Group Visits for Asthma Slash Hospitalizations

BY KERRI WACHTER

WASHINGTON — Group drop-in appointments reduce emergency department visits and rescue medicine use in adult patients with asthma, according to the results of a small study.

ED and hospital use was reduced 40%, and the average use of rescue medication decreased by half over a 4-year period among patients seen as part of a weekly drop-in group, Dr. Myron Liebhaber reported in a poster at the annual meeting of the American Academy of Allergy, Asthma, and Immunology.

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In addition, nocturnal waking was reduced from 4 to 1.5 times per month.

The drop-in group medical appointments were provided for adult patients with chronic asthma, who were encouraged to attend group discussions, wrote Dr. Liebhaber, an allergist in Santa Barbara, Calif. The program was designed to allow physicians to evaluate patients with asthma on a weekly basis and to provide patients with asthma education.

Groups were limited to 10 patients, and the appointments typically lasted for 90 minutes. The appointment process proceeded in three steps: vital signs and spirometry (with a nurse), an interim brief history and a physical exam (with a physician), and a group session (with an asthma educator and a behaviorist).

The study included 64 adults, who were followed for 4 years. Patients performed spirometry and completed an analog scale to measure compliance and satisfaction with care. An Asthma Control Test was also administered at each visit; results were discussed by the group to address concerns. In all, 42 patients continued the program for 4 years and were considered regular attendees.

The Asthma Quality of Life Questionnaire (AQLQ) was used to assess patients' perceptions of disease before the first visit and at 1 year later. The AQLQ assesses perceptions of activity limitation, symptoms, emotional function, and environmental exposure. Twenty-six patients completed the baseline and 1-year AQLQ; scores improved by 373 points in the first year, with the best improvement seen in the symptoms domain.

Dr. Liebhaber reported having no relevant financial relationships. ■

Inhaled Corticosteroid Cuts Need for Asthma Rescue Drugs

BY HEIDI SPLETE

WASHINGTON — A 100-mcg dose of the inhaled corticosteroid mometasone furoate, given either once or twice daily, significantly reduced the need for rescue medications in 296 children aged 4-11 years with mild to moderate persistent asthma.

Overall, children in both the once- and twice-daily mometasone furoate (MF) groups averaged significantly fewer puffs of rescue medication after 12 weeks, compared with a placebo group. The average baseline rescue medication use was 1.3 puffs per day in all three groups. Children in the once-daily and twice-daily treatment groups reported average reductions in rescue medication use of 19.5% and 13.4%, respectively. By contrast, rescue medication use increased by an average of 22% in the placebo group during the study period.

"Rescue medication use was reduced quickly and showed a trend for progressive reduction over the entire 12-week treatment period," Dr. William E. Berger, who is in private practice in Mission Viejo, Calif., and his colleagues, reported in a poster presentation at the annual meeting of the American Academy of Allergy, Asthma, and Immunology.

MF recently was approved to treat asthma in children aged 4-11 years. The current study was part of a larger trial that contributed to the drug's approval, Dr. Berger said in an interview.

The children were randomized to receive a 100-mcg dose of MF (via a dry powder inhaler) once daily (98 children) or twice daily (99 children), or a placebo (99 children). The researchers calculated changes in the number of rescue medication puffs per day and measured peak morning and evening expiratory flow.

The average age of the children was 9 years in the treatment groups and 8 years in the placebo group. The demographics and baseline uses of rescue medication and peak flow measurements were not significantly different among the three groups.

Significant improvements in peak expiratory flow were observed in both treatment groups compared with placebo during each week of the study.

Both doses of MF were well tolerated; the incidence of adverse events was similar in the once-daily, twice-daily, and placebo groups (55%, 60%, and 52%, respectively).

Adverse events included headache and upper respiratory tract infection.

The study population included children aged 4-11 years who had been diagnosed with asthma for at least 6 months. Children who used nebulizers or other long-acting beta$_2$-agonists, had been hospitalized during the 3 months before the study, or who used systemic corticosteroids for at least 15 days during the 6 months before the study were excluded.

These findings parallel the results from the larger drug approval study, which showed that inhaled MF given either once or twice daily was significantly more effective than was placebo at improving pulmonary function in children with mild to moderate asthma, the researchers wrote.

The study was sponsored by Schering-Plough Corp. ■

Obesity and Lung Function: Too Much Leads to Too Little

BY DIANA MAHONEY

Abdominal obesity may be a key determinant in the link between metabolic syndrome and impaired lung function, according to findings from a population analysis.

In an analysis of the health information for 121,965 men and women examined at a large French medical center between 1999 and 2006, Dr. Nathalie Leone of the University of Paris 7-Denis Diderot in France and colleagues observed a positive, independent relationship between impaired lung function and metabolic syndrome in both sexes. Waist circumference was the strongest predictor of the respiratory disturbance (Am. J. Respir. Crit. Care Med. 2009;179:509-16).

Based on the new evidence, the measurement of waist circumference should be routine practice before spirometry tests, Dr. Paul Enright of the University of Arizona in Tucson suggested in an accompanying editorial.

"Abdominal obesity could then be highlighted on the printed report so that the physician interpreting the report could take the effect of obesity into account," Dr. Enright noted (Am. J. Respir. Crit. Care Med. 2009;179:432-3).

Previous studies have linked impaired lung function with an increased risk of cardiovascular morbidity and mortality, but the mechanisms underlying the association have not been identified, the authors wrote.

Hypothesizing that metabolic syndrome or specific combinations of its components might play an important role in the relationship, the investigators evaluated the risk for impaired lung function according to metabolic syndrome traits using a logistic regression model adjusted for age, sex, education, smoking status, alcohol, BMI, physical activity, and cardiovascular disease history.

Lung function measures included forced expiratory volume in 1 second (FEV_1) and forced vital capacity (FVC). Impaired lung function was defined as an FEV_1 or FVC less than the lower limit of normal, the authors wrote. Metabolic syndrome was assessed according to American Heart Association and National Heart, Lung, and Blood Institute guidelines.

In the logistic regression model, impaired FEV_1 and FVC were independently associated with metabolic syndrome, with odds ratios of 1.28 and 1.41, respectively. Similar results were observed in women and men, the authors reported.

Metabolic syndrome variables identified three factors independently associated with impaired lung function: low high-density lipoprotein cholesterol level/high triglyceride level, high fasting glucose level/high blood pressure, and waist circumference greater than 35 inches for women and greater than 40 inches for men.

Abdominal obesity showed the strongest association with lung function. The relationship was not significantly modified by smoking status or BMI category, and it persisted after the exclusion of individuals with a history of cardiovascular or respiratory diseases.

Given that abdominal obesity has been associated in recent studies with a higher risk of respiratory death regardless of BMI, "our study raises potential concerns about how the possible impact of the increase in [waist circumference] reported in the United States and, to a lesser extent, in France on future adverse health outcomes should be considered when assigning resources in respiratory care," the authors wrote.

"Prospective studies are needed to determine the temporal relationship between lung function impairment and metabolic syndrome, including abdominal adiposity in particular," they said.

Mechanistic studies are warranted to clarify the underlying physiopathological pathways, the investigators added.

The authors of the study and the editorial reported having no relevant financial conflicts of interest. ■

Free Asthma Screening in May

The American College of Allergy, Asthma & Immunology is offering free asthma screenings for adults and children at more than 200 sites across the country. Most screenings will take play in May. For a list of locations and dates, visit the National Asthma Screening Program at www.acaai.org/public/lifeQuality/nasp/index.htm.