Tuesday, June 10, 2014, 3:00 pm CDT (North America) and 10:00 pm CEST (Central Europe)
Wednesday, June 11, 2014, 6:00 am AEST (Australia)

INFANT NUTRITION AND DEVELOPMENT OF TYPE 1 DIABETES

Previous studies have indicated that early exposure to complex foreign proteins, such as cow's milk proteins, increases the risk of type 1 diabetes in predisposed individuals. We therefore embarked in 2002 on a large-scale study in more than 2100 infants with a family member affected by type 1 diabetes and with genetic disease susceptibility to find an answer to the question whether delaying the exposure to complex foreign proteins will decrease the risk of diabetes. After breastfeeding the study participants were either weaned to a special formula, in which the cow's milk proteins were split into small peptides, or a conventional infant formula with intact cow's milk proteins. We now report the outcome of the first study endpoint, which is positivity for at least two diabetes-associated autoantibodies by the age of 6 years. The results show that there was no difference in the appearance of autoantibodies between the two study groups. The disease process resulting in clinical diabetes has clearly two phases, the first being the appearance of autoantibodies and the other the progression from autoantibody positivity to clinical disease. The current results do not exclude the possibility that the early dietary modification may affect the latter phase, and therefore it is extremely important to continue to follow the study participants to the final endpoint, which is clinical diabetes by the age of 10 years. That endpoint will be reached in 2017. The study is mainly funded by the National Institutes of Health (NIH) and the Canadian Institutes of Health Research (CIHR).

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