BEHAVIORAL TECHNIQUES HELP CLEAR SLEEP HURDLES, PAGE 15

ELSEVIER

Pediatric News

THE LEADER IN NEWS AND MEETING COVERAGE

www.pediatricnews.com

VOL. 42, NO. 12 — *The Leading Independent Newspaper for the Pediatrician—Since 1967* — DECEMBER 2008

KRYSTAL HILL/PEDIATRIC HEALTHY LIFE CENTER/UNIVERSITY OF SOUTH ALABAMA

Obese patients with high ALT may have some condition other than nonalcoholic fatty liver disease, Dr. Daniel Preud'Homme warns.

High ALT May Not Mark Liver Disease

BY DAMIAN McNAMARA
Miami Bureau

ORLANDO — Consider a diagnosis other than nonalcoholic fatty liver disease when an obese child or adolescent presents with elevated levels of the liver enzyme alanine aminotransferase, a retrospective study suggests.

Other important diagnoses were missed—in some cases for years—when obesity was automatically assumed to be the culprit and no further clinical investigations were performed.

"It used to be that it goes without saying that it's fatty liver disease" when an obese pediatric patient presents with elevated serum levels of alanine aminotransferase (ALT), Dr. Daniel Preud'Homme said. But his experience was suggesting that this was not necessarily the case.

To find out more, Dr. Preud'Homme and his colleagues reviewed the medical records of 372 children and adolescents who were referred for evaluation and management of obesity to the pediatric healthy life center at the University of South Alabama in Mobile. A complete metabolic profile for each patient included liver testing with serum ALT measurements. Mean age was 14 years and mean body mass index was 39 kg/m^2.

Of the 113 patients who had an abnormally high ALT (defined as greater than a laboratory cutoff of 48 U/L), 8 patients (7%) were eventually diagnosed with a condition other than nonalcoholic fatty liver disease.

"Seven percent doesn't sound like a lot, but it is. If you assume they [all] have fatty liver disease, you could be sitting on another disease," said Dr. Preud'Homme, a pediatric gastroenterologist at the university.

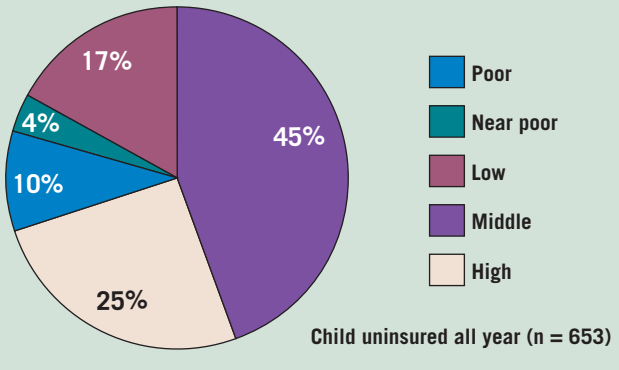
The index case was a 13-year-old girl who had four abnormally high ALT assays over 2 years. The results were attributed to her obesity only, when in fact she had autoimmune hepatitis type 1.

See **High ALT** *page 6*

INSIDE

VITAL SIGNS

Uninsured Children With Insured Parents: 70% Come From Middle- and High-Income Families



Notes: 2002-2005 data from the Medical Expenditure Panel Survey. Because of rounding, figures do not add up to 100.
Source: JAMA 2008;300:1904-13

ELSEVIER GLOBAL MEDICAL NEWS

Added Strains Give PCV13 Promising Results in Europe

Serotype 19A immunogenicity was high.

BY HEIDI SPLETE
Senior Writer

WASHINGTON — An updated pneumococcal conjugate vaccine containing 13 different bacterial strains appears to be safe and immunogenic, based on pilot data from four European studies including several hundred infants and toddlers.

The data were presented in a poster session at the jointly held annual Interscience Conference on Antimicrobial Agents and Chemotherapy and the annual meeting of the Infectious Diseases Society of America.

"Globally, the pneumococcus has been estimated to account for around 1 million deaths annually in children less than 5 years old," wrote Dr. Dorothee Kieninger of Johannes Gutenberg University in Mainz, Germany, and colleagues.

Data from the Centers for Disease Control and Prevention in Atlanta have shown a significant decrease in pneumococcal disease in children in the United States thanks to the 7-valent pneumococcal conjugate vaccine (PCV7). But outbreaks of disease in recent years have been linked to bacterial strains not included in this vaccine, particularly serotype 19A, according to the CDC.

The studies presented at the meeting showed that the new

See **PCV13** *page 4*

Immunotherapy Cuts Cost Of Care in Allergic Rhinitis

BY SUSAN LONDON
Contributing Writer

SEATTLE — The cost of allergy immunotherapy among children with allergic rhinitis is quickly surpassed by savings in other health care costs, new data suggest.

"I am often asked by payers to justify the cost of allergy symptom treatments, allergy medications, and asthma medications," said lead investigator Cheryl Hankin, Ph.D., president and chief scientific officer of BioMedEcon LLC, in Moss Beach, Calif. "But it's amazing to me that payers rarely know that allergy immunotherapy is the only disease-modifying treatment available for children and patients with allergies."

Research on the cost impact of this therapy among patients with asthma and allergic rhinitis in the United States has been limited, Dr. Hankin noted.

In addition, the few previous studies on the topic have yielded conflicting results.

In the retrospective study reported at the annual meeting of the American College of Allergy, Asthma, and Immunology, Dr. Hankin and her colleagues used

See **Immunotherapy** *page 8*

Rhinitis Care Cost Cut

Immunotherapy *from page 1*

a Florida Medicaid database to identify children younger than age 18 years given a new diagnosis of allergic rhinitis during a 9-year period (1997-2006). Children who received immunotherapy and had 18 months of follow-up data after starting the therapy were matched with children who did not receive immunotherapy according to age, comorbidities (asthma, atopic dermatitis, and conjunctivitis), sex, and race.

The investigators used Medicaid claims records to ascertain health care costs. Total health care costs were calculated as the sum of inpatient, outpatient, and medication costs.

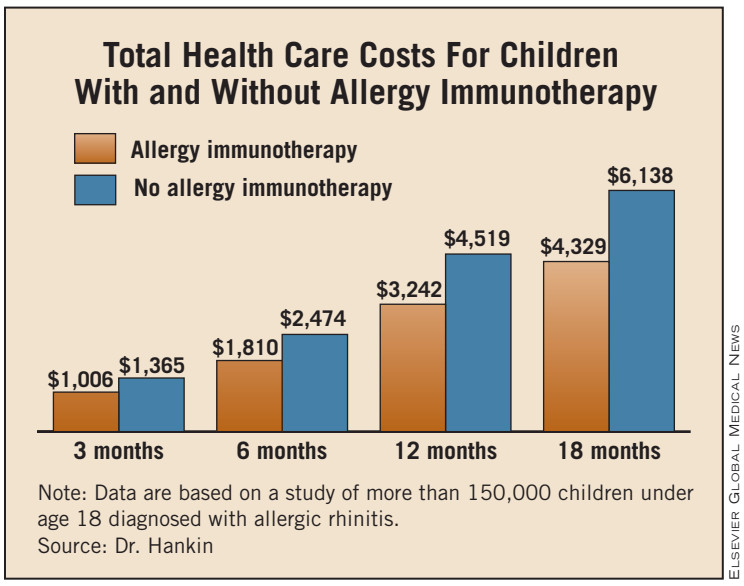
Study results were based on 2,481 children who received immunotherapy and 150,615 children who did not. Analyses indicated that the median total cost of a course of immunotherapy over the 18-month period was $565, or about $35 per administration, Dr. Hankin said.

The median total health care costs per patient—which included the cost of immunotherapy in the children who received it—were $1,809 or 29% lower in the immunotherapy group ($4,329 vs. $6,138).

In addition, the benefit began to emerge soon after the initiation of immunotherapy, according to Dr. Hankin. "At each time point, we were very surprised to find a highly significant effect, starting at 3 months, that continued to grow." The cost of the immunotherapy was offset by savings in other health care costs after only 6 months. When costs were broken down by type, children who did and did not receive immunotherapy had similar median inpatient costs. However, those receiving the therapy had significantly lower median medication costs ($1,469 vs. $1,698) and outpatient costs, including the cost of the immunotherapy itself ($2,391 vs. $3,329).

'We were very surprised to find a highly significant effect, starting at 3 months.'

DR. HANKIN



Note: Data are based on a study of more than 150,000 children under age 18 diagnosed with allergic rhinitis.
Source: Dr. Hankin

ELSEVIER GLOBAL MEDICAL NEWS

Discussing the study's findings, Dr. Hankin noted that they may not necessarily be generalizable to patients with private insurance or to adults. At the same time, she pointed out, the nature of the study permits an assessment of immunotherapy under real-world conditions.

Innovations such as sublingual allergy immunotherapy could reduce or remove barriers to accessing treatment, Dr. Hankin commented. "Reducing barriers to treatment may in fact reduce the cost of negative outcomes of allergic rhinitis, so we would expect that possibly this would reduce health care costs further, and further improve the health of children with allergic rhinitis."

Dr. Hankin disclosed that she is a consultant for Greer Laboratories Inc., which also funded the study, and for Asthmatx Inc. ■

ACIP Stands Pat on Lengths Of Needles for Vaccinations

BY SHARON WORCESTER
Southeast Bureau

ATLANTA — Despite new data suggesting that current Centers for Disease Control and Prevention recommendations regarding needle length for intramuscular vaccine injections might be flawed, the CDC's Advisory Committee on Immunization Practices favors maintaining the current recommendations.

The new data published this year by. William C. Lippert and Dr. Eric J.Wall suggest that the currently recommended needle lengths increase risk of overpenetration and striking of bone and periosteum (Pediatrics 2008;122:e556-63). In some cases, the CDC recommendations are nearly twice what the study authors recommended, based on their review of 250 diagnostic MRI and CT scans. For example, in boys weighing 140 kg or less and in girls weighing 115 kg or less, the authors recommended a 5/8-inch needle length, while the current CDC recommendations call for a 1-inch needle length in these groups, according to Dr. Andrew Kroger of the CDC and ACIP's General Recommendations Working Group, which proposed the revision at ACIP's fall meeting.

See related column on page 20.

Most working group members favored changing the general recommendations to "partially adopt" the new data by adding footnotes that incorporate the new data, Dr. Kroger said. A proposed footnote states that "some experts recommend a needle shorter than 1 inch (25 mm) for children/adolescents 3 years through 18 years who weigh less than 140 kg (males) or less than 115 kg (females)."

However, several ACIP members argued against any change, saying that in years of practice they have not seen the types of complications noted in the study and arguing that the proposed change complicates matters for health care providers. "Overall, I think that any change is unworkable," said Dr. Michael S. Marcy of the UCLA Center for Vaccine Research in Torrance, Calif.

The Lippert study is "interesting, but perhaps irrelevant," he said, noting that a recommendation for shorter needle length for some children might outweigh any benefits—especially given the fact that a rising number of pediatric patients are overweight or obese, which could lead to increased risk of subcutaneous vs. intramuscular injection with use of shorter needles.

The committee asked the working group to maintain the current recommendations in the updated general recommendations report the group is currently drafting. The first half of the revised report was presented at the meeting.

The last report, adopted in 2006, includes a grid calling for the use of a 5/8-inch needle in newborns injected at the anterolateral thigh, a 1-inch needle in those aged 1-12 months injected at the anterolateral thigh, a 1- to 1¼-inch needle in those aged 1-2 years injected at the anterolateral thigh or a 5/8- to 1-inch needle in those injected at the deltoid muscle of the arm, and a 5/8- to 1-inch needle in those aged 3-18 years injected at the deltoid muscle of the arm or a 1- to 1¼-inch needle in those injected at the anterolateral thigh.

The second half of the revised draft of the General Recommendations report, which addresses immunization issues relevant to all vaccines and which addresses topics ad hoc that cannot be attributed to a single vaccine, will be presented to ACIP in February 2009. The revised report is scheduled for December 2009 publication. ■

Treating GERD in Patients With Asthma Improves Lung Function

BY SUSAN LONDON
Contributing Writer

SEATTLE — Treating gastroesophageal reflux disease in children with persistent asthma improves lung function in the long term, new data show. Moreover, medical and surgical treatments appear to work equally well.

Roughly two-thirds of nonatopic children with persistent asthma also have gastroesophageal reflux disease (GERD), and that disease appears to exacerbate the asthma, Dr. Aaron K. Kobernick said at the annual meeting of the American College of Allergy, Asthma, and Immunology. Studies of GERD treatment in this context have focused on asthma medication use and have been relatively short.

"We know that with asthma, short-term studies are just not as reliable," Dr. Kobernick said. "Because asthma is a disease of exacerbation and remission, the longer we look at asthma and outcomes in asthma, the better off we are going to be."

In a prospective 2-year study, Dr. Kobernick and his colleagues enrolled 62 children between the ages of 6 and 11 years who had moderate persistent asthma but did not have atopy or risk factors for wheezing.

At baseline, all of the children underwent spirometry and extended esophageal pH monitoring. The latter testing revealed that the majority of the children also had GERD.

Of the children with asthma and GERD, 32 were treated with medical therapy for GERD consisting of proton pump inhibitors and prokinetic agents and 12 underwent surgical fundoplication; they also received asthma therapy. The 18 children who did not have comorbid GERD received asthma therapy only.

The three groups were similar with respect to age, sex, socioeconomic status, duration of illness, and initial spirometry findings, according to Dr. Kobernick, a medicine and pediatrics resident at Tulane University in New Orleans.

After 2 years of treatment, the average annual number of asthma exacerbations per child was significantly lower, by about 75%, among both the children with medically treated GERD (0.68) and the children with surgically treated GERD (0.79), compared with their GERD-free counterparts treated for asthma alone (2.9), Dr. Kobernick reported. The difference between the medically and surgically treated GERD groups was not significant.

Dr. Kobernick proposed that anatomy may explain why more children had an improvement in FEV_1 (an indicator of large-airway function) than in $FEF_{25\%-75\%}$ (an indicator of small-airway function) with anti-GERD treatment.

"We think that maybe the large airways … are most likely exposed to the onslaught of acid from the reflux, and those just tend to improve more quickly with anti-GERD treatment," he commented.

Dr. Kobernick concluded that the results may underestimate the benefit of anti-GERD treatment because many children had been previously treated for asthma. "The average time that a patient was treated for asthma prior to enrollment in our study was about 1½-2 years, so we think their lungs probably started looking a lot better before they were even enrolled."

Dr. Kobernick reported that he had no conflicts of interest in association with the study. ■