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www.reachmd.com
info@reachmd.com
(866) 423-7849

Looking Beyond the Skin: Assessing the Severity of Atopic Dermatitis

Announcer:

Welcome to ReachMD. This medical industry feature titled Looking Beyond the Skin: Assessing the Severity of Atopic Dermatitis, is sponsored by AbbVie US Medical Affairs.

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Dr. Vivian Shi:

Atopic dermatitis, or AD for short, can range from mild to moderate to severe. It is important to identify the severity of a patient's AD in order to properly manage the disease.

Several measures can be used to assess disease severity and burden include extent of body surface area affected^{1,2}, lesion location, intensity and frequency of itch³, and impact on sleep⁴ and quality of life.^{3,5}

Additionally, AD has a heterogeneous longitudinal course with a relapsing-and-remitting nature. Therefore, different patients experience various disease activities over time.^{1,2,6}

Let's first consider the characteristics of the different disease courses related to AD.

Patients who experience seasonal AD may have a severe flare that lasts about one to two months, but then their skin returns to baseline for the remainder of the year.^{2,6}

Patients can also have numerous flares over the course of one year with periods of relative skin clearance in between. This episodic disease activity can include both moderate and severe flares.²

Some patients have severe disease all year round.² They don't experience skin clearance and have to deal with the burdens of living with AD every single day.

When considering AD symptoms, it is important to remember that not all of them are visible.

Itch-induced scratching of the skin causes symptom exacerbation, skin damage, and further dysfunctions of an already defective skin barrier.³ All of these symptoms can contribute to pain and discomfort,³ which directly impact well-being and sleep quality and quantity.⁴ The invisible impacts of AD also can include the emotional burden and stigma of coping with the disease, such as, anxiety, depression, and attention deficit and hyperactivity disorder.^{4,5}

Beyond that, disease burden and comorbidities may result in more visits to the hospital and increased healthcare costs.⁵ Altogether the direct and indirect consequences of living with AD can also lead to reduced productivity at work^{3,5}, increased motor vehicle accidents, workplace injury⁷, impaired relationships³, and reduced quality of life.^{3,5}

When we assess the impact of AD, we should consider all of these factors to adequately capture the visible and invisible consequences in the patients' lives.

Many scales are available to assess AD severity. They have been developed and validated for use in clinical trials, but no scale is comprehensive or has emerged as the gold standard for use in clinical practice.⁴

In general, there are several key assessment tools that can help with assessing patients' disease severity.

Body Surface Area, or BSA, is crucial in determining the extent of the body where eczematous lesions are present.⁸ Larger BSA involvement can potentially lead to increased disease severity.² It is important to note that in some cases, severe AD may be associated with a low BSA score. For example, when eczema is on the face, genitals, hands, and feet, the affected area is small but the patient experiences a substantial reduction on QoL.⁹

Eczema Area and Severity Index (EASI) is a clinical assessment tool that evaluates the percentage of skin affected based on 4 regions (head and neck; trunk, including genital area; upper limbs; lower limbs, including buttocks). Those areas are then assigned a severity score based on redness, thickening, and swelling, scratching and lichenification. In clinical trials, EASI-75 is commonly used to measure the treatment effects on a patient's AD. EASI-75 refers to a 75% reduction from baseline. EASI-90 refers to a 90% reduction from baseline.¹⁰

Validated Investigator's Global Assessment, or vIGA-AD, scale assesses lesion according to erythema, induration/papulation, oozing or crusting, and lichenification.¹⁰ vIGA-0/1 is another measure of treatment efficacy, referring to a patient achieving clear, or 0, or almost clear, or 1, skin from baseline.¹⁰

The next group of scales captures subjective patients' perception of secondary consequences on top of physicians' objective assessment, and that include the Pruritus Numerical Rating Scale and the Patient-Oriented Eczema Measure, or POEM.⁴

Worst Pruritus Numerical Rating Scale, or NRS, is a tool used to capture patients' perception on the itch intensity on a scale of 0-to-1011: 0 refers to no itch compared to 10 which represents worst imaginable itch.¹⁰

The Patient-Oriented Eczema Measure, or POEM, is a patient completed tool that assess key symptoms of atopic dermatitis such as itch severity, cracked skin, bleeding, and impact on sleep over the past week. POEM severity scale goes from 0-28.

EASI and POEM have been tested and validated for consistency, reliability, and sensitivity to change.⁴ And for this reason, they are tools that can be used to assess AD severity in the clinical setting.

Now choosing between the many options of assessment scales can be confusing, so here's a side-by-side comparison of them.

This comparison takes into consideration the different clinical signs assessed, and the categories include erythema, edema or papulation, oozing or crusts, excoriation, lichenification, dryness or scaling, disease extent, and subjective symptoms.

But both BSA and POEM assess only 1 of the 9 categories, being disease extent and the patient's subjective perception of symptoms.

EASI assesses erythema, edema or papulation, excoriation, lichenification, and disease extent.¹⁰ vIGA-AD considers erythema, edema or papulation, oozing, and lichenification in its scoring system.¹⁰

Finally, if we look at the Worst Pruritus Numerical Rating Scale, or NRS, the patient reports itch severity using a 0 to 10 rating scale.¹⁰

All of these standardized scales can be valuable tools in the assessment of AD severity. But when using them in clinical practice, you should be aware of the strengths and limitations of each choice. And the most important thing is to remember that AD can affect patients' lives in a way that goes beyond just visible symptoms.

Announcer:

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