



RESPONSE TO COMMENT ON CHEN ET AL.

Risk of Developing Type 2 Diabetes in Adolescents and Young Adults With Autism Spectrum Disorder: A Nationwide Longitudinal Study.

Diabetes Care 2016;39:788–793

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Li and Li (1) reviewed our article (2), which was published in *Diabetes Care* and concerned the potential confounding effect of maternal metabolic conditions, particularly maternal diabetes and obesity, on the association between autism spectrum disorder (ASD) and type 2 diabetes risk. Li and Li (1) mentioned that a growing body of evidence supports the association of maternal diabetes and obesity with the increased risk of ASD in offspring. Intergenerational transmission of overweight and obesity from parents to their offspring has also been established in recent studies (3). Previous studies have identified the common comorbidity of ASD and obesity and have reported an increasing trend of atypical antipsychotic drug use in ASD patients, which is a potential confounding factor in the association between ASD and metabolic syndrome (4). Some genetic studies have suggested that ASD and obesity share several common genes such as 16p11.2 (5). Thus, we can conclude that maternal diabetes and obesity predict the risk of ASD in offspring and may confound the relationship between ASD and the sub-

sequent risk of obesity and type 2 diabetes. However, both direct (via ASD) and indirect (via ASD-related risk factors) associations between ASD and subsequent type 2 diabetes still exist. Finally, Shedlock et al. (6) recently examined 48,762 patients with ASD and 243,810 matched control subjects and confirmed our finding that children with ASD have an increased risk of obesity and obesity-related metabolic disorders, including type 2 diabetes.

In conclusion, our study suggests a significant relationship between ASD and subsequent type 2 diabetes. Clinicians should pay more attention to the occurrence of metabolic syndrome, including obesity and type 2 diabetes, in patients with ASD. Additional studies are required to clarify the pathophysiology between ASD and type 2 diabetes and to elucidate whether prompt intervention for ASD may reduce this risk.

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