Vitamin E in early childhood tied to lower ALT levels later

27 November 2017

(HealthDay)—Higher early childhood intake of alpha-tocopherol is associated with lower odds of elevated mid-childhood alanine aminotransferase (ALT) levels, according to a study published online Nov. 9 in *Hepatology*.

Jennifer A. Woo Baidal, M.D., M.P.H., from the Columbia University Medical Center in New York City, and colleagues evaluated the extent to which vitamin E (alpha-tocopherol) intake early in childhood is associated with ALT levels later in childhood. Mothers of 528 children completed a validated food frequency questionnaire during early childhood visits (median 3.1 years), while blood and anthropometric data were collected at a mid-childhood visit (median 7.6 years).

The researchers found that mean alpha-tocopherol intake was 3.7 mg/day in early childhood. Mean body mass index (BMI) z-score was 0.41 units and 22 percent of children had an elevated ALT level at the mid-childhood evaluation. Multivariable-adjusted logistic regression models showed that there were lower odds of elevated mid-childhood ALT (adjusted odds ratio, 0.62; 95 percent confidence interval, 0.39 to 0.99) for quartiles 2 through 4 versus the lowest quartile in children with higher early childhood vitamin E intake. Even after accounting for early childhood diet, the trend persisted (adjusted odds ratio, 0.62; 95 percent confidence interval, 0.36 to 1.08) and was strengthened after accounting for mid-childhood BMI z-score (adjusted odds ratio, 0.56; 95 percent confidence interval, 0.32 to 0.99).

"Our findings suggest that modifiable risk factors, specifically intake of vitamin E, should be considered in future interventions to identify approaches to prevent pediatric nonalcoholic fatty liver disease," the authors write.

More information: Abstract
Full Text (subscription or payment may be required)