GUIDELINES (JSH 2014)

Chapter 9. Dementia

Hypertension Research (2014) 37, 333; doi:10.1038/hr.2014.12

POINT 9

1. Hypertension in middle age is a risk factor for senile dementia, and it should be aggressively treated from the perspective of dementia prevention. (Recommendation grade: C1, Evidence level: VI)
2. The prevention of dementia by antihypertensive medication in the elderly has not been proved, but no study has suggested that antihypertensive drugs reduce the cognitive function. Accordingly, antihypertensive drug therapy should be performed. (Recommendation grade: C1, Consensus)
3. There is little evidence about the effects of antihypertensive drugs on cognitive function in hypertensive patients with dementia, but antihypertensive treatment should be considered. (Recommendation grade: C1, Consensus)

Hypertension is a risk factor for vascular dementia.^{838,869,870} Alzheimer's disease is also complicated by cerebrovascular disease or cerebral microangiopathy.⁸⁶⁹ Its association with hypertension has been reported.^{838,869,870}

1. BLOOD PRESSURE AND COGNITIVE DYSFUNCTION/ DEMENTIA

The relationship between blood pressure and cognitive dysfunction/dementia depends on age, and differs between middle-aged and elderly persons. Many observational studies have shown that hypertension in middle age is a risk factor for cognitive impairment or dementia in the elderly.^{24,838,869–872} The Hisayama Study also reported that hypertension in middle age was a significant risk factor for vascular dementia in later life.²⁴ Hypertension in middle-aged persons should be aggressively treated from the perspective of dementia prevention.^{838,869,870}

On the other hand, the relationship between dementia and blood pressure in the elderly is inconclusive. Not only hypertension⁸⁶⁹ but also hypotension,^{872,873} orthostatic hypotension^{872,874} and abnormal diurnal changes in blood pressure⁸⁷⁵ are associated with dementia. Several studies have investigated the effect of antihypertensive treatment on the development of dementia in the elderly hypertensive

patients.^{830,876–879} However, the results were markedly different among the studies,⁸⁷² and meta-analyses have not reached a conclusion.^{120,872} One study demonstrated the superiority of ARB in the prevention of dementia.⁸⁸⁰ Furthermore, several studies have indicated the efficacy of brain-transferable ACE inhibitors.^{881,882} However, randomized clinical trials have failed to show that ARBs can prevent dementia.^{878,879} As none of the studies showed that antihypertensive drugs reduce the cognitive function in the elderly, antihypertensive drug therapy should be considered.⁸⁸³

2. HYPERTENSION WITH DEMENTIA

There is little evidence about the effect of antihypertensive drugs in hypertensive patients with dementia. An observational study indicated that antihypertensive drugs prevented the conversion of mild cognitive impairment to Alzheimer's disease.⁸⁸⁴ Although there is little evidence, strict control of risk factors for arteriosclerosis, including hypertension, should be considered.⁸⁷⁰ There is no evidence about blood pressure level to be treated, and blood pressure control should be performed in accordance with guidelines for hypertension in the elderly.

Only a few studies have investigated the effect of antihypertensive treatment on the cognitive function in hypertensive patients with dementia, especially Alzheimer's disease. According to studies conducted in Japan, antihypertensive treatment prevented cognitive decline in patients with Alzheimer's disease.^{885–887} Accordingly, antihypertensive treatment should be considered. In patients with dementia, attention must be particularly paid to adherence, and strategies such as simplification of prescriptions and compliance management by the nursing staff should be conducted (see Chapter 8, Hypertension in the elderly).

Citation Information

We recommend that any citations to information in the Guidelines are presented in the following format:

The Japanese Society of Hypertension Guidelines for the Management of Hypertension (JSH 2014). *Hypertens Res* 2014; 37: 253–392.

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