

Atopic eczema

Atopic eczema (or atopic dermatitis) is the most common chronic skin disease in children, affecting 10-20 percent of infants. In about 50 percent of cases, eczema appears within the first year and in another 30 percent between the ages of one and five.

There is commonly an association with asthma, allergic rhinitis (such as hay fever or mite allergy) or food allergies and children with atopic eczema are more likely to suffer subsequently from allergic rhinitis and/or asthma.² Atopic eczema is a complex condition, manifesting with chronic inflammation of the skin. Various other factors are involved, including breach of the skin barrier, characterized by a reduced immune response and a heightened T cell response to environmental allergens.

The main manifestations include erythematous patches with papules and vesicles, various degrees of thickening of the skin, itching (generally aggravated at night), and an increase in skin sensitivity. At the acute stage, lesions present as intensely itchy erythematous papules; at the sub-acute stage, the erythematous papules are accompanied by excoriations; and at the chronic stage, lichenification (thickening) of the skin is likely. In chronic conditions, manifestations of all three stages may occur simultaneously.

In general, the patches do not have clearly defined borders. After the age of two, the eczema can also involve the palms, soles and digits with fissuring. Itching may be aggravated by various factors such as food, allergens, bacterial infections, a dry environment, sweating, or contact with irritants in clothing or detergents. Scratching encourages the formation of further lesions.

In early infancy, atopic eczema usually presents acutely, with lesions manifesting on the face, head and extensor surfaces of the limbs, generally sparing the diaper/nappy area. In older children, lesions manifest primarily in the elbow and knee flexures (in Chinese, this disease is known as four bends wind, *si wan feng* 四弯风, the four bends referring to these flexures). The condition often remits spontaneously before puberty, but an increased susceptibility to irritants is likely to persist, with itchy and inflammatory reactions.

There are no specific tests to arrive at a diagnosis of atopic eczema. Most patients present with eosinophilia (an increase in the number of eosinophils, white blood cells involved in allergic responses) and elevated serum levels of immunoglobulin E (IgE). It may be possible to identify environmental allergens to which the patient may be sensitive, but a diagnosis of an allergic response to these allergens always needs to be confirmed by the clinical history. Diagnosis is based on three main criteria – itchy skin, eczematous lesions in a typical distribution, and a chronic or recurring condition; these criteria can be supported by other factors such as association with asthma and hay fever, elevated IgE levels and a positive reaction to hypersensitivity tests.

² The word “atopy” is derived from the Greek *a topos* (without a place) and describes the tendency to develop hypersensitivity to multiple antigens.

Chinese medicine pattern identification and treatment principles

According to Chinese medicine theory, the skin will suffer if it is not nourished appropriately, in other words if there are obstructions to the smooth circulation of qi and blood at the surface of the body.³

The core element in the pathogenesis of atopic eczema is to be found in a combination of dampness and phlegm obstructing the interstices of the skin (*cou li* 腠理), impeding the movement of qi and blood, and producing heat in the small superficial network vessels *sun luo* and *xue luo*.⁴ Worsening of the condition during the night can be attributed to the fact that the circulation of qi and blood slows down during those hours of the day that belong to yin. The pattern is complicated by the presence of deep-lying heat and varying degrees of qi deficiency.

There is a saying in Chinese medicine that the Spleen is the source of formation of phlegm and the Lung is the receptacle holding phlegm (*pi wei sheng tan zhi yuan, fei wei zhu tan zhu qi* 脾为生痰之源, 肺为贮痰之器). Excess dampness and phlegm occur because the transformation function of Spleen qi is not sufficiently strong to send clear qi upward and there is a deficiency in the function of Lung qi in diffusing body fluids and sending them downward. Turbidity accumulates and is damp in nature.

Spleen qi is insufficient primarily because it is unable to cope with the demands placed on it; in a child, these demands are always very high. If at the same time there is a chronic condition of food accumulation (*shi ji*), Earth is unable to transform sufficient amounts of qi derived from food and to separate the clear from the turbid. This can occur as a result of feeding the baby too much milk, weaning too rapidly or giving the wrong food, all of which are too much for the digestive processes to deal with.

Lung qi is often disturbed by latent (*fu* 伏) pathogenic factors, external pathogens that have penetrated deeper into the body and have never been completely eliminated.

Dampness may also be aggravated by antibiotics, which are cold and therefore get rid of the heat produced by external pathogens but, in the process, facilitate the accumulation of dampness and its congealing into phlegm.

Phlegm is said to have the characteristic of reaching “the hundred locations”, but in children it is more likely to accumulate at the surface of the body (and in the Lung, which is a sort of “interior surface”).

Internal heat can be caused by the lingering of external pathogens that have penetrated deep into the body, by transformation of food accumulation (*shi ji*), by the remnants of fetal toxins (*tai du*) or other toxins, or by emotional disturbances.

³ See Julian Scott, 1999, pp. 343-357; Bob Flaws, 1997, pp. 197-199; Mazin Al-Khafaji, *Wind of the four crooks*, JCM, 2005.

⁴ The system of network vessels (*luo* 络) forms a mesh of interconnections linking all the parts of the body together. Its smallest branches – the superficial network vessels (*fu luo* 浮络) – are the blood network vessels (*xue luo* 血络) and the grandchild network vessels (*sun luo* 孙络). “It is the *sun luo* that reach as far as the skin” according to chapter 56 of *Su Wen*, which also mentions *sun luo* and *xue luo* in chapter 63 in relation to pathogenic qi (*xie qi* 邪气) and cross needling (*min ci* 缪刺).

Blood heat patterns are less common in children and manifest on the skin in acute cases mainly as rashes associated with high fever or in chronic cases with serious pathologies such as thrombocytopenic purpura.

Atopic eczema can also be caused by insufficiency of blood, which is therefore unable to nourish the skin adequately. However, this pattern is only likely to occur in a major condition of generalized deficiency with extreme shortage of Spleen qi that makes it difficult for blood to be produced.

A worsening of a child's eczema or a sudden relapse is very frequent when the child is confronted with a tricky emotional situation. If emotions get out of hand, this will result in qi being disturbed, the *shen* becoming agitated, and the production of fire, which also manifests on the skin.

It is essential to remember that overall changes in the state of qi (the systemic pattern) do not always coincide with local conditions (disturbance of the movement of qi and blood at the body surface).⁵ For example, lesions that are red and hot indicate heat in the skin, but the underlying condition may also be one of phlegm-damp-cold. Similarly, dampness present in the skin and manifesting with vesicles and exudation is not always related to Spleen qi deficiency, however important this deficiency may be.

In children, heat that dries up body fluids and makes the skin dry and rough is primarily the result of dampness or phlegm obstructing the movement of qi and blood locally rather than a sign of general dryness and heat (caused for example by insufficiency of blood).

In atopic eczema, itching is also the result of stagnation in the movement of qi and blood in the skin (scratching the skin causes qi to move) rather than a manifestation of wind, which would produce symptoms that change more rapidly such as in urticaria.

Treatment guidelines

Treatment of children with atopic eczema produces variable results, but it is worth trying because Chinese medicine can generally bring about a considerable alleviation of the symptoms even in those cases where the condition cannot be resolved. Moreover, conventional treatment with the topical application of corticosteroids does not cure the condition, but is rather a temporary measure to treat symptoms and prolonged use has significant side-effects such as thinning of the skin.

It is difficult to make a prognosis, but on average treatment is likely to take quite a long period, generally 2-6 months, especially if the problem has already persisted for some time.

⁵ The situation is similar to *bi* syndrome (painful obstruction) patterns where exuberant cold, dampness and wind initially affect the channels and the relationship of these pathogens to the patient's overall condition varies. This particular feature is stressed by various authors writing on pediatrics or dermatology. For example, Mazin Al-Khafaji says that even in adults the paleness of the tongue should not be taken into consideration unless there are other signs of Spleen qi deficiency and that in Western countries it is extremely rare to see a pattern of Spleen deficiency with dampness in children, whereas it appears among the main patterns in Chinese texts (communication given at a seminar organized by the Associazione MediCina, March 1999).