Effect of lowering blood pressure on risk for cognitive decline in patients with diabetes

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Intensive blood pressure and cholesterol lowering was not associated with reduced risk for diabetes-related cognitive decline in older patients with long-standing type 2 diabetes mellitus, according to a study in *JAMA Internal Medicine* by Jeff D. Williamson, M.D., M.H.S., of the Wake Forest School of Medicine, Winston-Salem, N.C., and colleagues.

Patients with type 2 diabetes (T2DM) are at increased risk for decline in cognitive function, for reduced brain volume and increased white matter lesions on brain imaging, according to the study. The authors examined the effect of intensive treatment to lower blood pressure (BP) and lipid levels as part of the Memory in Diabetes (MIND) substudy of the Action to Control Cardiovascular Risk in Diabetes (ACCORD) trial.

The trial randomized 2,977 participants without baseline cognitive impairment or dementia and with hemoglobin A 1C levels less than 7.5 percent to a systolic BP goal of less than 120 or less than 140 mm Hg (n=1,439) and to a fibrate or placebo in patients with statin-treated, low-density lipoprotein cholesterol levels less than 100 mg/dL (n=1,538).

Researchers assessed cognition at baseline, 20 and 40 months. Also, 503 participants underwent baseline and 40-month brain magnetic resonance imaging to look for changes in total brain volume (TBV) and other structural measures of brain health.

There were no differences in cognitive function in the intensive BP-lowering trial (