Dermatologists Have a Responsibility to Monitor a Patient’s Psyche: The SAD Evaluation

By Joseph Bikowski, MD

Stress, Anxiety, and Depression (SAD) can be common in association with dermatologic diseases and can complicate care. There’s a simple way to assess each patient’s experiences.

There are few if any dermatologists that would argue against a connection between the skin and the mind. In fact, dermatology may be described as a specialty that deals with the skin, hair, nails, mucus membranes, and psyche. Yet how many dermatologists make a conscious effort to address their patients’ psychological well-being? How many, instead, dread dealing with patients who present with challenging psychodermatoses like delusional parasitosis?

Though the nature and degree of the skin/psyche connection can be at times controversial, the evidence shows that the mind does matter in dermatology. Some cutaneous conditions are thought to be primarily mediated by psychological factors, while stress, anxiety, and depression are thought to play a contributory role in a great many other common dermatoses. Nonetheless, in a survey of dermatologists in Washington state, only 18 percent of respondents reported a clear understanding of psychodermatology, and less than half (42 percent) indicated that they felt very comfortable diagnosing and treating psychocutaneous disorders.

Incorporating an assessment of the patient’s psychological well-being into the dermatology clinical visit is, therefore, essential. It need not be a complex or time-consuming task. A straightforward approach to questioning about and quantifying the degree of a patient’s stress, anxiety, and depression can help dermatologists better understand the patient’s dermatitis, the approach to treatment, and any need for referral or further intervention.

Take-Home Tips. Though the nature and degree of the skin/psyche connection can be at times controversial, evidence shows that the mind does matter in dermatology. Incorporating an assessment of the patient’s psychological well-being into the dermatology clinical visit is essential. It need not be a complex or time-consuming task. A straightforward approach to questioning about and quantifying the degree of a patient’s stress, anxiety, and depression can help dermatologists better understand the patient’s dermatitis, the approach to treatment, and any need for referral or further intervention. A simple, direct, and typically unobtrusive method for assessing a patient’s psychological well-being is the Stress, Anxiety, and Depression (SAD) Evaluation. Simply ask each patient to rate his/her level of Stress, Anxiety, and Depression on a scale from 1, minimum to 10, maximum.
The Mind/Skin Connection

The conditions most often associated with “psychodermatology” probably are delusional parasitosis and dermatitis artefacta. In the survey of dermatologists cited above, respondents identified delusion of parasitosis, neurotic excoriations, and trichotillomania as the most common conditions for which they referred patients to psychiatrists.1

Estimates suggest that psychiatric and psychological factors play an important role in at least 30 percent of dermatologic disorders.6 These include common presentations like acne, atopic dermatitis, psoriasis, and rosacea. Stress may be the psychological item most commonly associated with skin disease, just as it is associated with a host of human ailments; perceived stress disturbs the dynamic equilibrium established between the nervous, endocrine and immune systems.7 Stress is associated with increased pruritus, which is a central symptom of many common dermatoses, including atopic dermatitis, psoriasis, seborrheic eczema, prurigo nodularis, lichen planus, chronic urticaria, and pruritus of unknown cause.7 Although it may be unclear precisely how stress, anxiety, or depression influences the pathogenesis of a given dermatitis, there is a physiologic basis for understanding the relationship between these psychological states and the skin.

The goal of this article is not to fully elucidate the intricate interactions between the mind and the skin, though it is useful to highlight some clear associations. One obvious avenue of interaction between the skin and the psyche is hormonal. The skin synthesizes and modulates hormones and inflammatory mediators. In addition to synthesizing a variety of hormones, it expresses multiple hormone receptors,8,9 and these may be associated with stress response. The sebaceous gland, as Makrantonaki, et al. elegantly state, “possesses all the enzyme machinery for the production of hormones and cytokines” and can mediate “stress response system mechanisms with induction of central and local expression of neuropeptides.”10

Human sebocytes have been demonstrated in vivo to maintain a complete corticotropin-releasing hormone (CRH) system, allowing them to induce lipid synthesis and steroidogenesis and interact with testosterone and growth hormone.11 Recent and ongoing studies have indicated that human sebocytes express functional receptors for corticotropin-releasing hormone, melanocortins, beta-endorphin, vasoactive intestinal polypeptide, neuropeptide Y and calcitonin gene-related peptide. After ligand binding, these receptors modulate the production of inflammatory cytokines, proliferation, differentiation, lipogenesis and androgen metabolism in sebocytes.12

Furthermore, the skin communicates with all other organ systems of the body. Stokes and Pillsbury famously proposed a gastrointestinal mechanism for the overlap between depression, anxiety, and skin conditions. Though not definitively proven or universally accepted, a GI/skin link has been supported by some recent evidence that gut microbiata may influence systemic inflammation, oxidative stress, glycemic control, tissue lipid content, and mood, which have potential implications in skin disease, especially acne.13 The interfaces between the skin and the cardiovascular, immunologic, and lymphatic systems are well known.

Why It Matters

The interplay between stress, anxiety, and/or depression and a given dermatitis may be variable, and a cyclic relationship may develop. For example, based on recent studies, the emotional and functional status of the patient has been credited with a “causal, and at times reciprocal” effect on acne.15

The SAD Evaluation

On a scale from 1 to 10, where 1 is minimum and 10 is maximum, please rate your level of

- Stress 1
- Anxiety 1
- Depression 1
The severity of papulopustular acne in teens has been shown to correlate with the level of patient-reported stress. This positive, statistically significant association was found despite an absence of any increase in sebum production. Patients with rosacea were shown to report a high number of significant life events in temporal proximity to the first onset of symptoms. Rosacea patients reported more significant life events and a higher level of event-associated stress compared to controls.

Patients with psoriasis also reported higher incidences of stressful life events, including family upsets (such as bereavements) and work or school demands, prior to onset or exacerbation of their dermatitis than did patients with other skin diseases. There was no relationship between the severity of stress and time to onset or exacerbations.

Eczema has been found to be independently associated with affective, stress-related, behavior, and schizophrenic disorders, and the risk of psychiatric comorbidity increases with the severity of AE. There is some evidence that patients with AD may be more prone to stress. In a study of students, those with AD were more negatively affected by tension, anxiety, and depression in anticipation of a major exam.

Researchers found a modulation of the expression of serotonergic markers in the eczematous skin and brain of the atopic-like mouse associated with chronic mild stress. There is even evidence to suggest that maternal stress during pregnancy may be associated with an increased risk of childhood eczema during the first two years of human life.

The SAD Evaluation
Certainly, specific cutaneous symptoms or patterns of presentation are associated with primary psychiatric disorders, such as dermatitis artefacta, neurotic excoriations, trichotillomania, or acne excorie.

Importantly, the severity of psychological sequelae may not correlate with disease severity. For some patients with extensive psychological or emotional impairment, psychotherapeutic interventions are indicated in addition to standard dermatologic therapies. For example, major depressive disorder, obsessive compulsive disorder, social phobia, and post-traumatic stress disorder may all respond to antidepressant therapy. Therefore, the dermatologist must be prepared to identify patients who may benefit from psychological evaluation and refer them for care.

Given that the degree of stress, anxiety, or depression a patient experiences may not correlate with the degree of disease severity, there are few assumptions to be made based on a simple visual examination of the patient. Questioning is necessary. While there exists an assortment of questionnaires and rating scales for measuring the impact of specific dermatoses or skin disease generally. These scales, largely created for clinical trials, may be useful, but they can be time-consuming and cumbersome to administer in a typical clinical encounter. They can also be intimidating for patients.

A simple, direct, and typically unobtrusive method for assessing a patient’s psychological well-being is what I term the SAD Evaluation, where SAD stands for Stress, Anxiety, and Depression. There’s no lengthy questioning and no score tabulation. Simply ask each patient to rate his/her level of Stress, Anxiety, and Depression on a scale from 1, minimum, to 10, maximum. The Evaluation is simple, and it provides a good sense of the patient’s personal assessment of his or her stress, anxiety, or depression. We know that these emotions can be variable; what one person considers significant stress may be only moderate for another.

Once the patient responds, direct the dialogue as needed to gather more relevant information. Is the stress short term (perhaps due to an upcoming work deadline or a social event) or chronic (work or homelife related)? A high level of depression related to a recent death in the family does not require referral, but a patient who has been chronically and significantly depressed since a loss five years in the past may benefit from a psychological intervention.

Dermatologists may be uncomfortable questioning patients about stress, anxiety, and depression because they are not prepared to prescribe psychotherapeutics and are not counselors. However, dermatologists are experts in care of the skin, hair, nails, mucus membranes, and psyche. Explaining the mind/skin connec-
tion to patients may encourage them to seek healthy outlets for stress, anxiety, and depression (exercise, work schedule reduction, etc.), which may have benefits for their dermatitis. Others may seek additional care on their own. A handful of patients may be in need of referral for psychological evaluation, and that is certainly a referral any dermatologist should be ready and able to provide.

It is also important to consider the patient’s psychological state when choosing a therapy. A patient who admits to significant stress because of a hectic schedule and multiple personal demands may require a very simplified regimen. Similarly, the patient with a great deal of anxiety due to financial uncertainty does not want to leave your office to face multiple co-pays.

Dermatologists who fail to address the mind/skin connection may find that their patients have suboptimal therapeutic response. If stress, anxiety, or depression is mediating a dermatitis, then it must be addressed. These factors must also be evaluated for their potential influences on patient adherence and satisfaction with the physician. The three-item SAD Evaluation is a simple, direct, and effective method for assessing Stress, Anxiety, and Depression in the dermatology patient. ■ Dermatologue

Watch Dr. Bikowski discuss the SAD Evaluation and other topics in Dermatology at DermTube.com. Scan the QR code at right with your Smartphone or log onto dermtube.com/video/the-sad-evaluation

Dr. Bikowski has no relevant disclosures.

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