

Asthma Patients Breathe Easier with New Treatment

St. Louis is known for many things—baseball, the Gateway Arch and toasted ravioli, to name a few.

Unfortunately, it's also known as an allergy and asthma hot spot, making pollen-laden spring and summer miserable, even dangerous. And this year's mild winter means a longer season for pollen to spread its misery.

But thanks to a new study, some asthma patients may soon breathe easier.

Researchers at Washington University School of Medicine find that people who suffer from severe asthma may benefit from treatment with a targeted cancer drug.

A drug imatinib (brand name Gleevac) targets specific immune cells that cause inflammation. The drug is commonly used in the treatment of chronic myeloid leukemia.

The results of the small clinical trial were published this month in *The New England Journal of Medicine*. The study's co-author, Mario Castro, MD, stresses that the research is still in an early phase.

“The data are intriguing and promising, but we will need a much larger trial, perhaps with 300-500 patients, over a longer period of

time, to see if Gleevec can have an impact on asthma symptoms and quality of life," said Castro, the Alan A. and Edith L. Wolff Professor of Pulmonary and Critical Care Medicine at Washington University.

The study evaluated imatinib because it targets mast cells, which are inflammatory and react to allergens by releasing histamine. In severe asthma, a sudden contraction of airway walls causes wheezing and shortness of breath. Researchers found that patients taking the drug had measurably less airway restriction.

Although the study was small and more research is needed, it may provide an alternative to long-term steroid use in asthma sufferers. In severe asthma, the steroid treatments often don't control symptoms and the drugs have many side effects, especially for patients who have been taking them for years.

"A lot of patients with severe asthma have been taking high-dose steroids since childhood, and this long-term use has many negative consequences," Castro said. "These patients are developing conditions like obesity, diabetes, high blood pressure and osteoporosis from their steroid use. And the steroids are not even effective in controlling their severe asthma."

The study involved 62 patients who were treated at seven academic medical centers across the country.

