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A Comparison of Risk Factors, Clinical Features and Lost Skills in Regressive and Non-regressive Autism Spectrum Disorders

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Autism is a neurodevelopmental disorder characterized by social impairment, language delay, repetitive behaviors and restricted interests. Some children with autism spectrum disorder (ASD) fail to gain language or social skills (non-regressive) while other children develop normally and then lose skills (regressive). Our study differentiated risk factors and comorbidities associated with regressive and non-regressive children with ASD. We determined whether children with regressive ASD were more likely to experience social or language regression or a combination of skills. From 1044 self/parental report surveys, we gathered information regarding prenatal and perinatal conditions, family and developmental history including information on regression, medical disorders, current developmental skills and treatment history. Subjects were categorized as follows: no skill regression, 1-2 skills lost, 3-5 skills lost. Chi-square analysis was performed on risk factors/comorbidities in relation to both forms of ASD. Our cohort reported a 22% regression rate. Subjects who regressed in 1-2 areas were more likely to lose social (vs language) skills than those who regressed in many (3-5) areas. Epilepsy was the only factor associated with regressive ASD. No factors were associated with non-regressive ASD. Studies have attempted to characterize ASD, but are often limited by sample size or design (self-report vs clinical verification). Though we utilized a self-report survey, limitations may have been mitigated by the large sample size. In our cohort, regression of social skills was more prevalent in children with less severe regression while loss of language was reported in children with more pervasive regression, epilepsy predisposed regression.

Biography

Sue Xue Ming, MD, PhD, is a pediatric neurologist and pharmacologist. She has been working with children with autism spectrum disorders for more than 18 years at New Jersey Medical School, Newark, NJ, where she is currently Professor of Neurosciences and Neurology. She received a medical degree from Fudan Medical University, and a PhD in pharmacology at New Jersey Medical School. She completed pediatric training at SUNY-Health Science Center, Syracuse, NY and pediatric neurology fellowship at Johns Hopkins School of Medicine.

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