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Titel des Beitrags: Respiratory infections in early life and the development of islet autoimmunity in children at increased type 1 diabetes risk: evidence from the BABYDIET study.

Abstract: There is evidence for a role of infections within the pathogenesis of islet autoimmunity and type 1 diabetes mellitus (T1D), but previous studies did not allow assessment of potential critical time windows in this context. To examine whether early, short-term, or cumulative exposures to episodes of infection and fever during the first 3 years of life were associated with the initiation of persistent islet autoimmunity in children at increased T1D risk. Prospective cohort study with daily infection records and regular assessment of islet autoimmunity. Diabetes Research Institute, Munich, Germany. A total of 148 children at high T1D risk with documentation of 1245 infectious events in 90,750 person-days during their first 3 years of life. Hazard ratios (HRs) for seroconversion to persistent islet autoantibodies were assessed in Cox regression models with numbers of respiratory, gastrointestinal, and other infections, adjusting for sex, delivery mode, intervention group, season of birth, and antibiotic use. An increased HR of islet autoantibody seroconversion was associated with respiratory infections during the first 6 months of life (HR = 2.27; 95% CI, 1.32-3.91) and ages 6.0 to 11.9 months (HR = 1.32; 95% CI, 1.08-1.61). During the second year of life, no meaningful effects were detected for any infectious category. A higher number of respiratory infections
in the 6 months prior to islet autoantibody seroconversion was also associated with an increased HR (HR = 1.42; 95% CI, 1.12-1.80). Respiratory infections in early childhood are a potential risk factor for the development of T1D.