**INTRA-AORTIC BALLOON PUMP IS ASSOCIATED WITH INCREASED MORTALITY IN PATIENTS WITH ST-ELEVATION MYOCARDIAL INFARCTION UNDERGOING PRIMARY PERCUTANEOUS CORONARY INTERVENTION:**

**A RETROSPECTIVE ANALYSIS**

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**Background**: The use of an intra-aortic balloon counterpulsation (IABP) in patients with ST-elevation myocardial infarction (STEMI), with or without cardiogenic shock, has not shown to improve survival. In several observational studies, IABP was associated with increased mortality. In Southeast Asia, there is still no data whether IABP influences mortality in this population.

**Objective**: This study aimed to determine the effect of IABP on the in-hospital mortality in patients with STEMI undergoing primary percutaneous coronary intervention (PCI).

**Methods**: This was a retrospective observational study of consecutive patients with a diagnosis of STEMI and undergoing p-PCI at a tertiary care hospital in Thailand from January 2010 to December 2015. Patients’ characteristics and outcome were gathered. T-test, Chi-square and multivariate analysis were used to analyze.

**Results**: Total of 650 patients (mean age of 60.2 ± 13.8 and 73.2% male) were obtained. There were 138 patients (21.2%) who underwent IABP placement. The IABP group had higher creatinine level (3.0 ± 1.6 vs 1.1 ± 0.8, p<0.001) and had more patients with shock (94.9% vs 13.3%, p<0.001). The mortality rate in the IABP group was significantly higher than the non-IABP group (38.4% vs 2.3%, odds ratio (OR) of 25.98, p<0.001). In multivariate analysis, we still found that the used of IABP, history of shock and high creatinine were independent risk markers for in-hospital death (adjusted OR: 5.12, 8.41 and 1.81, p=0.002, 0.004 and <0.001, respectively).

**Conclusions**: Even after adjusting for baseline characteristics, IABP was still found to be an independent risk factor for mortality in patients with STEMI undergoing primary PCI. The risk of IABP use must be weighed against the unproven benefits.