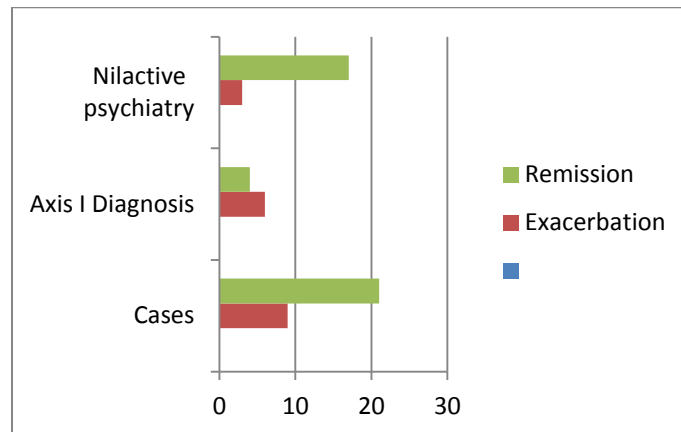


Table – 09 Precipitating factor for first Episode

Precipitating factor	Cases	Percentage
Present (a) Physical	7 (36.8%)	63.3%
(b) Emotional	12 (63.2%)	
Absent	11	36.7

Table –09 Precipitating factor for Exacerbations

Precipitating factor	Cases
Less than 50%	13
More than 50%	15
Never	2

63.3% of patients had a precipitating factor prior to appearance of disease, out of which 63.2% were emotional factors and 36.8% were physical factors.

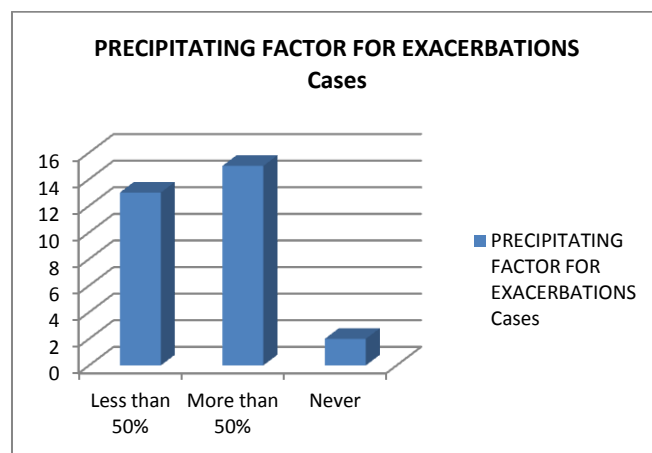


Table – 10: Psles – Past One Year

Life crisis score	Cases	Controls
Insignificant (<150)	14	18
Mild (150 – 199)	6	8
Moderate (200 – 299)	10	4

Chi-square value = 2.12
 df = 2
 P < 0.05 = not significant

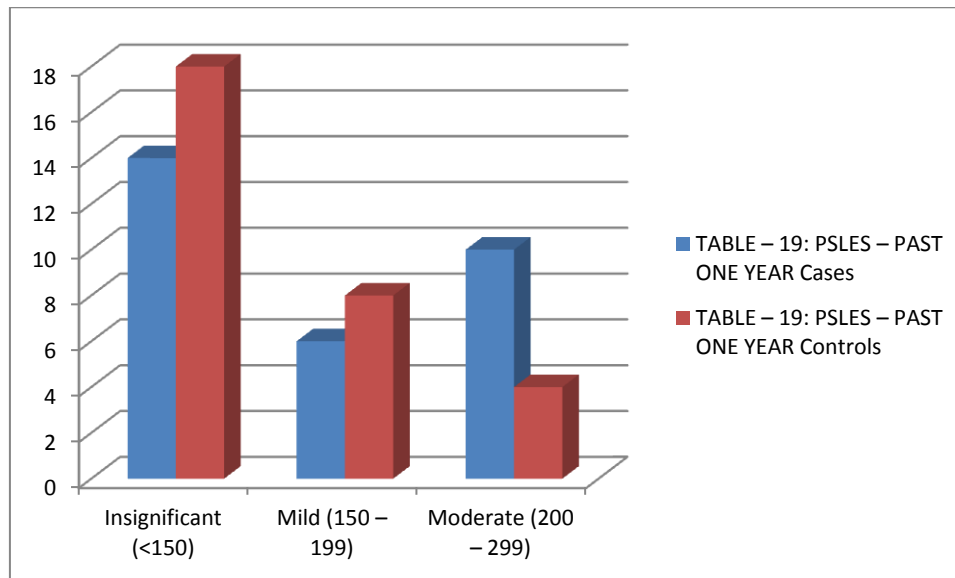


Table-11: MOCS

Coping Mechanism	Cases (A)	Controls (B)	A+B	'z'	'P'	
Problem solving	5 (26.3%)	14 (73.7%)	19	4.18	0.0001	Highly Significant
Expressive action	2 (50%)	2 (50%)	4	0	P> 0.05	
Escape avoidance	1 (50%)	1 (50%)	2	0	P> 0.05	
Passivity	0	0	0	0		
Fatalism	20 (80%)	5 (20%)	25	5.8	0.0001	Highly significant
Escape avoidance and Passivity	1 (50%)	1 (50%)	2	0	P> 0.05	
Escape avoidance and Fatalism	1 (50%)	1 (50%)	2	0	P> 0.05	
Problem solving and Expressive action	0 (0%)	6 (100%)	6	0	0.000	Highly significant

There was no statistically significant difference in the life crisis scores in cases and controls. Hence coping strategies rather than stressful life events seen to influence the course and outcome of psoriasis.

Among the cases, 66.67% patients used fatalism while 16.67% used problem solving coping skills whereas among the controls, 46.67% people used problem solving and expressive action coping

skills while 16.67% used fatalism coping skills. Z test shows a statistically significant difference in coping skills used in the 2 groups suggesting use of psychotherapeutic measures in management of psoriasis helping them to cope with this chronic recurring disease in a healthy way.

Table-12: Psychiatric Comorbidity

Axis I diagnosis	Cases			Controls
	Males	Females	Total	
1. Adjustment disorder	2	4	6	0
2. Major depressive disorder	2	1	3	0
3. Anxiety disorder	1	0	1	0
4. Nilactive psychiatry	14	6	20	30

33.3% of patients of psoriasis had psychiatric comorbidity, commonest being adjustment disorder, war renting need for a consultation liaison between the skin and psychiatry department for the treatment of psoriasis.

66.6% of patients in exacerbation had significant psychopathology as compared to 19% of patients who were in remission of psoriasis.

In a person with predisposition towards psoriasis, stress can trigger off the disease process. The disease related stress itself appears to contribute to the persistence of disease activity, inturn increasing the impact and subsequent stress, which further increases psychopathology, forming a vicious cycle.

A significant improvement in various psychopathologic stages such as depression, anxiety, over the course of treatment of psoriasis (patients in remission had lesser psychopathology) suggesting that most of the psychopathology observed arises in reaction to the disease. This implies the usefulness of psychotherapeutic measures as adjuvant therapy for psoriasis.

Discussion

Psoriasis is a common, genetically determined, chronic papulosquamous disease of the skin and joint, characterised by the the presence of sharply demacerated, dull-red scaly plaques, particularly on extensor prominence and in the scalp. The disease is enormously variable in duration and extent. Psoriasis affects 1-2% of general population. Females tend to develop psoriasis earlier than males. Patients with a family history of psoriasis tend to have an earlier age of onset. The sex-ratio is equal. Psoriasis appears to have a multifactorial aetiology. A comparative study between patients of psoriasis (study group) and matched control group consisting of people

without psoriasis, was planned. A sample of 30 patients diagnosed as having psoriasis, attending the skin outpatient department of a general hospital were randomly selected for the study. The control group consisted of relatives of patients matched for age and sex. An informed consent was obtained. 63.3% of patients were males and 36.7% were females. in cases whereas in controls 60% were males and 40were females. Of the 30 patients, 10% were below 2 years of age, 43.3% were between 21-40 years, 36.7% were between 41-60% and 10 years were above 60 years age. 13.3% patients were uneducated, 30% patients had primary education and 56.7%, patients had minimum secondary education.

23.3% patients were unemployed 53.4% were employed, 20% were housewives and 3.3% were retired people. Early onset of psoriasis was not found to have a statically significant correlation with psychopathology. This is in contrast to the study done by Gupta et al (1996)¹⁰, which reported that early onset psoriasis has more psychopathology than late onset psoriasis. 10% of the patients had psoriasis for less than 2 years, 56.7% were suffering for 2–10 years and 33.3% for more than 10 years. 60% patients had history of 5 or less exacerbations while 40% patients had more than 5 exacerbations. Chi-square (Yate's correction) = 4.45, df = 1 P <0.05 = statistically significant .30% of the patients were in exacerbation while 70% were in remission. 60% of patients who had an Axis-I psychiatric diagnosis were in exacerbation indicating that psychopathology is high when the patient is having an exacerbation of psoriasis. This is in agreement with the study done by Gaston et al (1994)¹¹. 63.3% of patients had a precipitating factor prior to appearance of disease, out of which 63.2% were emotional factors and 36.8% were

physical factors. Study by Polenghi M.M. et al (1994)¹² showed similar observations reporting 72% and Alabadie¹³ reporting 56% of patients of psoriasis having precipitating stressor before the onset of the disease. 43.4% of the patients reported a precipitating factor for more than 50% of their exacerbations, which is in agreement with the study done by Farber et al who reported the same in 33% of patients of psoriasis^{9,10}. There was no statistically significant difference in the life crisis scores in cases and controls. Hence coping strategies rather than stressful life events seen to influence the course and outcome of psoriasis. There was no significant difference in life crisis score in cases and controls. But significant difference was observed in the use of coping skills in stressful situations, majority of people in study group used fatalism as primary coping mechanism whereas problem solving and expressive action was predominant in control group. This suggests the need for psychotherapeutic adjuvant therapy in the management of psoriasis.

Ten patients (33.3%) of patients had axis I psychiatric diagnosis, commonest being Adjustment disorder.

Among the cases, 66.67% patients used fatalism while 16.67% used problem solving coping skills whereas among the controls, 46.67% people used problem solving and expressive action coping skills while 16.67% used fatalism coping skills. Z test shows a statistically significant difference in coping skills used in the 2 groups suggesting use of psychotherapeutic measures in management of psoriasis helping them to cope with this chronic recurring disease in a healthy way. here our study strongly coincides with the study done by srivastava et.al²⁰ and the study done by vandoni et.al use of fatalism was very less as compared to our study²¹

33.3% of patients of psoriasis had psychiatric comorbidity, commonest being adjustment disorder, warranting need for a consultation liaison between the skin and psychiatry department for the treatment of psoriasis. 66.6% of patients in exacerbation had significant

psychopathology as compared to 19% of patients who were in remission of psoriasis. the study done by zigmond et.al strongly favours our study

In a person with predisposition towards psoriasis, stress can trigger off the disease process. The disease related stress itself appears to contribute to the persistence of disease activity, in turn increasing the impact and subsequent stress, which further increases psychopathology, forming a vicious cycle.

A significant improvement in various psychopathologic stages such as depression, anxiety, over the course of treatment of psoriasis (patients in remission had lesser psychopathology) suggesting that most of the psychopathology observed arises in reaction to the disease. This implies the usefulness of psychotherapeutic measures as adjuvant therapy for psoriasis.

Conclusions

The presence of a coexisting psychiatric disorder greatly affects the quality of life, treatment, and outcome of the disease. Emotional factors and poor coping strategies are associated with poorer prognosis. The major methods for dealing with psoriasis should include a healthy doctor – patient relationship, education of the patient and community about the actual nature of the disease, identification of influential factors and inclusion of more structured therapeutic strategies like pharmacological treatment of coexisting disorders, psychotherapeutic measures like individual and group therapies, behavioural therapies stress management and use of self – help groups. Thus patients with a good understanding of their disease are more likely to achieve emotional distance from it. Patients can be encouraged to become active on their own behalf, and to take a proactive rather than passive role, which would increase their self esteem and sense of control. A skin disease is only a skin disease, with no inherent meaning beyond what it is. It means difference, not deviance or discredit.

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