

Discussion

Our results show that there was a direct correlation between the prevalence of autism and the incidence of type 1 diabetes in children 5-19 but an inverse correlation between the prevalence of autism and the incidence of type 2 diabetes in children age 10-19. The lack of a statistically significant inverse correlation between prevalence of autism and the incidence of type 2 diabetes in children age 5-9 can be explained by the small number of cases and low incidence of type 2 diabetes in this age group.

Our findings are consistent with a clinically significant proportion of autism cases having an autoimmune component. It has been subject to debate what proportion of autism cases had an autoimmune component. Prior publications have shown that the incidence of type 1 diabetes, an autoimmune disease, is increased in those races with lower cortisol activity and decreased in those in races with higher cortisol activity [6]. Autism has been associated with decreased cortisol activity and autoimmune activity [7]. These phenomena are likely not independent in autism but instead the low cortisol activity in patients increases the risk of autoimmune diseases that can include autoimmune autism. The fact that there is a statistically significant positive correlation between type 1 diabetes and autism is consistent with the role of autoimmunity and low cortisol in the pathophysiology of both diseases. The statistically significant inverse correlation with type 2 diabetes and autism is consistent with the findings that type 2 diabetes is associated with a high cortisol activity which can inhibit autoimmune diseases including type 1 diabetes and autoimmune autism.

The positive association between type 1 diabetes and autism suggests that the epidemics of type 1 diabetes and autism are likely to share many of the same etiological causes. While the present study did not directly look at the effect of vaccines on type 1 diabetes or autoimmune

