Varying safety of add-on second-line T2DM treatments

June 17 2016

(HealthDay)—For patients with type 2 diabetes who are taking

metformin, the risk of cardiovascular events and mortality varies with the addition of different second-line therapies, according to a study published online June 10 in *Diabetes, Obesity and Metabolism*.

Nils Ekström, M.D., Ph.D., from the University of Gothenburg in Sweden, and colleagues examined the relative safety of glucose-lowering agents as add-on medication to metformin in type 2 diabetes. Patients on metformin therapy who started another agent were eligible for inclusion; data were obtained for 20,422 patients during the period of 2005 to 2012.

The researchers found that 43, 21, 12, 11, 10, 1, and 1 percent of patients started on second-line treatment with sulfonylurea (SU), basal insulin, thiazolidinedione (TZD), meglitinide, dipeptidyl peptidase-4 inhibitor (DPP-4i), glucagon-like peptide-1 receptor agonist, and acarbose, respectively. The risk of mortality was higher for basal insulin and lower for TZD compared with SU (hazard ratios, 1.18 and 0.76, respectively). Significantly lower risks of cardiovascular disease, fatal cardiovascular disease, coronary heart disease, fatal coronary heart disease, and congestive heart failure were seen for DPP-4i.

"This nationwide observational study showed that second-line treatment with TZD and DPP-4i as add-on medication to metformin were associated with significantly lower risks of mortality and cardiovascular events compared with SU, whereas basal insulin was associated with a higher risk of mortality," the authors write.

One author is employed by the Swedish Medical Products Agency. Two authors disclosed financial ties to the pharmaceutical industry.

More information: Abstract
Full Text (subscription or payment may be required)