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17TH ANNUAL CHILD HEALTH RESEARCH DAYS

Nutrition for a Changing World

The Science of Nourishing the Next Generation

CHRD 2021: Abstract & Poster Submission Form

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Research Category:

- Basic Science
- Clinical
- Community Health / Policy

What was your role in the project?

- Design
- Perform Experiments
- Analyze Data
- Write Abstract

Presenter Status:

- Undergraduate Students
- Masters Student
- PhD Student
- Post-Doctoral Fellows
- Residents
- Non-Trainee

Title

Pattern of peanut consumption and peanut sensitization at age 5 years in the CHILD Cohort Study

Background

Recommendations for childhood peanut allergy prevention emphasize early dietary peanut introduction and continuous peanut consumption based on studies in high-risk children. General-population CHILD Cohort Study children had lower peanut allergy and sensitization with peanut introduction by age 12 months; importance of continuous peanut consumption requires further study.

Objective

We examined associations between continuous peanut consumption and peanut sensitization at age 5 years.

Methods

CHILD caregivers prospectively reported their child's peanut consumption at ages 6, 9, 12, 18, 24, 30, 36, and 60 months. They were not advised how or when to introduce peanut. Continuous peanut consumption was defined as having no more than one gap in reported peanut consumption after first introduction before 18 months, and two or fewer gaps thereafter until 5 years. All other patterns were considered transient. Sensitization (positive skin prick testing [SPT] >2 mm larger than the negative control) was measured at 1 and 5 years. Per current guidelines, children at high risk of peanut allergy had egg sensitization or allergy and/or moderate-to-severe atopic dermatitis in their first year. Multivariable logistic regression examined the odds of peanut sensitization at 5 years in continuous versus transient eaters.

Results

Of the 2440 children with SPT at 5 years, 2086 had complete peanut consumption data; 174 were high risk, 1800 consumed peanut continuously and 286 consumed transiently (including 189 who never consumed). Adjusting for maternal race, egg sensitization at 1 year, and study centre, children who consumed peanut continuously had reduced odds of peanut sensitization at age 5 years (OR 0.85, 95%CI: 0.83-0.86), even after excluding children who never consumed peanut (OR 0.88, 95%CI: 0.86-0.90) or after excluding high-risk children (OR 0.90, 95%CI: 0.88-0.91).

Conclusion

General-population children with continuous peanut consumption after first introduction had reduced odds of peanut sensitization at age 5 years, even after excluding high-risk children.

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