Teens in ED: Look at 'Broader Clinical Picture'

VITALS

Major Finding: Adolescents who score at or above the clinical cutoff on the ADI are at risk for problematic substance use and behaviors.

Data Source: Study of 177 adolescents admitted to ED after an alcohol-related incident.

Disclosures: One investigator received a grant from the National Institute on Alcohol Abuse and Alcoholism.

BY DOUG BRUNK

SAN DIEGO — Adolescents with a history of alcohol use report a significant range of risk behaviors for problematic substance use and other problem behaviors, a study of adolescents being treated in the emergency department for an alcohol-related incident shows.

"Alcohol-positive adolescents with a history of problematic alcohol use prior to the emergency department visit should receive greater attention in the discharge planning process, especially with the parents," lead author Anne M. Fairlie said in an interview after the study was presented during a poster session at the annual scientific conference of the Research Society on Alcoholism.

"Attention should be given to the broader clinical picture [such as a] history of drinking and peer and parental influences, not just presentation as alcohol positive in order to ensure adequate evaluation and disposition planning," she said.

Ms. Fairlie, a graduate research assistant in the behavioral science Ph.D. program in psychology at the University of Rhode Island, Kingston, and her associates examined three groups of adolescents: 45 who scored at or above the clinical cutoff (16 or above) on the Adolescent Drinking Inventory (ADI); 68 who scored below the clinical cutoff on the ADI while being treated in the pediatric or adult emergency department of a level I regional care center after an alcohol-related incident; and 64 adolescents who were alcohol negative while being treated in the pediatric or adult emergency departments, or in community settings. The mean age of the subjects was 15 years.

Alcohol-positive adolescents were identified as either having consumed alcohol within 6 hours of admission or tested positive for alcohol via blood-drawn test, while alcohol-negative adolescents did not report consuming alcohol within 6 hours of admission, did not have a positive blood test or breathalyzer (if administered), and scored 3 or lower on the Alcohol Use Disorders Identification Test.

Other measures used in the study included the Center for Epidemiologic Studies–Depression scale, the Behavior Assessment System for Children, and the Parental Strictness/Supervision Scale. The researchers performed one-way analyses of covariance while controlling for age.

Adolescents who scored at or above the clinical cutoff on the ADI reported significantly more alcohol use, compared with those who scored below the clinical cutoff on the ADI, followed by adolescents in the alcohol-negative group. For example, the mean number of days per month alcohol was consumed was 5.28 among adolescents who scored at or above the clinical cutoff on the ADI, 0.94 among those who scored below the clinical cutoff on the ADI, and 0.13 among those in the alcohol-negative group. This pattern continued in the number of days drank per month, the number of days per month five or more drinks in a row were consumed, the maximum number of drinks consumed on one occasion, and the number of days marijuana was used in the past month.

According to parental reports, adolescents in the alcohol-negative group had significantly fewer internalizing and externalizing symptoms, compared with adolescents in the other two groups.

Ms. Fairlie and her associates also found that adolescents who scored at or above the clinical cutoff on the ADI reported significantly higher scores on peer substance use and peer tolerance of substance use (mean scores of 1.63 and 2.59, respectively), compared with those who scored below the clinical cutoff on the ADI (0.79 and 2.00), followed by adolescents in the alcohol-negative group (0.46 and 1.57).

In addition, adolescents who scored at or above the clinical cutoff on the ADI reported significantly lower scores on the Parental Strictness/Supervision scale, compared with their peers in the other two groups.

No differences in depressive symptoms among the study participants were observed.

Ms. Fairlie acknowledged certain limitations of the study, including the homogeneity of the study participants. Most were non-Hispanic whites, "which inhibits our ability to generalize the findings to adolescents from various racial and ethnic backgrounds," she said.

Also, "the data are cross-sectional and, therefore, longitudinal relationships cannot be examined. There are likely reciprocal relationships among substance abuse, teen behavior, and peer and parental influences." These relationships may differ over time among the groups of adolescents examined in the current study. ■

Short Course of Atypicals Led to Rapid Weight Gain

VITALS

Major Finding: More than half of the active treatment subjects gained more than 7% of total body weight after a median of 11 weeks.

Data Source: Cohort of 272 children/adolescents being treated with atypical antipsychotics.

Disclosures: Dr. Correll reported being a consultant or receiving honoraria from and serving on the speakers bureau of numerous pharmaceutical companies, including makers of some of the drugs studied. Dr. Varley and Dr. McClellan reported no disclosures.

BY MARY ANN MOON

Children and adolescents rapidly gain substantial weight on a short course of the atypical antipsychotic medications aripiprazole, olanzapine, quetiapine, and risperidone, according to a report in the JAMA.

Up to 36% of patients in a study of 272 children and adolescents transitioned to overweight or obese status within 11 weeks, and many showed significant abnormalities in lipid profiles and metabolic measures, said Dr. Christoph U. Correll of Zucker Hillside Hospital, Glen Oaks, N.Y., and his associates.

The researchers investigated the cardiometabolic effects of atypical antipsychotic agents because they are "commonly and increasingly prescribed to children and adolescents in the United States as first-line treatment for psychotic disorders, bipolar disorder," and a widening variety of nonpsychotic mental disorders.

Yet, they have been linked to weight gain, hypertension, lipid abnormalities, and glucose abnormalities that are a particular concern during development "because they predict adult obesity, the metabolic syndrome, cardiovascular morbidity, and malignancy," the researchers wrote.

Until now, investigators have been unable to tease out the cardiometabolic effects of atypical antipsychotics in children because the agents have only been studied in subjects already exposed to a variety of other antipsychotic medications.

In an editorial accompanying the report, Dr. Christopher K. Varley and Dr. Jon McClellan of Seattle Children's Hospital said, "the development of clinically significant hyperlipidemias and insulin resistance after only 12 weeks of treatment portends severe long-term metabolic and cardiovascular sequelae.

"These results challenge the widespread use of atypical antipsychotic medications in youth."

When first introduced, atypicals were widely touted as more effective and safer than older neuroleptic agents, which eased the physician reticence about prescribing these medications for young patients, they wrote. Before this, traditional antipsychotic medications were far less commonly prescribed for disruptive behavioral disorders, they noted (JAMA 2009;302:1811-2). Much of the data supporting the use of these agents have been provided by industry-sponsored research. "Medical treatment should be dictated by empirical data rather than by anecdote, assumptions, or marketing strategies," they commented.

'The development of clinically significant hyperlipidemias and insulin resistance after only 12 weeks of treatment portends severe long-term metabolic and cardiovascular sequelae.'

Dr. Correll and his colleagues assessed patients aged 4-19 years who were naive to previous antipsychotic therapy and were participating in a cohort study of pediatric psychotic, mood, or aggressive spectrum disorders.

For comparison, they assessed a control group of 15 similar participants who either refused or immediately discontinued atypical antipsychotic agents.

After a median of 11 weeks, all four drugs were associated with weight gain: an average of 8.5 kg for the 45 patients taking olanzapine, 6.1 kg for the 36 patients taking quetiapine, 5.3 kg for the 135 patients taking risperidone, and 4.4 kg for the 41 patients taking aripiprazole.

All the drugs significantly increased fat mass and waist circumference. In all, 10%-36% of patients, depending on which agent they were taking, gained enough weight to shift into overweight or obese status.

Lipid and metabolic abnormalities were not consistent across all four medications. Olanzapine and quetiapine significantly worsened total cholesterol, triglyceride, non-HDL cholesterol, and other lipid measures, while risperidone significantly raised triglycerides. Quetiapine and olanzapine raised the rates of hyperglycemia and metabolic syndrome.

Olanzapine in particular had the largest weight effects, "and also significantly worsened all glucose and lipid parameters, except HDL cholesterol, which is more related to physical activity," the investigators said (JAMA 2009;302:1765-73).

In contrast, the control group showed no such changes, indicating that these alterations could not be attributed to the psychiatric disorder itself or to other aspects of treatment.

"In view of poor physical health outcomes and suboptimal metabolic monitoring in the severely mentally ill, the benefits of second-generation antipsychotic medication must be balanced against their cardiometabolic risks through a careful assessment of the indications for their use, consideration of lower-risk alternatives, and proactive adverse effect monitoring and management," the authors said. ■