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Abstract Suicide accounts for about 1,000,000 deaths worldwide every year and is among the leading causes of death in young adults. Reports of high prevalence of suicidal ideation and increased suicide risk in several skin diseases raised concerns about deliberate self-harm in dermatological patients. The literature consistently points to an increased suicide risk in patients with psoriasis, atopic dermatitis, and acne, with higher risk in patients in whom the skin condition is associated with clinically significant emotional distress, changes in body image, difficulties in close relationships, and impaired daily activities. Other risk factors for suicide include a history of suicide attempts, severe mental or physical disorders, alcoholism, unemployment, bereavement or divorce, and access to firearms or other lethal means. Dermatologists may play an important role in recognizing suicidal ideation and preventing fatal self-harm in their patients. Increasing dermatologists' awareness of the issue of suicide and developing mental health consultation-liaison services within dermatology settings would be instrumental in contributing to suicide prevention in this population.

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Introduction

At the end of the last century, the report of 16 cases of completed suicide among dermatology patients raised concerns about the potential of deliberate self-harm among patients with skin diseases. Since then, the prevalence of suicidal ideation and attempted suicide in dermatology has begun to be specifically investigated in a growing number of studies, many of which found a high prevalence of suicidal ideation^{2,3} and an increased risk of attempted suicide⁴ in several skin diseases.

Given that only a minority of suicidal individuals seek help for mental health reasons, the dermatological consultation might be a precious opportunity to recognize suicidal ideation and to implement strategies to prevent suicidal behaviors in a population that seems to be at higher risk.^{3,5,6}

This paper aims to provide clinical dermatologists with basic knowledge on suicide and risk factors for suicide, to

Suicide and suicide attempt: definition and epidemiology

Suicide can be regarded as a process extending over time. Different types of suicidal expression, such as life weariness, death wishes, suicidal ideation, suicidal plans, and suicidal attempts, constitute a possible continuous sequence of phenomena, although there may be exceptions to this pattern.^{7,8}

Following Durkheim's classical definition,⁹ the term suicide defines the death resulting directly or indirectly from a positive or negative act of the victim himself, who knows that this act will produce this result. A suicide attempt defines any act, including medication overdose, with nonfatal

present an updated review of the main findings on this issue in specific dermatological disorders, to outline an assessment for suicidal ideation and suicide risk in dermatology patients, and to describe appropriate intervention for suicide prevention.

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outcome that attempts to cause or actually causes self-harm or would have done so without intervention from others. 10

In 2000, approximately 1 million people died by suicide, and it is now estimated that by 2020 suicide will become the tenth most common cause of death in the world. 11,12

Suicide is the third leading cause of death in young people in the United States and the leading cause of death in young adults in China, Sweden, Australia, and New Zealand, among other countries. Suicide attempts are even more common than suicide ¹³⁻¹⁵; for every suicide, there are at least 10 suicide attempts. ¹⁶ Suicide attempts increase morbidity and health care costs ¹⁷ and are associated with higher risk of subsequent completed suicide. ¹⁸

Rates of suicide vary substantially among regions and countries. Suicide is responsible for more than 30,000 deaths each year in the United States, representing about 11 suicides per 100,000 people. It has long been known that young adults and elderly people are at greater risk of dying by suicide, with death rates of 12.5 and 15.8 per 100,000, respectively.¹⁹ Within Europe, rates are generally higher in northern than in southern countries.

Ethnic differences in suicide rates are suggested by the findings of lower suicide rates in Hispanic and African Americans than in European Americans,²⁰ and of higher suicide rates in indigenous populations as compared with the rest of the population in several countries (ie, Native American people in the United States, Métis and Inuit in Canada, Aborigines in Australia, and Maori in New Zealand).²¹

Risk factors

Most suicidal behaviors occur on a continuum of severity that proceeds from less serious and more frequent behaviors through increasingly severe and less frequent behaviors. ^{22,23} At the milder end are behaviors such as casual ideation without specific plans. These behaviors may progress in some individuals through persistent, intense ideation that includes a plan and, for a very small proportion of persons at the other end of the continuum, to failed suicide attempt and suicide completion. ²⁴

Many factors contribute to suicide, which is rarely the consequence of one single cause or stressor. Suicidal behavior has multiple causes that are broadly divided into proximal and distal risk factors. Distal risk factors represent the underlying vulnerability for suicidal behavior and can occur at both the individual and environmental levels. On the other hand, proximal risk factors are nearer in time to the suicidal event itself, and can act as precipitants. ²⁴

Sociodemographic factors

Suicide rates differ by age, gender, race, socioeconomic status, and marital status.

About 80% of suicide completers are men.²⁶ In developed countries, the male-to-female ratio for suicide is between 2:1 and 4:1, and seems to be increasing.²⁷ On the other hand, lifetime prevalence of attempted suicide is significantly more frequent among women.²⁸⁻³⁰ Suicide rates in most industrialized nations increase with age, with the highest suicide rates among persons older than 65 years.³¹

Marital status is also associated with suicide risk. Many studies have documented a relationship between health status and marital status,³²⁻³⁵ even after controlling for other possible factors, such as socioeconomic status.^{36,37} Married individuals are known to have lower suicide rates as compared with nonmarried individuals.³⁸⁻⁴⁰ It has been pointed out recently that the effect of marital status may differ by gender, with the highest suicide rates found in men among young widowers^{41,42} and divorced/separated people.⁴³

Unemployment is also considered a key factor influencing suicidal behavior, 44-46 with a two- to threefold increase in the relative risk of death by suicide. 47 Although there has been debate about the association between suicide and unemployment, 47,48 a recent study comparing suicide trends and employment rates in 26 European countries did suggest an association between suicide mortality and both unemployment risk and the expectation of inadequate financial resources during unemployment. 49 On the other hand, the presence of a social support system may reduce suicide risk. 50,51

Personal and family history

A history of self-harm or suicide attempts is a strong risk factor, present in at least 40% of cases. ²⁵ Among the persons who attempt suicide, up to 2% eventually die from suicide within the following year, ⁵²⁻⁵⁴ and up to 7% within 10 years. ⁵⁴⁻⁵⁶

In individuals with a history of suicide among relatives, the risk of suicidal behaviors is increased.⁵⁷⁻⁶¹ This increase in the risk of suicidal behaviors among family members seems, at least in part, to be independent of genetic contribution from comorbid psychiatric diagnoses.⁶²⁻⁶⁵

A history of childhood abuse has also been suggested to be associated with increased rates of suicidal behaviors, including both completed suicide⁶⁶ and suicide attempts.⁶⁷⁻⁷⁰

Mental health-related factors

Psychiatric illness is a major contributing factor, and more than 90% of individuals who take their lives suffer from such an illness. 71-77 Indeed, mental disorders, alcohol and drug abuse are the strongest observed risk factors for attempted suicide in all age groups. 15,22,28,29,78,79 Mood disorders, mainly major depressive disorder and bipolar disorder, are the most common diagnoses in studies of completed suicides for both men and women, across all age groups, and are

associated with about 60% of suicides.^{71,72,74,80,81} Major depression has even greater importance in suicides among elderly adults.^{82,83}

Substance (especially alcohol) misuse and schizophrenia are also associated with an increased risk of suicide. ²⁴,2⁵ Although panic disorder was also found to be associated with an increased risk for attempted suicide, ¹³ it has been suggested that it is not an independent risk factor, ⁸⁴⁻⁸⁶ as it often co-occurs with other disorders such as mood or substance use disorders that would actually account for the increase in risk.

Hopelessness, defined as generalized negative expectations of the future, ⁸⁷ is considered one of the most important risk factors for suicide in clinical populations. ⁸⁸ The literature has consistently pointed out an association between hopelessness and suicidal thoughts and behaviors. ^{25,89,90} Impulsivity, together with high levels of lifetime aggression, also seems to play a role in suicide risk. The role of impulsive-aggressive traits seems to be greater among younger individuals, whereas it has decreasing importance in middle and old age. ⁹¹⁻⁹³

Physical health-related factors

Having a general medical condition is associated with an increased risk of completed suicide, 94 suicide attempts, 95 and broadly defined suicidal behavior (which encompasses suicidal ideation, suicidal plan, and attempted suicide). 96 In some cases, such as HIV/AIDS, lung disease, 95 cancer, 97 and dermatologic diseases, 2,3 this association seems to play an independent role with respect to a comorbid mental illness. 95,97-99 Studies on the risk of suicidal behavior in other physical conditions, such as diabetes, hypertension, and arthritis, gave inconsistent findings. 95,97,98

Access to lethal means

The availability of lethal means, such as firearms, pesticides, and domestic gas, is also associated with increased suicide risk. For instance, many case-control studies found that a gun in the home is independently associated with a large increase in suicide risk, which is entirely because of a large increase in the risk of suicide by firearm. ^{100,101} Indeed, restricting access to lethal means with initiatives, such as the passage of firearm control laws, detoxification of domestic gas, modification of drug packaging and toxicity, and installation of barriers at jump sites, was found to be effective in preventing suicide. ^{102,103}

Skin diseases and suicide risk

In a seminal paper on the topic of suicide in skin diseases, 2 dermatologists reported a retrospective study of all their patients presenting with a dermatological problem during the

preceding 20 years, who were subsequently known to have committed suicide. In contrast to the popular view of dermatologists as "physicians treating patients who never die," the authors reported 16 cases of patients with dermatologic conditions who completed suicide. Seven of them had acne. In a survey of 341 consultant dermatologists in the United Kingdom published 1 year later, participants reported that they knew of 178 and 28 patients who had either attempted or completed suicide, respectively. Subsequent studies began to address this topic more specifically. Psoriasis, acne, and atopic dermatitis are the dermatological conditions that have been most studied.

Psoriasis

Depressive symptoms and suicidal ideation were assessed with the Carroll Rating Scale for Depression (CRSD) in a large sample of 480 patients with noncystic facial acne (n = 72), alopecia areata (n = 45), atopic dermatitis (n = 146), and psoriasis (n = 79 outpatients and n = 138 inpatients). Inpatients with severe psoriasis (mean percentage of total body surface area affected = 52%) were found to have significantly higher CRSD score and higher prevalence of suicidal ideation as compared with the other patient groups. The prevalence of suicidal ideation as measured by the CRSD item "I have been thinking about trying to kill myself" was 7.2% in psoriasis inpatients, whereas no patient with alopecia areata and only some outpatients with psoriasis (2.5%) and atopic dermatitis (2.1%) reported suicidal thoughts.

In another study, 333 consecutively recruited dermatological outpatients, 172 hospitalized dermatological patients, and 293 matched healthy controls were administered measures of depressive symptoms and suicidal thoughts, skin-specific health-related quality of life (QOL), and psychological symptoms. 105 The study instruments included the Beck's Depression Inventory, the Dermatology Life Quality Index, and the Brief Symptom Inventory. Skin disease severity was rated by a trained dermatologist on a 5-point scale ranging from 1 ("very slight") to 5 ("very severe"). Consistent with the aforementioned study,2 a significantly greater percentage of patients with psoriasis (21.2% of 113) had thoughts about suicide as compared with healthy controls (6.8%). A higher prevalence of suicidal ideation was also found among patients with atopic dermatitis (18.9% of 95), whereas patients with eczema (5.8% of 120) and urticaria (6.3% of 32) did not differ from healthy controls. Inpatient status was associated with suicidal ideation. Women reported lower QOL and more severe psychological symptoms than men. This result was mainly because of differences in scores on items related to appearance and embarrassment. The psychosocial impact of psoriasis, atopic dermatitis, eczema, and urticaria seemed to be primarily mediated by the impairment in QOL. Dermatologist-rated disease severity was only weakly associated with psychosocial disability. Consistent with

other studies, ¹⁰⁶ these findings suggest that psychological distress is more strongly associated with the impact of skin disease on daily activities and social relationships than with its clinical severity.

In another study, 294 dermatological outpatients and 172 inpatients were administered the Patient Health Questionnaire (PHQ) to assess mental health, the 12-item General Health Questionnaire (GHQ-12) to measure psychological distress, and the Skindex-29 to assess the effects of skin disease on QOL.³ The overall prevalence of suicidal ideation as measured by the relevant PHQ item in this large, heterogeneous sample of patients with dermatologic conditions was as high as 8.6%. Even in outpatients only, the prevalence was still about 5%. Suicidal ideation was present in 10% of the 80 patients with psoriasis. In univariate analysis, the presence of suicidal ideation was associated with female sex, inpatient status, presence of a depressive or anxiety disorder, and higher GHQ-12 and Skindex-29 scores. As easily expected, the presence of depression was by far the stronger predictor of suicidal ideation. In multivariate analysis, only emotional distress and impaired QOL in the social functioning domain were independently associated with suicidal ideation. Among the Skindex-29 items, those covering difficulties in close relationships were the most strongly associated with suicidal ideation, whereas no item of the skin symptoms subscale showed a strong association with suicidal ideation. The consistent finding of a high prevalence of suicidal ideation^{2,3,105} in psoriasis and the severe impact of this skin disease on close interpersonal relationships 107,108 underscores the need to address psychosocial issues in the clinical evaluation of psoriatic patients.

Acne

Several studies reported a high prevalence of suicidal ideation in patients with acne. In a large sample of patients suffering from skin diseases,² patients with mild-to-moderate facial acne were found to have a high prevalence of suicidal ideation (5.6%) and death wishes (8.3%). Consistent with this finding, a later Pakistani study found a prevalence of suicidal ideation of 8% among patients with acne, 109 whereas in an Italian study the observed prevalence of suicidal ideation in patients with acne was 7.1%.3 As expected, suicidal ideation was found to be associated with a diagnosis of depression^{3,109} and with greater severity of depressive symptoms.² Only one study, carried out on 165 male patients with acne and 150 comparison patients, did not detect any relationship between acne and self-reported depressive symptoms. 110 In this study, about two-thirds of patients with acne had mild facial acne, which may account for the negative result.

As acne vulgaris is a distressing condition that affects most adolescents, some recent studies, building on these preliminary findings, further investigated psychological distress and risk of suicide in community-based rather than clinical samples of young people with acne. In these studies, the association between acne and psychiatric morbidity, as measured by established assessment instruments, seemed to be less clear at first, with some studies reporting higher psychological distress in adolescents with acne than in those not suffering from the disease, 111-113 and another study yielding a negative result. 114

A secondary analysis using data from a large randomly selected group of adolescents surveyed in New Zealand, consisting of 9567 secondary school students ages 12 to 18 years, was performed to examine the relationship between acne and depressive symptoms, anxiety, and suicidal behaviors. The main outcome measures were self-reported acne, depressive symptoms as measured by the Reynolds Adolescent Depression Scale, anxiety as measured by the Anxiety Disorder Index from the Multidimensional Anxiety Scale for Children, and self-reported suicide attempts. 115 The statement "having really bad or terrible problem with acne" was found to be independently associated with severity of depressive and anxiety symptoms, and with an increased risk of suicide attempts. The association between acne and suicide attempts remained after controlling for depressive symptoms and anxiety (odds ratio = 1.50; 95% confidence interval [CI] 1.21-1.86).

These findings were corroborated by a very recent Norwegian study conducted in a large representative community sample of 3775 adolescents ages 18 to 19 years that aimed to examine the relationship between acne and suicidal ideation, mental health problems, and social functioning. ¹¹⁶ In this study, nearly 1 in 4 adolescents with severe acne reported suicidal ideation. In girls with severe acne, the prevalence of suicidal ideation was more than twice that of those with no or a little acne, whereas in boys it was 3 times higher. A significant association between substantial acne and suicidal ideation in both genders was still found in a multivariate model that controlled for symptoms of depression, family income, and ethnicity.

Although an association between isotretinoin treatment and increased risk of depression, suicidal ideation, and suicide in patients with acne has been claimed, 117-122 the available data are conflicting.

A recent Swedish study examining the risk of attempted suicide before, during, and after treatment with isotretinoin for severe acne failed to establish if isotretinoin treatment was related to additional risk of suicide⁴; however, it succeeded in documenting for the first time that severe acne in the absence of treatment with isotretinoin is associated with an increased risk of attempted suicide.

The study⁴ population consisted of 5756 patients who had been prescribed isotretinoin for severe acne between 1980 and 1990, aged 15 to 49 years at the first prescription. The study population was linked to the national patient register of in-hospital care and to a cause-of-death register. Hospital admissions for suicide attempts as well as all deaths, with underlying causes, occurring between 1980 and 2001, were extracted from the registries. Suicide attempts were classified as occurring before, during, or

after treatment. Events that occurred before and after treatment were cumulatively counted for up to 3 years before and up to 15 years after treatment. The total time of observation encompassed 17,197 person years for up to 3 years before treatment, 2905 person years during treatment, and 87,120 person years thereafter. The rates of attempted suicide in the different time windows before, during, and after treatment were compared with those of the general population, by using the national patient register of in-hospital care. During the year before treatment, the standardized incidence ratio for attempted suicide was 1.57 (95% CI: 0.86-2.63) for all suicide attempts and 1.36 (95% CI: 0.65-2.50) for first attempts. The standardized incidence ratio during and up to 6 months after treatment was 1.78 (95% CI: 1.04-2.85) for all attempts and 1.93 (95% CI: 1.08-3.18) for first attempts. Three years after the end of treatment, the observed number of attempts was close to the expected number and remained the same during the 15 years of follow-up. The standardized incidence ratios and rates of attempted suicide were higher in female than in male patients. Seventeen male patients and 7 female patients committed suicide by the end of 2001. Although the suicide risk estimates were higher for patients with acne as compared with the general population, the findings were nonsignificant.

Overall, the literature suggests that patients with moderate to severe acne might be at increased risk of suicide attempts and completed suicide, and underscores the danger inherent in neglecting psychosocial aspects in patients with acne, especially those suffering from the disease after adolescence.

Atopic dermatitis

Atopic dermatitis (AD) may have a profound impact on patients' lives. Patients with AD were found to score significantly higher than healthy controls on measures of depressive and anxiety symptoms. ¹²³ Severe AD was also reported to have a greater impact than severe psoriasis on subjective health status, as well as physical, psychological, and social functioning and well-being. ¹²⁴ Impaired health-related QOL in the mental health domain as measured by the Medical Outcomes Study Short Form-36 Health Survey (SF-36) was found in adults with atopic dermatitis compared with patients with type 2 diabetes. ¹²⁵

A pioneer study found a relatively low (2.1%) prevalence of suicidal ideation in patients with AD as compared with a prevalence of 4% in dermatology patients as a group²; however, subsequent studies consistently reported a high prevalence of suicidal ideation in AD. A Danish study reported a prevalence of suicidal thoughts of 18.9% among patients with AD, compared with 5.8%, 6.3%, and 6.8% in patients with dermatitis, patients with urticaria, and healthy controls, respectively. ¹⁰⁵ In a Japanese study performed on a large sample of 6748 patients with AD, lifetime prevalence of suicidal ideation was 19.6% among the most severely affected patients, 6.0% among moderately affected patients,

and 8.1% among 3575 healthy controls. 126 In another study recently performed in Germany, 62 adults aged 21 to 59 years with AD were compared with a matched group of 62 healthy controls with respect to depressive and anxiety symptoms and suicidal ideation. The study measures included the Hospital Anxiety and Depression Scale (HADS) and the Pöldinger's scale to measure suicide risk. 127 A significantly higher prevalence of suicidal ideation as well as higher HADS scores were found among patients with AD. Also, the study revealed a strong correlation between patient-rated severity of dermatological disease, psychological burden, and suicidal ideation.

Although not all studies of suicidal ideation in AD have yielded consistent results, it is noteworthy that a similar prevalence of suicidal thoughts was found in Danish, ¹⁰⁵ Japanese, ¹²⁶ and German ¹²⁷ patients with severe AD. Also, in the only study evaluating suicidal ideation through a specific questionnaire, the presence of symptoms of depression and anxiety and the self-rated severity of AD were strongly related to suicidal ideation. ¹²⁷ The available data suggest that suicidal ideation is frequent in AD, at least in patients with severe forms of the disease.

Assessment and management of suicide risk in clinical practice

The reviewed literature suggests that some patients coming to the attention of dermatologists are at increased risk for suicide. These patients include those with other known risk factors for suicidal behavior (eg, history of suicide attempts, severe mental or physical disorders, alcoholism, unemployment, bereavement or divorce, and access to firearms or other lethal means), those with skin diseases that were found to be associated with increased risk of suicidal ideation and behavior (severe psoriasis, acne, atopic dermatitis), and those in whom the skin condition is associated with clinically significant emotional distress, changes in body image (eg, skin lesions on exposed body parts), difficulties in close relationships, and impaired daily activities.

Even in psychiatric practice, the management of people at risk of suicide is often challenging owing to the many causes and the poor evidence base.²⁵ Although unplanned suicide attempts are seldom preventable, planned attempts might be. Given that suicidal ideation is associated with a markedly increased probability of planned suicidal behavior, which in turn may result in a suicidal attempt leading to death,⁷ any intervention aimed at early detection and treatment of patients at risk might carry considerable benefit.^{3,5,6} In this paper, we propose some recommendations for the evaluation and management of suicide risk in clinical practice.

Given the strong association between depression and suicidal ideation, brief depression screening questionnaires that have been validated in dermatological settings, ¹²⁸ such as the PHQ¹²⁹ or the Primary Care Screener for Affective

Table 1 Risk factors for suicide

- Male gender
- Widowed, divorced, or unmarried marital status
- Elderly age
- · Adolescent and young adult age
- Mood disorders and other severe psychiatric illness
- · Alcohol abuse
- History of childhood abuse
- Family history of suicide
- Family history of mood disorders or other severe mental illness
- Suicidal thoughts
- Suicidal plans
- History of suicide attempts
- Feelings of hopelessness
- Impulsivity
- Aggression
- Severe or chronic physical illness
- Recent bereavement or other severely stressful life event
- Lack of social support
- Unemployment
- · Access to firearms and other lethal means

Disorders, ¹³⁰ might be useful to identify patients at increased risk. Also, the dermatologist can assess suicidal ideation by directly inquiring about it. Talking about suicide with the patient does not put the idea in his or her mind. Rather, the assessment of suicidal ideation may provide relief to the suicidal patient by opening an avenue for discussion and giving him or her an opportunity to feel understood. ¹³¹

In asking about suicidal ideas, it is often helpful to begin with milder questions addressing the patient's feelings about living, such as "How do you feel emotionally?" and "How does life seem to you at this point?" If the patient expresses feelings of sadness, hopelessness, or loss of interests and pleasure, the dermatologist may further inquire with some general questions about life weariness and death wishes, such as "Have you ever felt that life was not worth living?" or "Did you ever wish you could go to sleep and just not wake up?" If the patient's response reflects dissatisfaction with life or a desire to escape it, the dermatologist should ask further questions about suicidal thoughts and plans so as to elicit detailed information about specific plans for suicide and any steps that have been taken toward enacting those plans. 131 In doing so, the clinician should maintain an empathic and nonjudgmental attitude so as to strengthen the therapeutic relationship and minimize the feelings of shame, guilt, and stigma that may be associated with suicidality.

If suicide risk is present, further assessment should address the imminence of suicidal behavior. Imminent risk is suggested by the presence of intention to die (explicitly expressed or inferred from behavior), suicidal plans, and high levels of hopelessness.⁵³

Detailed and lethal suicide plans, violent and irreversible methods (such as use of firearms, jumping from height, and motor vehicle accidents) are generally associated with a greater risk of completed suicide. It should also be evaluated whether the patient has access to firearms or other weapons. In the assessment of suicidal intent, the patient's belief about the lethality of the method may be as important as the actual lethality of the method itself. Attention should also be paid to the presence of established risk factors for suicide, summarized in Table 1.

In cases of high or imminent suicide risk, immediate action is needed. The dermatologist should refer the patient to a mental health professional and possibly alert patient's close relatives to the danger and the need of treatment; however, if the patient is unsure of being able to resist suicidal urges, or if the dermatologist fears that the patient may not seek help before committing self-harm, emergency psychiatric evaluation is imperative. ^{132,133} Strategies for the management of acute suicide risk include vigilance and supervision of patients, perhaps through hospitalization, removal of potential methods of suicide, and initiation of vigorous treatment of associated psychiatric disorder. ⁵³

Suicide risk and psychotropic medications

Psychotropic medications, such as antidepressants, antipsychotics, or mood stabilizing agents, are commonly used by psychiatrists to treat the severe mental disorders associated with suicidal thoughts, plans, or behaviors.

Antidepressant treatment for major depressive disorder was found to be associated with a decrease in suicide risk; ¹³⁴ however, physicians prescribing these drugs should be aware of an increased suicidal risk that may be observed in the first days of treatment. ¹³⁵ This increase in risk is supposed to be explained by an early nonspecific activating effect of medication during the first days of treatment, when the antidepressant effect has still not taken place. ¹³⁶ Close observation of the patient and careful evaluation and monitoring of suicide risk are mandatory in the early phase of antidepressant treatment.

Concerns related to the safety of a specific class of antidepressants, the selective serotonin reuptake inhibitors (SSRIs), were raised in the previous decade by warnings from US and European regulatory authorities about the induction of suicidality as a serious side effect of the SSRIs in children and adolescents. A comprehensive review of this issue concluded that antidepressants, including SSRIs, carry a small risk of inducing suicidal thoughts and suicide attempts in people younger than 25 years. ¹³⁷ In the treatment of adults with major depressive disorder, the risk was judged as acceptable when balanced against the positive effects on depressive symptoms and when the beneficial as well as potentially harmful effects of treatment are carefully considered by the clinician. ¹³⁷

The long-term effectiveness of lithium in reducing the risk of completed and attempted suicide among patients with bipolar disorder is well established. The use of alternative drugs, such as anticonvulsants or antipsychotics

is usually a second-choice option, although it could become a forced choice in patients with bipolar disorder at risk for suicide with a previous history of psoriasis exacerbated by lithium.¹³⁹

As anxiety and agitation are additional risk factors for suicide, it has been suggested that early treatment of anxiety symptoms in depression with sedative/hypnotic agents, especially benzodiazepines, may decrease suicide risk. 131 To date, the available evidence does not support the effectiveness of sedative/hypnotic treatment as an early adjunct to antidepressants in decreasing suicide risk. 140 Conversely, other data suggest that sedative/hypnotics can induce depressant or disinhibitory effects in a small proportion of patients. 141,142

Conclusions

Although dermatologists may play an important role in recognizing suicidal ideation and preventing fatal self-harm in some of their patients, they also need support from mental health professionals to manage these patients most effectively; however, several dermatologists complain about the scarcity of local clinical psychology or psychiatric liaison services. 104 Effective assessment and treatment of suicidality in patients with skin diseases depends on the development of consultation-liaison services 143,144 within dermatology settings and the implementation of quality improvement programs. 145 Such system-level changes, together with increasing dermatologists' awareness of the issue of suicide, would be instrumental in addressing the needs of patients with skin disease who have suicidal ideation and ultimately in contributing to suicide prevention in this population.

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