

THE ROLE OF DIABETES MELLITUS, DYSLIPIDEMIA, AND SMOKING AS RISK FACTORS IN ACUTE ISCHEMIC STROKE INCIDENCE AMONG HYPERTENSIVE SUBJECT

Nurlia, Cahyono Kaelan, Nadra Maricar

Bagian Neurologi, Fakultas Kedokteran, Universitas Hasanuddin, Makassar

Alamat Korespondensi:

Nurlia

Fakultas Kedokteran, Universitas Hasanuddin, Makassar, 90245

Email : nurlia.ilo@gmail.com

ABSTRACT

Introduction: Stroke is a leading cause of disability in the elderly, and the second leading cause of the death worldwide. This study aims to analyze the role of risk factors for diabetes mellitus (DM), dyslipidemia, and smoking in hypertensive patients who suffer an acute ischemic stroke. **Methods:** This study used a case-control design in hypertensive patients who suffered an acute ischemic stroke as the case group, and hypertensive patients without ischemic stroke as a control group. The samples were selected using the consecutive technique based on some inclusion criteria. Data were analyzed statistically with the Chi-Square test. The test results were considered significant if $p < 0.05$. Furthermore, logistic regression analysis was performed to find out the strength of the relationship with the odds ratio (OR). Layer analysis also conducted to validate the strength of dyslipidemia and smoking. **Results:** The results of the research indicated that all three of these risk factors play a role in causing acute ischemic stroke in hypertensive subjects compared to the control. **Conclusion:** Among these three risk factors, diabetes had the most significant role ($p < 0.001$) and it had 7-15 times stronger (Exp (B) 7.023; 95% CI 3.205-15.394) to cause acute ischemic stroke in hypertensive subjects, compared to dyslipidemia and smoking.

Keywords: diabetes mellitus, dyslipidemia, smoking, acute ischemic stroke, hypertensive subjects

PERANAN DIABETES MELITUS, DISLIPIDEMIA, DAN MEROKOK SEBAGAI FAKTOR RISIKO TERHADAP KEJADIAN STROK ISKEMIK AKUT SUBJEK HIPERTENSI

ABSTRAK

Pendahuluan: Strok merupakan penyebab utama kecacatan pada orang tua dan penyebab utama kedua kematian di seluruh dunia. Penelitian ini bertujuan menganalisis peranan faktor risiko diabetes melitus (DM), dislipidemia, dan merokok pada penderita hipertensi yang mengalami strok iskemik akut. **Metode:** Penelitian ini menggunakan desain kasus-kontrol pada penderita hipertensi yang mengalami strok iskemik akut sebagai kelompok kasus dan penderita hipertensi yang tidak mengalami strok iskemik sebagai kelompok kontrol. Pengambilan sampel menggunakan teknik konsekutif yang memenuhi kriteria inklusi penelitian. Data dianalisis secara statistik, yaitu menilai hubungan dengan menggunakan uji statistik Chi-Square. Hasil