

THE EFFECTS OF HYPERTENSION, SMOKING, AND OBESITY ON STROKE INCIDENCE IN RIAU

Armaliza Permata Sari, Rahayu Lubis, Zulfendri

Masters Program in Public Health, Faculty of Public Health,
Universitas Sumatera Utara

ABSTRACT

Background: Global health has entered a stage where the recognition that tackling non communicable diseases (NCDs) including stroke is not only a clinical and public health issue but also an important challenge for global economic development. A stroke happens when blood stops flowing to any part of the brain. Strokes can be large or small, and the effects of stroke depend on the part of the brain affected and the extent of damage. The effects of stroke can include communication problems, tiredness and fatigue, emotional changes and pain. This study aimed to assess the effects of hypertension, smoking, and obesity, on stroke incidence in Riau.

Subjects and Method: This was a case-control study conducted at Rokan Hulu General Hospital, Riau, in June 2018. A sample of 100 patients was selected for this study, consisting 50 patients with stroke and 50 patients without stroke. The dependent sample was stroke incidence. The independent variables were hypertension, smoking, and obesity. Hypertension was measured by sphygmomanometer. The smoking data was measured by questionnaire. The obesity data were measured by Body Mass Index (BMI). The data were analyzed by a multiple logistic regression.

Results: Of 100 patients sampled, 72% had hypertension, 74% were smokers, and 68% had obesity. Stroke incidence increased with hypertension (OR= 5.44; 95% CI= 2.21 to 13.40; $p < 0.001$). It also increased with smokers (OR= 1.83; 95% CI= 0.78 to 4.63; $p = 0.207$) and obesity (OR= 1.71; 95% CI= 0.69 to 4.24; $p = 0.246$) although it was statistically non-significant.

Conclusion: The risk of stroke incidence increases with hypertension. The increased risk of stroke with smoking and obesity is statistically non-significant in this study.

Keywords: stroke, hypertension, smoking, obesity

Correspondence:

Armaliza Permata Sari. Masters Program in Public Health, Faculty of Public Health, Universitas Sumatera Utara, Jl. Prof. T. Maas, Medan, North Sumatera.
Email: melizapermata92@yahoo.co.id. Mobile: 085233087222.