

May 7, 1984

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*****Allergist describes advances in treatment for asthma, allergies.

NOTE: May 6-12 is National Asthma/Allergy Awareness Week.

DALLAS--Many allergy sufferers don't seek medical help because they think it won't do any good.

"They're convinced their allergy is a curse and little or nothing can be done about it," says allergist Dr. Tim Sullivan at The University of Texas Health Science Center at Dallas.

Often hay fever victims, for example, think their only options are nasal sprays that don't work and antihistamines that put them to sleep.

"This thinking is antiquated," says Sullivan, associate professor of Internal Medicine and chief of the UTHSCD Allergy Unit. He stresses that major advances have been made in diagnosis and management of allergic disorders.

"Traditional nasal sprays for allergic rhinitis have been relatively ineffective," he says. "They work by constricting blood vessels in the nose thereby reducing congestion and secretions. But soon in order for blood vessels to stay constricted they must have more spray. What you get in a day or two is an addiction. If you didn't have a chronic illness to begin with, you do now," says Sullivan.

One solution for allergic rhinitis is topical steroid hormone nasal sprays. "We've known that steroids work very well in the nose when taken in pill form. But long term use of steroids can cause terrible side effects in the rest of the body—for example, weakness in bones, cataracts, a susceptibility to infection. People have shied away from them.

"Now nasal sprays are available that deliver effective doses of steriods directly to the inflammed tissues. They control rhinitis without causing undesirable effects in other sites."

There are new antihistamines on the market that are potent in controlling allergy symptoms while being less likely to make one sleepy. Some new antihistamines are nearing licensing that do not enter the brain and therefore do not cause sleepiness.

Asthma sufferers now can use inhaled steriods, chromolin and modified forms of the natural hormone epinephrine for relief of bronchial allergic symptoms. Epinephrine is the body's own substance for counteracting an allergic response—that is, controlling release of histamine and other mediators by cells. It is histamine that causes swelling, itching, redness, fluid release and many other allergy symptoms. Sustained release oral forms of the powerful antiasthmatic drug theophylline have become available that permit once or twice daily doses.

"Since a person often can predict when they're going to have an asthma attack—they're going to Grandma's and she has a cat, or they're going to a party where there will be smoke—they can use these medications ahead of time for protection. Once in place, the medications often can keep the asthma controlled," says Sullivan.

Major allergy problems are common in children. "Unfortunately it's common practice among parents and some doctors to resist treating allergic rhinitis or asthma in kids.

"But to ignore a child's allergy often limits their activities, growth and emotional development, and treatments do work.

"Children with allergies often can't sleep well, they can't learn well, they can't play well," according to Sullivan.

"Some physicians think that giving medication or other acknowledgement to allergies might make the children chronic disease cripples and that regardless the children will eventually grow out of the allergy. But is it sensible to withhold therapy because in seven or eight years the child might have outgrown the illness? I think that teaching the child how to cope with chronic illness and how to give medications facilitates emotional growth as well as providing unimpeded exericise, sleep, concentration—a more normal childhood."

Sullivan says that many advances have been made in detecting persons at risk for allergic reactions to drugs. Some of the most dangerous of drug allergies involve surgical or anesthetic drugs. One such drug is chymopapain, used for intervertebral disk surgery. "There is a severe allergic reaction in one to two percent of those injected with chymopapain. Apparently between one and five percent of our population have become allergic to the enzyme from eating meat treated with enzymatic tenderizers, by eating papayas or from exposure to certain cosmetics."

A skin test can identify those at risk and if the test is positive, a patient can be pretreated with a combination of Hl and H2 antihistamine. Recent studies indicate that this reduces the risk of fatal reactions and may also minimize annoying reactions," says Sullivan.

Drug-induced allergic reactions can occur from muscle relaxants and opiates (succinylcholine, morphine, codeine, Demerol) used during anesthesia, says Sullivan. Again, there are tests to show if a person is at risk of an allergic reaction to muscle relaxants. If tests are positive and the drug is needed, the patient can be pretreated with combined antihistamines.

When an allergic reaction to a drug does occur, the patient usually becomes flushed, develops hives or urticaria and itches all over. Sometimes a patient will wheeze and get swelling in the throat and have a drop in blood pressure.

Perhaps the biggest hazard, says Sullivan, is if blood pressure drops without other manifestations of an allergic reaction. "Operating room personnel are not used to thinking of a drop in blood pressure as an allergic reaction, yet sometimes this drop does occur unaccompanied by any other allergic symptoms," he says. "The patient needs epinephrine and other antiallergic therapy but these drugs are not likely to be used if the nature of the problem is not recognized."

Blood pressure drops because the release of histamine causes blood vessels throughout the body to widen. Fluids begin to leak out of blood vessels and the tone of vessels is lost. The effects of histamine and other mediators also may narrow coronary arteries, diminish blood flow to the heart and induce abnormal heart rhythms. With the force of heart contractions diminished, loss of tone in vessels and loss of blood volume, blood pressure drops.

Epinephrine stops the allergic reaction and reverses the effects of allergic mediators, says Sullivan. It restores tone in vascular tissue, relaxes airways and reduces swelling in the upper airway.

Penicillin allergies, which plague some people, can be overcome with relative safety by a slow desensitization process.

Since he has been at the health science center, 32 persons with penicillin allergies have been desentitized and given the drug. All these patients have had serious infections needing penicillin. Eight of the patients were pregnant women.

"Many people with penicillin allergies are concerned that if they develop a serious infection requiring penicillin they may not be cured. This does not appear to be true. Extremely ill patients have been desensitized without significant allergic reactions. While much work remains to fully define the best method of desensitization and the risks involved, results to date indicate that penicillin allergic patients can be desensitized and can be treated with penicillin with little risk of a serious allergic reaction."

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