Current trends in stroke events, mortality and case fatality in Switzerland: an epidemiologic update

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Background

Stroke is a major cardiovascular disease. The last epidemiologic update of stroke events, mortality, and case fatalities (CF) in Switzerland was performed in 2004. Between 2004 and 2017, traditional- and non-traditional cardiovascular risk factors changed, life expectancy increased, Stroke-Units were implemented, and stroke treatment standardized. Therefore, we present an update of stroke epidemiology in Switzerland.

Methods

Data were obtained from two databases, the Federal Hospital Discharge Statistics (HOST) and the Cause of Death database (CoD), to analyze stroke diagnoses coded according to I60-I64 (ICD 10) in 2017. Discharge- and event rates for stroke, in- and out-of-hospital CF, and mortality were calculated.

Results

In total, 26032 hospital discharges from stroke were recorded in the HOST database (11744 women, 45%; 14288 men, 55%; 2004: 13996). The age-standardised event rate was 325/100000 (265.1/100000 for women and 396.7/100000 for men; 2004: 119.7/100000 vs. 178.7/100000). 2816 deaths due to stroke were reported in the CoD database (1660 women, 59%; 1156 men, 41%), which was considerably less compared to 2004 (3568 deaths). The overall CF rate was notably higher in women compared to men (13.4%, 95% CI 12.8-14.0 vs. 8%, 95% CI 7.5-8.4). Out-of-hospital deaths due to stroke accounted for 30.1% of all deaths (2004: 48.7%).

Conclusion and Outlook

Compared to 2004, the rates of stroke events and discharges have increased in Switzerland. However, the overall CF rate has approximately halved, and the number of out-of-hospital deaths due to stroke is now a third of what it was in 2004. This suggests increased recognition and better treatments for stroke.