

High-risk lifestyle and all-cause mortality in older Australians with stroke: A data linkage study

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Background:

Stroke prevention via lifestyle modification is a public health priority in developed countries. Few studies have examined the association of high-risk lifestyle factors with long-term mortality of stroke survivors. Therefore, this study aims to explore the effect of key lifestyle factors on all-cause mortality after stroke.

Methods:

Sample is derived from the 45 and Up Study, the largest ongoing study in the Southern Hemisphere focusing on the health of people aged 45 years and older living in NSW, Australia. The lifestyle data in the 45 and Up Study between 2006 to 2015 were linked with data from the NSW Registry of Births, Deaths and Marriages, NSW Cause of Death Unit Record File, and NSW Admitted Patient Data Collection by the Centre for Health Record Linkage. We defined a high-risk lifestyle as no vigorous exercise, smokers, or > 10 alcoholic drinks/week. Multivariate Cox regression model is used to examine the effect of high-risk lifestyle on survival using 10-year all-cause mortality as the main outcome, adjusted for key confounders.

Results:

We analysed information on 8410 adults with a stroke event occurring prior to the baseline 45 and Up Study, and 31% of them died in 10 years. 6219 participants were identified as having a high-risk lifestyle at baseline. Being a current smoker and without vigorous exercise were associated with 41% (95% CI: 16%, 73%) and 52% (95% CI: 30%, 78%) increase in the likelihood of death in 10 years, respectively. However, high-risk alcohol drinking was not significantly associated with survival. Of note, having cardiovascular-related comorbidities showed greater risks of mortality (HR range, 3.6-7.2).

Conclusions:

High-risk lifestyle factors were associated with an increased risk of long-term all-cause mortality, suggesting that enhancing public health initiatives to promote 'healthy' lifestyle behaviours can be of great benefit to stroke survivors.

Key messages:

- It is essential for stroke survivors to maintain a healthy lifestyle to delay all-cause mortality.
- Stroke survivors with high-risk lifestyle may be associated with increased likelihood of death if they have comorbidities such as diabetes and hypertension.