**PREDICTIVE FACTORS OF IN-HOSPITAL DEATH IN TUNISIAN PATIENTS PRESENTING FOR ST-ELEVATION MYOCARDIAL INFARCTION MANAGED WITH PREHOSPITAL THROMBOLYSIS**

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**Background.** Prehospital thrombolysis (pHT) is recommended by the European Society of Cardiology (ESC) in patients presenting for ST-elevation myocardial infarction (STEMI) when transfer delays to the catheterization laboratory are long.

**Aim of the study.** We sought to determine predictive factors of early death in patients presenting for STEMI and managed by pHT in our context.

**Methods.** Data about 1498 patients presenting to our center for STEMI between January 1998 and September 2014 were included in a retrospective registry. The present study enrolled 510 patients managed with pHT. Clinical characteristics and in-hospital prognosis were studied. Univariate and multivariate predictors of in hospital death were determined.

**Results.** Mean age of the study population was 58.9 ±12.3 years. Prevalence of male gender, diabetes mellitus and tobacco smoking was 82%, 31.4% and 69.8% respectively. Mean ischemia to thrombolysis time was 4.15 ±4.07 hours. Success of thrombolysis could be obtained in 73.1% of the patients. In-hospital mortality rate was 7.8%. In univariate analysis, factors associated with in-hospital death were heart failure on admission (52.5% vs. 18.7%, p<0.001), cardiogenic shock (12.5% vs. 1.5%, p<0.001), renal failure on admission (22.5% vs. 5.1%, p<0.001) and new onset atrial fibrillation (20% vs. 6.2%, p=0.001). In multivariate analysis, factors independently associated with in-hospital death were heart failure on admission (HR=3.7, 95% CI: 1.75-7.82, p=0.001), renal failure on admission (HR=2.9, 95% CI: 1.09-7.73, p=0.033) and new onset atrial fibrillation (HR=2.88, 95% CI: 1.1-7.51, p=0.03).

**Conclusions.** In our study, in patients managed with pHT for STEMI, heart failure on admission, renal failure on admission and new onset atrial fibrillation were independently associated to in-hospital death.