ABSTRACT

Background: Acute myocardial infarction with ST-segment elevation or better known as STEMI (ST Elevation Myocardial Infarction) remains a major cause of health problems in industrialized countries and began to increase in some developing countries. *Door to needle time* is one of its main factors leading to fail or success of thrombolytic therapy. One of the guideline recomended that fibrinolytic therapy must be given within 30 minutes of arrival to the hospital or first contact with health-care facilities. Delay of thrombolytic therapy for 30 minutes reduced the average life expectancy of about one year. By this knowledge we know that timing and speed is very important to determine whether thrombolytic therapy will fail or not.

Purpose: The result of this research is to know the characteristics of patients with acute myocardial infarction with ST-segment elevation who failed thrombolytic therapy in RSUD Dr. Soetomo Surabaya.

Methods: This study uses descriptive non-analytic epidemiology to see data from medical records of patients with STEMI treated with thrombolytic therapy. Data collected from patient treated in ICCU and inpatient care facility of Cardiology and Vascular Department at RSUD Dr. Soetomo within the year 2014 to 2015.

Results: Research results obtained, namely the distribution of STEMI patients in Dr. Soetomo hospital who failed thrombolytic therapy is highest in the age group> 60 years. Female gender have a failure rate of thrombolytic therapy higher than men. Risk factors for hypertension, diabetes mellitus, non dyslipidemia, and smoking have a failure rate higher than the opposite groups. As Killip class hemodynamic status in patient increased the failure rate of thrombolytic therapy were increased as well. All those results above were shown insignificant statistically. STEMI patients at the Dr. Soetomo hospital with door to needle time less or around 30 minutes have a failure rate of thrombolytic therapy lower than >30 minutes group. And the results of this study show a significant association.

Conclusion: Speed and timing is the key to the success of thrombolytic therapy in patients with STEMI. Delay will lead to treatment failure and poor long-term prognosis.

Keywords: AMI, STEMI, failed thrombolysis