

Age, neuropathology, and dementia

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Although common in older individuals, dementia is not a normal part of the ageing process. Alzheimer's disease is a major cause of dementia in elderly people, as well in relatively young adults. Lately, the role of Alzheimer's disease in very old people has become less clear, as an increasing number of different causes seem to have an important role in the development of dementia, such as vascular changes, often seen in older people. Early and accurate diagnosis of dementia allows early treatment and offers more time for clear judgment and decisions of the patient. The "gold standard" for diagnosing dementia is autopsy, thus irrelevant as long as the patient is still alive. Most research studies focus on younger old people. However, it is highly important to assess how much of those findings are also true in oldest old people.

The Medical Research Council Cognitive Function and Ageing Study (CFAS) is a multicenter, prospective, population-based study of old people in the United Kingdom. 456 brains donated from persons of 69 to 103 years old were assessed in the study. A standard protocol was used, which included mea-

asures of pathological features of Alzheimer's disease, cerebral atrophy and cerebrovascular disease.

The difference in the prevalence of moderate and severe Alzheimer's-type pathological changes between persons with or without dementia decreased with increasing age. Strong association between neocortical neuritic plaques and dementia was found in 75 years old patients (odds ratio 8.63; 95% confidence interval [CI], 3.81 to 19.60), but reduced at 95 years old ones (odds ratio 2.48; 95% CI, 0.92 to 4.14). In contrast, neocortical cerebral atrophy maintained a relationship with age in persons with dementia at both 75 years of age (odds ratio, 5.11; 95% CI, 1.94 to 13.46) and 95 years of age (odds ratio, 6.10; 95% CI, 2.80 to 13.28). This feature made possible to differentiate the cohort with dementia from the cohort without dementia.

In conclusion, age plays an important role in assessing dementia management in general population, as the association between the pathological features of Alzheimer's disease and dementia is stronger in younger old people than in older old ones. □

Comment on the paper:

Savva GM, Warthon SB, Path FRC et al – Age, Neuropathology, and Dementia. *N Engl J Med* 2009 May 28; 360:2302-2309