

Analysis of Risk Factors for Ischemic Stroke (I63.9) Based on Medical Records of Inpatients at dr. Haryoto Lumajang Regional General Hospital

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ABSTRACT

Ischemic stroke is a neurological disorder that occurs as a result of brain tissue damage caused by impaired blood flow and oxygen supply to the brain due to vascular obstruction. From 2022 to 2024, ischemic stroke mortality ranked as the leading cause of death. This study aimed to analyze the association between age, sex, history of hypertension, history of diabetes mellitus, history of heart disease, and history of dyslipidemia with the incidence of ischemic stroke based on medical records at RSUD dr. Haryoto Lumajang. This study employed an analytic observational design with a case-control approach. The case population consisted of 620 patients, while the control population consisted of 2,799 patients. The study sample comprised 97 cases and 97 controls, selected using a random sampling technique. Data were analyzed using univariate and bivariate analyses, including the chi-square test, with SPSS software. The results indicated a significant association between ischemic stroke incidence and age ($p\text{-value}=0.000$; $OR=4.566$), history of hypertension ($p\text{-value}=0.000$; $OR=7.847$), history of diabetes mellitus ($p\text{-value}=0.000$; $OR=4.334$), history of heart disease ($p\text{-value}=0.000$; $OR=6.874$), and history of dyslipidemia ($p\text{-value}=0.000$; $OR=2.420$). In contrast, sex was not significantly associated with ischemic stroke ($p\text{-value}=0.886$). In conclusion, patients aged over 55 years with a history of hypertension, diabetes mellitus, heart disease, and dyslipidemia are at a higher risk of experiencing ischemic stroke. It is recommended that the RSUD dr. Haryoto Lumajang provide health education for patients at risk of ischemic stroke. Additionally, the community is encouraged to regularly monitor blood pressure, adhere to antihypertensive medication, and reduce excessive salt consumption. Future studies are recommended to conduct multivariate analysis to identify the most dominant risk factors for ischemic stroke.

Keywords: Case-control, Risk Factor, Stroke Ischemic, Hypertension, Diabetes Mellitus