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Case Report Open Access

A Case of Generalized Erythrodermic Psoriasis with Suicidal Ideation: A Unique Association

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Abstract

Many studies have documented the significant psychological impact of severe psoriasis. Although studies have illustrated the association of psoriasis with psychiatric conditions, including depression and anxiety, this is the first to report new onset suicidal ideations presenting concomitantly with an erythrodermic eruption of psoriasis. This novel finding highlights the need for evaluation of mental status in patients presenting with erythroderma associated with any dermatologic condition, as such an increase in dermatological severity is correlated with suicidal ideations. This case illustrates the importance of screening for depression in the management of psoriasis and specifically underscores the association of severity of disease with suicidal ideations.

Keywords: Psoriasis; Suicidality; Erythrodermic; Depression

Introduction

Psoriasis is a chronic inflammatory disease affecting up to 4% of people worldwide and is associated with several debilitating comorbidities including cardiovascular disease, obesity, dyslipidemia, and insulin resistance [6]. It has long been recognized that mental health conditions, including depression, anxiety, and suicidality, have been associated with psoriasis [4,10]. This case describes a patient with long-standing psoriasis who presented acutely with both suicidal ideations and the erythrodermic variant of psoriasis, highlighting the need for depression screening and management in patients with severe dermatologic conditions.

Case Report

A 47-year-old African American male presented with depression and suicidal ideation, which lasted for the past 2 weeks but suddenly became intolerable. He reported feeling that his life was worthless ever since he had been kicked out of his home with relatives the previous week, and he considered himself homeless. On further questioning, the patient reported that he did not want to live anymore but did not have a formed plan for suicide, and he denied homicidal ideation. In addition to suicidal ideation, he also complained of severe uncontrolled psoriasis that failed a 6 month course of acitretin, which he discontinued 3 weeks ago. He presented with chills, significant pain, difficulty ambulating, and pruritis, which he relieved with itching. He described tightness all over his body due to thickened, diffuse, coalesced plaques, which circumferentially encapsulated both upper and lower extremities bilaterally. When asked about the severity of his psoriasis on admission compared to his baseline, he reported increased severity compared to normal; however, he always maintains a baseline of at least moderate psoriasis. He denied any joint pain and clarified that his difficulty walking was secondary to tightness from generalized psoriatic skin involvement, unrelated to joint stiffness. The patient has suffered from psoriasis since he was a teenager and although he was unable to identify all drug therapies he has tried, he indicated that he was treated with both topical and oral medications including acitretin. As with many cases of psoriasis, this patient's past medical history consisted of several co-morbidities including hypertension and poorly controlled diabetes. The patient's medications included enalapril 10mg daily and ibuprofen 600mg as needed for pain, and he has no known drug allergies. The patient's family history is unknown. He has no prior surgical history. He admits to smoking a pack of cigarettes per day, but denies alcohol or illicit drug use.

On psychiatric examination, the patient appeared his stated age, but was unshaven and unkempt in appearance. He was moderately cooperative, but at times refused to answer questions and maintained a guarded attitude. He denied auditory or visual hallucinations. The patient reported feeling depressed with thoughts of hurting himself, but denied ever being diagnosed with or treated for depression. His mood was described as hopeless and depressed and his affect was flat. He did not spontaneously report being sad secondary to psoriasis symptoms, but when asked if psoriasis contributed to his depression, he said yes. In discussing his social history, he reported that he was "kicked out" of a house with relatives and that things had been "building up" with family and friends. He offered minimal spontaneous speech with prolonged speech latency and a paucity of content. In assessing this patient's quality of life, his status as homeless, unemployed, single with strained interpersonal relationships, and suicidal illustrates his significant impairment of quality of life.

Physical examination revealed elevated blood pressure (168/100 mmHg) and tachycardia (103 beats per minute). Ninety five percent of his body surface area was covered by generalized diffuse erythema, plaques, and scaling, sparing only the antecubital regions bilaterally and portions of the face. The scalp demonstrated thick crusted plaques with an overlying compaction of horny material extending from the hairline to the base of the neck, with sparse hair growth penetrating (Figure 1). The upper extremities were covered in hyperkeratotic confluent circumferential plaques overlying an erythematous base, sparing the antecubital regions bilaterally (Figure 4). The anterior and posterior trunk demonstrated generalized erythema and silvery-gray plaques

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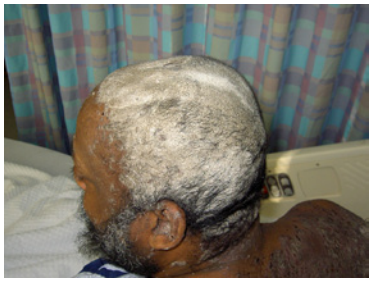
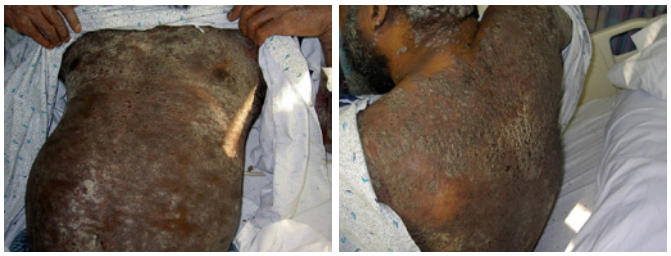


Figure 1: Massive compaction of horny material diffusely on scalp.



(a) (b)

Figure 2a&b: Generalized erythema with thickened scales and silvery-gray plaques with moderate margination.

Figure 3: Extensive crusting and scaling whitish-gray plaques coalescing circumferentially, with partial margination, on lower extremity.

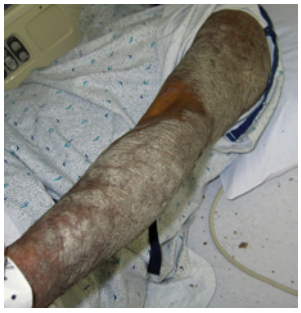


Figure 4: Thickened confluent circumferential plaques overlying an erythematous base, sparing the antecubital region.

(Figure 2). On the lower extremities bilaterally, extensive hyperkeratotic crusting and scaly whitish-gray plaques coalescing circumferentially were present (Figure 3). There was evidence of cracking on the left distal anterolateral lower extremity with dried blood (Figure 3). There was no evidence of pitting in the nails and minimal subungual hyperkeratosis was present. All other aspects of the physical examination were normal. Based on his extensive erythrodermic involvement and widespread desquamation, his psoriasis had progressed to the life-threatening erythrodermic variant, which was found to be hematologically stable on admission without dehydration or evidence of systemic infection.

Laboratory findings included elevated serum glucose of 230, but no electrolyte or hematologic abnormalities were found. For medical stabilization, antibiotics for infection prevention, topical steroids (betamethasone diproprionate) for skin inflammation, and hydroxyzine for itch were administered and the patient responded with improvement. Due to his suicidal ideation and depression, resuming his retinoid was not an option as it is contraindicated in this setting [11].

Discussion

Psychiatric conditions have long been reported to occur in psoriasis patients, including depression, anxiety, sexual dysfunction and more [13]. Suicidal ideations are clearly a life-threatening manifestation warranting significant investigation. Gupta et al. studied 217 patients with psoriasis and depression and had patients rate the severity of both conditions using the Carroll Rating Scale for Depression (CRSD). Suicidal ideation was found to be associated with both higher severity psoriasis and higher severity depression, a finding likened to the phenomenon of suicidal ideation in life-threatening disorders such as malignancies [8]. Furthermore, one of the largest studies examining psychiatric comorbidities in psoriasis, a recent cohort-based study in the UK with over 50,000 patients, illustrated that patients with psoriasis have a statistically significant increased risk of having depression, anxiety, and/or suicidality [10]. Similarly, it has been found that other comorbidities of psoriasis exhibit the same correlation with severity. For example, those with more severe psoriasis have an increased risk for cardiac disease, which is presumably due to the inflammatory nature of psoriasis [3]. The finding of psychiatric comorbidity is not exclusive to psoriasis but has also been described in other dermatologic diseases. For example, another study examining atopic dermatitis found that these patients were not only more frequently afflicted with depression and anxiety, but were also more likely to have suicidal ideations than controls without atopic dermatitis, with an odds ratio of 11.73 (95%CI 1.45-94.71) [5]. Furthermore, a strong correlation between severity of symptoms and psychological burden were observed, which is consistent with psoriasis studies [8]. Given that increased severity of dermatologic disease is associated with an increased incidence of suicidal ideation, as established by previous studies [5,7], it is reasonable to suspect that the erythrodermic variant of psoriasis may also pose a higher likelihood of suicidal ideations. Accordingly, it is important that primary care physicians and dermatologists alike are aware of this phenomenon and, as such, implement preventative screening measures to regularly evaluate for and monitor depression.

The erythrodermic variant of psoriasis is not unique to psoriasis, as erythroderma is seen in many different dermatologic conditions including drug-induced, cutaneous T cell lymphoma, and others [15]. Based on the patient's extensive involvement, with 95% BSA affected as calculated using the rule of nines [2], his psoriasis had progressed to the life-threatening erythrodermic variant with complications including infection, severe dehydration and electrolyte loss [12]. With such universal involvement, constitutional symptoms are also seen as massive scaling can lead to protein loss and maximal dilatation of skin capillaries, resulting in considerable heat dissipation and high output cardiac failure [15]. As such, it is critically important to identify treatment options that reduce mortality associated with severe erythrodermic conditions. This report of an association between the onset of erythrodermic psoriasis and suicidal ideations provides a basis for employing a more detailed mental status evaluation for patients presenting with severe variants of dermatologic conditions.

In 2006, a case was reported describing suicidal ideation in a patient on acitretin therapy and although the patient had depressive symptoms

during the previous year, the patient began having suicidal thoughts 4 weeks after initiating therapy [1]. However, acitretin as the cause cannot be determined especially given that the patient was already experiencing depressive episodes and had severe psoriasis, which is also known to be associated with suicidal ideation as described here. This is certainly worthy of mention given that oral retinoids are among the first line agents for treatment of pustular and erythrodermic psoriasis [14]. In the drug information for acitretin, depression is listed as a possible side effect but several studies have demonstrated that there is limited scientific evidence for this warning [14]. Given that acitretin is eliminated from the body by 2 months after discontinuation with a half-life of 49 hours [9] and rebound flares are not observed, acitretin's role in our patient's case appears to be limited.

Conclusions

Family physicians and internists play an integral role in identifying and managing the much comorbidity associated with psoriasis. This case highlights the importance of evaluating depression in the management of psoriasis patients and specifically underscores the association of severity of disease with suicidal ideations. Suicidal ideation should always be considered in the setting of psoriasis, and particularly in the setting of any erythrodermic dermatologic condition.

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