Clinical clues for autoimmunity in the etiology of autistic regression

H Goez (Edmonton)* O Scott (Toronto) D Shi (Edmonton) D Andriashek (Edmonton) B Clark (Edmonton)
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Background: Autistic regression (AR) accounts for 20-40% of patients with Autism Spectrum Disorder (ASD). Literature demonstrates specific immune changes in AR patients, as well as association between AR and autoimmune thyroiditis. Our study explores the clinical association between AR and autoimmunity, focusing on possible precipitants and familial autoimmunity, in comparison with patients with infantile autism (IA). Methods: charts of children diagnosed with ASD in 2014 were reviewed, and patients were classified as either AR or IA based on Autism Diagnostic Interview (ADI-R) criteria. Information regarding pregnancy, perinatal complications, febrile illness preceding the diagnosis, and family history of autoimmune conditions was collected. Results: 206 children had IA and 33 had AR. No difference was found in prevalence of pregnancy or perinatal complications. The incidence of febrile illness in the 6 months prior to diagnosis and the prevalence of familial autoimmunity, were significantly higher in the AR group (p<0.001). Diabetes type I, celiac disease, autoimmune thyroiditis, and inflammatory bowel disease were more common in families of AR patients (p<0.05). Conclusions: the association between AR and preceding febrile illness, as well as familial autoimmunity, supports the notion of AR as a separate entity within ASD, possibly mediated by autoimmune changes.