

From topical to biologics: Kuwait now has access to more reliable and innovative treatments to eczema

A common kind of eczema, atopic dermatitis (AD), is a common inflammatory skin disease. AD causes an itchy rash and dry skin and has a substantial impact on quality of life. In Europe and the US, recent data suggests that the prevalence of AD among children is approximately 20 percent and, among adults, it ranges between 7 percent and 14 percent, with substantial variation between countries. In Kuwait, 22.2 percent of adolescents suffer from eczema. AD leads to substantial social and financial costs and accounts for the largest global burden of disability owing to skin diseases.

The cause of atopic dermatitis is multifactorial, with genetics, environment and impaired immune response being the most predominant factors. The role of genetics has been demonstrated in studies of families and twins. People with eczema, especially AD, have a transmutation of the gene responsible for creating filaggrin. Filaggrin is a protein that supports our bodies preserve a healthy, protective barrier on the very top layer of the skin. Without enough filaggrin to make a strong skin barrier, moisture can escape and bacteria, viruses and more can enter. This is why many people suffering from AD tend to have extremely dry and infection-prone skin.

Numerous environmental factors have been associated with atopic dermatitis: Exposure to allergens, irritants, bacteria and hard water; socioeconomic status; and large family size. There is evidence that atopic dermatitis is a risk factor for childhood asthma, affecting asthma occurrence, severity and persistence.

Atopic dermatitis can have a significant impact on morbidity and quality of life. Children may be affected by itching and associated sleep disturbance, the social stigma of a visible skin condition, and the need for frequent application of topical medications and physician visits. It has been estimated that children with atopic dermatitis lose an average of 1.9 hours of sleep per night, and their parents lose an average of 2.1 hours per night. Other significant problems reported in children with atopic dermatitis include irritability, daytime tiredness, dependence, fearfulness and mood changes.

The pressing issues surrounding AD

A study published by American College of Allergy, Asthma and Immunology has observed that an estimated 10 to 20 percent of children have eczema, with about 60 percent of those with eczema experiencing symptoms by age 1, and another 30 percent experiencing symptoms by age 5. While this disease is part of a syn-



Dr. Atial Al-Lafi, Head of As'ad Al-Hamad Dermatology Center and Chairman of Derma Council in Kuwait.

drome known as atopy, and it is genetically determined, the precise gene(s) responsible have not yet been identified. Eczema is triggered by a combination of a number of factors that may include food, weather, stress, airborne allergens and hormonal changes among others.

It has also been seen that other diseases that form part of atopy include extrinsic allergic asthma, rhinitis, allergic conjunctivitis and certain forms of allergic food reactions, with individual patients likely to have any combination of these clinical entities. A number of researches have established that for some patients suffering from eczema, a number of food allergies may or can trigger it. Often, there are common misconceptions about eczema that can get in the way of effective treatment. People with eczema tend not to see eczema as a long-term condition.

Dr. Atial Al-Lafi, Head of As'ad Al-Hamad Dermatology Center and Chairman of Derma Council in Kuwait, said: "This is particularly true of adolescents and parents of children with eczema, which can lead to disappointment and frustration if it does not disappear when they get older. Many a time, they may not see the need for long-term treatment, and often seek a cause or cure for the condition. Many eczema sufferers also feel that their condition is underestimated by others or dismissed as 'easy to manage,' which can be quite distressing."

Then, there is a rampant belief that over-the-counter products are too weak to treat eczema and that topical steroids are the only way to treat eczema. Actually, those suffering from eczema must develop a 360-degree approach to treatment

and topical steroids do not cure eczema. "Since it's a chronic condition, over-dependence on powerful drugs, self-medication and unauthorized home remedies may have potential side effects and may cause other complications. We always suggest patients and their guardians to seek doctors specializing in these types of diseases to avoid misdiagnosis," Dr. Al-Lafi added.

While addressing misconceptions is crucial, it is equally important to discuss the emotional aftereffects of eczema. Flareups may be shattering and feel painful and uncomfortable. AD often requires regular attention to keep flareups under check, though for some this may not be enough. AD can be both frustrating and embarrassing and may result in self-consciousness about appearance; symptoms of anxiety also have been reported in people with AD. For many, having eczema can be tough, as it's a constant battle with their bodies.

The importance of correct diagnosis and early treatment

Eczema is a common long-lasting condition that can be very uncomfortable and can affect one's quality of life. If left untreated, it can keep one from sleeping, be distracting and make one feel self-conscious in public. It is crucial for eczema sufferers to consult a dermatologist or other healthcare provider as soon as they start to see signs of it. A thorough physical examination, assessment of medical history and identification of triggers must be carried out to confirm the diagnosis of eczema and start the treatment plan.

"Though seeking second opinion is very important, it is also crucial that patients should look for one trusted doctor and sticking to his/her treatment plan as this will play a very important factor for recovery," added Dr. Al-Lafi. Above all, what eczema sufferers in Kuwait and around the world need to remember is that they are not alone since around 15 to 20 percent of people are likely to experience eczema or another type of dermatitis at some point in their lives.

Managing eczema is a lifelong commitment

While eczema is a lifelong condition, there are effective treatments available, and with proper follow-up, they soothe itching, treat flareups and reduce their frequency. Preventing flareups with good skincare practices is an important part of the overall treatment of atopic dermatitis. Dry skin is a feature in nearly all patients with the condition. Emollients are the mainstay of maintenance therapy for atopic dermatitis.

Numerous studies have evaluated a variety of dietary, environmental and alternative approaches to the prevention of atopic dermatitis flareups. Unfortunately, many of these approaches have been shown to be ineffective. Expert opinion supports the use of comfortable fabrics (eg, cotton or other smooth fibers) for clothing and bedding. Patients should avoid known environmental or dietary triggers. Irritants that cause itching also should be avoided. The development of the "scratch-itch-scratch" behavior that begins with habitual scratching and perpetuates dry, irritated skin can be effectively modified with psychological treatment.

When suffering from eczema, there are various topical creams that can help soothe, and one is advised to seek expert advice before using them. Topical creams are the standard medication and can be used to soothe redness and thus prevent scratching.

Topical steroids

Topical steroids are grouped by potency. They range from class 1 (strongest) to class 7 (least potent). Most of the more potent topical steroids aren't suitable for children, so always consult with your child's doctor first. For short-term treatment, low potency topical corticosteroids are available over the counter. You can apply hydrocortisone immediately after you moisturize your skin. It is most effective for treating a flare-up. The American Academy of Dermatology (AAD) recommends treating the affected area twice daily. Topical corticosteroids are not for long-term use. Instead, the AAD recommends occasional preventative use.

Topical calcineurin inhibitors

Topical calcineurin inhibitors (TCIs) are a relatively new class of anti-inflammatory drug. They do not contain steroids. Yet they're effective in treating the rash and itching caused by AD. In some patients the use of TCIs has been limited due to a localized burning sensation on the first days of treatment, and also due to fear of other adverse effects.

Phototherapy

- Narrowband UVB phototherapy can be used to treat severe atopic dermatitis.
- Treatment involves standing in the cabinet two to five times weekly, so may not be suitable for young children or the infirm who cannot stand unaided.
- Phototherapy is usually combined with the usual topical treatments.

Oral medications

On occasion, your doctor may prescribe oral medications such as:

- Oral corticosteroids for widespread, severe and resistant AD.
- Cyclosporine or interferon for severe AD.
- Antibiotics are used for the treatment of clinical infection caused by *S aureus* or flares of disease. They have no effect on stable disease in the absence of infection. Laboratory evidence of *S aureus* colonization is not evidence of clinical infection because staphylococcal organisms commonly colonize the skin of patients with AD.
- Antihistamines are useful to control dermographism and other forms of urticaria in some patients with atopic dermatitis, but not for routine use.

Targeted biologic therapeutics in atopic dermatitis

With recent developments in research for alternative treatments, experts of this field have also started using innovative biologics treatment that are considered more effective because they are amongst the most targeted therapies available today, as they essentially use human DNA to treat certain diseases at the immune system level. Taken subcutaneously (through the skin) or intravenously (in the vein), biologics are genetically engineered medications that contain proteins derived from living tissues or cells cultured in a laboratory. Initially available in the US, these treatments are now available in Kuwait.

Dupilumab was approved by the US Food and Drug Administration (FDA) in 2017 for adults with moderate-to-severe atopic dermatitis not adequately controlled with topical prescription therapies or when those therapies are not advisable. In 2019, this indication was expanded to include adolescents aged 12 years or older, and in 2020 to include children as young as 6 years. It is a subcutaneous injection administered every two weeks. Baricitinib, a new biologic agent belongs to the family of JAK inhibitors that will be available soon in Kuwait and is also approved for treating severe atopic dermatitis in adults.

What's new in the near future?

Novel therapies are in the pipeline and comprise both new doses and formulations of well-known pharmaceutical molecules and novel approaches targeting unique inflammatory pathways and mechanisms of disease, with a promise of higher efficacy and less harmful side effects.

New York Philharmonic marks 'homecoming' after pandemic cancellations

Following 556 days of pandemic-inflicted cancellations and unconventional concerts, the New York Philharmonic opened its new season Friday, a "homecoming" for musicians limited to live streams, one-off and outdoor shows for more than a year. After enduring months of crisis, the Phil, one of America's oldest musical institutions, reopened its subscription season with a program featuring Beethoven's Piano Concerto No. 4, Anna Clyne's "Within Her Arms," Aaron Copland's "Quiet City" and George Walker's "Antifony." The pandemic forced the famed symphony orchestra to cancel its 2020-21 season, resulting in more than \$21 million in lost ticket revenues.

Hundreds of people queued outside Alice Tully Hall in Manhattan's Upper Westside in evening wear, showing mandatory proof of vaccination in order to gain entry for the night of orchestral music. Catherine Colson arrived with friends ahead of what she anticipated would be "a memorable night of phenomenal music." "It was a really long year. I feel rejuvenated," she told AFP. "It's like a rebirth in a way." Adam Baltin said he wanted to attend opening night to "celebrate the city and the arts." "It's been so long."



Music Director Jaap van Zweden conducts the New York Philharmonic's first concert after its reopening at the Alice Tully Hall in New York.

'Feels like a homecoming'

On top of the challenges presented by COVID, the Phil is homeless: the orchestra's longtime base, David Geffen Hall at Lincoln Center, is in the middle of a major \$550-million renovation. Most of the 2021-22 season will be played at two other venues at the Lincoln Center arts complex on Manhattan's Upper West Side. Despite everything, Chris Martin, the orchestra's principal trumpet player, said the start of a fresh season "feels like coming home." "I'm very excited. I feel like almost like a

rebirth as a musician," he told AFP at a dress rehearsal ahead of the evening.

"We play 130, 140 concerts a year, and you never take it for granted, but sometimes you think, 'Oh, I'm a little tired today, I've got to play this again', but not anymore-I feel really such gratitude." During the Phil's canceled season, members began playing small pop-up concerts at surprise locations throughout the city, getting creative for New Yorkers starved for live music. "To play outdoors is wonderful," Martin said, adding it allows artists "to connect with the city in a different way." "But to come back in this space... to have an audience again, that's the part that really feels like a homecoming."

'Exciting new beginning'

Friday's show comes days after news broke that Jaap van Zweden, the Phil's maestro since 2018, will step down after the 2023-24 season. The conductor spent much of the pandemic in his home country of the Netherlands with his family, and cited shifting work-life balance priorities in announcing his decision. "It is not out of frustration, it's not out of anger, it's not out of a difficult situation," van Zweden told The New York Times. "It's just out of freedom." The pandemic, which dealt an early and particularly deadly blow to New York, hit in the middle of the violinist-turned-conductor's second season as music director.

He was isolated from his musicians, prevented for months from traveling to New York due to a ban on European travelers visiting the United States. Friday's show comes amid a ramped-up arts schedule in the city, days after the extravagant fashion-centric Met Gala and ahead of the Governors Ball music festival along with the Metropolitan Opera's re-opening on September 27. —AFP



Music Director Jaap van Zweden conducts the New York Philharmonic's first concert after its reopening at the Alice Tully Hall in New York. — AFP photos



People wait in line to attend the New York Philharmonic's first concert after its reopening at the Alice Tully Hall in New York.



People attend the New York Philharmonic's first concert after its reopening at the Alice Tully Hall in New York.



Musicians stand during the New York Philharmonic's first concert after its reopening.