ORALS

TCTAP A-017

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

Makino Kenji, Toshiya Muramatsu, Reiko Tsukahara, Yoshiaki Ito, Hiroshi Ishimori, Keisuke Hirano, Masatugu Nakano, Motoharu Araki, Tamon Kato, Norihiro Kobayashi, Yuki Inoue, Hideyuki Takimura, Yasunari Sakamoto, Shinske Mori, Masakazu Tsutsumi, Hiroya Takafuji, Takahiro Tokuda
Saiseikai Yokohama City Eastern Hospital, Yokohama-shi, Japan

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 D group.
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 high ratio in group A compared with group D (68% vs 33%, p=0.004). The usage of percutaneous cardiopulmonary support device was high ratio in group D compared with group A (69% vs 44%). The survival rate of using percutaneous cardiopulmonary support device was 37% in group A. All patients were performed coronary angiogram. The infarct-rated-artery was no difference 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

Walid Jomaa, Ikram Chamtouri, Sonia Hamdi, Mohamed Ali Azaeiz, Khaldoun Ben Hamda, Faouzi Maatouk
Fattouma Bourguiba University Hospital, Monastir, Tunisia

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<0.0001 and 58% vs. 24%, p<0.0001 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 men in the overall population (16.3% vs. 7.4%, p<0.0001), 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

Chun-Ye Chiang
Chi-Mei Medical Center, Tainan, Taiwan

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-9CM) 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 of coronary artery disease.
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= 0.02), stroke (9% vs 5%, 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 reduce mortality but increase the risk of MI and stroke.

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Gender Difference in Short Term Mortality After Acute Myocardial Infarction in Korea

Deuk-Young Nah[1], Kwan Lee[1], Jun-Ho Bae[1], Jin-Wook Chung[1], Ji-Hyun Kim[2], Yong-Seok Kim[2], Moo-Yong Rhee[2], Myoung-Mook Lee[2], Myung Ho Jeong[3], Young Jo Kim[4]
[1]Dongguk University Gyeongju Hospital, Gyeongju, Korea (Republic of), [2]Dongguk University, Illsan Hospital, Goyang, Korea (Republic of), [3]The Heart Center of Chonnam National University Hospital, Gwangju, Korea (Republic of), [4]Yeungnam University Yeungnam Medical Center, Taegu, Korea (Republic of)

Background: There are some conflicting papers about gender differences in short term mortality after acute myocardial infarction (AMI). Previous studies have shown that mortality is higher in women than men. However it remains unclear that this difference is attributable to the older age of the women and to the presence of other unfavorable prognostic factors.
Methods: A total of 13,071 AMI patients with AMI in KorMI registry between January 2008 and December 2012. There are 6,068 ST segment elevation myocardial infarction (STEMI) and 7,003 non ST segment elevation myocardial infarction (NSTEMI). The effect of gender and interaction with age, risk factors, percutaneous transluminal coronary angioplasty (PTCA) success were examined using multiple logistic regression analysis.
Results: Women are more older than men (72±10 versus 61±12, p<0.001) and more hypertension (n=2,556, 67.4% versus n=4,272, 46.5%, p<0.001), diabetes mellitus (n=1,373, 36.2% versus n=2,435, 26.5%, p<0.001), more Killip class III and IV (n=762, 20.1% versus n=1,130, 12.3%, p<0.001). In-hospital mortality was higher for women (7.9% versus 4.8% for men, crude odds ratio for women 1.71, 95% CI: 1.47-1.99, p=0.001) and one month mortality was also higher for women (9.2% versus 5.3% for men, crude odds ratio for women 1.80, 95% CI: 1.55-2.08, p=0.001). In multiple logistic regression analysis, women were not related to an increased risk of in-hospital and one month death.
Conclusion: Our results demonstrate significantly higher in short term mortality after AMI in women, suggesting the reasons of higher in-hospital and one month mortality for women was not gender difference but more were older, more presence of risk factors and severe clinical presentation.

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Preinfarction Angina in NSTEMI: When the Pain Is Beneficial

Mohamed amin Abdelhamid
Ain Shams University, Cairo, Egypt

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 first NSTEMI [56 without Preinfarction angina (group 1), 51 with Preinfarction angina (group 2)] were enrolled. CPK and CKMB levels were measured on admission, every 12 hours for the 1st 24 hours then daily. Echocardiographic evaluation was done predischarge for assessment of EF and SWM. Coronary angiography was done for assessment of collateral circulation. Group 2 patients were further classified according to the frequency of anginal attacks before admission (<5 or >5) and according to the timing of the attacks (<12 or > 12 hours). In-hospital events were recorded. Patients with history of congestive heart failure, previous MI, advanced hepatic or renal disease, diabetic patients on glibenclamide, and patients with collaterals > grade 1 were excluded from the study.
Results: Significantly higher CPK levels and, lower EF levels, and higher SWMI were observed in group 1 patients compared to group 2 patients (1159
Conclusion: Preinfarction angina provides significant myocardial protection in patients with NSTEMI regardless of the timing and the frequency of the attacks in relation to the onset of NSTEMI.