Prevalence of food sensitisation, IgE-mediated and Non-IgE-mediated food allergy among pediatric patients diagnosed with autism spectrum disorders

Aimee Lou Nano, Marysia Recto
University of the Philippines, Philippine General Hospital, Manila, Philippines

Background: Autism spectrum disorders and food allergies are conditions with increasing prevalences. Studies have investigated the link between intake of certain food among ASD patients and onset of adverse reactions. Results of these studies are varied and conflicting. This is the first local study on the prevalence of food allergies among these patients.

Aim: This study aims to determine the prevalence of food sensitization, IgE-mediated and non-IgE-mediated food allergies among pediatric ASD patients. It also aims to determine the prevalence of perceived food allergies, and its triggers and the types of reactions of perceived food allergies and on open food challenge.

Methods: This is a cross-sectional, prospective study. Pediatric patients diagnosed with Autism Spectrum Disorders were enrolled in the study. Excluded were: children with uncontrolled asthma, with a recent anaphylactic reaction, and those on chronic high dose steroid therapy. Required sample size is 92. Complete history and PE were obtained and previous reactions to food and suspected allergens were duly noted. All patients underwent skin prick testing (SPT) to cow milk, wheat, soy and other perceived food allergens. Those with perceived food allergies underwent open food challenge to specific food allergens. Frequencies and proportions were determined to analyze the different variables.

Results: Data were gathered from 84 patients diagnosed with ASD. 32/84 (38%) have perceived food allergies, mostly to milk (31.3%), chocolate (25%), and egg (18.8%). Most commonly perceived allergic reactions to food allergens were: hyperactivity (53.1%), loose stools (25%), pruritus (15.6%), and wheals (12.5%). A total of 17 (20.2%) patients had (+) skin prick test result, hence food sensitization, to at least 1 food allergen, mostly to soy (41.2%) and milk (35.3%). Of these patients, 8 had perceived food allergies. 6 of these patients underwent open food challenge and all of them had (-) results.

Conclusion: Prevalences of perceived food allergies and food sensitization are higher among ASD patients in this study compared to the general population. The most common perceived food allergens are similar with that of other children. Notably, the common perceived allergic reactions to food were behavioral or gastrointestinal symptoms, which may be non-IgE mediated or not food allergies at all. Hence, ASD patients with adverse food reactions are recommended to undergo complete, systematic evaluation and possible restrictive diets should be based on well-documented food allergies.