NON-CHEST PAIN COMPLAINT AT PRESENTATION DELAYS DOOR-TO-BALLOON TIME AND ARE ASSOCIATED WITH WORSE CLINICAL OUTCOMES IN PATIENTS WITH ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION

Poster Contributions
Hall C
Sunday, March 30, 2014, 9:45 a.m.-10:30 a.m.

Session Title: Acute Coronary Syndromes: STEMI
Abstract Category: 1. Acute Coronary Syndromes: Clinical
Presentation Number: 1190-252

Authors: Kwang Soo Cha, Jun Sup Park, Jinhee Ahn, Jin Hee Kim, Hye Won Lee, Jun-Hyok Oh, Jung Hyun Choi, Han Cheol Lee, Taek Jong Hong, Myung Ho Jeong, Youngkeun Ahn, the Korea Working Group on Myocardial Infarction Investigators, Pusan National University Hospital, Busan, South Korea

Background: Time to reperfusion treatment is known to be an essential predictor of morbidity and mortality in patients with ST-segment elevation myocardial infarction (STEMI). Specifically, increased door-to-balloon (DTB) time is associated with increased mortality. Substantial patients with STEMI experience non-chest pain or no complaints and are given a low priority score at the triage of emergency department. We aimed to determine the impact of non-chest pain complaint as a presenting symptom on DTB time and clinical outcomes in patients with STEMI.

Methods: A total of 11,417 STEMI patients who underwent primary percutaneous coronary intervention (PCI) were derived from the Korea Working Group on Myocardial Infarction Registry from 2005 to 2012 and compared according to typical chest pain or non-chest pain complaint as a presenting symptom. The primary outcomes were mortality and the composite of major adverse cardiac events (MACE, defined as death, non-fatal myocardial infarction, and revascularization) at 12 months.

Results: Compared to patients with typical chest pain (n=9,948, 87.1%), patients with non-chest pain complaint (n=1,469, 12.9%) were older, more female, and had higher incidence of hypertension and diabetes, and also had higher incidence of anterior infarct and higher Killip class. Time delay was also significant in door-to-laboratory arrival time (53 vs. 64 min, p<0.001), laboratory arrival-to-balloon time (20 vs. 23 min, p<0.001), and DTB time (75 vs. 89 min, p<0.001). Non-chest pain complaint was an independent determinant of DTB time both in adjusted models and in multivariate linear regression analysis. Patients with non-chest pain complaint had more in-hospital death (4.1% vs. 11.5%, p<0.001), mortality at 12 months (6.5% vs. 16.3%, p<0.001), and the composite of MACE at 12 months (12.7% vs. 23%, p<0.001).

Conclusions: This study showed that time delay in the diagnosis and initiation of reperfusion treatment was greater and associated with worse clinical outcomes in STEMI patients with non-chest pain complaint as a presenting symptom. A triage using electrocardiogram, rather than a presenting complaint, could be considered in the emergency department.