Dr. Mariam Hanna

Hello, I'm Dr. Mariam Hanna, and this is The Allergist, a show that separates myth from medicine, deciphering allergies and understanding the immune system. The quest for the perfect cream might just rival the quest for the holy grail. Eczema care is a multi-million dollar world nowadays, not just pharmaceuticals, but creams, cleansers, emollients, and more than just a few unvalidated theories.

Is there one magical moisturizer? Maybe it's the premium brand from abroad, or maybe it's the jar that's been whipped up in someone's kitchen. Then there's the debate over bathing regimens, oils and cleansers, plus the inevitable conversation about topical treatments, often seen as a sign of flare-ups or loss of control, and always leading to that talk about steroids.

Perhaps something new? Use it sparingly, anyone? This is a disease that's time-consuming to manage, expensive to treat, and all too often worn publicly, inviting a world of unsolicited advice.

I don't need to tell you eczema stories, you actually already have dozens. Atopic dermatitis is a chronic, complex, and in many ways misunderstood disease, even today. Guiding patients through it takes diligence, patience, and finesse.

Today, we're going to unpack the science, the strategies, and yes, always the myths, around eczema and skincare. It's my absolute pleasure to introduce today's guest. Dr. Melinda Gooderham is an assistant professor at Queen's University and a consultant physician at the Peterborough Regional Health Centre. As the principal investigator for more than 250 clinical trials, Dr. Gooderham specializes in inflammatory skin diseases, and we're going to have some inflammatory conversations just today. She has authored over 250 peer-reviewed articles, including publications in the New England Journal of Medicine, the Lancet, and the British Journal of Dermatology. She's an international speaker and enjoys lecturing to global audiences on emerging therapies for skin diseases.

She's also done more than just a few podcasts on skin issues as well, which is why it’s my absolute pleasure she said yes to joining us today. Dr. Goodurum, thank you again for coming, and welcome to the podcast!

Dr. Melinda Gooderham

Thank you very much for the invitation. I'm so delighted to be here.

Dr. Mariam Hanna

Okay, so we're not going to define eczema. We're going to just bypass that. We're all on the same page here, but we want to talk more about emollients and topicals in today's discussion, so I'm going to hit you with the hardest question of them all, and I get this right off the bat.

What's your go-to emollient strategy when it comes to atopic dermatitis?

Dr. Melinda Gooderham

My strategy is really to get patients to understand the importance of why barrier repair is so necessary for controlling this condition. Things like reducing transepidermal water loss, you want to keep the hydration in the skin, you want to maintain your barrier. I talk a lot about the dilapidated brick wall analogy of atopic dermatitis and how allergens and microbes can penetrate, causing flares of the disease.

So really, it's the cornerstone of therapy is to maintain that barrier, and we do that with emollients. So there are moisturizers. Moisturizers are a mixture of humectants, emollients, and occlusives.

So just a brief summary, humectants are like the water magnet that keeps the water in the skin. That's something like hyaluronic acid or urea. Then we have emollients, which are things like ceramides, and these kind of smooth and soften the skin.

They fill in the gaps in atopic dermatitis. You have low ceramides, so we're replacing the ceramides. And then you have occlusives, things like Vaseline or petrolatum, dimethicone, and that sort of seals in everything.

So most moisturizers that are available are a mixture of all of these things. So it's important to understand the differences and what different products bring.

Maintaining that barrier is the key.

Dr. Mariam Hanna

Maintaining the barrier, and it's a brick-and-mortar analogy, which we've heard before as well for eczema, and so we're all familiar with this. Now, the natural world has crept really hard into this. So the first thing we need to cover is, are natural oils able to fill any of these cream, kind of, are they a humectant?

Are they an emollient? Do we have any natural products that fill this gap?

Dr. Melinda Gooderham

First of all, I agree with you that a lot of people want to stay natural. They want to get their products from the grocery store and not necessarily the pharmacy. But we have learned over time there are some of these natural oils that are not good.

So for example, olive oil can disrupt the skin barrier. Because of the oleic acid that's in it, it can disrupt the lipid barrier of the skin. It can allow penetration of allergens and actually make things worse over time.

And we've learned that through different studies. So olive oil, definitely a no.

Dr. Mariam Hanna

Olive oil, definitely a no. Sorry, I like to repeat this. It's in my brain.

Okay, yes.

Dr. Melinda Gooderham

The coconut oil and sunflower seed oil can provide some benefit to the patient. So you have to make sure that this is virgin coconut oil that's pure, not to be confused with some coconut derivatives like cocamidopropyl betaine, which is a coconut derivative that is in products that can cause an allergic contact dermatitis. So a patient can have a cocamidopropyl betaine allergy and still be able to use pure coconut oil, just so you know that.

Some people are reading this online. Shea butter also can be beneficial. There are studies showing that it's beneficial and it has a few properties to it. It's an emollient and an occlusive.

Dr. Mariam Hanna

And it's a great point to say that you can have what looks like an allergic reaction to the derivative of coconut and still be able to tolerate coconut oil and be able to incorporate it actually in your diet. But how do you pick the right vehicle? Like you have kind of told us that when we moisturize the skin, there are different categories.

So which of those categories does your skin need? Is it always all of them? Is it sometimes one more than the other?

Does it depend on where you live or your skin type?

Dr. Melinda Gooderham

I mean, it's always good to be balanced with all of those things. They each bring their own property, right? So it depends on the skin type, and you say the environment.

Is it dry outside? And this all ties into the bathing, right? So after you bathe and your skin is hydrated, you want to seal that in.

You want to reduce the trans-epidermal water loss. So in that point, you want an occlusive to keep it all in, but you want the humectant to hold the water in there. The emollients are filling in the gaps.

So they really do all address different issues. So I guess depending on the patient's main issue, is their skin very dry? Do they live in a dry environment?

Is their skin getting wet a lot? Are they a swimmer? So they're hopping in and out of the pool, and they have more evaporation.

Those sorts of factors you have to consider in each patient case.

Dr. Mariam Hanna

That's fantastic, because for a while, I was like, Vaseline for everybody, for everything. It is the thing to do, just petroleum jelly all the time. So there is some nuance to that, which is not surprising, I would say also.

Dr. Melinda Gooderham

But one other thing that I didn't mention too is accessibility and cost, right? So there's a lot of fancy products out there that may bring all these, but this is something that's an ongoing chronic issue, right? You need to keep it going.

So you also have to make sure that you're recommending a product that is cost-effective, that's accessible to the patient.

Dr. Mariam Hanna

Or else it won't be used. Right. So great point.

Does the same hold true for choosing a vehicle for a medicated product as well? So some of the things that we have are in creams versus ointments versus foams, oils, as you're aware.

Dr. Melinda Gooderham

Yeah, so the teaching has always been ointments are more potent than the same molecule in a cream versus a lotion. So lotions are the least potent, ointments are the most. However, having said that, in the past decade or two, there have been advanced vehicles and different systems that help medication penetrate better.

So we don't have the same feelings that an ointment is better than a lotion anymore because there are some optimized lotions that actually penetrate better than an ointment because they're designed that way. So from this point on, we don't have the same feeling, the same recommendation because a foam versus a spray versus a lotion may have the same potency as an ointment.

Dr. Mariam Hanna

And that's actually very important to say because that feeling still permeates in healthcare quite a bit, especially as we start talking about newer products. Okay, million-dollar question. What is the best evidence for bathing frequency, water temperature?

So let's start with bathing frequency.

Dr. Melinda Gooderham

So for atopic patients, some of the problem is surface colonization. You want to clean the skin, you want to remove debris and crusting and colonized skin allergens. So short, frequent, daily bathing.

So when patients come in and say, oh, my doctor told me I should only bathe every three days, I cringe at that. No, you need to actually clean the skin because part of the issue of atopic dermatitis is penetration through that disrupted barrier. So if there are things on the surface that can penetrate, you want to wash them away.

But you also don't want to dry out the skin too much. So five to 10 minutes in a bath that's not too hot, because that will also dry out, disrupt the skin barrier as well. I don't want to say lukewarm.

You want it to be comfortable, but no more than that 10-minute mark to cleanse the skin.

Dr. Mariam Hanna

Perfect. Okay, so that's simple. Five, 10 minutes, comfortable temperature, daily, frequent is better.

Okay, so then what goes in the water situation? Is there bleach baths, oatmeal baths, like a cleanser oil?

Dr. Melinda Gooderham

I used to recommend all these additives, put this in your water. Because it's such a short contact, five to 10 minutes, I actually don't anymore. And I'll tell you why.

I really try to simplify the life of these patients who have very complicated lives because they're not only doing their own thing, whether it's school or work, but they're also taking care of their skin, which can be a lot. Whether it's your own skin or your child's skin, the routines that some of these patients have to deal with are pretty complex. So I really try to keep things as simple as I can and as inexpensive as I can.

So I don't recommend all these additions. Now, talking about bleach baths, this is the controversial topic where we used to always recommend bleach baths. And just for the listener, a bleach bath would be, it sounds horrible, but it's really like the same concentration as your local swimming pool.

Half a cup of bleach in a full bathtub for an adult. For pediatric, for children, you do half of that. So bathtub half full, quarter cup of bleach.

Stir it up, similar to a swimming pool. And we used to think that it reduced the surface bacteria, but actually more recent research has shown that actually doesn't do that. It does promote reduction of itching and barrier repair somehow that we still don't really understand, but it's not in everyone.

So it's not a common thing that we recommend anymore, but it is an option that is inexpensive. And for patients who are interested in doing something like that, I will recommend it, but it's not in my routine recommendation for patients.

Dr. Mariam Hanna

And it's not also routinely done every day. Is that right?

Dr. Melinda Gooderham

No. A couple times a week.

Dr. Mariam Hanna

A couple times a week. Okay. And then what should happen kind of right after the shower or bath?

So you kind of touched on it. It's almost like a part-time job taking care of somebody's skin at this point. So you come out of the bath.

Is it the moisturizer that you're putting on or is it the medication that you're putting on or is it wait 15 minutes in between both or do it all together? How do you do that?

Dr. Melinda Gooderham

And this is the funny thing about the art and science of medicine, right? Every doctor you see is going to tell you to do something different, which is also very confusing for patients. I think the party line is you get out, you pat dry, don't scrub dry.

You want to leave some moisture on the skin. You pat dry the big droplets, then you would put your moisturizer on because you're putting that everywhere. Then after that, you would apply your medicated product in the involved areas.

There is a question, should you put the medication on first and then seal it in with the moisturizer? It probably doesn't really matter. I don't know that the studies have been done in atopic dermatitis.

In acne, for example, you can put your moisturizer on first and then your acne medication and it works exactly the same as if you put your acne medication on and then the moisturizer on top. So I think the same principles can apply. One of the issues about if you are putting a steroid on the skin first and then you put your moisturizer and spread it around, you may be spreading the steroid around onto a larger body surface area, which is why I tend to recommend moisturizer first and then medicated on top of that.

Dr. Mariam Hanna

Okay, okay. There is a table in my mind when it comes to topical steroid potency, going from mild to moderate to strong. And again, vehicles are discussed in that table and the different steroid classes that are in there.

How do you choose topical steroid potency?

Dr. Melinda Gooderham

Right, right, right. And it is confusing. There's so many products.

So when I have trainees coming through, I always say, just pick one or two in each category that you know that you're going to use. And I personally only have a couple in each category that I use myself, even though there's all of these others. What makes it more confusing is depending on the country, there's different classifications.

Like in the U.S., there's the seven category strengths. In the U.K., it's different. I think they have maybe three or four categories.

So it really is a confusing area. So it's important to just, like you say, mild, mild potency, mid potency, super potency, and then are potent and then super potent. For face folds, you're going to go like when you're looking at the body areas treating, being treated, face and folds would be mild.

For the body, I would then use something more medium in atopic dermatitis. I rarely use potent or super potent in my atopic dermatitis patients just because they can flare and have more widespread disease. But sometimes they do have these really thick, like, lichenified areas that I don't think the medium potency steroids are penetrating.

And I will prescribe smaller amounts of a super potent steroid just for short term for those areas. But that's also the problem with steroids is then now we've now complicated the regimen again. Use this one on your face, but don't use this.

This one's for your wrists, but don't use it on your face. And with their, like I said, their complicated lives, we're making it more complicated, which is why we do try to move away from steroids when we can to the new non-steroidals that are available.

Dr. Mariam Hanna

Actually, I now say there's two pathways. We're going to go steroid or steroid-free and 99% will say let's talk steroid-free first.

Dr. Melinda Gooderham

Absolutely, absolutely. So I can, I usually recommend calcineurin inhibitors first line for face and folds. So when you, I would prefer not to use a steroid in those areas if I don't have to.

And we have, even on public coverage, we have access to calcineurin inhibitors, macrolimus, tacrolimus. So that would be my go-to for face and folds. May not be for a flare state, may not be potent enough to deal with a body flare.

But can be if the patient chooses that they don't want to use a steroid. We would use those twice a day on the body as well. Typically for a flare, we may use our steroids to get control in a couple of weeks, two weeks, four weeks max to get things under control and then transition them to a calcineurin inhibitor for ongoing maintenance, whether that's daily use or proactive use using two to three times a week to maintain the area.

Then when you get back into a flare state for whatever reason, you either go back to twice a day of the calcineurin inhibitor or you would do that short course of steroid again. So it's integrating the calcineurin inhibitor in with the steroid, but for sensitive areas like the face and the folds, I would choose just a calcineurin inhibitor.

Dr. Mariam Hanna

Okay. And several years ago, we had a new class that was steroid-free that came to market, so the PD-4s. So phosphodiesterase inhibitors were going to be like huge and game-changers, and then we were left in a lull with this.

There is a new phosphodiesterase inhibitor, and I guess I'm wondering about your incorporation of that versus a calcineurin inhibitor at this stage in the game in atopic dermatitis. Right.

Dr. Melinda Gooderham

So, yeah, the first one, Crisabarol, yeah, it was great because what I didn't mention about calcineurin inhibitors is one of the main limiting factors is the burning and stinging when you put it on. You have to counsel the patients. This will last for a couple of days.

It will eventually go away, but you have to get over that initial burning and stinging phase. But a lot of patients, when they get home and put it on and it starts to burn or sting, a lot of times they have to wash it off. They think it's making their skin worse, or maybe they're allergic to it, so you really have to warn patients when you're prescribing a calcineurin inhibitor, this may happen.

And it's like in one in four patients, but warn everyone to get through that phase. So then we had crisabarol come. Great, we're going to have a non-steroidal that doesn't burn and sting.

Unfortunately, it caused burning and stinging to the same degree or even more in some reports. So again, patients had the same issues where they took home this new product, which is not actually covered on public insurance, so I don't get to use it as often, and we're not using it. So it didn't really, as you say, didn't take hold.

It didn't become a popular treatment. So now the newer PDE-4 inhibitor, roflumilast, actually does not have the burning and stinging that the other products have, and it's a once-a-day application, and you can use the same product over the whole body. Getting to that uncomplicating their life, that's why I like these new products, that they can use one product everywhere with the new roflumilast, it's once a day.

Dr. Mariam Hanna

Okay, perfect. And then we finally have another product, and this is talking about like eczema for a really long time did not have this many new products for us to learn about, and here you go, it's exploded. Topical JAKs, and it's not an oral J, it's a topical JAK inhibitor that has also come to the Canadian market at this point, creating more to my personal confusion, but also to just like awareness about JAK inhibitors versus a topical JAK.

Where does this fit into the atopic dermatitis story?

Dr. Melinda Gooderham

So JAK inhibitors are great for controlling itch and inflammation. That's the one wonderful thing about JAK, because they target inflammatory cells. Atopic dermatitis is so heterogeneous, there's a number of different cytokines that are involved, and JAK can block a number of those different cytokines, so they're great for controlling inflammation, whether it's topical or oral.

They also, there's JAK signaling in itch transmission, so you get this immediate itch relief with JAK, again, whether it's topical or whether it's oral, they get this immediate itch relief, which we know itch is one of the most, is the most bothersome symptom with atopic dermatitis. So they're really great in that way, they're very effective. Unfortunately, the safety black box warning of the oral agents got put onto the topical, even though studies show the absorption is minimal, it's insignificant.

So a lot of times patients, they get the product home, they read the insert, oh this can cause infections, cardiac issues, malignancy, when that is not the case with the topical. So that's unfortunate in that sense that it has the same label for topical and oral JAK, but they really are quite efficacious.

Dr. Mariam Hanna

Okay, so we're making headway and we're going to cover one last basic step. Use sparingly. You will have no idea how many times I ask to see the bottle of whatever they've been using and it looks like untouched because they were counseled to use it sparingly, or it's six years old and then I'm like, I wonder what it's growing in there.

So can we talk a little bit about like amount of topical medication when we're using for our region? Like how much are you expecting somebody to use for a region with steroid or now with these new ones? And as you said, some of them have a price tag.

So I'm going to think, how sparingly will people be with use?

Dr. Melinda Gooderham

Yeah, I mean, it's probably you need to use more than you're using and that's actually one of the issues when people say this cream didn't work and it is because they're not using enough. So there are different charts that you can get with how many fingertip units. So a fingertip unit is from your finger crease to the end of your finger, right?

So that's one fingertip unit. And then each body part, you can pull up these charts and it will tell you how many fingertip units you actually need. So you'd have to look at the patient, see what's involved to figure out what they would need to do.

Sometimes you can keep like a tube of moisturizer in your office and show the patient just with a moisturizer, this is what a fingertip unit is, this is the area that it should cover. If you're going to be prescribing a lot of that for your patients, you can do that. I also find when patients come to see me and they pull out their prescription, well this is what my doctor gave with a little 30 gram, little tiny tub.

I'm like, that should be like one or two applications and you were given that for a month. So it's the amount that's prescribed will also, if you're a patient and you get this tiny little tub, of course you're going to think that you just use a tiny little bit of it. So giving proper amount, 200 grams, if you're talking about full body eczema and you're giving a topical steroid, 200 to 454 gram tubs may be required.

But having said that, in the non-steroidals, they don't come in that size, right? You're going to get like a 60 gram tube. So you have to make sure patients are getting enough tubes for the amount of body surface area that they need.

But I tend to make sure the patient has enough. I always give enough refills, at least five, to make sure that the patients are able to refill it and not run out of product because that's when the treatment fails.

Dr. Mariam Hanna

Fair enough. What would be your flag or your cue to move on to a systemic therapy? So I appreciate the discussion around moisturizers and the discussion around topical treatments and making it simple.

But at what point do you say, no, we've passed the threshold where we expect this stuff to work?

Dr. Melinda Gooderham

I tend to bring up systemic therapy on my first visit, even if they don't need it, that it is an option for the future. So a couple of things. Number one, if topical therapy is not working, which is usually when they come to see me because if they're given a topical therapy by their primary care practitioner is working, they never get referred to dermatology.

So by the time I see them, topical therapy usually is not controlling their disease. So when topical therapy is not working, it's time to move on, regardless of the percentage of the body surface area. Because when you see them, atopic dermatitis varies day to day.

You may be seeing them on a good day. So that's the first thing. When topical therapy is not working, it is time to move on or at least have the discussion.

Two, remember that atopic dermatitis is not just about what you see on the skin. It's about what the patient's experiencing. So we can't look at someone and tell how itchy they are.

You have to ask them. So that's another good thing to incorporate into your visits is I always ask them, how is your itch? I use an NRS where zero is no itch and 10 is the worst itch.

What's your itch at over the last three days? So you can just ask that every visit to see how itchy they are. Because we know when they have itch, they don't sleep.

It affects their work or school performance. It affects relationships. It impacts every aspect of their life and their daily activities.

So you have to examine the patient, see how their skin looks, but you also have to ask the patient how their skin feels. So that's the other thing. If they have high itch, if their quality of life is being impacted in any way, if there's things that they're not doing, that's another question you can ask.

Does your eczema keep you from doing anything? You can assess if there's any impact. Then you need to move on if the topical isn't working.

Now sometimes the first time you meet them, they say the topicals aren't working, but that's because they're not using them properly, because it's too sparing, because they weren't given enough. So I have had patients where I had the systemic discussion. We had a whole plan on moving on to systemic therapy.

They went home and then actually used the topicals properly that once they were educated on how to use them, and then they didn't need a systemic, at least not for now. So there is that possibility when topicals not working that it's just because they don't know how properly to use it.

Dr. Mariam Hanna

Perfect. All right, time to wrap up and ask today's dermatologist, Dr. Melinda Gooderham, for her top three key messages to impart to patients and physicians on today's topic, eczema, skincare, and all the good stuff. Dr. Gooderham, over to you.

Dr. Melinda Gooderham

So number one is just remember that consistent barrier-focused care is important with moisturizers, with that daily short bath to wash away any allergens, microbes, whatever might be causing things to flare. So that's number one. Number two, match the treatment with the severity.

Make sure the patient has enough product that they're educated on how to use it, what a fingertip unit is, but that they have enough supply to actually follow those instructions. And number three, please ask about itch. Don't just judge how they're doing based on what their skin looks like.

Ask them about itch and how they're sleeping because a patient that you may think needs only topical therapy may need to move on to systemic therapy. And because we have new, safe, effective systemic therapies, keep that in mind for all your patients.

Dr. Mariam Hanna

Perfect. Thank you, Dr. Gooderham, for joining us on today's episode of The Allergist.

Dr. Melinda Gooderham

Thank you so much for having me.

Dr. Mariam Hanna

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Sincerely, The Allergist.