Variations of socio-demographic, risk factors and severity of ischemic stroke subtype in patients admitted to Seberang Jaya Hospital

Chin Chen Joo[1], Ng Li Yun[1], Ch'ng Alan Swee Hock[1,2], Looi Irene[1,2]

[1]Clinical Research Centre, Seberang Jaya Hospital, Penang, [2]Department of Internal Medicine, Seberang Jaya Hospital, Penang

ABSTRACT

Introduction: Stroke is Malaysia's third leading cause of death. The objective of this study is to compare the socio-demographic characteristics, risk factors and the severity of ischemic stroke subtype in patients admitted to Seberang Jaya Hospital. A comprehensive analysis of these variables is crucial for optimum utilization of our limited resources. **Methods:** This is an observational cross-sectional study. A total of 466 ischemic stroke patients data was extracted from the Seberang Jaya Hospital stroke registry from January to December 2022 to analyze the ischemic stroke subtype based on the Oxfordshire Community Stroke Project (OCSP) classification, the socio-demographic characteristics, the risk factors and the stroke severity based on the National Institutes of Health Stroke Scale (NIHSS). **Results:** Lacunar infarct (LACI) was the most common ischemic stroke subtype (n=280, 60.1%), followed by partial anterior circulation infarcts (PACI) (n=95, 20.4%), total anterior circulation infarcts (TACI) (n=50, 10.7%) and posterior circulation infarcts (POCI) (n=41, 8.8%). TACI patients were the eldest (mean age 67.88 ± 12.904, $p<0.001$) and had the most severe stroke (median NIHSS score 22, IQR 6, $p<0.001$). In comparison to non-TACI, TACI was significantly associated with age (adjusted OR 1.04, 95% CI 1.01-1.07, p 0.003) and atrial fibrillation (adjusted OR 3.21, 95% CI 1.37-7.50, p 0.007). **Conclusion:** The significant risk factors for TACI were age and atrial fibrillation. Age is not modifiable. Hence, managing atrial fibrillation has to be prioritized with our limited resources to reduce severe stroke.