

Assessment of the prevalence of psychological distress in patients with psychocutaneous disorder dermatoses*

*Avaliação da prevalência de sofrimento psíquico em pacientes com dermatoses do espectro dos transtornos psicocutâneos**

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Abstract: BACKGROUND - It is estimated that emotional aspects are involved in one third of patients with skin diseases. OBJECTIVE - To verify the prevalence of psychological distress in patients with psychocutaneous disorder dermatoses (PDD), as well as to relate the degree of psychological distress to the disease, duration of disease progression, gender and age of patients. METHODS - A cross-sectional descriptive study. It included 76 male and female patients presenting PDD; age range 15-60 years. The patients answered the SRQ-20 (Self-Reported Questionnaire) prepared by the WHO to screen patients for mental disorders. RESULTS - The presence of psychological distress was observed in 25% of patients; in that, the females presented OR=14 to positive SRQ in respect to males. The chi-square test did not show statistically significant association between skin disease and presence of psychological distress. Taking in to account only patients with acne vulgaris and vitiligo, it could be observed that the latter presented higher levels of psychological distress than the former (OR=8.9; p=0.034). CONCLUSIONS - These data confirm the high prevalence of psychological distress in patients with some dermatoses. Moreover, they suggest that chronic diseases presenting esthetically unpleasant appearance, such as vitiligo, may be associated to a higher level of psychological distress in this population. There was no significant association between dermatoses in general and psychological distress although a strong trend could be observed. Keywords: Acne vulgaris; Stress, psychological; Hypopigmentation

Resumo: FUNDAMENTO – Estima-se que um terço dos pacientes com doença dermatológica possui aspectos emocionais associados. OBJETIVOS – Verificar a prevalência de sofrimento psíquico em pacientes com dermatoses do espectro dos transtornos psicocutâneos (DETP), bem como relacionar o grau de sofrimento psíquico com doença, tempo de evolução, sexo e idade do paciente. MÉTODOS – Estudo descritivo transversal. Foram incluídos 76 pacientes com DETP, de ambos os sexos e idade de 15 a 60 anos. Foi aplicado questionário de triagem de doença mental, o SRQ-20 (Self Reported Questionnaire), elaborado pela OMS. RESULTADOS – Observou-se a presença de sofrimento psíquico em 25% dos pacientes, sendo que as pacientes dermatológicas apresentaram OR=14 para SRQ positivo em relação aos homens. O teste qui-quadrado não demonstrou associação estatisticamente significativa entre doença dermatológica e presença de sofrimento psíquico. Considerando-se apenas os pacientes portadores de acne vulgar e vitiligo, observou-se que os últimos apresentavam significativamente maior sofrimento psíquico do que os primeiros (OR=8,9; p=0,034). CONCLUSÕES – Os dados confirmaram a alta prevalência de sofrimento psíquico em pacientes com algumas dermatoses. Além disso, sugerem que doenças crônicas e inestéticas, como vitiligo, podem estar associadas a maior grau de sofrimento nessa população. Os resultados do teste qui-quadrado, apesar de não significativos para a associação de dermatoses em geral e sofrimento psíquico, demonstraram forte tendência nesse sentido. Palavras-chave: Acne vulgar; Estresse psicológico; Hipopigmentação

INTRODUCTION

The influence of psychological factors on skin diseases is fairly common, although not much studied and debated. Currently it is estimated that emotional factors are associated in at least one third of patients with dermatological diseases.¹ Both, the beginning and the progression of dermatoses may be significantly influenced by stress, emotional disturbances

and psychiatric disorders.² It is known that the skin and the central nervous system are embryologically derived from the ectoderm. This information provides a basis to corroborate the assumption that the skin and the brain may reciprocally influence each other.²

Psycho-dermatological conditions are quite varied, since the primary disorder may be either derma-

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tological or psychiatric. It is very important for physicians, especially psychiatrists and dermatologists, to recognize and to manage the psychocutaneous disorders, so that patients do not go underdiagnosed and thus deprived of the correct treatment. Therefore, the goal of this study was to verify the prevalence of psychological distress in patients with psychocutaneous disorders and to relate the degree of distress to age, gender, dermatological diagnosis and duration of progression. Psychocutaneous disorders deserve greater attention and debate because they are scarcely known and, especially, because of the severe outcome in many cases.

Psycho-dermatological conditions may be divided into four large groups (Chart 1). The first group consists of primary dermatological diseases with secondary psychiatric sequelae, that is, those that lower self-esteem and that may lead to isolation and depression in the patient. The second group is composed of dermatoses influenced by the emotional status. In these cases, psychological conditions may trigger the onset of skin lesions or lead to flare-up during their course. The third group consists of primary psychiatric disorders with secondary dermatological sequelae. Skin lesions may be self-inflicted and thus be a sign of mental illness. The fourth group encompasses dermatological lesions or conditions secondary to the use of psychotropic drugs.

MATERIAL AND METHODS

This is a descriptive cross-sectional study conducted at the Dermatology Service of the Universidade Luterana do Brasil (Campus Canoas, RS). Patients with psychocutaneous disorder dermatoses previously described as belonging to Groups 1 and 2 (alopecia areata, atopic dermatitis, vitiligo, acne vulgaris, psoriasis, urticaria), who have agreed to participate, were included. Both male and female patients aged from 15 to 60 years were included. The exclusion criteria were aged under 15 or over 60 years, chronic systemic disease and history of psychiatric illness. After routine dermatological visit, the SRQ-20 (Self-reported Questionnaire) was given to patients, who accepted to take part in the study and the following information was obtained: age, gender, skin disease, duration of disease progression in months and SRQ-20 score. The SRQ-20 was considered as a continuous and dichotomized variable, and the cutoff point used was 7/8 for males and 8/9 for females. The SRQ-20 is a WHO instrument to screen mental illness, which has been utilized in primary care facilities. It was validated for use in Brazil.^{3,4}

Descriptive analysis of all variables was performed using absolute and relative frequencies for categorical variables and means and standard deviations

for continuous and ordinal variables. The statistical tests employed were: Student's *t* test for independent samples to compare normal distribution variables of two groups of subjects (patients with acne and vitiligo); Mann-Whitney test for non-parametric variables; Yates corrected chi-square test and Fisher exact test for categorical data (analysis of proportion between groups). A logistic regression model was used for the multivariate association analyses. Logistic regression calculates coefficients for each variable in the equation giving weights for the outcome (psychological distress). For logistic regression the following parameters are presented: B (regression coefficient), OR (odds ratio) and 95% confidence interval. The level of significance adopted was 0.05. The statistical software package SPSS was used. The present study was approved by the Human and Animal Research Ethics Committee of the Universidade Luterana do Brasil on September 30, 2003, in accordance with Norm N°. 196, of October 10, 1996, of the National Health Council.

RESULTS

The mean age of patients was 34 years, the mean duration of disease, 107 months, and the mean

CHART 1: Classification of psychocutaneous disorders

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| <ol style="list-style-type: none"> 1. Dermatological conditions with secondary psychiatric sequelae <ul style="list-style-type: none"> Albinism Alopecia areata Vitiligo 2. Dermatological disorders influenced by emotional status <ul style="list-style-type: none"> Acne Atopic dermatitis Eczema Psoriasis Urticaria 3. Psychiatric disorders with dermatological sequelae <ul style="list-style-type: none"> Obsessive-compulsive disorder Somatophorm disorders Delusional disorder, somatic type (parasitosis) Factitious disorder 4. Psychoactive drugs causing dermatological conditions <ul style="list-style-type: none"> Lithium Anticonvulsant drugs Antipsychotic drugs Antidepressant drugs Anxiolytic drugs |
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Adapted from Folks DG, Warnock JK. Psychocutaneous disorders. *Current Psychiatry Reports*, 2001.

degree of psychological distress, 5.8 points. Sixty-seven percent of sample was composed by females and 33%, by males. As depicted in table 1, 25% of patients presented psychological distress.

The frequencies of skin diseases studied were acne vulgaris 28.9%, vitiligo 27.6%, psoriasis 27.6%, urticaria 7.9%, atopic dermatitis 6.6% e alopecia areata 1.4%. There was no statistically significant association between dermatological diseases and psychological distress, as verified by the chi-square test ($p=0.146$).

However, when analyzing exclusively patients with acne vulgaris and with vitiligo, there was a statistically significant association between these diagnoses and psychological distress ($p=0.034$) and vitiligo is related to greater psychological distress than acne vulgaris.

It was observed that in the association of age and duration of the disease with the diagnoses of acne vulgaris and vitiligo, the patients with vitiligo are older than those with acne ($p<0.000$) and there was no statistically significant difference for duration of the disease ($p=0.077$).

Logistic regression demonstrated that patients with vitiligo had a nine-fold greater risk of having positive results in the SRQ scale, even when controlled for duration of the disease (Table 2). On the other hand, when controlled for age ($p=0.099$) and gender ($p=0.081$), patients with vitiligo had no increased risk of displaying more positive results in the SRQ scale; only a trend could be observed.

There was a strong correlation between female gender and psychological distress (Fisher exact test; $p<0.000$). All 25 male patients had negative SRQ.

This association is measured by the logistic regression depicted on table 3, indicating that the female gender has a 14-fold greater risk of displaying positive results in the SRQ scale, even when controlled for age.

Age and distress were not significantly associated in the chi-square test; however, there was a trend of patients aged 21-30 years to have less distress ($p=0,074$). Likewise, the association of duration of

TABLE 2: Patients with acne and vitiligo: psychological distress outcome controlled for duration of disease (N=43)

Variables	B	OR (IC95%)	p
Diagnoses	2.187	8.9 (1.48 - 53.74)	0.017
Duration	-0.006	0.99 (0.98 - 1)	0.192

OR = Odds Ratio

disease progression and psychological distress was not statistically significant in the chi-square test ($p=0.233$).

DISCUSSION

In the sample studied, acne vulgaris was the most frequent dermatosis found (28.9%), which is not unexpected, since the mean age of patients was 34 years and this is an ailment typically affecting young people. Next, come vitiligo and psoriasis, each representing 27.6%, fairly common dermatoses that may affect up to 1% of general population.^{5,6} On the other hand, the fact that only 7% of the sample displayed atopic dermatitis can be explained by its lower age limit of 15 years, because this illness usually affects children and adolescents.

The mean duration of disease was 107 months. It is important to stress that 67% of sample was composed of females, possibly due to the fact that women seek dermatological help more often than men. The concern with esthetics and physical appearance is a feminine feature in our culture and the esthetically unpleasant lesions of skin conditions disturb women a great deal.⁷

The mean degree of psychological distress, assessed on the SRQ was 5.8 points, which was considered relatively low since it is lower than the cutoff point (7/8 for men and 8/9 for women). Psychological distress was observed in 25% of sample (Table 1), which is in accordance with data from the literature, which estimate that roughly one third of dermatologi-

TABLE 1: Psychological distress in patients psychocutaneous disorder dermatoses (N=76)

SRQ	Frequency	
	Absolute	Relative
Positive	19	25%
Negative	57	75%
Total	76	100%

SRQ = Self Reported Questionnaire

TABLE 3: Patients with psychocutaneous disorder dermatoses: psychic distress outcome controlled for gender and age (N=76)

Variables	B	OR (IC95%)	p
Gender	2.639	14 (1.74 - 112.76)	0.013
Age	0.024	1.02 (0.99 - 1.06)	0.226

OR = Odds Ratio

cal patients have associated emotional aspects.¹

No statistically significant association was found between dermatological conditions in general and psychological distress. Therefore, acne vulgaris and vitiligo were studied separately and a significant association between these illnesses and psychological distress was found ($p=0.034$). Patients with vitiligo are prone to have greater psychological distress than patients with acne. It is likely that patients with vitiligo have greater distress because it is a chronic condition, whereas acne vulgaris is more prevalent during puberty and adolescence, remitting thereafter. It is worth mentioning that the treatment for vitiligo requires a lot of patient discipline and dedication, often frustrating due to the scarce results.

Another important issue is that of physical appearance since the hypochromic lesions of vitiligo are esthetically unpleasant, often causing emotional problems requiring psychological treatment.³ Moreover, patients with vitiligo are significantly older ($p<0.000$) and the duration of the disease is longer (mean of 130 months *versus* 68 months). Despite not being statistically significant, there is a clear trend toward this difference ($p=0.077$), not confirmed probably because of the small sample size.

It is interesting to notice the relationship between female gender and psychological distress ($p<0.000$). Out of 51 patients studied, 19 had scores in the range of positive SRQ, whereas all 25 male patients had negative SRQ. This idea is reinforced by the logistic regression depicted on table 3 indicating that females had a 14-fold risk of having positive SRQ scores, when controlled for age. This is probably due to cultural aspects since women are more concerned with physical beauty and looks.⁷ In the sample studied, the subjects came from low and low-middle classes and it can be speculated that men from such social backgrounds have less concerns with their looks than those of higher socioeconomic brackets.

There was no statistically significant association between disease duration and psychological distress

on the chi-square test ($p=0.233$). However, it could be seen that the prevalence of psychological distress was greater in the initial years of the disease, dropping thereafter and increasing again much later.

This is likely due to the initial impact caused by the disease, followed by a period of adaptation, and later by frustration due to chronicity.

When patients with acne vulgaris and vitiligo were selected and studied for dichotomization of the psychological distress outcome, measured as positive or negative SRQ scores, it was observed that the patients with vitiligo had a 9-fold greater risk of displaying positive SRQ scores, even when controlled for disease duration. This could indicate that the disease itself could cause great distress regardless of its duration. Nonetheless there was no greater risk of psychological distress in patients with vitiligo when controlled for age and gender although a trend could be observed but not confirmed because of the small sample size. Patients with vitiligo did not show greater risk of psychological distress when all variables were tested as a group.

CONCLUSIONS

This study revealed psychological distress in 25% of patients. Despite the fact that there is no statistically significant association between psychological distress and the skin diseases studied by the chi-square test, a strong trend was observed. An important association between female gender and psychological distress was evident with OR = 14 as compared to men, even when controlled for age.

By analyzing exclusively patients with acne vulgaris and vitiligo, it could be seen that the latter had more distress and were older than the former, with a 8.9-fold greater risk of having positive SRQ, even when controlled for age and disease duration. The current results suggested that long lasting esthetically unpleasant chronic diseases, like vitiligo, may be associated to greater psychological distress. □

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