

Environmentally Induced Illness: Continuing Controversy

By ANDREA ROWAND

The scariest aspect of her formaldehyde allergy is that it seemed to just pop up so quickly, says Irene Congdon, a Little Falls, N.Y., housewife. "It was in February of 1981. I went to bed one night. When I got up in the morning, I couldn't talk" above a hoarse whisper, Congdon recalls. A year later, several physicians had diagnosed the problem as emotional. Congdon didn't believe that. She saw more doctors, one of whom was Sherry Rogers, a Syracuse, N.Y., allergist.

Rogers is also a "clinical ecologist," part of a 40-year-old, still-controversial splinter group of medical allergists. Ecologists believe that increasing numbers of people are suffering allergic reactions not only to pollen or foods, but to environmental pollutants such as formaldehyde, phenols (a common cleaning fluid), natural gas fumes and car exhaust. These pollutants, ecologists believe, can injure any part of the body, leaving a plethora of vague symptoms as their calling card, and can even affect one's mental health. Both the philosophical and immunological principles underlying treatment vary from those of conventional allergists.

Congdon's case was unusually dramatic, Rogers says. Soon after receiving her first treatment — an injection of a minute dose of formaldehyde — the allergy was suppressed, and Congdon's voice revived, both Rogers and Congdon say.

"Allergy" was coined in the early 1900s to describe the adverse effects of environmental elements (pollen, for example) on humans. In general, allergies are a type of antigen-antibody reaction, marked by an exaggerated physiological response to the offending antigen (also known as an allergen). Allergens cause no reaction in people not sensitive to them: Not everyone suffers the springtime sinus pangs of hayfever. But in those who are sensitive, allergies run the gamut from annoying to life threatening.

And chronic allergic reactions can leave tissue damage in their wake, says Joseph Bellanti of Georgetown University in Washington, D.C., who edits the journal *ANNALS OF ALLERGY*. Asthma is an example of this, he adds.

One problem with the credibility of clinical ecologists is that many experts in allergy and immunology question whether some people's reactions to environmental pollutants are, in fact, an actual allergy, concedes Lawrence Dickey, former director of the Society for Clinical Ecologists, and a Ft. Collins, Colo., allergist. People treated by

ecologists often do not display the classical signs of allergy, he says.

Most allergies increase the number of eosinophils — one of five major classes of white blood cells. No one is sure why this occurs, Bellanti says. Most allergies also increase the serum levels of immunoglobulin E (IgE), one of the five major types of immune globulins, proteins that are part of the body's line of defense against disease and allergens. What happens in allergic reactions, says immunologist John McMichael of Cambridge Springs, Pa., is that allergens bind with IgE and then sit on a cell, inflaming it.

Both allergists and ecologists may treat patients with doses of the offending allergen, but similarities end about there, says McMichael, who has studied both and who teaches at Edinboro University, near Erie, Pa. Conventional allergists may inject a patient with the allergen in question, hoping to bind the IgE and prevent an allergic reaction, McMichael says. Or, the doctor might desensitize the patient with ever-larger doses of the allergen. Some theories hold that desensitization works by stimulating another immunoglobulin — IgG — which then blocks the binding of allergens and IgE, he adds.

Clinical ecologists use much smaller fractions of allergens in their injections. Ecologists hope these minute doses stem off allergies by prodding T cells (a type of white blood cell) into inhibiting their cousin cells, B cells, which are thought responsible for IgE production, McMichael says.

But differences are more than theoretical. Ecologists say allergies can explain an array of diseases, from some forms of arthritis, to colitis, to types of depression, to, in Congdon's case, a lost voice.

This paradigm of allergy is neither respected nor widely accepted, says Bellanti. Ecologists may have some justification, and a small number of people may suffer environmentally induced illness, Bellanti says. But ecologists, he cautions, must be careful not to confuse it with a patient's emotional problems, he adds.

"There's a battle going on right now" between allergists and ecologists, Dickey says. "They've been fighting us. [But] they realize that they have to recognize it," he adds, saying that allergy and immunology are fields in flux as new research rolls in. Dickey says that while environmental illness often does not increase eosinophils or IgE, he believes a different, perhaps un-

discovered, facet of the immune system may be at work. Not everyone agrees.

"There's medicine, there's magic, and there's religion. In medical science, you have to document," Bellanti says. "I don't mean to completely discredit them. They're nice people; they mean well. [And] there is some basis for it," Bellanti says of environmentally induced ailments. But data are meager. And his main concern is overdiagnosing emotional problems as allergies. Several of Rogers' patients bristled at this suggestion.

"They all think you're a hypochondriac," says David Gould, of Union Springs, N.Y., a state trooper for the past 14 years. "No one in my family ever had allergies. I'd been the healthiest guy in the world. But two years ago, I couldn't walk [from weakness]." Normally 180 pounds, Gould's weight fell to 120 pounds in 1981, he says, when symptoms of itching, dizziness, headaches, hives and mental confusion were threatening to cost him his job and his health. Now, he injects his arms and legs up to 10 times daily with allergens for cigarette smoke, perfume, hydrocarbons and several others. After 16 months of sick leave, Gould is back at work.

"I don't say anything bad about conventional allergy. I did it for nine years. I have a lot of patients on conventional therapy, doing fine. But there are people who fall through the cracks," Rogers says. "I realize that conventional allergy is not the answer to everything."

One unfortunate aspect of environmental allergy, she says, is that once a person is sensitized to one allergen, they tend to also become sensitive to a host of others. The first sensitivity is usually brought on by overexposure to the agent, such as formaldehyde, found, according to the Chemical Industry Institute of Toxicology in Research Triangle Park, N.C., in plastics, particleboard, insulation and cars.

"We had a great lesson [in environmental illness] when we foam-insulated houses," Rogers says. "You see, en masse, thousands of people, suddenly moaning about nebulous stuff — they're depressed. They can't concentrate. They can't do mathematical computations, like their bookwork. They can't read."

Whether chemicals can impact the immune system may be eventually settled in the fledgling field of immuno-toxicology, Bellanti says. Reactions to chemicals may or may not turn out to be antibody-related, he says. Or, he adds, it could be that ecologists are "right, for the wrong reasons." □