The Clinical Result of Percutaneous Coronary Intervention for Acute Myocardial Infarction with Cardio-pulmonary Arrest

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Background: The survival factor for acute myocardial infarction patients with cardiac pulmonary arrest is little known.

Methods: We analysed 70 acute myocardial infarction patient with cardiac arrest (average age 63±30 years old, male 84%) between April 2007 and September 2013. We investigated the factors which contributed to the death after CPA-AMI. Patients divided into two groups:34 of hospital survival group A and 36 of hospital death group B.

Results: The rate of witness was 97% in group A and 91% in group D. (p=0.32) The rate of initial ECG VT/VF was 82% in group A and 47% in group D (p=0.001). Return of spontaneous circulation (ROSC) was significantly higher in group A compared with groups (68% vs 33%, p=0.004). The usage of percutaneous cardio-pulmonary support device was high ratio in group D compared with group A (69% vs 44%). The survival rate of using percutaneous cardio-pulmonary support device was 37% in group A. All patients were performed coronary angiogram. The infant-rated-attack was not different between two groups. The success rate of the PCI was significantly high ratio in group A compared with group D (97% vs 80%, p=0.02). The rate of hypothermia therapy was 82% in group A and 69% in group D (p=0.18).

Conclusion: The hospital survival rate in AMI-CPA was 48%. ROSC and successful coronary angioplasty improve hospital survival.

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Women Presenting with Acute Myocardial Infarction Have Worse 1-year Prognosis than Men Regardless to the Reperfusion Strategy Implemented

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Background: It is widely admitted that coronary artery disease has worse prognosis in women than in men. In the setting of acute myocardial infarction (AMI), the prognostic impact of the reperfusion strategy implemented is less known. We investigated the 1-year prognosis of AMI according to gender and to the reperfusion strategy used.

Methods: We retrospectively reviewed data from our monocentric registry including 1386 patients hospitalized for AMI between January 1998 and January 2012 and treated either by thrombolysis, primary percutaneous coronary intervention (PCI) or medical therapy. Men and women were compared regarding clinical characteristics, risk factors and 1-year prognosis.

Results: Reperfusion strategies implemented in the study population were thrombolysis in 477 (34.4%) patients and primary PCI in 382 (27.6%) patients. Medical therapy was used in 527 (38%) patients. Out of the total population, there were 245 (17.7%) women. Prevalence of diabetes mellitus and arterial hypertension were significantly higher in women than in men (52.2% vs. 31.5%, p<0.001 and 58% vs. 24%, p<0.001 respectively). No significant difference between men and women was noted regarding the reperfusion strategy implemented. One-year mortality was significantly higher in women than in the overall population (16.3% vs. 7.4%, p<0.001), in the thrombolysis sub-group (14.9% vs. 6.6%, p=0.018), in the primary PCI sub-group (25% vs. 9%, p=0.001) and in the medical treatment sub-group (18.4% vs. 8.4%, p=0.006). When adjusted to main risk factors, female gender was independently associated to 1-year mortality in the overall population (HR: 1.99, 95% CI: 1.31-3.04, p=0.001), in the thrombolysis sub-group (HR: 2.48, 95% CI: 1.14-5.4, p=0.021) and in the primary PCI sub-group (HR: 2.42, 95% CI: 1.18-4.9, p=0.015). In patients treated with medical therapy, no independent association could be identified between female gender and 1-year mortality.

Conclusion: In our study, in patients presenting with AMI, female gender is associated to worse 1-year prognosis regardless to the reperfusion strategy implemented. In patients treated with medical therapy, female gender was not associated with worse 1-year prognosis.

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1 Year Follow-up of Patients with Acute Myocardial Infarction and Cardiogenic Shock Receiving Intra-aortic Balloon Pump

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Background: Intra-aortic balloon pump (IABP) was widely used patients for hemodynamic support of patients with cardiogenic shock. Evidences of IABP in reducing the mortality of patients were conflict. The aim of the study was to compare the outcomes in patients with acute myocardial infarction and cardiogenic shock using IABP and without IABP.

Methods: Using the Taiwan...s national health insurance (NHI) database from 1997 to 2008, records of patients using IABP were reviewed retrospectively, utilizing the international Classification of diseases, Ninth Revision, Clinical Modification (ICD-9-CM) codes for patients with Acute myocardial infarction (AMI) (ICD-9 codes: 410.01+410.91) and cardiogenic shock (ICD-9 code:785.51). The operation code of IABP in Taiwan...s NHI is 37.61. All patients aged younger than 18 years-old were excluded in the study. Two groups of IABP using or not in patients with AMI and cardiogenic shock were matched in the propensity scores by age and gender and risk factors. The primary outcome was the overall mortality.

Results: Our data showed total 7758 subjects were included in the study. The average age in these patients was 69 year-old. Male was predominant in seventy percent. There were 1940 subjects in the group of patients with AMI and cardiogenic shock using IABP. There were 5818 subjects in another group of patients with AMI and cardiogenic shock without IABP. The group of patients using IABP had higher ratio of the past history of MI (12%). Our data showed after 1 year follow up, the group of patients using IABP had higher MI (11% vs 9.2%, p<0.001), more Killip class I-IV stroke (9% vs 5.4%, p<0.001) compared with the group without IABP. However, the group of patients using IABP had less death (51 vs 59%, P<0.001).

Conclusion: IABP in patients with AMI and cardiogenic shock maybe not reduce mortality but increase the risk of MI and stroke.

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Preinfarction Angina in NSTEMI: When the Pain Is Beneficial

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Background: Several studies have demonstrated the protective effects of preinfarction angina in STEMI patients, but this role remains uncertain in patients with NSTEMI. We evaluated the effect of pre-infarction angina in the clinical setting of NSTEMI.

Methods: One hundred and seven patients with Acute Coronary Syndrome: STEMI, NSTE-ACS