Houston Health & Wellness Center

Overview

Sublingual immunotherapy (SLIT) is a method of treating allergies that closely resembles conventional "allergy shots." In both of these methods, small amounts of allergenic substances are administered periodically and over a long period of time, via a route different from that in which the body ordinarily encounters them. For example, plant pollens ordinarily cause their allergic reactions by being inhaled. With allergy shots, pollen extracts are injected under the skin, while in SLIT, they are placed under the tongue. The immune system has many components, and only one of them, the IgE/eosinophil system, produces typical allergic reactions. The intended effect of these alternate routes of administration is to “train” other branches of the immune system to neutralize allergens before the IgE/eosinophil system even (so to speak) notices that they are there.

The great potential advantage of SLIT over allergy shots is that SLIT does not involve needles; this makes it less unpleasant and also capable of being done at home rather than at a doctor’s office. The absence of needles may also explain why SLIT has long been categorized as a form of alternative rather than conventional medicine.

There are no universally accepted criteria by which a treatment is classified as part of "alternative" rather than conventional medicine. Some treatments, such as acupuncture, fall in the alternative category because they belong to a system of medicine considerably unlike that of the modern conventional system; others, like traditional herbology, fall in the alternative category because they involve unprocessed "natural" substances rather than drugs; still others do so simply because they have been rejected for one reason or another by conventional medicine and/or have been adopted by practitioners of other forms of alternative medicine.

Sublingual immunotherapy (SLIT) falls primarily in the last camp. Until approximately the year 2000, SLIT was most commonly the province of practitioners who identified themselves as holistic or alternative, and it was looked on with skepticism by mainstream medicine. In recent years, however, numerous well-designed studies of SLIT have been reported, causing the method to gain increasing acceptance among conventional allergists.

What Is the Scientific Evidence for Sublingual Immunotherapy?

Perhaps the best evidence for the effectiveness of SLIT involves treatment of allergic rhinitis (hay fever).

For example, in a double-blind study of 855 adults with grass allergies, SLIT using grass pollen tablets for approximately 18 weeks markedly reduced allergy symptoms, 1 including nasal congestion and itchy eyes. Marked benefits for most common hay fever symptoms were also seen in another double-blind study enrolling 634 people. 2,19 In a third double-blind study involving 105 patients, SLIT lead to a significant improvement over placebo in symptoms of rhinitis and conjunctivitis due to grass and rye pollen allergies. Skin reactivity to these

allergens, a more objective sign of allergy, also showed a more substantial reduction in patients using SLIT. 19 Other studies have also shown benefit for hay fever caused by grass pollen or other allergens, 14,21,22 including dust mites and tree pollen. 5-8

However, in a 2008 comprehensive review of studies investigating SLIT for grass pollen and house dust mite allergies, researchers were unable to substantiate claims of effectiveness, largely because of the variable quality of the studies they uncovered. 20

Unfortunately, as with conventional allergy shots for hay fever, it appears that if SLIT is in fact effective, it must be used for a long time for best results. Three years of treatment may be better than two, and two years better than one. 3,15,17 To provide benefits for grass allergy season, SLIT must begin at least 8 weeks prior to the onset of the grass allergy season; even longer lead times produce even better results. 18 Putting all this evidence together, it appears that SLIT may work best if used year round, and year-after-year.

One study suggests that SLIT is not only effective for treating allergy, but may be useful in preventing the development of new allergies or mild persistent asthma in children with allergic rhinitis or intermittent asthma. 23

SLIT has also shown promise for latex allergy, 9,16 asthma, 10 and other forms of allergy. 5

Safety Issues

SLIT appears to be safer than conventional allergy shots. The most frequent report of adverse effects include oral itching or swelling, as well as gastrointestinal upset; in the great majority of cases, these are mild and short-lived. 11-13 In one study, 12% of patients with allergic rhinitis and/or asthma experienced worsening of symptoms at some point in their treatment. 24 Severe allergic reactions appear to occur rarely. However, it has not been tested in high-risk asthma patients. 5 Another problem is that no allergy extracts for use in sublingual immunotherapy have been officially approved for use in the US, and therefore products available remain incompletely regulated.

References

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Source Information

- Cartersville Medical