New safety concern related to antipsychotic treatment

December 1 2009

Overall, antipsychotic medications are reasonably effective, and fairly well tolerated treatments for mood and psychotic disorders. However, treatment with a number of antipsychotic medications is associated with weight gain, and for some, hyperglycemia and hyperlipidemia. In the current issue of *Biological Psychiatry*, published by Elsevier, researchers discuss this cluster of metabolic side effects and how it may contribute to the risk for diabetes, hypertension, and other medical disorders associated with heart disease. This is of particular concern because there is a higher cardiovascular mortality among the severely mentally ill compared to the general population.

Researchers already know that differences exist between antipsychotics in their effect on clinical measures associated with cardiovascular risk, namely weight, lipids and glucose. Systemic inflammation has recently emerged as an important marker of cardiovascular risk, but the effects of antipsychotics on inflammatory markers in the blood have not been extensively studied until now.

Using data from the multi-center CATIE (Clinical Antipsychotic Trials of Intervention Effectiveness) study, funded by the National Institute of Mental Health, Jonathan Meyer and colleagues examined the impact of multiple antipsychotic therapies on changes in systemic inflammation. Their findings provide evidence that antipsychotic medications, particularly olanzapine (Zyprexa®, Eli Lilly and Co.) and quetiapine (Seroquel®, AstraZeneca), increase the levels of inflammation markers.

The markers implicated include C-reactive protein, E-selectin, and intercellular adhesion molecular-1 (ICAM-1). Increased levels of C-reactive protein in particular are associated with increased risk for the development or progression of many illnesses including heart disease, and stroke.

"This analysis provides the most compelling evidence to date that differences in antipsychotic metabolic liability are also seen with markers of systemic inflammation," explained Dr. Meyer. "It also provides an impetus for monitoring cardiovascular risk markers in antipsychotic treated patients."

Dr. John Krystal, the Editor of Biological Psychiatry, which is publishing this report, commented, "Doctors always try to balance the benefits and the risks associated with medications when making the decision to prescribe a particular medication to a particular patient. The more information that we have regarding the medical consequences of prescribing particular medications, the better the prescribing decisions can be." Although this report does not provide any direct evidence linking the antipsychotic medications to these disorders, he added that "it is helpful to know that antipsychotic medications may contribute to inflammatory processes in the body and that these medications differ somewhat in producing this effect."

More information: The article is "Inflammatory Markers in Schizophrenia: Comparing Antipsychotic Effects in Phase 1 of the Clinical Antipsychotic Trials of Intervention Effectiveness Study" by Jonathan M. Meyer, et al. The article appears in *Biological Psychiatry*, Volume 66, Issue 11 (December 1, 2009), published by Elsevier.

Source: Elsevier