Study Gives Insight into What Triggers Cause Anaphylaxis and How Deadly It Is

Data presented at the 2018 AAAAI/WAO Joint Congress found that reactions to peanut were the most common cause of anaphylaxis in pediatric intensive care units.

Orlando, FL - Anaphylaxis is a serious, potentially fatal, allergic reaction which has varying reports of incidence and mortality. A new report of anaphylaxis among pediatric patients requiring intensive care in North America will be presented at the 2018 American Academy of Allergy, Asthma & Immunology (AAAAI) and World Allergy Organization (WAO) Joint Congress will offer one of the largest comprehensive reports currently available.

“This study is important because it gives insight into the burden of anaphylaxis in pediatric patients on an international level,” said author Carla M. Davis, MD, FAAAAI. “The characteristics of anaphylaxis in children including epidemiology, morbidity and mortality tend to be underreported, even though the information could give insights into patterns and possible interventions.”

Data was collected from 2010 to 2015 and included 1,989 pediatric anaphylaxis admissions to North American pediatric intensive care units (PICUs). Researchers then determined how likely a child was to die from anaphylaxis, the most common triggers and which patients are most likely to suffer from anaphylaxis.

Common Causes: Food was the most common specified trigger of anaphylaxis. Reactions to peanut made up approximately 45% of food induced anaphylaxis cases, while tree nuts and seeds constituted about 19% and milk caused about 10% of the cases. Other common triggers included drug, blood products and venom.

Mortality and Morbidity: The burden of pediatric anaphylaxis was about 0.3% of all PICU admissions. The overall probability of death was 0.9% with 1% mortality. In addition, 19% of patients needed tracheal intubation. Peanut and dairy reactions were identified as the principal causes of death out of all food induced anaphylaxis.

Demographics: Anaphylaxis occurred more often in children ages 6 to 18 years-old compared to the overall PICU population and intubation was least common in children 2 to 5 years-old. Asian patients were disproportionately represented, although the mortality rate did not vary based on any demographic factors.

Other Factors: Admissions were most likely to occur during the fall and in the Northeast and Western regions of the United States.
“The burden of pediatric anaphylaxis was higher than what we anticipated,” said Davis. “This means food induced anaphylaxis should be considered a serious medical condition and aggressively prevented and treated. Physicians should identify at risk patients and frequently review avoidance measures.”

To learn more about allergy management or anaphylaxis, go to aaaaai.org. Research presented at the AAAAI/WAO Joint Congress, March 2-5 in Orlando, Florida, is published in an online supplement to The Journal of Allergy and Clinical Immunology, an official journal of the AAAAI.

The American Academy of Allergy, Asthma & Immunology (AAAAI) represents allergists, asthma specialists, clinical immunologists, allied health professionals and others with a special interest in the research and treatment of allergic and immunologic diseases. Established in 1943, the AAAAI has more than 7,000 members in the United States, Canada and 72 other countries. The AAAAI’s Find an Allergist/Immunologist service is a trusted resource to help you find a specialist close to home.

The World Allergy Organization (WAO) is an international alliance of 97 regional and national allergy, asthma, and immunology societies. Through collaboration with its Member Societies WAO provides a wide range of educational and outreach programs, symposia and lectureships to allergists/immunologists around the world and conducts initiatives related to clinical practice, service provision, and physical training in order to better understand and address the challenges facing allergists/immunologists worldwide.

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