

Transcript Details

This is a transcript of an educational program. Details about the program and additional media formats for the program are accessible by visiting: <https://reachmd.com/programs/dermconsult/inflammatory-drivers-itch-atopic-dermatitis/60648/>

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The Inflammatory Drivers of Itch in Atopic Dermatitis

Announcer:

This is *DermConsult* on ReachMD. On this episode, Dr. Brian Kim will explain the pathogenesis of itch in atopic dermatitis. Dr. Kim is Vice President and Chief Biotechnology Officer at Northwell Health and the Feinstein Institutes for Medical Research. Let's hear from him now.

Dr. Kim:

Classically, people thought of atopic dermatitis as just a rash, and I think now people recognize that the central symptom of atopic dermatitis is the itch. Really that came about because the therapies that were developed in the last 10 years have shown to be very effective at alleviating itch. And then downstream of that, what people start to recognize is that when you actually improve itch, patients seek out that treatment. This was not a phenomenon that was actually driven by physicians and providers. Changes come in medicine not because of physicians, actually; they come because patients demand it. That's not specific to itch, but it's very apparent in itch. And I think that once people could improve their itch, it started to really shed a lot of light on atopic dermatitis.

The pathogenesis of itch is not the same in every condition. But in atopic dermatitis, it truly is what we call an inflammatory itch. So what I mean by that is if you wipe out all of inflammation, you get rid of the itch in atopic dermatitis 100 percent of the time. The problem with that proposition is that eliminating all of inflammation comes with a huge cost, and the inflammation in atopic dermatitis is fairly broad still. So the idea is that you want to knock off very specific axes or nodes of inflammation that are particularly operative in driving itch in atopic dermatitis. That's what you want. You want a much more laser-guided treatment strategy for itch.

So it really is an inflammatory itch, and what we mean by that is that once you have inflammation in the skin, you then have a number of inflammatory factors or what we call cytokines, like IL-4, IL-13, and IL-31 in particular, that then trigger the itch on the sensory nervous system, so in terms of how you sense inflammation. That's really the sequence. So it's inflammatory mediators that then lead to itch in the nervous system that's ultimately perceived by the brain. That's the pattern and sequence in atopic dermatitis.

If you wipe out all the inflammation that's upstream, you will alleviate itch. But conceivably, could you also block factors that are specific to the nervous system to alleviate itch as well? Yes. And we think, in part, that's why blocking IL-31 works. It's not necessarily an anti-inflammatory strategy, but it's actually really knocking off a very particular axis.

Announcer:

That was Dr. Brian Kim sharing insights on the pathogenesis of itch in atopic dermatitis. To access this and other episodes in this series, visit *DermConsult* on ReachMD.com, where you can Be Part of the Knowledge. Thanks for listening!