

ABSTRACT

Stroke is the leading cause of death of all ages. Some of risk factors of stroke have in common with the criterion of metabolic syndrome. Metabolic syndrome is a collection of 5 (five) states that describe metabolic disorders, namely abdominal obesity, glucose intolerance, decreased HDL cholesterol, elevated triglyceride levels and insulin resistance. The goal's to analyze relationship between metabolic syndrome with incidence of stroke.

This research used case-control design. Samples were hospitalized patients that met inclusion and exclusion criteria. With sample are 64 peoples, taken using random sampling. The dependent variable in this research was the incidence of stroke, and the independent variables were age, gender, the first criteria of metabolic syndrome, the second criteria of metabolic syndrome, and the third criteria of metabolic syndrome.

The results of the research using Chi-Square test to find the relationship with the significance level $\alpha < 0,05$, there was a significant relationship between the first criteria of metabolic syndrome (abdominal obesity, triglycerides, and HDL cholesterol levels) $p=0,01$ OR=6,82 (95% CI=1,23 to 68,17) and the second criterion of metabolic syndrome (HDL cholesterol, blood pressure, and fasting glucose levels) $p=0,007$ OR=5,80 (95% CI=1,30 to 35,15) with the incidence of stroke. While for the third criteria of metabolic syndrome (fasting glucose levels, abdominal obesity, triglyceride levels) there was no significant relationship to the incidence of stroke.

Conclusion of this research was the first criteria of metabolic syndrome (abdominal obesity, triglycerides, and HDL cholesterol levels) and the second metabolic syndrome criteria (HDL cholesterol, blood pressure, and fasting blood glucose levels) were in association with the incidence of stroke. Vulnerable age group in particular >35 years, its advised to do a lipid profile assessment, which is a simple circle of abdominal measurements in purpose to detect the risk of metabolic syndrome.

Keywords: metabolic syndrome, stroke, abdominal obesity, triglyceride, HDL, blood pressure, fasting glucose