

Assessment of Psychological Symptoms Associated with Dermatological Conditions

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Abstract: *This study aims to assess the prevalence of psychological symptoms in patients with dermatological illnesses with correlation of occurrence of psychological symptoms with gender and duration of the diagnosed dermatological illness. 100 patients with dermatological illness were assessed on the Ferrans and Powers Quality of life scale & DASS 42 scale. Psychological symptoms were seen in all dermatological illnesses in varying degrees with greater frequency and intensity of problems in females and illnesses with greater duration.*

Keywords: psychological symptoms, dermatological conditions

1. Introduction

Depressive disorders are common in the population affected with dermatologic disorders. Dermatological clinics have higher prevalence of psychiatric morbidity in dermatology patients than the general population. At least one third of patients seen in dermatology clinics present with a complaint that involves a significant psychological component.¹

Comorbidity of depression and dermatologic disorders is around 30%. Some inflammatory dermatoses i.e. acne vulgaris, psoriasis and eczema are more commonly associated with depression than others.^{2,3,4} One study documented that the prevalence of active suicidal ideation among psoriasis (7.2%) and acne (5.6%) patients was higher than patients with general medical conditions (2.4% - 3.3%).⁵ Patients with psoriasis are frequently distressed by symptoms of itching and scratching, bleeding, physical appearance and flakes which have substantial effects on their lives.⁶

2. Literature Review

The prevalence of depression is 2 to 3 times greater in acne patients than in the general population, which is more common in patients older than 36 and female patients.⁷ Additionally, Isotretinoin which is used for treatment of acne is thought to be associated with increased risk for depression and suicidal attempts.⁸

Taking into consideration the significant genetic role in the course of inducing depression, still the most common contributing factor to frequency of this psychiatric disorder is modern life stress (World Health Organization 2001, Costa de Silva 2005, Barnow et al. 2002). Depressive disorders are often associated with various somatic disorders. Their prevalence in ambulatory (out-patients) is by far higher than in general population (Runkewitz et al. 2006, Norton et al. 2004). In dermatologic patients frequency of depression is even higher.

Incidence of depression among dermatologic patients is higher than incidence among general practice patients, where it is 22%.⁹

Psychodermatology is a current concept combining both the sciences of dermatology and psychiatry because both clinical presentation and therapeutics tend to overlap.¹⁰

The development of depression and dermatologic diseases in one patient is quite an unfortunate combination in which both of the disorders are aggravated by being in a circulus vitiosus and thereby mutually obstructing the healing process particularly if they are treated individually or if neglected in the therapeutic approach.

Later stages, the course becomes chronic. Certain skin illnesses, such as psoriasis, have a similar course. The incidence of severe recurring depressive disorder in general population is around 2-5% while the incidence of psoriasis is 2-3% (Schmitt & Ford 2007). Both disorders have, not only a recurrent course with a tendency to chronicity, but similar provocative factors causing exacerbation and similar are the bimodal distribution of first episode which groups in two life stages – younger and older. In psoriasis as in depression, most accountable factors for occurrence in youth are hereditary predisposing factors, and in older age precipitating (provocative) factors (Cristophers & Sterry 1993, Elder et al. 1994).

In the later life stage, stress is presumed to be a significant trigger of the first episode and later exacerbations in both depression and psoriasis. Appearance of skin alterations presents additional stress for the ill person thereby closing the circle of skin disorder, stress and depression even when in question is objectively a simple but subjectively hardly acceptable dermatologic state like acne.¹¹

Various authors point out the connection of chronic stress or states which implicate the experience of chronic stress (for example depression) and pathological skin lesions – especially psoriasis.¹²

This explains such a high co-relation between depression and dermatologic disorders. (Cohen 2006) Depressive individuals are often variously diagnosed from temporary or chronic skin alterations – lichen simplex chronicus, idiopathic pruritus, neuro-dermatitis, nettle rash, atopic dermatitis, psoriasis, alopecia areata etc.¹³). From the other point of view, skin alterations can present a stressful event for a depressed individuals and causally worsen depression or they may even precipitate suicidal behavior (Picardi et al. 2006).

3. Method

This was a Cross Sectional, analytical study conducted among patients attending the Dermatology OPD at Bharati Vidyapeeth Deemed University Medical College and Research Centre; a private tertiary care hospital in Pune , India . A total of 100 Patients, all above the age of 18 years, of patients with diagnosed dermatological conditions as per International Classification of Diseases and Health Related Problems- 10 (ICD-10) were included. Patients having pre-existing psychiatric illnesses , or co-existing medical or surgical illnesses as well as those having Psychiatric illnesses/medication induced Dermatological conditions were excluded. A written informed consent was taken from all participants.

After Obtaining Sociodemographic details of the participants like age, gender , education, occupation, relation with patient , family type , marital status , etc., the prevalence of Psychological symptoms was measured using the **Ferran's and Power's Quality of Life Index (Generic Version)** scale which is used to measure post disability quality of life and social functioning, and the the DASS 42 scale which is a set of three self –report Scales designed to measure the negative emotional states of depression, anxiety and stress. Based on a dimensional rather than categorical conception of a psychological disorder , the development of DASS was based on the assumption that the depression , the anxiety and the stress experienced by the normal and the clinically disturbed , are essentially differences in degree. The DASS is available in English, Hindi and Marathi , translation there of has been done by a team at KEM hospital , Pune. Psychological disturbances in participants were assessed on the scores obtained on DASS 42. Chi-Square test, Fischer's Exact- test were used to obtain the results.

4. Results

These results demonstrate presence of psychological symptoms in all patients with dermatological conditions ranging from mild anxiety as seen in conditions like acne to severe depression and stress as in seen chronic illnesses like psoriasis and vitiligo. Most of the patients experiencing psychological symptoms were those with diagnosis of psoriasis (22%), followed by acne and vitiligo.

The study included 65 % females and 35 % males with results also showing that females have a greater percentage of psychological symptoms. The nature and intensity of the psychological symptoms was also greater and more severe in females than seen in males. Females experienced a higher

degree of depression ($p=0.002$) and stress(0.254) with chronic illness which thus caused a greater impairment in their quality of daily life (0.767).

With respect to the duration, 66 % of patients had their dermatological illness for a period of more than one year and the remaining patients that is 34%, had their illness for less than a year. The results proved greater severity of depression ($p<0.001$) and stress ($p<0.001$) associated with the longer duration of illnesses which had a higher negative outcome in the general quality of life. ($p<0.001$).

Dass_dep_grade			
		Frequency	Percent
Valid	Normal	27	27
	Mild	23	23
	Moderate	37	37
	Severe	13	13
	Total	100	100
dass_anx_grade			
Valid	Normal	20	20
	Mild	42	42
	Moderate	36	36
	Severe	2	2
	Total	100	100

dass_stress_grade			
		Frequency	Percent
Valid	Normal	25	25
	Mild	27	27
	Moderate	42	42
	Severe	6	6
	Total	100	100

QOL_grade			
		Frequency	Percent
Valid	Normal	42	42
	Mild	21	21
	Moderate	37	37
	Severe	100	100

		Dass_dep_grade				Total	p-value
		Normal	Mild	Moderate	Sever		
Gender	Male	14	11	10	0	35	0.002
	Female	13	12	27	13	65	
Total		27	23	37	13	100	
		dass_anx_grade				Total	p-value
		normal	mild	moderate	stress		
Gender	Male	8	22	5	0	35	0.001
	Female	12	20	31	2	65	
Total		20	42	36	2	100	
		dass_stress_grade				Total	p-value
		normal	mild	moderate	severe		
Gender	Male	11	9	15	0	35	0.254
	Female	14	18	27	6	65	
Total		25	27	42	6	100	

		QOL_grade			Total	p-value
		poor	moderate	normal		
Gender	Male	13	8	14	35	0.767
	Female	29	13	23	65	
Total		42	21	37	100	

		Dass_dep_grade				Total	p-value
		normal	mild	moderate	severe		
Duration	> 1 year	15	22	19	11	66	< 0.001
Group	< 1 year	12	5	18	2	34	
Total		27	23	37	13	100	

5. Discussion

These findings demonstrate that almost all patients with dermatological conditions experience some form of psychological symptoms owing to the importance of perceived self image & self esteem in the society.

Also females displayed a greater frequency and severity of psychological problems than men owing to a greater tendency of having a critical view of their physical appearance and their image in society.

Greater severity of depression and stress associated with the longer duration of illnesses which had a higher negative outcome in the general quality of life.

Thus there should be more awareness of the intricate relationship between cutaneous and psychiatric disorders and this will enhance understanding of the pathophysiology and management of psychocutaneous disorders.

6. Future Scope

Focus should be on the latest advances in psychodermatology & the role of psychoneuroimmunology in causation, course, prognosis of psychocutaneous disorders. Psychoneuroimmunology is the study of interactions between the behavior, the nervous and immune system. Implications are that behavioral- psychological processes are capable of altering the immune functions⁵. This can cause impedance in the healing processes in dermatological condition thus establishing a dual relation between psychiatric disorders and dermatological conditions.

References

- [1] Filakovic P, Biljan D, Petek A. Depression in dermatology: an integrative perspective. *Psychiatr Danub* 2008; **20**:419-25.
- [2] Kotrulja L, Tadinac M, Joki-Begi NA, Gregurek R. A multivariate analysis of clinical severity, psychological distress and psychopathological traits in psoriatic patients. *Acta Derm Venereol* 2010; **90**:251-6.
- [3] Do JE, Cho SM, In SI, Lim KY, Lee S, Lee ES. Psychosocial aspects of acne vulgaris: a community-based study with Korean adolescents. *Ann Dermatol* 2009; **21**:125-9
- [4] Moberg C, Alderling M, Meding B. Hand eczema and quality of life: a population-based study. *Br J Dermatol* 2009; **161**:397-403. Epub 2009 Mar 19.
- [5] Gupta, M.A. and Gupta, A.K. (1998) Depression and Suicidal Ideation in Dermatology Patients with Acne, Alopecia areata, Atopic Dermatitis and

Psoriasis. *British Journal of Dermatology*, **139**, 846-850.

- [6] Barankin, B. and DeKoven, J. (2002) Psychological Effect of Common Skin Diseases. *Canadian Family Physician*, **48**, 712-716.
- [7] Uhlenhake, E., Yentzer, B.A. and Feldman, S.R. (2010) Acne Vulgaris and Depression: A Retrospective Examination. *Journal of Cosmetic Dermatology*, **9**, 59-63.
- [8] Wysowski, D.K., Pitts, M. and Beitz, J. (2001) An Analysis of Reports of Depression and Suicide in Patients Treated with Isotretinoin. *Journal of the American Academy of Dermatology*, **45**, 515-519.
- [9] (Cohen et al. 2006, Gupta et al. 2005, Fried et al. 2005)
- [10] Shukla R, Sasseville D. Psychopharmacology in psychodermatology. *J Cutan Med Surg* 2008; **12**:255-67.
- [11] O'Leary et al. 2004, Wittkowski et al. 2004, Choi & Koo 2003, Stone 2001)
- [12] (Farber & Nell 1993, Koo & Lebwohl 2001, Urpe et al. 2005)
- [13] (Kretzmer et al. 2008, Konuk et al. 2007, Van Moffaert 1992, Koblenzter 1983).

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