Intensive glucose control improves CVD risk factors

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Intensive glucose-lowering therapy is associated with favorable changes in lipoprotein levels and inflammatory risk factors even though it does not lower the incidence of cardiovascular events, according to a study published online March 27 in *Diabetes Care*.

(HealthDay)—Intensive glucose-lowering therapy (INT) is associated with favorable changes in lipoprotein levels and inflammatory risk factors even though it does not lower the incidence of cardiovascular events, according to a study published online March 27 in *Diabetes Care*.

Juraj Koska, M.D., from the Phoenix Veterans Affairs Health Care System, and colleagues analyzed standard plasma lipids, cholesterol content of lipoprotein subfractions, and plasma inflammatory and prothrombotic markers in 266 participants of the Veterans Affairs Diabetes Trial. Measurements were taken at baseline and following nine months of either INT or standard therapy.

The researchers found that INT significantly lowered glycated hemoglobin compared to standard treatment (median reduction 2 percent versus 0.7 percent, respectively). INT also significantly increased BMI (4 versus 1 percent), total HDL (9 versus 4 percent), HDL2 (14 versus 0 percent), LDL2 (36 versus 1 percent), and plasma adiponectin (130 versus 80 percent). There were also significant reductions in triglycerides (213 versus 24 percent) and small, dense LDL4 (239 versus 213 percent). INT had no effect on levels of plasma apolipoproteins B-100 and B-48, C-reactive protein, interleukin-6, lipoprotein-associated phospholipase A2, myeloperoxidase, fibrinogen, and plasminogen activator inhibitor 1. Baseline interleukin-6 (hazard ratio per each quartile increase, 1.33), total LDL (1.25), apolipoprotein B-100 (1.29), and fibrinogen (1.26) were associated with incident macrovascular events but not changes in any cardiovascular risk factors at 9 months

"INT was associated with improved adiponectin, lipid levels, and a favorable shift in LDL and HDL subfractions after nine months," the authors write.

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