Research

Clinical Variability in 16p11.2 Deletions

Moreno-De-Luca and colleagues studied 56 individuals with 16p11.2 deletions and their noncarrier first-degree relatives to measure the effect of the mutation and explore the contribution of familial background to clinical variability. The mutation's effect size ranged from 1 to 2.2 SD on measures of cognitive, social, and motor performance and body mass index. Significant parent-proband correlations across all neurodevelopmental dimensions indicate that family background contributes to the phenotypic variability in this and perhaps other genetic disorders.

Response to Dorsal Anterior Cingulotomy

Banks and colleagues retrospectively analyzed preoperative magnetic resonance imaging scans from patients who had undergone cingulotomy for intractable obsessive-compulsive disorder. Systematic differences between responders and nonresponders were found using voxel-based morphometry and probabilistic tractography techniques. Responders demonstrated less gray matter in the right anterior cingulate and right-sided dominant connectivity between the dorsal anterior cingulate and several subcortical structures.

Benzodiazepine Use in the United States

Olfson and colleagues reported that 5.2% of US adults were treated with benzodiazepines in 2008. Benzodiazepine treatment varied by age from 2.6% (18-35 years) to 8.7% (65-80 years) and was nearly twice as common in women as men. The percentage of treated persons with at least 120 days of benzodiazepine use varied from 15.0% (18-35 years) to 31.4% (65-80 years). These patterns support efforts to reduce long-term benzodiazepine treatment, especially among older adults.

Psychiatric Comorbidity, Suicidality, and Firearms

Simonetti and colleagues used survey data from a nationally representative sample of US adolescents to compare the likelihood of self-reported in-home firearm access between adolescents with and without specific suicide risk factors. Among US adolescents who reported living in a home with a firearm, 39% reported access to household firearms. Those with suicide risk factors were just as likely to report firearm access as individuals without such risk factors.

PET Quantification of Serotonin 1A Receptor Binding

Sullivan and colleagues used positron emission tomography (PET) to measure S-HT1A binding in depressed suicide attempters. Higher autoreceptor brainstem binding in high-lethality attempters was consistent with lower serotonin neuron firing and less release. Less serotonin release in the prefrontal cortex correlates with more severe suicidal ideation and more lethal suicidal behavior.