2005 Asthma/Allergy Conference Highlights

MARCH 18, 2005

DENVER — The annual meeting of the American Academy of Allergy, Asthma & Immunology begins Friday in San Antonio. Below are highlights of presentations by National Jewish faculty.

• Who Will Outgrow Asthma?
• Treatment Failure: Is the Medication or the Patient?
• Transplant Medicine Shows Promise for Asthma
• Safer Smallpox Vaccine
• Anti-IgE: Is It Worth It?

Who Will Outgrow Asthma?

Children can indeed "outgrow" their asthma as they become teenagers. On March 18, Ronina Covar, MD, will present data from 900 children with mild to moderate persistent asthma who have been followed for an average of nine years as part of the Childhood Asthma Management Program. Only 6% of the children were considered to be in full remission, with no asthma activity (asthma symptoms, medication use, or urgent care visits for asthma) during a year-long period. An additional 39% had improved to periodic asthma with asthma activity reported during some clinic visits but not others.

Factors associated with asthma remission included less bronchial hyperresponsiveness ("twitchiness"), higher lung function, less response to bronchodilator medications, and lower markers of allergy (IgE).

Treatment Failure: Medication or Patient?

When a patient's asthma remains out of control, the physician has to decide whether the medication is not working or the patient is not taking the medication as prescribed. Patients with chronic diseases such as asthma are often reluctant to continue taking medications, with many studies pegging adherence at about 50% of the prescribed regimen.

On March 18, Henry Milgrom, MD, will discuss various methods for determining a patient's adherence. Inhalers that electronically record medication use offer particular promise. When coupled with clinician-to-patient feedback, they can help increase compliance significantly. Most of the time, that translates into better asthma control.
Transplant Medicine Shows Promise as Asthma Treatment

The monoclonal antibody daclizumab (Zenapax®) is used to prevent the rejection of kidney transplants. Its target is interleukin-2, which is also an important signaling molecule in asthma. On March 20, Harold Nelson, MD, will describe a study in which 33 patients with difficult-to-control asthma were treated with daclizumab for 20 weeks.

Those patients had better lung function and more symptom-free days than similar patients treated with placebo. The medication is expensive and needs to be administered via injection, but could be a useful addition to the asthma armamentarium because of its unique targeting of interleukin-2.

Safer Smallpox Vaccine

A National Jewish research team led by Donald Leung, MD, PhD, has discovered two promising methods for preventing a severe side effect of smallpox vaccination. Millions of eczema patients, former patients and people who live with them are discouraged from getting the smallpox vaccine because people with a history of eczema are susceptible to developing eczema vaccinatum, a potentially deadly skin infection caused by the vaccinia virus used in the smallpox vaccine.

On March 21, Michael Howell, PhD, will present data indicating that treating eczema patients’ skin cells with specific antibodies can restore their ability to produce antimicrobial proteins that kill the virus and inhibit its spread. On March 22, he will also report that new synthetic antibiotics modeled after naturally occurring antimicrobial proteins kill the vaccinia virus and may be useful in treating atopic dermatitis patients with eczema vaccinatum.

Anti-IgE: Is It Worth It?

The anti-IgE monoclonal antibody has been touted as a revolutionary treatment for asthma and other allergic diseases because it is designed to stop the allergic reaction before it stops. But it is very expensive and requires a monthly injection. Almost two years after the anti-IgE medication Xolair received FDA approval for the treatment of refractory allergic asthma, Erwin Gelfand, MD, Chairman of Pediatrics at National Jewish, will lead a seminar evaluating anti-IgE in asthma therapy.

National Jewish Health is the leading respiratory hospital in the nation. Founded 120 years ago as a nonprofit hospital, National Jewish Health today is the only facility in the world dedicated exclusively to groundbreaking medical research and treatment of patients with respiratory, cardiac, immune and related disorders. Patients and families come to National Jewish Health from around the world to receive cutting-edge, comprehensive, coordinated care. To learn more, visit the media resources page.

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