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IMPACT ON LIFE AFTER INTRACRANIAL ANEURYSM RUPTURE

Health-related quality of life and epidemiologic outcomes

AKADEMISK AVHANDLING

som för avläggande av medicine doktorsexamen vid Karolinska
Institutet offentligen försvaras i Kugelbergsalen, Karolinska
Universitetssjukhuset, Solna

Fredagen den 14 december, 2012, kl. 14.00

av

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Stockholm 2012

ABSTRACT

The overall aim of this thesis was to describe impact on life up to ten years after intracranial aneurysm rupture in terms of health-related quality of life, changes in everyday life and descriptive epidemiology with the intention to contribute to an increased understanding of the long-term perceived consequences of that impact.

Study I aimed to describe changes and transitions in everyday life during the first two years following an intracranial aneurysm rupture. A consecutive sample of 88 patients was followed-up at three time points. A majority of respondents perceived changes in their everyday life during the first two years following aneurysm rupture. Transitions were revealed within changes in personality, changed social roles and relationships, and changed abilities and behavior.

In **Study II** epidemiology in relation to gender differences and treatment modalities ten years after aneurysm rupture was investigated. Ten years after the onset, 63.9% of the 468 admitted patients were still alive. The incidence in women was higher than that of men; they were older at onset and were diagnosed with more aneurysms. There were no significant differences in survival times between patients treated with different active aneurysm treatments, or between men and women.

In **Study III** survivors from study II (n=217) were followed-up with questionnaires and telephone interviews, aiming to describe psychological, physical and cognitive functions ten years after intracranial aneurysm rupture. Compared to reference groups, the aneurysm respondents scored higher levels of anxiety and depression. Respondents with ruptured aneurysms in the posterior circulation of the brain scored significantly more symptoms of anxiety and depression. A small proportion, 2.8%, scored for severe physical disability and 21.7% scored below the cut-off value, indicating cognitive impairments.

Study IV used the same sample as study III (n=217), and a general population sample (n=434) from the Stockholm Public Health Survey, matched by age and sex. The aim was to measure health-related quality of life (HRQoL), and to explore factors affecting HRQoL, ten years after intracranial aneurysm rupture. Compared to general population, the aneurysm sample reported significantly more problems with mobility, self-care, usual activities and anxiety/depression and had significantly lower overall HRQoL values. HRQoL in the aneurysm sample was most affected in respondents with worse neurological outcome, respondents with comorbidities, and respondents with low perceived recovery.

In conclusion, intracranial aneurysm ruptures impacts upon life in several ways for an extensive period of time after the onset. The results indicate a need for follow-up and support, and to identify subgroups of aneurysm patients who might benefit from support: patients with ruptured aneurysms in the posterior circulation of the brain; patients with worse neurological outcome at hospital discharge; patients with comorbidities; and patients with low perceived recovery.

Ten years after the onset of aneurysm rupture, the majority of patients were still alive. Differences between men and women were apparent in incidence and clinical presentation at the onset of aneurysm rupture, not in mortality or survival times. Survival time was equal between patients within active treatment modalities.