

Late Neuropsychiatric Consequences of Stroke in the Elderly

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Abstract

Cognitive impairments and depression have considerable impacts on rehabilitation, quality of life and mortality after stroke. The understanding of cognitive and mood impairments in old and, in particular, very old stroke patients is not sufficient. The knowledge of the frequency of neglect, its relation to other cognitive impairments is meager, in the elderly and late after stroke despite its known effect on rehabilitation.

As the economic burden of stroke is likely to increase, we need more information on the use of health care resources in elderly stroke patients in relation to cognitive impairments to be able to plan health care resources in society.

Our study was designed to analyze 1) the epidemiology of cognitive impairments and depression in relation to a normal population; 2) the epidemiology of visual neglect in relation to cognitive impairments; 3) the impact of cognitive impairments on ability in activities of daily life (ADL) and 4) the utilization and costs of health care during the first year in relation to ADL and cognitive impairments in a cohort of elderly stroke patients after one and a half years.

Two-hundred and forty-three stroke patients were recruited to the study. We collected data on the use of resources in health care during the first year, assessed ADL at 3 days, 3 weeks, 3 months and 12 months. A neurological and neuropsychiatric assessment and a semi-structured psychiatric interview were done after 1½ years. Data from the Gerontological and Geriatric Population Studies in Göteborg and the Prospective Population Study on Women, was used as reference populations.

The risks for cognitive and emotional impairments were increased in the stroke patients compared to controls: for dementia almost five times, for cognitive impairment over eight times and for depression four times in stroke patients compared to controls. The risk increase was higher in younger patients. Fifteen percent of the patients had visual neglect, mostly lateralised. They all had more cognitive impairments and those with severe neglect also more dementia. Health care costs were independently influenced by stroke severity at three days and cognitive impairment at follow-up.

In conclusion, neuropsychiatric consequences are common in the elderly late after stroke. Higher risk increase is seen in patients below the age of 80. Dementia is an insufficient marker for cognitive impairment. Dependence in daily life activities is associated with cognitive impairments. The costs of care are much higher in stroke patients with cognitive impairments, regardless of the stroke severity. Neglect is associated to cognitive impairment. Carers should be alert for attention inabilities when investigating stroke patients with cognitive impairments. A stronger focus on cognitive, perceptual and emotional components is needed in rehabilitation and research programs after stroke.

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