

00352 The Associations of Stroke and Cancer Using Registry-based Data

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Aims: Associations between ischemic stroke (IS) and cancer have been reported, with IS being a complication of a known malignancy or the first manifestation of an occult one. However, data from nation-wide databases are limited, especially in Asian populations. We aimed to investigate differences in vascular risk profile of IS patients with and without concomitant cancer. We also aimed to investigate the cancer incidence and patterns in IS patients.

Methodology: This was a case-control study using data from the Singapore stroke and cancer registries from the year 2008-2012 and year 2006-2014 respectively. Cases were IS patients with concomitant cancer, defined as cancer ± 2 years of IS. Multivariable logistic regression was used to analyse differences in vascular risk factors while cancer incidence was calculated using the same direct age-standardization method performed for the Singapore general population in the 2015 Singapore cancer report.

Result: In our cohort of 21,068 IS patients (mean age: 67.9 ± 13.3 years), 6.3% (1330) were found to have concomitant cancer; 4.4% (935) had prior cancer while 1.8% (395) had cancer diagnoses within 2 years following IS. Older age (OR=1.02; 95% CI (1.01-1.02) per year) and a lower prevalence of hypertension (OR=0.84; 95% CI (0.73-0.97)) and hyperlipidemia (OR=0.53; 95% CI (0.45-0.62)) were independently associated with cancer-related IS. The cancer incidence among IS patients was 3392.9 (95% CI (1937.1-4848.7)) per 100,000 person-years compared to 219.4-230.9 per 100,000 person-years reported in the Singapore general population. The top cancers in IS patients were lower gastrointestinal (19.7%), lung (13.8%), genitourinary (11.5%), hepatopancreatobiliary (10.8%) and upper gastrointestinal (7.8%) cancers.

Conclusion: IS patients with concomitant cancer were older and had a lower prevalence of vascular risk factors. The age-standardized cancer incidence was 15-times higher in IS patients than the Singapore general population and the top cancer among cancer-IS patients was lower gastrointestinal cancer.