

## Topic 01 – Coronary heart disease

January 15<sup>th</sup>, Thursday 2015

0168

### Myocardial infarction after kidney transplantation: age related profile. Analysis from a French nationwide hospital medical information database

Karim Stamboul (1), Jonathan Cottenet (2), Séverine Philibert (3), Chritiane Mousson (4), Marianne Zeller (1), Claude Touzery (1), Yves Cottin (3), Catherine Quantin (2)

(1) INSERM UMR 866, LPPCM, Dijon, France – (2) CHU Dijon, Informatique médicale, Dijon, France – (3) CHU Dijon, Cardiologie, Dijon, France – (4) CHU Dijon, Néphrologie, Dijon

Cardiovascular disease accounts for 43% of all deaths in patients with end-stage renal disease, and CVD continues to remain the leading cause of mortality and morbidity following renal transplantation. However, the characteristics and the hospital mortality of acute myocardial infarction (AMI) in patients with kidney transplantation (KT) remain to be determined in large scale study. From the French nationwide hospital medical information database, all the consecutive patients hospitalized in the 1546 French hospital/clinics for AMI from 1st January 2005 to 31st December 2009 were included. We compared the specific profile and the hospital mortality of patients with KT to patients without renal failure. Patients with personal past history of renal failure and/or dialysis were excluded.

Among the 329 839 patients with AMI included, 404 (0.1%) patients were after KT. Patients with KT were more frequently men (78.7 vs 66.8%, with  $p < 0.001$ ), markedly younger ( $58 \pm 12$  vs  $68 \pm 11$ , with  $p < 0.001$ ), and less smoker (5.0 vs 9.1%, with  $p < 0.001$ ) than patients without KT. There was also a higher proportion of hypertension (28.5 vs 23.4%, with  $p = 0.017$ ) and a lower proportion of STEMI (75.7 vs 82.7%, with  $p < 0.001$ ) in patients after KT. More than two-thirds of AMI complicating post KT period occurred before discharge (67.1%) and 91% in the first year after KT. After adjustment for age, sex and STEMI, in-hospital mortality was higher in KT group (4.2 vs 2.9%), but with  $p = 0.210$ .

From our large scale nationwide study, our work demonstrated that patients with KT complicated by AMI were markedly younger with a specific difference for usual risk factors, but transplant-related risk factors explain also this specificity. We highlight that AMI occurs very early after KT, most often before discharge. To decrease the frequency of MI following renal transplantation, screening of coronaropathy and evaluation of risk factors before KT, as well as after KT must be evaluated.

0203

### One-year survival according to use of thrombus aspiration for primary percutaneous coronary intervention. FAST-MI 2010 registry

Etienne Puymirat (1), Nadia Aissaoui (1), Yves Cottin (2), Gérard Vanzetto (3), Didier Carrié (4), Karl Isaak (5), Laurent Bonello (6), Yann Valy (7), Didier Tchetché (8), François Schiele (9), Gabriel Steg (10), Simon Tabassome (11), Nicolas Danchin (1)

(1) CHU Hôpital Européen Georges Pompidou (HEGP) – APHP, Cardiologie, Paris, France – (2) CHU Dijon, Cardiologie, Dijon, France – (3) CHU Grenoble, Grenoble, France – (4) CHU Toulouse, Toulouse, France – (5) CHU Saint-Etienne, Saint-Etienne, France – (6) Hôpital Universitaire Nord, Aix-Marseille Univ, Cardiologie, Marseille, France – (7) CH Saint-Louis, La Rochelle, France – (8) Clinique Pasteur, Toulouse, France – (9) CHU Jean Minjot, Cardiologie,

Besançon, France – (10) CHU Bichat-Claude Bernard-APHP, Cardiologie, Paris, France – (11) CHU Hôpital Saint Antoine-APHP, Cardiologie, Paris, France

**Objective:** Data from randomized trials evaluating thrombus aspiration (TA) in patients with ST-Elevation Myocardial Infarction (STEMI) are conflicting. Therefore, we assessed one-year survival in STEMI patients participating in the FAST-MI (French Registry of ST-elevation and non-ST-elevation Myocardial Infarction) 2010 according to TA during primary percutaneous coronary intervention (PCI), such as used in the real world.

**Methods:** FAST-MI 2010 is a nationwide French registry that included 4,169 patients with acute myocardial infarction (AMI) at the end of 2010 in 213 centres. Of those, 2,087 patients had STEMI or left bundle branch block (LBBB), of whom 1,538 had primary PCI, with TA used in 671 (44%).

**Results:** Patients with TA were younger ( $61 \pm 13.5$  vs.  $63 \pm 14$  years), with a similar GRACE (Global Registry of Acute Coronary Events) risk score ( $140 \pm 31$  vs.  $143 \pm 34$ ), and a shorter median time from symptom onset (245 vs. 285 min); location of AMI, history of MI, PCI or coronary artery bypass surgery did not differ significantly. Thirty-day mortality was 2.1% vs. 2.1% (adjusted  $p = 0.18$ ) and one-year survival was 95.5% vs. 94.8%. Using fully adjusted Cox multivariate analysis, hazard ratio for one-year death was 1.14 (95% confidence interval [CI], 0.63 to 2.07). After propensity score matching (480 patients per group), one-year survival was also similar with both strategies.

**Conclusions:** In a real-world setting of patients admitted with STEMI, the use of TA during primary PCI was not associated with improved one-year survival.

Clinicaltrials.gov identifier: NCT01237418

0443

### Primary percutaneous coronary intervention for ST elevation myocardial infarction in nonagenarians: a multicentre study

Thibaut Petroni (1), Azfar Zaman (2), Jean-Louis Georges (3), Nadjib Hammoudi (1), Emmanuel Berman (1), Amit Segev (4), Jean-Michel Juliard (5), Olivier Barthélémy (1), Johanne Silvain (1), Rémi Choussat (1), Claude Le Feuvre (1), Gérard Helft (1)

(1) CHU La Pitié-Salpêtrière-APHP, Institut de Cardiologie, Cardiologie, Paris, France – (2) Freeman Hospital and Institute of Cellular Medicine, Newcastle University, Newcastle Upon Tyne, Royaume-Uni – (3) Hôpital André Mignot, Cardiologie, Versailles, France – (4) Heart Institute, Chaim Sheba Medical Center, Tel-Hashomer, Israël – (5) CHU Bichat-Claude Bernard-APHP, Cardiologie, Paris, France

**Background:** There are limited data on outcomes following primary percutaneous coronary intervention (PCI) for ST-segment elevation acute myocardial infarction (STEMI) in nonagenarian patients.

**Methods and Results:** We conducted a multicentre retrospective study between 2006 and 2013 in 5 international high-volume centers and included 145 nonagenarians treated with primary PCI for STEMI. Cardiogenic shock was present at admission in 21%. Mean delay between symptom onset and balloon was  $5.8 \pm 7.6$  hours and 60% of procedures were performed through the transradial approach. Successful revascularization of the culprit vessel was obtained in 86% of the cases (TIMI flow of 2 or 3). Major or clinically-relevant bleeding was observed in 4% of patients. Mean cardiac troponin I was  $65 \pm 79$  ng/ml and mean LVEF post-PCI was  $42 \pm 13\%$ . The in-hospital mortality was 24% with 6 months and 1 year survival of 58% and 49% respectively.

**Conclusions:** In our study, primary PCI in nonagenarians with STEMI was successful and feasible through a transradial approach. It is associated with a high rate of successful reperfusion of the infarct-related artery and nearly 50% survival at one year. These results suggest that primary PCI should be offered in selected nonagenarians with acute myocardial infarction (table next page).