For the Patient

The full report is titled: "Seasonal variability of exacerbations of severe, uncontrolled eosinophilic asthma and clinical benefits of benralizumab". It is in the Sep-Oct 2018 issue of ***Allergy Asthma Proceedings*** (volume 39, pages 345 to 349). The authors are Lawrence DuBuske, Paul Newbold, Yanping Wu, and Frank Trudo.

For the Patient is provided to physicians so that the patients can better understand the language of modern medicine.

For the Patient is written by the editors (Bellanti, JA and Settipane, RA) and provided to practitioners so that patients can better understand the usefulness of new information resulting from medical research.

Treatment of eosinophilic asthma and clinical benefits of benralizumab

Asthma is a disease affecting the airways that carry air to and from the lungs. In the United States, an estimated 25.7 million people have some form of asthma, and 15% of these have a severe asthma that is difficult to control with standard medications. Patients with asthma suffer from inflamed, swollen airways, blocked by fluid and mucus and experience bronchial spasms that make it difficult to breathe. Patients with another type of severe asthma, called eosinophilic asthma, have similar symptoms of asthma but unlike other kinds of asthma, have abnormally high levels of a particular type of white blood cells called eosinophils, which seem to make their asthma condition worse. Recently, a new group of drugs called biologics have been developed which represent the cutting-edge of biomedical research. For severe asthma, biologics have been designed to reduce the airway inflammation that underlies the disease process. In a recent report, DuBuske and colleagues from the George Washington University School of Medicine and Health Sciences, Division of Allergy and Immunology, Department of Internal Medicine, WA, DC, evaluated benralizumab, an injectable biologic that targets the eosinophil in patients with severe, uncontrolled eosinophilic asthma who did not respond to the usual anti-asthma medications.

Who or What was Proposed to be Studied?

Patients were aged 12–75 years, male and female, and had physician-diagnosed asthma that was uncontrolled despite treatment with usual inhaled steroid medications used for asthma.

How was the Study Done?

Patients received either benralizumab by injection every 4 weeks or every 8 weeks (after receiving the first three doses every 4 weeks) or placebo every 4 weeks. The number of asthma exacerbations per patient were determined for each month and season over a 2-year period in patients who had elevated eosinophil levels.

What are the Limitations of the Proposed Study?

The report is subject to limitations inherent to a retrospective study.

What are the Implications of the Study?

Benralizumab treatment significantly and consistently reduced asthma exacerbations across all seasons compared with placebo for patients with severe uncontrolled eosinophilic asthma. The biologic also led to complete depletion of eosinophils and suggests benralizumab is an effective strategy for reducing asthma exacerbations in patients with severe eosinophilic asthma. □