Nutrition Therapy Helps Prevent Progression in Youth with Prediabetes

By Megan Brooks

NEW YORK (Reuters Health) - Routine nutrition counseling can reverse elevated blood sugar and prevent the development of type 2 diabetes in children and adolescents with prediabetes, report New York-based researchers.

"All children with prediabetes should see a nutritionist. This has been part of the standard of care, but with no empirical, supporting data for its efficacy," Dr. Benjamin U. Nwosu, chief of endocrinology at Cohen Children's Medical Center in New Hyde Park, New York, told Reuters Health by email.

"Our study has provided the much-needed data to support medical nutrition therapy for children and adolescents with prediabetes," said Dr. Nwosu, a researcher at the Feinstein Institutes for Medical Research in Manhasset, New York.

The researchers took a look back at 46 boys (mean age 12 years) and 62 girls (mean age 13 years) with prediabetes (HbA1c 5.7% to 6.4%) who were recommended to receive nutrition therapy every three months. This consisted of a nutritionist / registered dietician meeting with families to educate them on reading food labels, making food choices, and assessing their nutritional intake.

Altogether, 44 youth (41.5%) received two or more nutrition visits per year (adherent group) and 62 (58.5%) received none or only one nutrition visit per year (nonadherent group). Two youths lacked nutrition visit information.

Over four years, 18 youth (17.0%) progressed to type 2 diabetes, including 14 of the 62 nonadherent youth (22.6%) and 4 of the 44 adherent youth (9.1%).

Adherence to nutrition visits was associated with a four-fold reduction in the likelihood of progressing from prediabetes to type 2 diabetes (hazard ratio 3.88; 95% confidence interval 1.26 to 11.98, P=0.02).

The results, published in Frontiers in Endocrinology, remained significant after adjusting for age, sex, race/ethnicity, body mass index, and metformin use.

"Interestingly, this positive effect can be seen without changes in body weight. Our data suggest that adherence to nutrition visits could reverse prediabetes by decreasing insulin resistance," Dr. Nwosu told Reuters Health.

"This new information should encourage parents of children with prediabetes to optimize their children's adherence to nutrition visits," Dr. Nwosu added.

The researchers say their findings are similar to reports wherein lifestyle modification by adults with prediabetes was associated with a reduction in the rate of progression to type 2 diabetes from 37% to 20% over four years (https://bit.ly/3u6f9Vi).

This study was funded in part by an investigator-initiated grant from the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), part of the National Institutes of Health.

SOURCE: https://bit.ly/3A3ZidP Frontiers in Endocrinology, online June 22, 2022.

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