Skin Deep

Understanding Eczema

Eczema, or otherwise interchangeably known as dermatitis, is a common, chronic inflammatory skin condition that can affect any age. Unbeknownst to many, there are actually 7 types of eczema. These are atopic eczema, seborrheic dermatitis, discoid eczema, dishydrotic eczema, stasis eczema, asteatotic eczema and contact dermatitis (see Diagram 1, opposite page).

Atopic dermatitis is the most common form of eczema in children. This condition is primarily due to a defective skin barrier that exposes an inherently sensitive immune system to triggers like changes in humidity, heat, sweat, harsh chemicals, rough clothing and air borne allergens, such as dust mite, grass, pollen, mould, and cat and dog dander. Importantly, even stress can frequently trigger eczema flare ups.

Seborrhoeic dermatitis usually has its first onset in 3 age groups. It can first occur in babies and this is infamously known as "cradle cap". The next age group that is commonly affected are adolescents, while the last vulnerable age group are middle aged men. All are triggered by an immune response to a type of yeast known as Malassezia furfur which is normally found on the sebaceous glands of our scalp, sides of nose, ears, chest and upper back, but overgrows with change in humidity, sweat and heat.

Discoid eczema presents with "coin shaped" rashes that usually start over the limbs but can progress to the rest of the body. Its onset is usually during adolescence and adulthood, but it can also occur for the first time in children. Dishydrotic eczema (also known as pompholyx) presents with vesicles or blisters over the hands and/or feet. These are known to be intensely itchy. It can sometimes be mistaken for a fungal infection, especially if the patient has the condition worsen on a unilateral part of the hand or foot.

Stasis eczema is more common in adults and the elderly. This is secondary to poor venous circulation in the legs, with pooling of blood in the most dependent areas of the feet and ankles. Patients suffering from this condition usually have a background of varicose veins and a history of prolonged

Diagram 1: Different Types of Eczema

standing. Asteatotic eczema usually occurs in older age groups. It is due to dryness that can come naturally with age, but is commonly aggravated by low humidity, heat, frequent washing or it can be secondary to underlying disorders such as haematological cancers, thyroid dysregulation, kidney or liver disease or due to certain medications, such as cholesterol lowering medications.

Lastly, contact dermatitis can occur in all ages. It is categorised into irritant and allergic contact dermatitis. Irritant contact dermatitis can occur with frequent repeated contact with harsh chemicals, over-exposure to water and even changes in humidity. Allergic contact dermatitis is due to sensitive immune response to allergens that come into contact with the skin. Common allergens that may cause allergic contact dermatitis include metals (such as nickel), fragrances and preservatives.

ALLERGY TESTS

Allergy tests are usually considered for 2 types of eczema, namely: atopic dermatitis and allergic contact dermatitis. There are 3 types of allergy tests (see diagram 2).

ARE ALLERGY TESTS HELPFUL IN ATOPIC DERMATITIS?

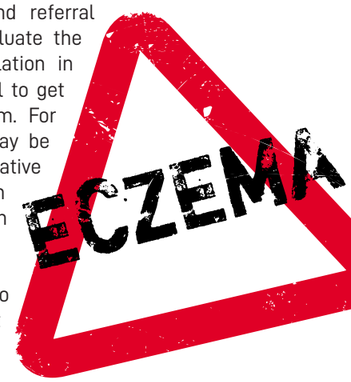
Diagram 2: Types of Allergy Tests

Allergy tests such as blood tests to Ig E and skin prick tests are meant for immediate type hypersensitivity immune reactions, where the common symptoms are hives, eye swelling, lip swelling, breathlessness, throat tightness and dizziness. Performing blood tests or skin prick tests in atopic dermatitis is usually done only after careful consideration. This is because atopic dermatitis is due to a delayed hypersensitive immune reaction as opposed to an immediate hypersensitive immune reaction. Prior to performing these tests, a thorough medical history review is needed to ascertain the relevance in a patient's eczema. Subsequently, follow up visits are required to marry both the results and symptoms, rather than just focusing on the results.

TREATMENT OF ECZEMA

Creams remain the cornerstone treatment in all forms of eczema. Application of creams can be inconvenient to many but will go a long way in, hopefully, avoiding moving up the treatment ladder. The second line of treatment is phototherapy where patients receive UVB or UVA/B combination treatment 2 to 3 times a week for a period of at least 2 to 3 months.

If phototherapy is not helpful, then oral medications can be started. These are medications that suppress the overactive sensitive immune system causing inflammation in the skin. Four years ago, the advent of a targeted biologic injection to treat atopic dermatitis has helped to revolutionise the treatment of challenging cases of atopic dermatitis (Do consult your dermatologist to find out more). For stasis eczema, ultrasound scans and referral to a vascular surgeon to evaluate the degree of poor venous circulation in the lower limbs will be helpful to get to the bottom of the problem. For some, surgical intervention may be advised. Otherwise, conservative management with compression stockings can also be helpful in improving the condition.



I hope this article has helped to clarify some questions about one of the most common skin conditions affecting up to 10-20% of our population. PRIME

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