

Proton Pump Inhibitor No Help for Controlling Asthma

BY ROBERT FINN

Aggressive control of gastroesophageal reflux does not appear to improve asthma symptoms, a study has shown.

The findings challenge the theory that people with poorly controlled asthma frequently have reflux, and that treatment would lead to better asthma control.

The multicenter, double-blind, randomized controlled trial involved 412 adults whose symptoms of asthma were inadequately controlled despite the use of moderate to high doses of inhaled corticosteroids. Participants were assigned to receive either a placebo or 40 mg of esomeprazole, a prescription proton pump inhibitor, twice daily for 24 weeks. This dose was higher than that typically used to treat symptomatic gastroesophageal reflux (*N. Engl. J. Med.* 2009;360:1487-99).

The study was conducted by the research group of the American Lung Association Asthma Clinical Research Centers, and the article was prepared by a writing committee led by Dr. John G. Mastrorade of Ohio State University Medical College, Columbus.

Although only 15% of the participants reported a history of gastroesophageal reflux, ambulatory pH monitoring revealed that 41% of patients in the placebo group

and 40% in the esomeprazole group had evidence of reflux. This is a common finding among patients with asthma—for many, their reflux is asymptomatic.

Patients kept daily diaries of their asthma symptoms, and they were assessed by spirometry every 4 weeks. Depending on the definition of poor asthma control, between 42% and 61% of all participants experienced at least one episode, and 18% required an urgent-care visit or a course of prednisone. There were no significant differences in any of those measures between patients taking placebo and those taking esomeprazole.

About half of the participants reported night awakening caused by asthma symptoms, and that rate also did not differ significantly between the two groups.

The study was powered to detect a difference of 33% in the proportion of participants having one or more episodes of poor asthma control.

The study was supported by grants from the National Heart, Lung, and Blood Institute and the American Lung Association. Esomeprazole and placebo were supplied by AstraZeneca, which manufactures esomeprazole. Several members of the writing committee disclosed receiving consulting or lecture fees from AstraZeneca, and they also reported relationships with several other pharmaceutical companies. ■

Exhaled Nitric Oxide May Serve as Asthma Measure

BY HEIDI SPLETE

WASHINGTON — Measures of exhaled nitric oxide levels may add another dimension to the evaluation of asthma beyond the information available from the Asthma Control Test and spirometry findings, based on data from a study presented at the annual meeting of the American Academy of Allergy, Asthma, and Immunology.

Fractional exhaled nitric oxide (FeNO) may be “a surrogate marker for airway inflammation,” Dr. Brian C. Schroer of the Cleveland Clinic said in an interview. Neither the Asthma Control Test (ACT) nor spirometry evaluate airway inflammation.

Dr. Schroer and his colleagues reviewed charts from the asthma-related medical visits of 139 adults, all of whom concurrently completed the ACT, FeNO, and spirometry tests. Approximately 66% of the patients were female, and 78% were white. The study excluded smokers and patients with concomitant conditions including chronic obstructive pulmonary disease and cystic fibrosis.


Overall, the average FeNO score was 30.8 parts per billion (ppb), the average ACT score was 19.2, the average forced expiratory volume in 1 second (FEV₁) score was 86.5%, and the average

FEV₁/forced vital capacity (FVC) score was 87.4%. Scatter plots showed no correlation between FeNO and either ACT or spirometry measures.

Dr. Schroer said that he was initially surprised by the finding that inflammation was not increased in patients whose ACT scores were either decreased or normal. But the ACT doesn't take airway inflammation into account, and spirometry measures only airway hyperresponsiveness, he said. The lack of correlation held true when the patients were divided into four groups based on severity.

The FeNO measures in patients with intermittent asthma, mild persistent asthma, moderate persistent asthma, and severe persistent asthma were 20.4 ppb, 29.3 ppb, 25.9 ppb, and 39.7 ppb, respectively. The ACT scores in these groups were 22.2, 20.0, 19.7, and 17.1, respectively. The FEV₁ scores were 103%, 95.1%, 90.4%, and 70.4%, respectively, and the FEV₁/FVC scores were 93.3%, 90.7%, 91.2%, and 79.0%, respectively.

The study was supported by the William O. Wagner, M.D., Research and Education Fund. Dr. Schroer had no financial conflicts to disclose. ■

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Adult Asthmatics Do Not Understand Their Disease

BY DENISE NAPOLI

WASHINGTON — Nearly half (42%) of adult asthma patients incorrectly believed they could stop taking their controller medications when their symptoms subside, according to a recent survey.

Furthermore, even though 94% of patients indicated that they understood the difference between controller medications and quick-relief medications, 69% also believed that quick-relief medications could be taken on a daily basis.

The findings, from the General Awareness and Perceptions II (GAP II) survey, were presented in a poster at the annual meeting of the American Academy of Allergy, Asthma, and Immunology.

According to the authors, led by Dr. Reynold A. Panettieri of the University of Pennsylvania, Philadelphia, the survey results underscore a need for more asthma education among both physicians and patients.

“It is never appropriate to stop or taper controlled asthma medication,” he said in an interview. “Asthma is a chronic disease that requires long-term control even when symptoms are not present.”

A total of 1,001 adult patients and 300 primary care physicians completed the survey between June 27 and Aug. 18, 2008. Among the physicians, 41% indicated that they treated 15 or more asthma patients per week, and 26% in-

dicated that they had been in practice for more than 20 years. Among patients, the mean age was 47 years, slightly more than one-third had completed college or graduate study, and 62% used controller medications. A total of 59% used rescue medications.

The survey findings also revealed that 55% of patients believed their asthma was well-controlled if they logged just one emergency department visit per

Patients need to realize that visits to the emergency room do not indicate control and that they don't have to accept these visits as part of life.

year, and 56% believed that their asthma could qualify as well controlled even with two urgent doctor visits per year. “It's important for patients to realize that regular visits to the emergency room do not indicate control and that they don't have to accept these visits as part of a life with asthma,” Dr. Panettieri said.

The survey results emphasize the need for strong patient-physician relationships.

The study was conducted under the auspices of the Asthma and Allergy Foundation of America with support from AstraZeneca. ■

Peanut, Tree Nut Allergies in Kids Warrant Investigation for Asthma

WASHINGTON — Among children with reported food allergies, peanut and tree nut allergy were significantly associated with having asthma, even after adjusting for several confounding factors.

“A diagnosis of asthma should be kept in mind for any child with food allergies,” Dr. Jonathan M. Gaffin said at the annual meeting of the American Academy of Allergy, Asthma, and Immunology. However, “Children with peanut or tree nut allergy may be at particular risk,” he added in his poster presentation.

Data were collected on a cohort of 1,240 children treated for food allergy at allergy referral centers around Boston. The mean age of the cohort was 6 years (range 2 months to 20 years).

The overall prevalence of asthma was 48% (592 children)—higher than the 29% of children with food allergy and asthma reported in the 2007 National Health Interview Survey from the Centers for Disease Control and Prevention's National Center for Health Statistics.

Because his study included only children at subspecialty allergy clinics, those with food allergies may have been more likely to have physician-ver-

ified food allergies, said Dr. Gaffin, a pulmonary fellow in the division of immunology at Children's Hospital, Boston. Regional trends in food allergy, asthma, or diagnosis of food allergy and asthma may be other reasons for the discrepancy.

In any case, after controlling for patients having never tried each food allergen, age, gender, parents' asthma diagnosis, pollen allergy, and maternal education level, there was a significantly higher prevalence of asthma for peanut and tree nut allergy, as well as for pet allergy, pollen allergy, and eczema.

However, after a second multivariate analysis of those 1,027 children who had their food allergies tested (as opposed to never having tried the food), only peanut allergy (odds ratio 1.8) and tree nut allergy (OR 1.9) still had significantly greater association with asthma.

Dr. Gaffin recommended that a careful history on suspected or known asthma or food allergy also include questions about the other condition.

The study was funded by the Jordan Family Fund for Allergy Research. Dr. Gaffin said there were no other disclosures to make.

—Denise Napoli