Newer antipsychotics no better than older drug in treating child and adolescent schizophrenia

September 15 2008

Two newer atypical antipsychotic medications were no more effective than an older conventional antipsychotic in treating child and adolescent schizophrenia and may lead to more metabolic side effects, according to a new study funded by the National Institutes of Health's National Institute of Mental Health (NIMH). The study was published online ahead of print September 15, 2008, in the *American Journal of Psychiatry*.

"Schizophrenia and schizophrenia-related disorders are rare in childhood. But when they do occur, those afflicted generally have more severe symptoms and a worse prognosis than those who develop the disorder in adulthood," said NIMH Director Thomas R. Insel, M.D. "The newer atypical antipsychotics are often used to treat these children, but until now, it has been unclear how effective and safe they really are in children. The side effects of the newer medications should be factored into making treatment decisions."

The six-year, multisite Treatment of Early Onset Schizophrenia Study (TEOSS) included 116 youth between 8 and 19 years old, diagnosed with early onset schizophrenia spectrum disorder (EOSS). The TEOSS team randomly assigned the children to eight weeks of either olanzapine (Zyprexa) or risperidone (Risperdal)—both new generation atypical antipsychotics—or to the older conventional antipsychotic molindone (Moban) plus benztropine, a medication often used to reduce side effects

like uncontrolled shaking or tremor that can be associated with molindone. The children were monitored throughout the study by an NIMH oversight board to ensure their safety.

Response rates after eight weeks of treatment were comparable among the three medications—50 percent of the children taking molindone improved, 46 percent taking risperidone improved, and 34 percent taking olanzapine improved. Children taking olanzapine or risperidone improved within the first two weeks, while the children on molindone improved within three weeks.

The treatment groups did differ in side effects. The children taking olanzapine gained about 13 pounds (6 kilograms) during the trial on average, while children taking risperidone gained about 8 pounds (3.6 kilograms), and those taking molindone did not gain weight. The olanzapine group also showed increases in cholesterol levels and other metabolic disruptions that may have become dangerous. The outcome prompted the safety review board to end the olanzapine arm of the study in 2006.

"Atypical antipsychotics are commonly used to treat kids with EOSS, but these results question the wisdom of that approach," said lead author Linmarie Sikich, M.D., of the University of North Carolina at Chapel Hill. "They also remind us that we need to develop safer, more effective medications to treat these children, given the limited effectiveness of both the atypical and the conventional medications."

Study coauthor Jeffery Lieberman, M.D., of Columbia University Medical Center, noted that TEOSS is the first documented evidence of how newer antipsychotics compare to older ones when treating children and adolescents with schizophrenia. "Doctors need to educate families about the potentially serious side effects these drugs can have so that strategies can be put into place to address them," he reiterated. The

TEOSS results are similar to those found in the NIMH-funded Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE), for which Lieberman was the principal investigator. CATIE found that the newer antipsychotics were no more effective than an older antipsychotic in treating adults with schizophrenia.

Source: National Institute of Mental Health