Clinical Capsules

Brain Abnormalities and Schizophrenia

Structural abnormalities in the white matter of the brain might be associated with the development of early-onset schizophrenia, said Sanjiv Kumra, M.D., of the Zucker Hillside Hospital, Glen Oaks, New York, and associates.

The researchers used diffusion tensor imaging, an MRI technique that estimates the orientation of fiber bundles in the brain's white matter based on the diffusion of water, to examine the brains of 26 schizophrenia patients (mean age 15 years) and 34 age-matched healthy controls (J. Am. Acad. Child Adolesc. Psychiatry 2005;44:934-41).

The patients showed significantly lower levels of fractional anistropy (FA), a measure of how much the diffusion of water follows one direction, compared with the controls. Decreases in the FA of white matter have been associated with brain tissue structure disorders such as multiple sclerosis.

The median age at onset of symptoms was 12 years, and the median duration of illness was 2 years at the time of the study. Medication use had no apparent effects on the findings.

Multiple Substance Use and Sex

Virgins who used three or more substances, including alcohol, tobacco, and marijuana, were three times more likely to become sexually active during the next 9 months, compared with virgins who did not use any substances, reported Jiantong Guo of Wayne State University, Detroit, and colleagues (J. Adolesc. Health 2005;37:252-5).

In a longitudinal study, 310 boys and 436 girls aged 12-16 years living in rural West Virginia were recruited through schools or community centers. The students completed questionnaires at baseline and after 3, 6, and 9 months. Of the 53 teens who used three or more substances, 36% initiated sex within the next 9 months, compared with 29% of the 130 using two substances, 22% of the 174 using one substance, and 8% of the 389 using no substances. The use of three or more substances as a screen for sexual initiation in the near future was 90%, although sensitivity was only 50%. Patterns of use were similar between boys and girls.

Overall, 49% of the young people reported alcohol use, 34% reported tobacco use, 9% reported marijuana use, and 7% reported using all three substances.

CBT, Fluoxetine, and Depression

Depressed adolescents who received a combination of five to nine sessions of cognitive-behavioral therapy (CBT) plus fluoxetine showed no significant overall improvement, compared with those who received fluoxetine alone, wrote Gregory Clarke, Ph.D., of the Kaiser Permanente Center for Health Research in Portland, Ore.

The randomized study included 152 adolescents aged 12-18 years with major depressive disorder (J. Am. Acad. Child Adolesc. Psychiatry 2005;44:888-98). Those in the combination group had fewer medical outpatient visits and used 20% less medication, compared with the treatment-as-usual group. However, after 1 year, 11% of the teens in the combined group and 6% of those in the fluoxetine-only group were suffering from a depressive episode.

Impact of Adversity on Schizophrenia

Children with four measures of social adversity were 2.7 times more likely to develop schizophrenia than children with no measurable social adversity, reported Susanne Wicks, B.Sc., of the Stockholm Centre for Public Health, Sweden, and her associates.

In a population-based study of about 2.1 million children born in Sweden between 1963 and 1983, the incidence of schizophrenia was 18.7 per 10,000 among children from households receiving welfare benefits, compared with 8.3 per 10,000 children in households not receiving welfare (Am. J. Psychiatry 2005;162:1652-7).

After adjusting for confounding variables, parental inpatient care for psychosis carried the highest associated risk for schizophrenia (hazard ratio 8.4).

Genetic Traits, Eating Disorders Linked

Six genetic traits—obsessionality, age at menarche, anxiety, lifetime minimum body mass index, concern over mistakes, and food-related obsessions—appear to be linked to genes associated with anorexia nervosa and bulimia nervosa, according to Cynthia M. Bulik, Ph.D., of the University of North Carolina, Chapel Hill, and her colleagues.

In a genetic analysis of 154 families with affected siblings with anorexia and 244 families with affected siblings with bulimia, these traits were especially prominent compared with controls. No single measure captures "eating disorderedness," but the analysis provides a map for selecting traits that can be used in future research, the investigators said (Am. J. Med. Genet. B Neuropsychiatr. Genet. [online] 2005;www3.interscience.wiley.com/cgi-bin/abstract/111090304/ABSTRACT).

—Heidi Splete

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