ABSTRACT

Aim: To find the changes in the coagulation system after thrombolysis with streptokinase in st elevation myocardial infarction and to postulate about the timing of starting heparinisation after thrombolysis.

Setting: The study was conducted in medicine department of kapv govt medical college trichy. The total duration of study was 1 year.

Design: “A study on coagulation profile of patients thrombolysed with streptokinase in acute st-elevation myocardial infarction” is a cross sectional observational study of patients admitted with acute st elevation myocardial infarction(stemi) who were candidates for thrombolysis. Whole blood is collected at baseline and at intervals of 3, 6, & 9 hrs following initiation of thrombolysis. Coagulation profile was done at those intervals. APTT and PT were compared at those intervals and tried to analyse the need of anticoagulation prior to the routine interval.

Inclusion criteria: All patients presenting with acute st segment elevation myocardial infarction presenting within the window period.

Exclusion criteria

1. Those patients with contraindication for thrombolysis.
2. Those on anticoagulants.
3. Those thrombolysed earlier.

Results: With an $\chi^2 = 45.533$ and $p < 0.001$, kappa score for the agreement between APTT at 6 hours and 9 hours is 0.640. Based on the above data 48.15% patients had their APTT in the sub therapeutic level at the end of 6 hours after thrombolysis. These patients may have been benefited if they were heparinised at an earlier time. This needs further study by comparing two groups based on early heparinisation before 6 hours and at 6 hours (standard heparinisation), and comparing the outcome in these two group based on resolution of ecg, decrease in pain and angiographic findings.

Conclusion: Early heparinisation may be considered in those patients who have non resolving st segment 90 minutes after thrombolysis, or those patients who have continuing pain even after thrombolysis. There is suboptimal anticoagulation in myocardial infarction.

Recommendations: Half of the patients APTT values were below the therapeutic level after thrombolysis, so early heparinisation could be beneficial for these patients. Further studies are needed to compare patients between two groups with one group subjected to early heparinisation and other group to routine heparinisation at 6 hours and comparing the outcome between the two groups.

KEYWORDS: heparinisation, streptokinase, ST-elevation myocardial infarction, coagulation profile.