Sensitization to Cor a 9 and Cor a 14 Is Highly Specific for a Hazelnut Allergy With Objective Symptoms in Dutch Children and Adults


PURPOSE OF THE STUDY. The goal of this study was to determine if component-resolved testing will aid in determining patients at risk for allergic reactions to hazelnut.

STUDY POPULATION. A total of 161 adults and children with sensitization (≥0.35 kU/L) to hazelnut were retrospectively recruited between 2010 and 2012 at the University Medical Center Utrecht (Utrecht, the Netherlands).

METHODS. Forty children and 15 adults with objective symptoms on double-blind, placebo-controlled food challenges (DBPCFCs) and 24 adults with a convincing history of reaction were compared with 41 children and 41 adults with no symptoms on DBPCFCs. Specific IgE levels to hazelnut extract and single components were analyzed with ImmunoCAP and compared between the study groups. The diagnostic value of IgE levels for discrimination between hazelnut allergy with objective symptoms and no or subjective symptoms was determined by calculating the area under the curve of the receiver-operating characteristic.

RESULTS. Asthma was more common among adults with hazelnut allergy with objective symptoms than those with no or subjective symptoms (P = .03). Asthma was more common in children than adults with no or subjective symptoms of hazelnut allergy (P = .04). All children and most adults (97%) with subjective hazelnut allergy were sensitized to birch pollen. Sensitization to nCor a 9, rCor a 14, or both was strongly associated with hazelnut allergy with objective symptoms. IgE levels to either nCor a 9 of ≥1 kU/L or rCor a 14 of ≥5 kU/L in children had a sensitivity of 83% and a specificity of 93%. In adults, the combination of IgE to either nCor a 9 or rCor a 14 of ≥1 kU/L had a specificity of 98%.

CONCLUSIONS. Sensitization to Cor a 9 and Cor a 14 is specific for patients with objective symptoms in DBPCFCs to hazelnut.

Factors Associated With Reported Food Allergy Tolerance Among US Children


PURPOSE OF THE STUDY. The goal of this study was to investigate factors associated with development of tolerance to 9 common food allergens.

STUDY POPULATION. The study population included 40,000 households with children in the United States.

METHODS. A randomized, cross-sectional survey was completed by eligible adult caregivers regarding a child in the home. Allergies to the 9 most frequently reported current and outgrown food allergens (milk, peanut, shellfish, tree nut, egg, fish, wheat, soy, and sesame) were analyzed. Data regarding the age of first reaction, age at which the allergy was outgrown, and severity of the reaction (mild, moderate, or severe) were obtained.
Sensitization to Cor a 9 and Cor a 14 Is Highly Specific for a Hazelnut Allergy With Objective Symptoms in Dutch Children and Adults

Timothy Andrews and James R. Banks

*Pediatrics* 2014;134;S152

DOI: 10.1542/peds.2014-1817HH

Updated Information & Services

including high resolution figures, can be found at:

/content/134/Supplement_3/S152.1.full.html

Permissions & Licensing

Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:

/site/misc/Permissions.xhtml

Reprints

Information about ordering reprints can be found online:

/site/misc/reprints.xhtml
Sensitization to Cor a 9 and Cor a 14 Is Highly Specific for a Hazelnut Allergy
With Objective Symptoms in Dutch Children and Adults
Timothy Andrews and James R. Banks
Pediatrics 2014;134;S152
DOI: 10.1542/peds.2014-1817HH

The online version of this article, along with updated information and services, is
located on the World Wide Web at:
/content/134/Supplement_3/S152.1.full.html