

Heart Outcomes Prevention Evaluation-3 (HOPE-3): The Effect of Blood Pressure and Cholesterol Lowering on Cognition

Purpose: To study the effects of blood pressure and lipid lowering on cognitive function in patients over 70 years of age.

Trial Design: 12,705 patients; randomized, multi-center trial; 228 centers and 21 countries. Moderate-risk patients received either candesartan /hydrochlorothiazide or placebo, or rosuvastatin or placebo. 5.6 years f/u.

Primary Endpoint: Cognitive changes – (decrease in speed of processing measured by the Digit Symbol Substitution Test [DSST])

Trial Results – DSST	end of study	P value	Change from baseline
Blood pressure lowering/placebo	29.1% / 29.4%	0.86	0.1
Lipid lowering/placebo	29.1% / 29.4%	0.38	- 0.5
BP + Lipid lowering/placebos	29.3% /29.9%	0.63	- 0.4

Conclusions: Cognitive decline was not prevented by long-term (5.6 years) cholesterol or blood pressure lowering in patients at moderate risk for cardiovascular disease.