ABSTRACT

The incidence of recurrent stroke may increase the risk of disability and death and increase the cost of treatment. The incidence of recurrent stroke can be prevented by controlling the risk factors that still exist post-stroke and to pay attention length time until the occurrence of recurrent stroke after the first attack. The length of time until the occurrence of recurrent stroke events as the response variable can be analyzed using Cox regression. The purpose of this study is to apply cox regression on risk factors of recurrent strokes.

This type of research is applied research on secondary data. The samples are 151 stroke patients who are enrolled in inpatient period January to June 2014 and then made observations on the incidence of recurrent strokes up in June 2015 in medical record. Analysis techniques using Cox regression analysis on risk factors of recurrent stroke in RSU Haji Surabaya.

The analysis showed the average time to occurrence of recurrent strokes in stroke patients in general was 495 days (1 year 4 months 2 weeks 4 days). Recurrent event rate had similar risks for all age groups, gender, hypertension, and history of stroke. Recurrent event rate on the status of diabetes mellitus, dyslipidemia and cardiac abnormalities have a greater risk of recurrent stroke events. No effect for age, gender, hypertension, dyslipidemia and history of stroke on recurrent stroke events. Stroke patients with diabetes mellitus status have risk of 6,334 times greater than no diabetes mellitus and cardiac abnormalities have risk 4,572 times greater than no cardiac abnormalities to get a recurrent event of strokes.

Suggestions for next research to develop a model of the extended of cox regression on variables that do not meet the assumption of proportional hazards and adding other variables on the risk of recurrent stroke events. For patients with diabetes mellitus and cardiac abnormalities, need to do a routine check-up in order not to get a recurrent event of strokes.

Keywords: cox regression, recurrent stroke, risk factors