IgA antibodies in Rett syndrome


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Abstract

The level of IgA antibodies to gluten and gliadin proteins found in grains and to casein found in milk, as well as the level of IgG to gluten and gliadin, have been examined in 23 girls with Rett syndrome and 53 controls. Highly statistically significant increases were found for the Rett population compared to the controls. The reason for this remains unknown, but because IgA antibodies reflect the uptake of proteins and/or epitopes of proteins from the gut, this may be indicative of increased protein uptake.

Lay Summary

IgA antibodies are a part of the immune system which helps to fight against pathogens that contact the body surface, are ingested, or are inhaled. In this report, circulating blood levels of IgA antibodies to gluten, gliadin (two main grain proteins) and casein (a main milk protein) were compared between Rett patients and non-Rett patients. Here, it was found that the Rett patients possessed dramatically increased levels of these IgA antibodies, compared to the non-Rett patients. Interestingly, similar increases have been found in other pervasive developmental disorders. Although these increases may suggest increased protein intake from the gut, or a "leaky" gut wall, this study provides no experimental data to support any mechanism underlying this observed phenomenon. Only further research will help elucidate the meaning of this potentially interesting finding.