Implications of myocardial reperfusion on survival in women versus men with acute myocardial infarction undergoing primary coronary intervention

Rahil Hamdaddou, Mohamed Chettibi, Redouane Nedjar, Mohamed Tahar Bouafia
CHU Frantz Fanon, Cardiologie, Blida, Algérie

Background: The in hospital mortality rate after myocardial infarction is higher among women than men. PCI is recommended treatment for STEMI (ST-segment elevation myocardial infarction) in patients of both genders. It is used in women without a clear demonstration of their efficiency in this population. It is only extrapolations of studies enrolling a large majority of males (more than 85%). It is very important to improve our therapeutic strategies in women, to perform dedicated studies.

Aim: Of our study was to compare clinical and angiographic features in men and women and to determine whether gender influenced in – hospital prognosis of primary percutaneous coronary intervention.

Methods: We conducted a retrospective study including 282 patients admitted in the University Hospital of Blida (Algeria). Between April 2009 and January 2011. All these patients had an ST segment elevation myocardial infarction and underwent primary PCI within 12 hours after symptom onset.

Results: Our population counted 239 men and 43 women. Females were significantly older (\(p<0.05\)). They had a higher prevalence of diabetes 32.6% (\(p=NS\)). We achieved in 76.7% of the cases in women and in 92.1% of the cases in men in women vs 296±97.9 mn in men (\(p<0.001\)). In our study, angiographic success was more likely to consult late (Mean time from symptom onset was 299.7±93.9 min (\(p<0.05\)), hypertension 55.8% (\(p=0.01\)), dyslipemia 16.3% (\(p<0.05\)). They were more likely to consult late (Mean time from symptom onset was 299.7±93.9 min in women vs 296±97.9 mn in men (\(p<0.001\)). In our study, angiographic success was achieved in 76.7% of the cases in women and in 92.1% of the cases in men (\(p<0.005\)). The in hospital mortality rate was 7% in women and 5% in men (\(p=NS\)).

Conclusion: There is no gender discrepancy in – hospital mortality in patients who undergo emergency PCI for treatment of STEMI. These data suggest that gender should not affect the decision to offer PCI but further gender specific studies are warranted.

Relationship of hyperglycemia to the no-reflow phenomenon in STEMI patients undergoing primary PCI

Ouafa Hamza, Omar Ait Mokhtar, Abdelmalek Azzouz, Nabil Bendaoud, Mourad Saidane, Areziki Sik, Samia Latrèche, Khereddine Merad, Salim Benkhedda
CHU Mustapha, Cardiologie A2, Alger, Algérie

Background: The optimal balloon release pressure in primary percutaneous coronary intervention is not well established and use of high pressure may jeopardize ST resolution and increase the occurrence of no reflow.

Aim: To investigate the relationship between balloon release pressure and ST resolution in STEMI patients undergoing primary PCI.

Methods: Patients undergoing primary PCI for STEMI were enrolled and assigned into two groups according to the stent implantation pressure. High pressure group with a pressure >16 atm. The balloon pressure release was left to the operators’ discretion. No-reflow phenomenon was defined as \(\Sigma\) ST-segment resolution <70%.

Results: 137 patients were enrolled with a mean age of 56.39 ± 12.8 years. The results showed that no reflow phenomenon occurred more frequently in the high pressure group 49.32% vs 27%; \(p=0.002\). Furthermore, the high pressure group showed less ST resolution than the low pressure group with a mean ST resolution 60.43 ± 25.86 vs 72.35 ± 18.13; \(p=0.001\).

Conclusion: In primary PCI when stenting the culprit lesion, low pressure release may be better in avoiding the no reflow phenomenon.

Prevalence of glucose disorders in a cohort of patients hospitalized for ACS in coronary care unit, and security and efficiency of an intravenous insulin protocol adapted on glycemic kinetic

Emilie Kamaryk (1), Arèsé Monnier (2), Fabienne Amiot Chapoutot (3), Aurélie Marchais (1), Laurent Chapoutot (1), Pierre Nazeyrollas (2)
(1) CH Troyes, Cardiologie, Troyes, France – (2) CHU Reims, Hôpital Robert Debré, Cardiologie, Reims, France – (3) CH Troyes, Diabétologie, Troyes, France

Background: Glycemic variabilities have a negative impact on the morbidity and mortality of acute coronary syndromes (ACS). A strict glucose monitoring is recommended on admission in Coronary Care Unit (CCU). The aims of our study were to assess the prevalence of various glucose disorders (diabetes mellitus, impaired fasting hyperglycemia, glucose intolerance, stress hyperglycemia) among patients hospitalized for ACS, and to assess the efficiency and security of an IV insulin protocol adapted on glycemic kinetic, to decrease the risk of hyperglycemia, and for which the goal was to stabilized glycemia between 1.10 and 1.40 g/l.

Population and Method: This retrospective monocenter study concerns all patients admitted for ACS (STEMI and NSTEMI) in Troyes hospital from April 02nd, Thursday 2015. All these patients had an ST segment elevation myocardial infarction (STEMI) in patients of both genders. It is only extrapolations of studies enrolling a large majority of males (more than 85%). It is very important to improve our therapeutic strategies in women, to perform dedicated studies.

Results: 164 patients were included. The mean age was 65 ± 13 years. Among them, 97 (59%) had diabetes mellitus, and 8 (5%) had an intermediate disorder. Stress hyperglycemia was observed in 10 patients (11%) free from glucose abnormalities. Among the patients without history of diabetes mellitus and with hyperglycemia on admission, 53% were authentic diabetics. The IV insulin