Making the Connection Between Asthma and Eczema

by BRENDA VANTA

Asthma and Eczema

For a long time, doctors have been aware of the link between asthma and eczema, without understanding the exact reason. Up to 70% of children who have severe atopic dermatitis (eczema) will develop asthma, while the incidence of asthma in general population is just 9% in children and 7% in adults, according to scientific studies. How are these conditions related and how you can improve or better manage them?

The term “eczema “describes various skin conditions, including atopic dermatitis (which is linked with asthma). This form of eczema is caused by an underlying allergic reaction, when the immune system overacts to certain substances (allergens) such as dust mites, pollen, animal dander, some foods (especially eggs, nuts, milk). When the body is exposed to these allergens, the body will attack them (as they are perceived as dangerous substances), and will release histamine. The result: hives, itching, swelling, sneezing, runny nose, watery eyes.

Allergic asthma is the most common form of asthma, and also the one linked with atopic dermatitis. In this case, the airways are extra sensitive to allergens (i.e. pollen, dust mites, molds), leading to an allergic reaction: the muscles around the airway will tighten; the airways will get inflamed and flooded with mucus. The result: cough, wheezing, shortness of breath, and chest tightness, which are all typical symptoms of asthma. The symptoms get worse when exposed to cold air, smoke, strong smells or exercise.

A 2009 study featured in the “Public Library of Science Biology*”,* researchers claim they found the link between these two conditions: the substance TSLP (thymic stromal lymphopoietin). The scientists suggest that the problem starts in a damaged, defective skin. The cells of a damaged skin produce TSLP, and this substance triggers a powerful reaction from the immune system. Once TSLP is produced in the skin, it will travel in the blood system, throughout the body, including the lungs. When TSLP reaches the lungs, it will trigger a hypersensitivity reaction, causing allergic asthma. Simply put, if the link between eczema and asthma is just this simple molecule, scientists could find a solution for both conditions, once they become able to prevent the damaged or defective skin to produce TSLP.

Prevention

In the meantime, the best way to manage both atopic dermatitis and allergic asthma is prevention. Consider the following tips:

1. **Keep and eczema/asthma journal.** Write down your symptoms, how severe they are, and look for the substances that may have trigger the flare ups: were you exposed to dust mites? Did you play with a pet? Did you spend time outdoors and inhaled pollen? What about the foods you ate?
2. **Ask your doctor for allergy tests.** A variety of environmental and food allergens can be easily confirmed with these tests.
3. **Besides avoiding the substances you are allergic to, it would be a good idea to stay away from common skin irritants** (i.e. wool, soaps, detergents, chemicals, sand) and lung irritants (perfumes,

smoke). Choose eco friendly, natural substances (i.e. vinegar and baking soda) to clean your house, natural cosmetic products, soaps, shower gels and detergents. Stay away from highly processed foods, which contain numerous artificial colors, preservatives and flavors, and choose instead homemade food, along with fresh fruits and vegetables.

4. **It’s worth investing in dust proof mattress and pillow covers, and air purifying systems for the home.**