

Suicide risk and psychiatric comorbidity in patients with psoriasis

**Maurizio Pompili¹, Marco Innamorati²,
Sara Trovarelli¹, Alessandra Narcisi³,
Samantha Bellini¹, Diego Orsini³,
Alberto Forte¹, Denise Erbuto³,
Elisabetta Botti³, Dorian A Lamis⁴,
Paolo Girardi¹ and Antonio Costanzo³**

Abstract

Objectives: To examine the occurrence of stressful life events, psychological comorbidity and suicide risk in patients with psoriasis or other dermatological conditions.

Methods: Consecutive adult outpatients with psoriasis or other dermatological conditions completed a sociodemographic questionnaire and the Hamilton scales for depression and anxiety.

Results: The study included 157 patients (91 with psoriasis; 66 with other conditions [melanoma; allergy]). Patients with psoriasis were significantly more likely to have experienced major life events in the 12 months before diagnosis, have had a psychiatric diagnosis and to have experienced past suicidal ideation than patients with other dermatological conditions.

Conclusions: Patients with psoriasis have an increased risk of psychiatric comorbidities, suicidal ideation, and long-term course of the disease compared with patients who have other dermatological conditions. Psychiatric assessment is highly recommended in patients with psoriasis.

Keywords

Anxiety, depression, dermatological diseases, psoriasis, health-related quality-of-life, stress, suicidal ideation

¹Department of Neurosciences, Mental Health and Sensory Organs, Suicide Prevention Centre, S.Andrea Hospital, University of Rome “La Sapienza”, Rome, Italy

²Department of Human Sciences, European University of Rome, Rome, Italy

³Dermatology Unit, Department of Neurosciences, Mental Health and Sensory Organs, University of Rome “La Sapienza”, Rome, Italy

⁴Department of Psychiatry and Behavioral Sciences, Emory University School of Medicine, Atlanta, GA, USA

Corresponding author:

Antonio Costanzo, Dermatology Unit, Department of Neurosciences, Mental Health and Sensory (NESMOS), University of Rome “La Sapienza”, S. Andrea Hospital, via di Grottarossa 1035, Rome 00189, Italy.

Email: antonio.costanzo@uniroma1.it



Introduction

Psoriasis is a common condition, affecting up to 3% of the population in industrialized countries.^{1,2} Although its aetiology is not entirely clear, psoriasis appears to be a multifactorial inflammatory mediated disease, involving both genetic and environmental causes.^{3,4} In addition, emotional stress seems to play an important role in the onset and exacerbation of psoriasis.⁵⁻⁷ As with other dermatological conditions, psoriasis worsens with stress in between 37% and 78% of patients,^{7,8} and stressful life events are both a cause and an aggravating factor for psoriasis.^{5,7} In over 40% of cases, the onset of psoriasis occurs in patients <30 years of age,⁹ which may have a serious negative psychosocial impact for individuals, including feelings of stigmatization and increased risk of depression and/or anxiety.^{10,11} Some studies have demonstrated that >90% of patients with psoriasis have a psychiatric diagnosis, mostly related to depression and anxiety disorders.^{12,13}

Evidence suggests a relationship between psoriasis and an increased risk of suicidality,¹⁴⁻¹⁶ with psoriasis having a stronger association with risk of suicidal ideation than other dermatological conditions.¹⁷ The aim of the current study was to examine the occurrence of stressful life events, psychological comorbidity and suicide risk in patients with psoriasis.

Patients and methods

Study population

The study enrolled consecutive adult outpatients with dermatological conditions who attended the Department of Dermatology, S. Andrea Hospital, Sapienza University of Rome, Rome, Italy between October 2013 and September 2014. Inclusion criteria were: at least one dermatological disease; aged 18-65 years; ability to provide informed consent. Exclusion criteria were: active

substance abuse; dementia; severe, active medical disorder. Patients completed a sociodemographic questionnaire and the Hamilton scales for depression (HAM-D)¹⁸ and anxiety (HAM-A).¹⁹

All patients provided written informed consent prior to enrolment, and the ethics committee of S. Andrea Hospital, Sapienza University of Rome, Rome, Italy approved the study.

Statistical analyses

Data were presented as mean \pm SD or *n* patients (%). Bivariate analyses were performed using χ^2 -test, one-way Fisher exact test, or Student's *t*-test for independent samples. After Benjamini and Hochberg correction for multitesting, statistically significant ($P < 0.05$) variables were selected for multivariate analyses with log-linear models. All statistical analyses were performed using SPSS[®] version 19.0 (SPSS Inc., Chicago, IL, USA) for Windows[®].

Results

The study included 157 patients (67 male and 90 female; mean age 50.15 ± 16.21 years; age range 18-86 years). Of these, 91 (58.0%) had psoriasis, 35 had melanoma (22.3%) and 31 had an allergic dermatological condition (19.7%). For the purposes of the study, patients with melanoma or allergy were combined into a single group (other conditions). Demographic and clinical characteristics of the study population as a whole and patients stratified into groups are shown in Table 1. There were no statistically significant differences between groups in sex distribution, age, education, marital status or employment status. Patients with psoriasis were significantly more likely than those with other conditions to have pathology extending over >80% of the body ($P < 0.01$) and illness of >8 years' duration ($P < 0.001$; Table 1).

Table 1. Demographic and clinical characteristics of patients with psoriasis or other dermatological conditions (melanoma, allergy) included in the study to examine psychological comorbidity and suicide risk in psoriasis.

| Characteristic | All subjects <i>n</i> = 157 | Psoriasis group <i>n</i> = 91 | Other conditions group <i>n</i> = 66 | Statistical significance ^a |
|---|--------------------------------|----------------------------------|--|--|
| Female | 90 (57.3) | 47 (51.6) | 43 (65.2) | NS ^b |
| Age, years | 50.15 ± 16.21 | 51.30 ± 14.91 | 48.56 ± 17.76 | NS |
| Education > 13 years | 108 (68.8) | 59 (64.8) | 49 (74.2) | NS ^b |
| Married/stable relationship | 102 (65.0) | 65 (71.4) | 37 (56.1) | NS ^b |
| Employment status | | | | |
| Unemployed | 19 (12.1) | 12 (13.2) | 7 (10.6) | |
| Employed | 106 (67.5) | 61 (67.0) | 45 (68.2) | |
| Retired | 32 (20.4) | 18 (19.8) | 14 (21.2) | |
| >80% of body affected | 30 (19.1) | 25 (27.5) | 5 (7.6) | <i>P</i> < 0.01 ^b |
| ≥2 localizations | 58 (36.9) | 40 (44.0) | 18 (27.3) | NS ^b |
| Illness duration > 8 years | 76 (48.4) | 58 (63.7) | 18 (27.3) | <i>P</i> < 0.001 ^b |
| Family history of dermatological disorders | 84 (53.5) | 47 (51.6) | 37 (56.1) | NS ^b |
| Other chronic comorbidity | 83 (52.9) | 47 (51.6) | 36 (54.5) | NS ^b |

Data presented as *n* (%) or mean ± SD unless otherwise indicated.

^aVs other conditions group; ^bone-way Fisher's exact test; Benjamini and Hochberg correction has been used for multitestting correction.

NS, not statistically significant (*P* ≥ 0.05).

Data regarding psychiatric comorbidities are shown in Table 2. Patients with psoriasis were significantly more likely than those with other conditions to have experienced major life events in the 12 months before diagnosis (*P* < 0.05), to have a psychiatric diagnosis (*P* < 0.01), and to have experienced suicidal ideation in the past (*P* < 0.01). In addition, patients with psoriasis had significantly more severe current depression than patients with other conditions (*P* < 0.01).

Analysis with a log-linear model (fit indices: likelihood ratio $\chi^2 = 14.99$; *DF* = 24; *P* = 0.92) found that those with psoriasis were significantly more likely than those with other conditions to have illness duration > 8 years (risk ratio 3.64; 95% confidence intervals 1.62, 8.18). There was no association between psoriasis and any other variable found to be significant in bivariate analyses.

Discussion

The results of the present study indicate that patients affected by psoriasis are at an increased risk of experiencing lifetime suicidal ideation compared with those with other dermatological conditions, which is in accordance with the findings of others.^{14,15,17} As we found in our patient group, patients may experience suicidal ideation before entering the study,¹⁵ suggesting that the course of the illness may be related to a long term psychiatric comorbidity. However, in contrast to others,¹⁴ we did not find a significant increase in current suicidal ideation among patients with psoriasis.

Patients with psoriasis in the present study reported more severe depression than those with other conditions. In contrast to others,¹⁵ however, we found no between-group difference in severity of anxiety. Depression is considered a common co-occurring condition

Table 2. Psychiatric comorbidities in patients with psoriasis or other dermatological conditions.

| Parameter | All subjects n = 157 | Psoriasis group n = 91 | Other conditions group n = 66 | Statistical significance ^a |
|---|-------------------------|---------------------------|-------------------------------------|--|
| Life events in 12 months before symptom onset ^c | 104 (66.2) | 67 (73.6) | 37 (56.1) | $P < 0.05^b$ |
| None | 53 (33.8) | 24 (26.4) | 29 (43.9) | |
| Bereavement/illness in self or others | 30 (19.1) | 20 (22.0) | 10 (15.2) | |
| Relationship, family or work problems | 50 (31.8) | 32 (35.2) | 18 (27.3) | |
| Other | 8 (5.1) | 6 (6.6) | 2 (3.0) | |
| More than one life event | 16 (10.2) | 9 (9.9) | 7 (10.6) | |
| Lifetime psychiatric disorders ^c | 46 (29.3) | 35 (38.5) | 11 (16.7) | $P < 0.01^b$ |
| None | 111 (70.7) | 56 (61.5) | 55 (83.3) | |
| Mood disorders | 16 (10.2) | 15 (16.5) | 1 (1.5) | |
| Anxiety disorders | 22 (14.0) | 14 (15.4) | 8 (12.1) | |
| Other disorders | 8 (5.1) | 6 (6.6) | 2 (3.0) | |
| Current suicidal ideation | 22 (14.0) | 14 (15.4) | 8 (12.1) | NS ^b |
| Past suicidal ideation | 45 (28.7) | 34 (37.4) | 11 (16.7) | $P < 0.01^b$ |
| Lifetime suicide attempts | 6 (3.8) | 6 (6.6) | 0 (0.0) | NS ^b |
| HAM-D | 11.51 ± 6.93 | 12.97 ± 7.36 | 9.91 ± 5.99 | $P < 0.01$ |
| HAM-D ≥ 18 | 30 (19.1) | 23 (25.3) | 7 (10.6) | – |
| HAM-A | 12.47 ± 7.89 | 13.62 ± 9.19 | 10.89 ± 7.51 | NS |
| HAM-A ≥ 18 | 37 (23.6) | 27 (29.7) | 10 (15.2) | – |

Data presented as n (%) or mean ± SD.

^aVs other conditions group; ^bone-way Fisher's exact test; Benjamini and Hochberg correction has been used for multtesting correction; ^cLifetime psychiatric disorders and life events in the 12 months before symptom onset have been reported both analitically and as present/absent but have been analyzed only as present/absent.

NS, not statistically significant ($P \geq 0.05$); HAM-D, Hamilton scale for depression;¹⁸ HAM-A, Hamilton scale for anxiety.¹⁹

in people with psoriasis,²⁰ and is also an important risk factor for treatment non-adherence. Our findings confirmed this increased number of psychiatric diagnoses in patients with psoriasis, with 38.5% having had a lifetime psychiatric disorder diagnosis compared with 16.7% of patients with other conditions.^{12,21,22} Psoriasis is often characterized by the occurrence of a major life event before onset. Our study found that 73.6% of patients with psoriasis reported a negative life event 12 months before the onset of symptoms, which is significantly more than those with other conditions. This result confirmed the previously reported relationship between stressful life events and disease onset, which is more common in psoriasis than in other dermatological conditions.⁷ Our findings

provide further evidence for the connection between stress and psoriasis, which has been supported by several studies.^{3,5,6,22} The long-term course of illness in patients with psoriasis reinforces the effect of this condition on health-related quality-of-life and the risk of psychiatric disorders and suicidal ideation.

Our study has several limitations, including the small sample size and cross-sectional study design. In addition, psoriasis naturally has a longer disease course and affects a larger area of the body than other dermatological diseases such as melanoma, which characteristically affects a small area and has a poor 5-year survival rate.²⁴

In conclusion, the present study confirms that patients with psoriasis have an increased risk of psychiatric comorbidities,

suicidal ideation and long-term course of the disease compared with those who have other dermatological conditions. Given the increased risk of suicidal ideation and depressive symptoms, psychiatric and suicide risk assessment is highly recommended, particularly among those with a previous psychiatric diagnosis and history of suicidal ideation. Addressing psychiatric comorbidities is also important to improve patients' treatment compliance and enhance their health-related quality-of-life.

Declaration of conflicting interest

The authors declare that there are no conflicts of interest.

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