Effectiveness of Time Onset of Enoxaparin Treatment in Outcomes of Non ST Elevate Myocardial Infarction (NSTEMI) Patients in Rajavithi Hospital

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Background: Myocardial infarction is a major public health problem. Late management may result in many complications. Patients whose delay time to receive anticoagulant may have different outcomes.

Objective: Primary objective was to compare between mortality rate and time to start enoxaparin. Secondary endpoints were to determine the correlated about rate of bleeding, recurrent angina, mortality rate and length of hospital stay with time to start enoxaparin in NSTEMI patients.

Methods: This study was designed to prospectively determine the relationship of timing in initiation of enoxaparin and the outcomes in NSTEMI patients, including treatment complications, from June 2016 to October 2017.

Results: Our study included a total of 120 patients. Approximately 57.5% of them were male with mean age 65.80±14.17 years. Mean BMI was 24.55±4.40 kg/m2. Major comorbidity was hypertension (73.3%). Average time from onset of angina to emergency room arrival was 22.26±45.70 hours, while average time from emergency room arrival to first dose of enoxaparin was 5.62±4.26 hours. Most of our population received the first dose of enoxaparin in less than 6 hours after arrival to emergency room (63.3%). Overall mortality rate was 5.8% and there was no significant difference between the groups of less than 6 hours (7.9%) and more than 6 hours of treatment (2.3%) (p = 0.421) similar to recurrent angina. Rate of bleeding and duration of hospital admission were not significantly different in the two groups.

Conclusion: Overall mortality rate in NSTEMI patients in this study is 5.8%. There is no significant difference in mortality rate, rate of bleeding, recurrent angina, and duration of hospitalization with timing to receive enoxaparin.

Keywords: Enoxaparin, NSTEMI, ACS, Efficacy, Outcome