

Face of Severe Pediatric Asthma Getting Younger

BY KERRI WACHTER

WASHINGTON — Pediatric patients with severe asthma are younger, use fewer oral steroids, and take lower doses of inhaled steroids today than they did 10 years ago, based on data from a single-center study of more than 200 patients.

“The use of highly effective medications, developed over the past decade, appears to have changed the clinical manifestations of severe childhood asthma,” Dr. Joseph Spahn said at the annual meeting of the American Academy of Allergy, Asthma, and Immunology.

Dr. Spahn and his coinvestigators performed a retrospective study of 65 children (aged 6-18 years) referred to a pediatric day program at National Jewish Health for severe asthma between 2004 and 2007. The results were compared with those for a published study of a cohort of 163 children with severe asthma at the facility from 1993 to 1997. Dr. Spahn is the director of the immunopharmacology laboratory at National Jewish Health in Denver.

“Over a 3-year period, we only accumulated 65 children with severe asthma. That doesn’t mean that we’re going out of business because we’re not seeing patients any more. Our floors are filled with little kids with severe eczema and multiple food allergies; they’re no longer filled with kids with oral steroid-dependent asthma,” he noted.

The present cohort was younger (a mean 11 years vs. 14 years). The recent cohort also had an earlier age of asthma onset (a mean 3 years vs. 10 years), and had lower percentiles for height (53 vs. 39), weight (71 vs. 68), and body mass index (77 vs. 74).

In addition, “we are seeing fewer children who require chronically administered oral steroid therapy,” he said. The percentage requiring chronic oral steroid therapy dropped from 51% in the historic cohort to 28% in the most recent cohort. The duration of oral steroid use also fell from 34 months to 18 months, and the average inhaled steroid dose dropped, from 1,691 mcg to 764 mcg.

There is “an obvious and very distinct difference in the types of inhaled steroids that we use today compared to more than a decade ago,” said Dr. Spahn. Children in the current cohort are on second-generation steroids or beclomethasone in an improved delivery device.

In the latest cohort, 77% of patients were on a leukotriene receptor antagonist, 66% were on a combination inhaled-steroid/long-acting beta-agonist. None of the historic cohort received those medications. In addition, the present cohort had higher measures of forced expiratory volume in 1 second (84% vs. 76% of predicted), required less albuterol (34 vs. 72 inhalations per week), and had fewer intubations in the past (13% vs. 21%). The present cohort

also had fewer steroid-induced adverse effects.

Dr. Spahn reported that he has received honoraria from both Glaxo-SmithKline and Merck & Co. He disclosed that he has also received research support from GSK, Merck, and AstraZeneca Pharmaceuticals LP. ■



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