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The prevalence of eczema has more than doubled in the past forty years. Though it is one of the commonest diseases in a medical practice, very little emphasis is laid on it at medical schools. The term 'eczema' is usually interchanged with the term 'dermatitis' which basically denotes an inflammation of the skin, however, one should be careful as dermatitis may be used with other diseases of the skin. Eczema is not a homogenous disorder and there are many different subtypes (see table 1). Although in most cases clinical diagnosis is straight forward, in a few, the diagnosis needs to be confirmed on histology. Typically a rash with erythema; dryness and scaling; and pruritus, is in most likelihood eczema (apart from seborrhoeic eczema that is less pruritic).

Table 1

Atopic eczema
Seborrhoeic eczema
Discoid (nummular) eczema
Pompholyx (hand and foot) eczema
Juvenile plantar dermatosis
Lichen simplex
Varicose eczema
Contact dermatitis

Atopic eczema is the commonest type and is defined as a pruritic inflammatory skin disorder that is chronic but eventually can become self-limiting. Most cases start in childhood and are punctuated by relapses and remissions. Up to 50% of children will out-grow the disease in their early teens, with some relapse during adolescence and or early adulthood, but most recover by 30 years of age. However, there are few unfortunate patients who will suffer from it during the entirety of their lives. Atopic eczema occurs as a result of mutations in the Fillagrin gene which is responsible for the impairment of the function of the stratum corneum. It is inherited as autosomal dominant with incomplete penetration and in some cases is associated with asthma, allergic rhinitis and urticaria.

The typical presentation is that of a child of about 3 months of age, with a dry, erythematous and pruritic rash on the face, trunk and flexures. With time, the scalp and whole body surface may be affected which can make it difficult to differentiate from seborrhoeic eczema. Atopic eczema less commonly, can also start in adulthood or during pregnancy and can be very persistent. As the person scratches, there is thickening of the skin (called lichenification) and oozing of clear fluid may be noted. There may also be post-inflammatory hyperpigmentation as well hair loss in severe involvement of the scalp. Later, the excoriations can lead to bacterial, viral or fungal infections. The disease typically varies with time and tends to worsen during stressful times, teething, change in weather pattern or during an unrelated illness.

The treatment should be tailored according to the presentation of the patient. It is not always straightforward as there are various degrees of the diseases as well as a few complications that may need to be addressed first. The dryness, the eczema itself, the degree of scratching, the presence or absence of infection and the extraneous psychological and social factors need all be addressed. Educating the patient or the parent is one of the most important factors for the control of the disease and a few important points are listed in table 2.

Table 2

1. Parents should be advised that this is usually an inherited disease and the child may outgrow it at a later age. In the meantime, good control is needed and regular follow up. However, relapses may still occur.
2. It is rarely associated with food. Testing for food allergens is only indicated in cases of persistent atopic eczema despite optimal management or if a child has a reliable history of an immediate reaction after eating a specific food. Otherwise no food restrictions should be imposed as it will affect nutritional needs of the patients and put undue stress on the parent.
3. The skin should always be kept well moisturised with emollients and long baths or bubble baths should be discouraged as it dehydrates the skin.
4. Cotton clothing tends to be more comfortable than wool. The patient should be kept cool in summer as excessive sweating can also aggravate the disease. No need to change washing powder.
5. The nails should be kept short as it decreases the chance of excoriations and infections, during scratching.
6. Any other associated diseases, like asthma and allergic rhinitis should be managed appropriately.
7. Regular follow-up is very important.
8. The mainstay of treatment is topical steroids and if used properly is very safe and effective.

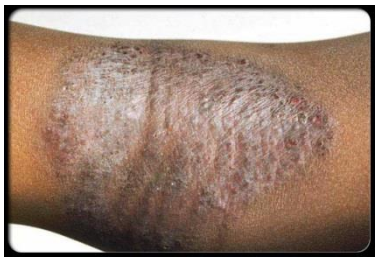
The use of topical corticosteroids is still the most effective way to manage the disease. Basically a 1% hydrocortisone is the steroid of choice for the face. Moderately potent steroids are used on flexural sites and frequently it is helpful to use potent steroids on other sites first, to gain control of the disease, before returning to less powerful ones. Of course, areas of lichenification may be treated with very potent steroids, due to the limited absorption.

In infants, the use of fluticasone may be a good option as it is broken down at the site of application and not absorbed, thus there is no systemic toxicity. Also one should exclude bacterial infections in excoriated lesions and treat with either a steroid-antibiotic combination to cover S.Aurius or in severe cases, should include oral antibiotics. In addition, a short course of anti-histamine may assist to break the itch-scratch cycle.

Other treatment options include calcineurin inhibitors which can be used as a maintenance therapy. However, they tend to cause a burning sensation and can be very costly. Fluticasone or methylprednisolone aceponate tend to be more tolerable to young patients. In addition the use of tar mixtures can be helpful in some cases and works well when there is severe pruritus.

Severe cases can be treated with short courses or oral prednisolone, phototherapy with narrowband uvb or the use of immunosuppressants like azathioprine or cyclosporine. These treatments are administered by dermatologists who can monitor for any side-effects. Adjuvant therapy with wet-wraps and bath oils is more popular in the UK.

To recap, most cases can be easily managed, but the more resistant ones should be referred to a dermatologist. Educating the patient and more importantly the care-giver is of paramount importance and should never be overlooked. Finally, the mainstay of treatment remains topical steroids, despite claims by some pharmaceutical companies that the alternatives are more effective.

 lichenification in atopic eczema