

Antipsychotic drugs associated with high blood sugar in older adults with diabetes

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Older patients with diabetes who take antipsychotic medications appear to have an increased risk of hospitalization for hyperglycemia (elevated blood glucose level), especially soon after beginning treatment, according to a report in the July 27 issue of *Archives of Internal Medicine*.

An increasing number of [older adults](#) are being prescribed antipsychotic drugs for dementia and other conditions, according to background information in the article. However, these medications may be associated with adverse effects—including Parkinson's disease symptoms, stroke and diabetes—in the older population. "The risk of diabetes may be partly related to chronic effects of the weight gain associated with antipsychotic agents," the authors write. "However, case reports of acute hyperglycemia after the initiation of therapy with these drugs suggest that they may also be associated with acute glycemic [[blood glucose level](#)] changes."

Lorraine L. Lipscombe, M.D., M.Sc., of the Institute for Clinical Evaluative Sciences, University of Toronto and Women's College Research Institute at Women's College Hospital, Toronto, Ontario, Canada, and colleagues studied 13,817 individuals age 66 and older (average age 78) with diabetes who began treatment with antipsychotics between April 1, 2002, and March 31, 2006. Each patient who was hospitalized for hyperglycemia during the observation period—through March 31, 2007, an average of two years of follow-up—was considered a case and was matched with up to 10 control patients who were the

same age and sex but were not hospitalized over the same time period. The researchers then compared the likelihood of hyperglycemia among those who were currently taking antipsychotic medications to those who had discontinued antipsychotic medications for more than 180 days.

Of the total group of 13,817 patients, 1,515 (11 percent) were hospitalized for hyperglycemia. Those who were currently taking antipsychotic drugs had a higher risk of hospitalization than those who had stopped the medications more than 180 days ago. The risk was highest among those who were just starting antipsychotic drug treatment.

"Our study indicates that the initiation of antipsychotic therapy represents a critical period during which seniors with diabetes are particularly vulnerable to metabolic decompensation [failure of the metabolic system to function adequately]," the authors write. "The new use of both atypical [newer] and typical antipsychotic drugs was associated with a significant increase in hospitalizations for hyperglycemia, which appeared independent of baseline diabetes treatment and was strikingly high during the initial period of antipsychotic therapy."

Some previous evidence suggests that the neurotransmitter dopamine has a role in regulating blood glucose levels; first-time antipsychotic users may experience an acute disruption in this system, leading to hyperglycemic episodes, the authors note. However, further studies are needed to confirm a causal effect and identify the mechanisms involved. "In the meantime, other options to manage behavioral symptoms of [dementia](#) should be considered among older persons with diabetes," they conclude. "Patients and their families should be alerted to observe for signs of glycemic decompensation when treatment with an antipsychotic agent is initiated, and enhanced glucose monitoring is recommended for all patients for whom an antipsychotic drug is prescribed, particularly after treatment initiation."

More information: *Arch Intern Med.* 2009;169[14]:1282-1289.

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