

# Hypertension

JOURNAL OF THE AMERICAN HEART ASSOCIATION

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## **Hypertension in the elderly: only the end of the beginning**

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*Hypertension* 1994;23;286-287

Hypertension is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 72514

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## Hypertension in the Elderly: Only the End of the Beginning

Edward D. Frohlich

This issue of *Hypertension* includes yet another working group report of the National High Blood Pressure Education Program. Since its inception, this "crown jewel" in the educational tiara of the National Heart, Lung, and Blood Institute (NHLBI) has published a series of state-of-the-art documents for health care professionals on various aspects of hypertension. The reports have varied from the detection, evaluation, and treatment of hypertension (the sequence of Joint National Committee reports) to articles dealing with diabetes (see last month's *Hypertension*), pediatrics, pregnancy, renal arterial disease, kidney disease, therapeutic adherence, and others. These reports have been extremely helpful not only for health care providers, but also for community public health planners, the research community, and legislative bodies. They have clearly indicated that, were it not for fundamental and clinical research in hypertension, total and cardiovascular morbidity and mortality would not be reduced to the extent it has achieved presently. Thus, the NHLBI has provided a major comprehensive service to our nation and to others around the world that have emulated this program.

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The second report from the Working Group on Hypertension in the Elderly, published in this issue of *Hypertension*,<sup>1</sup> reflects much of the recent therapeutic successes relating to elderly patients with hypertension. Initially, the treatment of hypertension primarily was concerned with treatment of younger patients with hypertension and related only to diastolic pressure elevations. The Veterans Administration Cooperative Studies on Hypertension and especially the European Working Party group's studies of hypertension in the elderly,<sup>2-5</sup> were particularly notable in demonstrating the safety, efficacy, and reduced morbidity and mortality of treating older patients with diastolic hypertension. In the past several years considerable effort has been expended in the United States, Great Britain, and Sweden, demonstrating efficacy of treating isolated systolic hypertension in elderly patients.<sup>6-9</sup> Another important study focused its attention on the potential benefits of the different classes of antihypertensive agents in elderly patients with specific demographic characteristics.<sup>9</sup> Therefore, the present working group report most

appropriately deals primarily with these therapeutic advances and the consequent recommendations. There is no question that this theme is justified.

*Hypertension*, from its inception, has been a journal that has focused its attention on "cutting edge" advances in fundamental and clinical research relating to the mechanisms of blood pressure control, pathophysiology of hypertensive diseases, and treatment of hypertension. As such, these working groups are essential to the journal's mission. Moreover, editorial commentaries should serve a specific purpose in directing the reader to the implications of the publication's messages and, more importantly, to the overall impact of concepts as they apply to the preclinical and clinical investigative aspects of hypertension. To this end, we suggest that not only is it important to highlight past therapeutic successes and their clinical implications, but also to point out future needs for more in-depth attention. In this regard, there are several investigative areas that have been relatively neglected with respect to hypertension in the elderly.

As appropriately indicated in the report, most industrialized societies, and even the less industrialized ones, are aging. These populations are not only growing older, they are becoming potential beneficiaries of advances in new biomedical knowledge. There is no doubt that these new findings have influenced the governmental bodies that are empowered to consider, plan, and manage the health care costs and needs of these aging populations. In the case of hypertension, this has been a remarkable success story. Antihypertensive therapy has contributed more than its share in reducing costs related to health care and disability from stroke, myocardial infarction, cardiac failure, and other complications of hypertensive diseases. Unfortunately, not all complications of hypertensive disease have enjoyed that downward trend in morbidity and mortality. Patients with end-stage renal disease (ESRD) continue to increase despite the improved awareness, detection, and treatment of hypertension. Moreover, despite the widespread ability to treat ESRD by dialysis, this complication is extremely costly; this aspect of antihypertensive therapy has not been taken into consideration adequately by our governmental planners and health care deliverers.<sup>10</sup> There is urgent need to have these concerns addressed not only by health care planners, but also by investigators concerned with both clinical and fundamental aspects of hypertensive disease.

Another area that has drawn surprisingly little attention is the gerontological aspects of hypertension research. A number of years ago, after presenting a

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The opinions expressed in this editorial comment are not necessarily those of the editors or of the American Heart Association.

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research conference on the hemodynamics of hypertension at the National Institute of Aging, the Director of that institute, Nathan W. Shock, PhD, observed that it appeared to him that when one considers the systemic and regional hemodynamic and myocardial functional changes in hypertension, they appear to reflect a "more rapid setting of the biological clock of aging in hypertension." There is much truth in this simple and most insightful observation. To this end, the research impetus of this area was considerably enhanced when our fellow investigator, Lot B. Page, MD, "retired" from his research commitments in Boston to join the scientific staff of the National Institute of Child Health and Human Development (formerly the National Institute on Aging). Largely because of his influence, and that of his co-leaders at that institute and the NHLBI, a special workshop of investigators was convened to explore and identify important areas for fundamental and clinical research. This effort had no small role in establishing the Systolic Hypertension in the Elderly Program (SHEP); but with the untimely passing of our colleague and friend, Lot B. Page, efforts in this area have unfortunately diminished. Exciting areas for fundamental research dealing with the aging process and hypertension have drawn little attention. In this respect, the journal welcomes submission of research papers in this important research area.

Finally, no area of clinical investigation has enjoyed more discussion in the lay press recently than that of health services research—outcomes analysis, cost-effectiveness, quality assurance investigation, and so forth. For the interested reader of journal mastheads, we also encourage submission of serious investigative manuscripts dealing with this area of hypertension research. We look forward to seeing more of these potential areas of research in the third working group report dealing with Hypertension in the Elderly.

## References

1. National High Blood Pressure Education Program Working Group. National High Blood Pressure Education Program Working Group Report on Hypertension in the Elderly. *Hypertension*. 1994;23:275-285.
2. Veterans Administration Cooperative Study Group on Antihypertensive Agents. Effects of treatment on morbidity in hypertension, I: results in patients with diastolic blood pressure averaging 115 through 129 mm Hg. *JAMA*. 1967;202:1028-1034.
3. Veterans Administration Cooperative Study Group on Antihypertensive Agents. Effects of treatment on morbidity in hypertension, II: results in patients with diastolic blood pressure averaging 90 through 114 mm Hg. *JAMA*. 1970;213:1143-1152.
4. Veterans Administration Cooperative Study Group on Antihypertensive Agents. Influence on age, diastolic pressure, and prior cardiovascular disease, III: further analysis of side effects. *Circulation*. 1972;45:991-1004.
5. Amery A, Birkenhäger W, Brixko P, Bulpitt C, Clement D, Deruyttere M, de Schaeppdryver A, Dollery C, Fagard R, Forette F, Forte J, Hamdy R, Henry JF, Joossens JV, Leonetti G, Lund-Johansen P, O'Malley K, Petrie J, Strasser T, Tuomilehto J, Williams B. Mortality and morbidity results from the European Working Party on High Blood Pressure in the Elderly trial. *Lancet*. 1985;1:1349-1354.
6. SHEP Cooperative Research Group. Prevention of stroke by anti-hypertensive drug treatment in older persons with isolated systolic hypertension. Final results of the Systolic Hypertension in the Elderly Program (SHEP). *JAMA*. 1991;265:3255-3264.
7. MRC Working Party. Medical Research Council trial of treatment of hypertension in older adults: principal results. *Br Med J*. 1992;304:405-412.
8. Dahlöf B, Lindholm LH, Hansson L, Scherstén B, Ekblom T, Wester P-O. Morbidity and mortality in the Swedish Trial in Old Patients with Hypertension (STOP-Hypertension). *Lancet*. 1991;338:1281-1285.
9. Materson BJ, Reda DJ, Cushman WC, Massie BM, Freis ED, Kockar MS, Hamburger RJ, Fye C, Lakshman R, Gottdiener J, Ramirez EA, Henderson WG. Single-drug therapy for hypertension in men: a comparison of six antihypertensive agents with placebo. *N Engl J Med*. 1993;328:914-921.
10. Levinsky NG. The organization of medical care. Lessons from the medicare end stage renal disease program. *N Engl J Med*. 1993;329:1395-1399.

KEY WORDS • aging • hypertension, diastolic • renal failure, research