METHODS

We randomly assigned 3845 patients from Europe, China, Australasia, and Tunisia who were 80 years of age or older and had a sustained systolic blood pressure of 160 mm Hg or more to receive either the diuretic indapamide (sustained release, 1.5 mg) or matching placebo. The angiotensin-converting–enzyme inhibitor perindopril (2 or 4 mg), or matching placebo, was added if necessary to achieve the target blood pressure of 150/80 mm Hg. The primary end point was fatal or nonfatal stroke.

RESULTS

The active-treatment group (1933 patients) and the placebo group (1912 patients) were well matched (mean age, 83.6 years; mean blood pressure while sitting, 173.0/90.8 mm Hg); 11.8% had a history of cardiovascular disease. Median follow-up was 1.8 years. At 2 years, the mean blood pressure while sitting was 15.0/6.1 mm Hg lower in the active-treatment group than in the placebo group. In an intention-to-treat analysis, active treatment was associated with a 30% reduction in the rate of fatal or nonfatal stroke (95% confidence interval [CI], –1 to 51; P=0.06), a 39% reduction in the rate of death from stroke (95% CI, 1 to 62; P=0.05), a 21% reduction in the rate of death from any cause (95% CI, 4 to 35; P=0.02), a 23% reduction in the rate of death from cardiovascular causes (95% CI, –1 to 40; P=0.06), and a 64% reduction in the rate of heart failure (95% CI, 42 to 78; P<0.001). Fewer serious adverse events were reported in the active-treatment group (358, vs. 448 in the placebo group; P=0.001).

of Leuven, Leuven, Belgium (J.A.S., L.T.); the Beijing Hypertension League Institute, Beijing (L.L.); Spitalul Judetean Cluj, Clinica Medicală 2, Cluj, Romania (D.D.); the National Transport Multi-Profile Hospital, Sofia, Bulgaria (V.S.); the University of Oulu, Oulu, Finland (R.L.A.); the State Scientific Research Institute of Internal Medicine, Novosibirsk, Russia (Y.N.); the George Institute for International Health, Sydney (C.A.); L'Etablissement Public de Santé Charles Nicolle, Service de Cardiologie, Tunis, Tunisia (A.B.); Hôpital Broca, University Paris V, Paris (F.F.); and the Brighton and Sussex Medical School, Brighton, United Kingdom (C.R.). Address reprint requests to Dr. Beckett at Care of the Elderly, Division of Medicine, Imperial College London, Du Cane Rd., London W12 ONN, United Kingdom.

*The committee members and investigators for the Hypertension in the Very Elderly Trial (HYVET) are listed in the Appendix.

This article (10.1056/NEJMoa0801369) was published at www.nejm.org on March 31, 2008.

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