

Symptoms of Asthma Linked in Study of Parasites

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A Canadian physician has reported findings that suggest wider correlation than was previously suspected between symptoms of bronchial asthma and the presence of intestinal parasites.

In a cautious editorial, accompanying the report. The New England Journal of Medicine said that the findings were “so fresh and yet so outlandish as to cause consternation” about their publication, but that they were “too important not to be brought out into the daylight of public scrutiny.”

Such scrutiny means that doctors elsewhere must confirm or deny the results of Dr. David C. H. Tullis's study. If such studies obtain similar results, then physicians may be able to relieve many patients' asthma symptoms by controlling the parasitic infection.

Doctors have long been aware that certain parasites, either by an allergic reaction or by migrating through the lungs, may cause paroxysms of wheezing, coughing and shortness of breath much like bronchial asthma.

When diagnosing asthma, they sometimes search for parasites in the stools of patients whose medical histories suggest an infection with these organisms, which thrive in the human bowel. Usually such patients have traveled in tropical areas where parasitic infections are considered more common than in North America.

Even in asthmatic patients who never have been to the tropics, Dr. Tullis said yesterday, physicians should look harder for these particular parasites.

“I don't believe it's the presence of these worms in the intestine, but that it is the migration of the larvae [young forms of the worm] through the body to the lung that is directly responsible for the symptoms,” the Ontario physician said.

The three parasites were found in 198 of the 201 asthma cases he treated at the Niagara Peninsula Sanitorium in Saint Catharines from 1965 to 1968. None of these patients had traveled in tropical countries.

In striking contrast to the presence of parasites in all but three of his asthma patients was the absence of parasites in non-asthma patients. In 20 control patients, those, that is, who were treated at the same hospital for conditions other than allergic asthma or parasitic disease, doctors detected none of the three parasites.

Dr. Tullis said he began his study eight years ago. Not until late 1964, he wrote, “was it realized that the parasites that could be consistently found in these patients were *Ascaris lumbricoides* (93 per cent), *strongyloides stercoralis* (6 per cent) and *Necator americanus* (1 per cent).” All three parasites are known to cause allergic asthmatic symptoms.

Parasites are just one of the factors involved in asthma (the word derives from the Greek for “panting”). In his study, Dr. Tullis excluded the relatively uncommon types of asthma caused by heart failure and lung cancer. He studied bronchial asthma, a common disease, in which any of several factors can play a role.

Among these factors in allergic individuals are dusts, pollen, viral or bacterial infections of the lung or bronchi (the small tubes branching from the windpipe) and sometimes foods and drugs, such as aspirin.

Dr. Tullis's study included patients from 2 to 80 years old who had had their bronchial asthma symptoms for from two months to 60 years. More than half of these patients had symptoms severe enough to require treatment at one time or another with steroids.

Treatment with the appropriate drug for each type of parasitic infection gave encouraging results in many patients, Dr. Tullis said, but because reinfection with the same parasite is a frequent occurrence, many others continued to have asthma symptoms.

Dr. Tullis had only 20 non asthma patients in his study because of difficulty finding “suitable control patients.” These control patients, like those with asthma, had to eat a diet free of fruit and vegetables for several days to make laboratory examination of their stools easier. Such examinations, done under a microscope, can require several hours of trained technician's time.