Preventing Dementia by Treating Hypertension and Preparing Stroke

J. David Spence

In this issue of Hypertension, Korf et al report from the Honolulu Asia Aging Study that untreated hypertension was significantly associated with hippocampal atrophy. They had previously shown that untreated hypertension was associated with midlife cognitive decline and with Alzheimer disease and vascular dementia.

This new finding strengthens the value of hippocampal atrophy as an early predictor of cognitive decline. It also adds importantly to a growing body of evidence that hypertension and stroke beget dementia and that treatment of hypertension, as well as prevention of stroke, prevents dementia. In the past this might have been explained by a reduction of vascular dementia, but it is apparent that the lines between vascular dementia and Alzheimer disease are becoming blurred.

Hypertension is strongly associated with the subsequent development of dementia. In Linxiang County, China, high blood pressure was shown in multiple logistic regression to be a risk factor for Alzheimer disease (OR 1.97), with a significant dose–response relationship. Skoog et al found that subjects who developed dementia at 79 to 85 years of age had significantly higher blood pressures 15 years earlier. It seems likely that the relationship between hypertension and dementia is via stroke, because stroke is also associated with increased risk of dementia.

In the Framingham study, stroke doubled the incidence of dementia, and the hazard ratio was even greater at 2.6 for younger subjects. In North Manhattan, the relative risk for Alzheimer disease was 1.6 for those with stroke, and this increased with addition of vascular risk factors, including hypertension (RR 2.3) and diabetes (RR 4.6). Snowdon et al showed in the Nun study that even 1 or 2 small lacunar infarctions, may be more important in preventing and that control of hypertension, which virtually eliminates thalamic lacunar infarctions that can cause dementia,22 may be involved in hippocampal atrophy, or that small vessel hypertensive disease, as opposed to atherosclerosis, may be involved in hippocampal atrophy than was systolic hypertension. This suggests that small vessel hypertensive disease, as opposed to atherosclerosis, may be involved in hippocampal atrophy, or that control of hypertension, which virtually eliminates lacunar infarctions,23 may be more important in preventing dementia than other modalities that reduce stroke.

Withholding antihypertensive therapy does no favor to the elderly.

References

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

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