EMOTIONAL FACTORS IN PSORIASIS

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ABSTRACT

Levels of anxiety and depression in twenty five patients with psoriasis were compared with anxiety and depression levels in equal number of age and sex matched normal controls, patients with nonpsychosomatic medical illnesses, and patients with neuroses. Sinha's anxiety scale and Hamilton's depression rating scale were used to measure anxiety and depression respectively. Analysis revealed that patients with psoriasis were significantly more anxious and depressed as compared to normal subjects and hospitalized patients with medical illnesses. Psoriatics were significantly less anxious and depressed than neurotics. Five patients with psoriasis were dependent on alcohol. Therapeutic implications of these findings are discussed.

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KEY WORDS : Psoriasis; Anxiety; Depression.

Introduction

Psoriasis is a chronic cutaneous condition with 1-2% prevalence in the general population [1]. Both genetic and environmental factors are believed to play an important role in the pathogenesis of the disorder [1]. Psychosocial factors have been implicated by some as being important in the onset and exacerbation of psoriasis in 40% to 80% of cases [2-3]. Furthermore, psoriasis has been associated with a range of personality characteristics including anxiety, depression [4], and increased prevalence of alcoholism [5] and suicide [6]. Many of these studies had important methodological shortcomings like use of nonstandardized subjective measures for the assessment of anxiety and depression, lack of normal controls or control groups that were inadequately defined. Moreover, the specific nature of the emotional factors in psoriasis have not been properly identified as researchers have not used suitable multiple comparison groups. Very little work in this field has been carried out in India which prompted us to undertake the present work to understand the nature of emotional factors in patients with psoriasis by comparing them with normal subjects, a hospitalized patient group and patients with neuroses.

Material and Methods

The study was carried out at 151 Base Hospital during the period 01 Dec 92 to 30 Nov 93. Twenty five consecutive inpatients with confirmed diagnosis of psoriasis formed the patient group. Psoriasis patients were tested after treatment was completed and they were in remission. The control group consisted of age and sex matched subjects who were free of physical and psychiatric disorders. An equal number of age and sex matched patients with nonpsychosomatic medical illness and admitted to the subacute medical ward formed the hospitalized patient group, while a equal number of age and sex matched inpatients with neuroses manifesting with mixed features of anxiety and depression formed the neurosis group. All subjects underwent a standard psychiatric interview and the following psychological tests :

1. Sinha's anxiety scale (SAS) to measure the level of anxiety of the subjects. The test, standardized for Indians, can be applied to psychiatric patients and normal subjects [7].
2. Hamilton's depression rating scale (HDRS) to measure the level of depression [8]. This is a popular scale which has been validated for Indians [9]. The tests were administered individually to the subjects. The scoring was done as per the test manual.

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Statistical analyses were done using the chi square test and analysis of variance (ANOVA).

Result

The age, sex, education level, marital status, domicile and family income of the four groups of subjects are given in Table 1. There were no statistically significant differences among the four groups with regard to these socio-demographic variables. One patient with psoriasis gave past history of schizophrenia, one patient was on lithium prophylaxis for bipolar affective disorder, while five patients gave history of alcohol dependence syndrome. Scores on SAS and HDRS of the various groups is given in Table 2. ANOVA of the scores of the four groups on SAS ($F=194.02$; $df=3,96$; $p < 0.01$) and on HDRS ($F=38.87$; $df=3,96$; $p < 0.01$) shows that the anxiety and depression scores differentiate the groups at a statistically significant level. In order to determine the signifi-

cance of the differences between means taken in part the 't' test of significance was used (Table 2) which indicates that patients with psoriasis were significantly different from all other groups. Thus, in our study, patients with psoriasis were significantly more anxious and depressed than the hospitalized patient group as well as normal subjects, but were significantly less anxious and depressed as compared to patients with neurosis.

Discussion

The main finding of our study was that patients with psoriasis had significantly higher levels of anxiety and depression as compared to normal controls and hospitalized patients in medical wards. From this we can infer that the raised levels of anxiety and depression in psoriasis patients is not a transient emotional state incidental to their diseased state (as patients were in remission during testing for anxiety and depression) or due to

TABLE 1
Socio - demographic variables

Variable	Psoriasis Patients (n=25)	Normal Controls (n=25)	Hospitalised Patients (n=25)	Neurosis Patients (n=25)	Ch Square value	Df	p
Mean age (year)	34.96	34.56	35.31	34.12			
Range of age (years)	22.52	22.52	20.56	20.46			
Age distribution (year)							
20-29	6	6	4	8	5.11	9	>0.80
30-39	10	10	10	11			
40-49	6	6	7	6			
50-59	3	3	4	0			
Sex							
Male	23	23	23	23	0	3	>0.95
Female	2	2	2	2			
Education							
0-5 class	4	3	4	5	3.89	6	> 0.50
6-10 class	17	17	12	13			
11 class & above	4	5	9	7			
Marital Status							
Married	23	21	23	19	3.66	3	> 0.30
Unmarried	2	4	2	6			
Domicile							
Rural	17	19	22	21	3.56	3	> 0.30
Urban	8	6	3	4			
Family income (in Rs/month)							
< 2000	12	13	15	16	2.11	6	> 0.90
2000-3000	9	9	6	6			
> 3000	4	3	4	3			

TABLE 2

Score on Sinha's anxiety scale (SAS) and Hamilton's depression rating scale (HDRS)

Subjects	No	SAS Score		HDRS Score	
		Mean	SD	Mean	SD
1. Psoriasis patients	25	40.16	12.04	6.72	3.90
2. Normal Controls	25	30.24	3.28	1.08	1.23
3. Hospitalized patients	25	34.72	6.34	2.84	2.34
4. Neurosis patients	25	68.12	7.24	10.28	4.41

't' test : - 1 vs 2 : t = 3.51 P < 0.01 1 vs 2 : t = 4.97 P < 0.01
1 vs 3 : t = 9.99 P < 0.01 1 vs 3 : t = 3.69 P < 0.01
1 vs 4 : t = 15.55 P < 0.01 1 vs 4 : t = 2.80 P < 0.01

the stress of hospitalization. Therefore, the anxiety and depression of the psoriasis patients can be considered as a trait in their personality as it is in neurotics. The significantly lower levels of anxiety and depression in the psoriasis patients as compared to the neurotics could be due to the fact that some of the affect may have been dissipated due to symptom formation. Similar findings were reported by Fava et al [4] who found that inpatients with psoriasis (n=20) had higher levels of anxiety and depression as compared to patients with fungal infections. Contrary findings were reported by Schaar [10] who in a study of 48 outpatients with psoriasis found that social anxiety scores did not differ from normal controls. However, it must be pointed out that in the latter study only social anxiety was measured which could account for the contrary findings.

Patients with psychosomatic disorders of the colon have been found to have high levels of neuroticism and introversion, showing dysthymic characteristics [11]. Anxiety and depression are the main characteristics of dysthymics and the present finding of high levels of anxiety and depression in patients with psoriasis is to be understood as a factor in their personality as it is in dysthymics.

An important finding of the present study was that five patients with psoriasis were dependent on alcohol. Chaput et al [12] observed a higher prevalence of psoriasis among individuals who consumed more than 50 g of ethanol per day. Similarly, Morse et al [5] reported 18% prevalence of alcoholism among psoriatics. They also found no relationship between alcoholism and duration of

psoriasis suggesting perhaps that having psoriasis alone predisposes the patient to developing alcoholism. Alcoholism among psoriatics may represent an underlying depressive illness or may represent an attempt at self-medication for anxiety, social phobia, or sleep difficulties. This has important therapeutic implications and warrants further evaluation.

The etiology of psoriasis, despite numerous studies, remains obscure. Patients with psoriasis have been found to have decreased responsiveness of the beta adrenergic receptors in the epidermal cells [13], abnormalities in substance P [14], and increased cutaneous blood flow [15]. It has been speculated that emotional reactions, such as anxiety and depression, may adversely affect all the above mechanisms [16] and thus play a role in the onset and exacerbations of psoriasis.

Presently psoriasis is treated by topical and systemic drugs. Apart from reassurance, not much effort is made to alleviate the emotional distress of these patients. It is therefore possible that measures to reduce the anxiety and depression of these patients will not only improve their subjective well-being but may even decrease the incidence of relapses.

We conclude that patients with psoriasis have higher levels of anxiety and depression as compared to normal subjects. The high levels of anxiety and depression may act as a factor in onset and exacerbation of the symptoms in the same way as in other psychosomatic disorders, the only difference being in organ vulnerability. The role of liaison psychiatry in the management of psoriasis needs further evaluation.

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