Atopic Dermatitis: The Clinical Art of Diagnosis with Attention to Comorbidities

Announcer

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Here's your host, Dr. Jennifer Caudle

Dr. Caudle:
While the prevalence of atopic dermatitis is on the rise, the diagnosis of this chronic skin condition continues to be challenging for clinicians because there isn't an objective diagnostic test and because presentation can vary widely from one patient to the next. However, an accurate diagnosis is the critical first step in effectively managing this disease, its symptoms and its associated comorbidities. So, how can we get better at differentiating atopic dermatitis from other conditions?

Coming to you from the ReachMD studios in Fort Washington, Pennsylvania, this is CME on ReachMD. I'm your host, Dr. Jennifer Caudle, and joining me today are allergist Dr. Anna Fishbein and dermatologist Dr. Lindsay Strowd.

So, Drs. Fishbein and Strowd, thank you so much for being here today.

Dr. Strowd:
Thank you for having us.

Dr. Fishbein:
Thank you.

Dr. Caudle:
Absolutely. So I’m really excited to talk about this topic, and really lots to jump into, so why don’t we actually start with a case really to set things up and have a discussion. So we’ll start with John. John is a 47-year-old man, and he has a pruritic or erythematous rash located primarily on his arms, his hands, his neck, his legs, and his back as well. He says that the itching is constant, and he says it wakes him up almost every single night. He also reports having similar symptoms periodically throughout his life, even starting in childhood, but he thinks the symptoms have gotten worse in recent months. And finally, his father and his sister both have asthma, but there is no other known relevant family history.

So I’d like to start with you, Dr. Strowd, and just get your take on this. What aspects of this case would lead you to suspect atopic dermatitis?

Dr. Strowd:
Yeah, that’s a really great question. I think, first and foremost, the fact that it sounds like this has been a waxing and waning type disease process that really started in childhood. So, when we think of atopic dermatitis, for most of our patients, they are going to begin to have disease manifestations early in their life, and it tends to have this kind of rollercoaster-type course to it throughout adolescence and into adulthood. Certainly, factors like the fact that the rash is very itchy, the distribution of it being on the hands and the arms we see a lot in our adult patients. And then also his family history is important here, so the fact that he has family members with asthma, that certainly can be seen in patients and in families that have kind of this atopic diathesis.

Dr. Caudle:
Excellent. And, Dr. Fishbein, anything to add to that?

Dr. Fishbein:
Yeah, I completely agree with Dr. Strowd. And I’d like to add too that towards adolescents and adulthood, we tend to see eczema more on the hands, and also, there tends to be more chronicity in these thick, lichenified plaques.

Dr. Caudle:
So, Dr. Fishbein, we’re going to start back with you for the next part of the question. Can you tell us how the presentation of atopic dermatitis is different in children?

Dr. Fishbein:
So, eczema in children tends to be more on the back of the ears, on the face. Classically, we talk about the extensor surfaces, so on the arms, the trunk, the neck. And as children get older, even after 6 months to a year of life, it tends to be on the classic creases, so in the antecubital fossa, in the popliteal fossa, generally in the creases.

Dr. Caudle:
Okay. So, Dr. Strowd, let’s move on and let’s talk about diagnosis and diagnostic tools. So, what diagnostic tools do you use, and what are the merits and limitations of each of those?

Dr. Strowd:
Atopic dermatitis is a little bit challenging because there is not a clear laboratory test that you can use to make the diagnosis. Even skin biopsy is often times pretty low yield and doesn’t help us in the diagnosis, so it’s really more of a clinical diagnosis, and therefore, we have some clinically-based diagnostic criteria that we can use. There are a couple different ones that are out there if you go looking on the Internet. Our national academy, the American Academy of Dermatology, has published some guidelines that are a little bit more concise than some of the prior guidelines that were more used in clinical studies and in that sort of environment, so we do have some guidelines that have major and minor criteria, and they are really focused on the hallmarks of atopic dermatitis being the kind of classic clinical appearance that we’ve seen in some of our clinical images so far—the presence of itch and the presence of other atopic diseases—like we mentioned—asthma and allergic rhinitis. And there are some minor diagnostic criteria as well, but those are some of the hallmarks for making the diagnosis.

Dr. Caudle:
So now I'd like to ask each of you about how you would rule out other conditions that cause symptoms that resemble atopic dermatitis, very important in the clinical setting for us to do. So, what are the key differential diagnoses to exclude, particularly among infants and young children? So we'll start with you, Dr. Fishbein.

Dr. Fishbein:
Yes. Common conditions we see to consider are tinea corporis, which is ringworm, or tinea capitis on the head can look like eczema, can be very itchy. It can particularly look like discoid eczema, which has that similar ring-like appearance. And then, also, cradle cap is another condition that we see. It can also be seen as a comorbidity in eczema, but it's not eczema itself and is treated differently. Scabies is another condition that we see that can resemble eczema. It tends to be itchier and more painful, and the timing is a little bit different than the eczema, which is more chronic. And then there are the must-not-miss conditions that I always like people to think about. So, histiocytosis is one of those, micro and macronutrient deficiencies, and then immune deficiencies. Primary immune deficiencies tend to present with other conditions, so you want to ask about diarrhea, failure to thrive. Sometimes it will be more erythrodermic in the early ages. And it tends to be rashes that start right at birth, whereas eczema presents about a month, at least a month after birth. So I always tell clinicians, "If it doesn't look like the regular eczema you see, that's when you should refer, and maybe ask a little bit more on history."

Dr. Caudle:
Dr. Strowd, let's talk a little bit about adults. What are some of the important conditions to rule out in adults?

Dr. Strowd:
Well, some of those conditions can overlap, such as scabies. Certainly, we can see that also in our adult population. There are some other things that we consider in adults coming in that we're thinking about atopic dermatitis. One of the main ones is contact dermatitis, so I think it's very helpful to take a pretty thorough contact exposure history of all patients, especially adults that are presenting with a new onset of suspected atopic dermatitis. Psoriasis often times looks different than atopic dermatitis, but sometimes they can look very similar, so that is another kind of common inflammatory skin disease we should keep in mind. I think one of the do-not-miss ones for adult populations is cutaneous T-cell lymphoma or mycosis fungoides. That one often times is initially mistaken, sometimes for years, for atopic dermatitis, so another one to keep in mind.

So, I think going back to our case with John that you presented at the beginning of the talk, it certainly sounds like atopic dermatitis. If he were to present to my office, I would want to take a pretty thorough history to rule out contact dermatitis and may even recommend that he do patch testing to make sure that he doesn't have maybe concomitant atopic dermatitis and a contact dermatitis component as well.

Dr. Caudle:
Excellent. That makes a lot of sense. So, as we're moving through looking at our patient with our case and kind of coming up with differential diagnoses.

So, Dr. Fishbein, beyond the cutaneous manifestations of atopic dermatitis, how does it otherwise affect children's lives?

Dr. Fishbein:
That's a great question. So I often want to counsel parents, "It doesn't mean that they're going to have it the rest of their life. It doesn't mean it's going to be very severe." It's also important to understand what this might lead to, so we'll talk a little bit more about other allergic diseases that are common in kids with eczema, and I like parents to have a little bit of a heads-up that that might be something they should expect. So it can have a deep impact on their life. Psychologic functioning, depression is common in kids with atopic dermatitis, and, in fact, there are some studies suggesting suicide is more common in kids with eczema. Additionally, sleep, which is the focus of my research, is a huge problem. Sleep is completely disturbed. You can imagine being that itchy, being up all night moving. Many kids also sleep with their parents, which can disrupt their parents' sleep, and, unfortunately, there are not great treatments for that, so it's an ongoing area that needs to be addressed and also something that clinicians should address.
Dr. Caudle: 
So, thank you so much for sharing that, very helpful for the younger population. So, Dr. Strowd, are similar comorbidities seen in adults?

Dr. Strowd: 
Often-times, yes. So, things like asthma and allergic rhinitis we can certainly see in our adult population as well. Outside of conditions that we classically associate with atopic dermatitis, it’s worthwhile to have a discussion with our patients about how this disease can impact their lives. It often times impacts quality of life for patients, and we can see conditions like mental health issues, depression, anxiety, problems with social relationships, problems with missing work. It can touch a lot of parts of somebody's life outside of the disease process itself, and I think that’s true probably for our pediatric patients in addition to our adult patients.

Dr. Caudle: 
Excellent, and I think it’s really important that we, as clinicians, pay attention to mind, body, spirit, that we’re looking at the whole person, not just their skin manifestations or otherwise, so those are really excellent points.

Before we close, I’d like to learn a little bit more about other allergic conditions that may develop in patients with atopic dermatitis. So, Dr. Fishbein, you alluded to those a moment ago. Can you tell us a little bit more?

Dr. Fishbein: 
Absolutely. So, in addition to the chronicity of eczema, there are other chronic conditions that people are at risk for. So it usually starts first with the eczema, and then in early childhood, food allergy tends to be the next allergic comorbidity that we see. A good at least 30% of eczema, even mild eczema, develops food allergies. And even more than that actually have positive testing. But beyond that, patients then generally develop asthma and allergic rhinitis as the next things, and that can happen several years later.

Dr. Caudle: 
And, Dr. Strowd, do all patients with atopic dermatitis develop these other conditions?

Dr. Strowd: 
Not all of them. So I would say… I would think probably the majority of patients have at least one of those other atopic conditions, especially if they have a family history—going back to our case with John that we had talked about. I find in my adult patient population, many times if they maintain their atopic dermatitis into adulthood, they often times lose some of the asthma, but they tend to retain some of the allergic rhinitis, so definitely seasonal allergies become kind of a chronic issue for those adult patients.

Dr. Caudle: 
It makes a lot of sense. Just a quick follow-up to all of that, do we know if preventing or treating atopic dermatitis can prevent or limit the onset of the other conditions? What do we know about that, Dr. Fishbein?

Dr. Fishbein: 
Yeah, that’s a fantastic question. So, sadly, in trials where they have actually been able to prevent eczema using moisturizers, they have not been able to prevent the development of allergic rhinitis or food allergy. That being said, there is a growing belief in our field that if you do aggressively treat eczema, that you might indeed prevent food allergy or some of these other comorbidities, because we know you become food allergic through your skin, and so the disrupted skin barrier is really a setup for that. So I tell my patients as like the one-liner to convince them or convince their parents to use their treatments is that this could prevent food allergy.

Dr. Caudle: 
Interesting. That’s really compelling, absolutely.

Dr. Fishbein: 
It is, yes.

Dr. Caudle:
And, Dr. Strowd, what do you say about adults?

Dr. Strowd:
I agree with everything that Dr. Fishbein said. I think it really goes back to treatment. And I think if you can minimize that kind of chronic inflammation that is going on in patients with atopic dermatitis, it's only going to help some of their other inflammatory conditions. It just makes sense to me.

Dr. Caudle:
Yeah, almost looking at the whole picture and not just the one condition, and it seems like that's probably helpful for our patients too to think of it that way as well.

Dr. Fishbein:
Absolutely. I mean, viral illnesses can flare eczema as much as they can flare asthma, and parents will often tell you that—I'm sure adults too—so it's important to treat the whole body.

Dr. Caudle:
Absolutely, absolutely. Well, this has been a great discussion. I really look forward to learning more in the future. But I'd really like to thank you, Dr. Fishbein and Dr. Strowd, for joining me to discuss the diagnosis and treatment of atopic dermatitis. It was really great having you both on the program. Thank you.

Dr. Strowd:
Thank you.

Dr. Fishbein:
Thank you.

Announcer:
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