Penicillin Allergy Tied to Responses to Other Drugs

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SAN DIEGO — People who report allergies to other drugs were more than 27 times as likely to report a penicillin allergy as people who reported no other drug allergies, Dr. Andrea J. Apter reported in a poster presentation at the annual meeting of the American Academy of Allergy, Asthma, and Immunology.

Other statistically significant predictors of penicillin allergy were a family history of penicillin allergy and a personal history of asthma, allergic rhinitis, or atopic dermatitis, wrote Dr. Apter of the University of Pennsylvania, Philadelphia, and associates.

The study involved 24 adults with penicillin allergies and 39 age-matched controls with no allergies to penicillin. All were recruited from the offices of allergists.

Patients were judged to have a penicillin allergy if they responded positively to the questions, "Are you allergic to penicillin or its derivatives (for example, penicillin, amoxicillin, Augmentin, ampicillin, dicloxacillin, piperacillin, ticarcillin)? By allergic reaction, did you have hives, angioedema, wheeze, hypotension, or anaphylaxis after a dose of this antibiotic?"

The patients completed a questionnaire inquiring about several health-related matters, such as whether they had asthma, allergic rhinitis, or eczema; were currently taking more than two medications; or had more than two current medical diagnoses.

After controlling for age and a personal history of atopy, the researchers found statistically significant associations between penicillin allergy and allergies to other drugs (odds ratio 27.4) and between a personal history of penicillin allergy and a family history of penicillin allergy (OR 8.8). After controlling for age, they found a statistically significant association between a personal history of penicillin allergy and a personal history of atopy (OR 3.5). No other associations were statistically significant. ■

WBC Might Not Be Best Bacterial Infection Marker

An abnormal white blood cell count is not a useful marker for predicting concurrent serious bacterial infection in infants and young children hospitalized with respiratory syncytial virus lower respiratory tract infection, results from a large single-center study demonstrated.

The finding is important because although there is a guideline for treating infants and young children with fever without a source (Pediatrics 1993;92:1-12), there is no guideline that addresses the treatment of febrile infants and young children with clinical evidence of viral infection, Dr. Kevin Purcell and Dr. Jaime Fergie said.

The researchers studied the medical records of 1,920 infants and young children admitted to Driscoll Children's Hospital in Corpus Christi, Tex., with respiratory syncytial virus (RSV) lower respiratory tract infections between July 1, 2000, and June 30, 2005 (Pediatr. Infect. Dis. J. 2007;26:311-5).

They defined fever as having a temperature of 100.4° F or higher before admission. The WBC count was considered abnormal if it was lower than 5,000/mcL of blood or it reached or exceeded 15,000/mcL of blood. The median age of the 1,920 patients was 142 days, and 672 had a complete WBC count and bacterial culture.

Overall, only 34 of the 672 patients (5.1%) had a positive bacterial culture. The probability of a WBC less than 5,000/mcL and a level between 15,000 and 29,999/mcL being associated with a concurrent serious bacterial infection ranged from 0% to 5.7%. This was no different from the rate of a normal WBC in febrile and afebrile patients, which ranged from 3.9% to 4.7%. However, patients with a WBC of 30,000/mcL or greater were about six times more likely to have a concurrent serious bacterial infection than those who had lower levels.

"Applying the guideline for treatment of infants and young children with fever without a source to patients with RSV lower respiratory tract infection is of no use in predicting the presence of a concurrent serious bacterial infection. However, we believe [one should] obtain blood cultures in infants with RSV lower respiratory tract infection that have a WBC count of 30,000 per mcL or greater or are toxic-appearing," they wrote.

—Doug Brunk