Conclusion: after a first acute coronary syndrome, family history, NSTEMI as first cardiac event and multivessel coronary disease were independantly associated with early symptomatic evolution of coronary disease.

022

Primary percutaneous coronary intervention of bifurcation lesions

Bassem Rekik, Rania Hammami, Leila Abid, Abdelkader Maalej, Souad Mallek, Dorra Abid, Mourad Hentati, Samir Kammoun
CHU Hédi Chaker, Service de Cardiologie, Sfax, Tunisie

Introduction: There are little data regarding the outcomes of bifurcation stenting during the acute phase of stemi, because this group of patient is usually excluded from trials.

Methods: In 139 patients who underwent bifurcation stenting, the clinical characteristics, procedural success, and in-hospital cardiac events were compared retrospectively between the patients with and without stemi. The pci strategy was at the discretion of the operator.

Results: 41 patients (29, 4%) were hospitalized for stemi and underwent a bifurcation stenting during a primary pci. Tabagism was significantly more frequent in patients with stemi. The remaining baseline clinical characteristics between the 2 groups were similar. The majority of bifurcation lesions (71%) were seen in the left anterior ascending (lad) artery. The provisional stenting was more performed in patients with stemi than in the others patients but without significant difference (95,1%vs 83,7%, p=0,06) there were no difference in the procedural success and the final timi-3 flow, and also in the 1 month, 6 months and 1 year mace between the 2 groups.

Conclusions: Bifurcation lesions are relatively common in emergent pci for stemi involving especially the lad. It can be safely treated with a provisional stenting approach, and the immediate and long term outcomes are similar to those of stable patients.

023

Percutaneous coronary intervention in Senegal: indications, techniques and results about 34 cases

Mouhamed Cherif Mboup (1), Massamba Thiam (2)
(1) Hôpital Principal de Dakar, Cardiologie, Dakar, Sénégal – (2) Clinique du Golf, Dakar, Sénégal

Percutaneous coronary intervention with stent introduced by Sigwart et al in 1986, remains the treatment of choice for coronary atherosclerotic disease in its different presentations. However, it is still widely practiced in sub-Saharan Africa. The aim of this study is to describe the indications, techniques and results of percutaneous coronary intervention in Senegal.

Methods: We prospectively included all patients who underwent percutaneous coronary intervention with or without stent implantation between July 2012 and January 2013. We evaluated the indications of procedures, technical procedures and results of percutaneous coronary intervention performed in our center.

Results: During the period covered by our work, 34 percutaneous coronary intervention were performed in 31 patients. The average age of patients was 60.33±10.8 years. Three patients had underwent coronary angioplasty in France. The indications of the procedures were dominated by acute coronary syndromes without ST segment elevation in 19 patients foun. The arterial acces was radial or femoral respectively in 5 and 29 cases . During the coronary angiography lesions were type B2 / C in 19 patients with TIMI 0 in 9 patients. Procedures were successful in 31 cases with implantation of bare metal stents and drug-eluting stents in respectively 30 and 2 cases. A moderate bleeding was found in one patient.

Conclusion: Percutaneous coronary intervention in low income sub-saharian country is feasible with high success rate and very low complication despite difficult lesion. Our problems are the availability of a good heart surgery team and the consumables.

January 17th, Friday 2014

024

Determinants of improved one-year survival in non-ST-segment elevation myocardial infarction patients: insights from the French FAST-MI program over 15 years

Etienne Puymirat (1), Francois Schiele (2), Gabriel Steg (3), Didier Blanchard (1), Johanne Silvain (4), Patrick Goldstein (5), Pascal Gueret (6), Genevieve Mulak (7), Elodie Drouet (8), Vincent Bataille (9), Simon Cattan (10), Jean Ferrieres (9), Tabassome Simon (8), Nicolas Danchin (1)
(1) Hôpital Européen Georges Pompidou (HEGP), Cardiologie, Paris, France – (2) CHU Jean Minjoz, Cardiologie, Besançon, France – (3) Hôpital Bichat-Claude Bernard, Cardiologie, Paris, France – (4) Hôpital La Pitié-Salpêtrière , Paris, France – (5) CHU Lille, Urgences, Lille, France – (6) CHU Henri Mondor, Cardiologie, Créteil, France – (7) Société Française de Cardiologie, Paris, France – (8) Hôpital Saint Antoine, Cardiologie, Paris, France – (9) CHU Rangueil, Toulouse, France – (10) CH Le Raincy-Montfermeil, Montfermeil, France

Background. Improved prognosis in non-ST elevation myocardial infarction (NSTEMI) patients has been mainly attributed to the invasive strategy but the long-term benefits are more uncertain.

Objective: To assess the determinants of improved one-year survival in NSTEMI patients.

Methods: Four 1-month French nationwide registries, conducted 5 years apart (between 1995, 2000, 2005, 2010), including a total of 3,903 with elevated cardiac markers participated NSTEMI patients admitted to intensive care or coronary care units. We evaluated changes over time in crude 1-year mortality and determinants of long term survival.

Results: From 1995 to 2010, no major change was observed in patients' characteristics in NSTEMI population. Early use of antiplatelet agents, β-blockers, ACE-I and statins increased gradually (P<0.001); use of anticoagulants over then unfractionated heparin (LMWH, bivalirudine or fondaparinux) increased from 40.8% in 2000 to 78.9% in 2010 (p<0.001); and, percutaneous coronary intervention (PCI) ≤3 days of admission rose from 7.6% to 48.1% (P<0.001). One-year death decreased from 20% to 9.8%: adjusted HR for 2010 vs 1995: 0.49 (0.38-0.63). Early PCI (HR 0.70; 95%CI 0.55-0.90), use of anticoagulants over then unfractionated heparin (HR 0.61; 95%CI 0.50-0.74) and appropriate early medical therapy (HR 0.56; 95%CI 0.44-0.72) were predictors of improved survival.

Conclusion: One-year mortality of NSTEMI patients has decreased by a spectacular 50% in the past 15 years in France. An increased use of invasive strategy, together with change in type of anticoagulants and appropriate early medical treatment were the determinants of improved one-year survival.

025

Prevalence, clinical profile and 3-year outcomes of acute myocardial infarction patients with and without obstructive coronary lesions: The FAST-MI 2005 registry

Romain André (1), Meyer Elbaz (2), Tabassome Simon (3), Etienne Puymirat (4), Pierre-Vladimir Ennezat (5), Patrick Ohlmann (6), Vincent Probst (7), Bernard Peltier (8), Jean Ferrières (9), Nicolas Danchin (4)
(1) Toulouse University Hospital, Department of Cardiology, Toulouse, France – (2) Toulouse University Hospital, Department of Cardiology B, Toulouse, France – (3) Hospital Saint Antoine, Department of Pharmacology, Paris, France – (4) Hôpital Européen Georges Pompidou (HEGP), Cardiologie, Paris, France- (5) Eaux-Claires Clinic, Department of Cardiology, Grenoble, France – (6) Strasbourg University Hospital, Civil Hospital, Department of cardiovascular surgery, Strasbourg, France – (7) University Hospital of Nantes, Department of Cardiology, Nantes, France – (8) Regional Hospital of Ploërmel, Department of Cardiology, Ploërmel, France – (9) CHU Rangueil, Service de Cardiologie B, Toulouse, France

Objectives: our aim was to describe the clinical profile and to evaluate the 3-year outcome of patients admitted for acute myocardial infarction (AMI)

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according to the presence of obstructive coronary lesions on coronary angiography (CA).

Methods: within the French FAST-MI 2005 national registry, including patients with definite AMI and elevated cardiac markers, we analyzed baseline characteristics and outcomes of patients admitted for STEMI and NSTEMI according to their coronary status. Obstructive coronary artery disease (OCAD) was defined by at least one significant stenosis (≥50%) in a major epicardial coronary vessel. Major events were recorded at hospital discharge and at 3 years. Finally, long-term net mortality in each group was assessed by comparing observed mortality rates with standardized French mortality.

Results: among 2582 participating patients, 6.4% (n=167) had no obstructive coronary lesion on the first CA (5.21% in STEMI vs. 8.21% in NSTEMI). They had a lower global cardiovascular risk, Life threatening symptoms at admission or in-hospital mortality (1.8% vs. 3% in-hospital deaths for patients without and with OCAD, respectively, p=0.27) did not differ. By contrast, 3-year prognosis was better in patients with no OCAD (3-year death rates were 5.9% in patients without and 13.7% in patients with OCAD, p<0.01). This difference of risk remain significant after extensive adjustment; HR were 0.31 (p<0.001) for risk of events and 0.42 (p=0.01) for risk of death at 3-year in patients without OCAD. Moreover, mortality of ACS without OCAD was comparable with expected French population of the same age (p=0.32), whereas risk of death was twice as high in patients with OCAD.

Conclusion: Absence of obstructive coronary lesion was found in 6.4% of patients admitted for AMI. Moreover, in-hospital mortality was not significantly different from that of patients with coronary stenosis. By contrast, their long-term survival is comparable with the general population.

026

The role of general practitioners in treating patients with ST-segment elevation myocardial infarction in isolated areas

Komlavi Yayehd (1), Cecile Ricard (2), Dominique Savary (3), Diane Lacroix (4), Emanuella Barthes (4), Patrick Joubert (1), Francois-Xavier Ageron (3), Bernard Audema (1), Gaspard Gheno (3), Loic Belle (2)
(1) Cardiologie, Annecy, France – (2) Hôpital, RENAU, Annecy, France – (3) SAMU, Annecy, France – (4) Cardiologie, Chambéry, France

Purpose: European guidelines for STEMI encourage healthcare networks to increase rates of, and decrease delays to, reperfusion. We examined the effects of training general practitioners (primary care physicians [PCPs]) with equipment for prehospital management of STEMI patients in remote areas.

Methods: A network for cardiac emergencies was set up in the French North Alps in 2002 and a permanent registry of STEMI patients has been kept since. In remote areas (>30 min access for ambulances), 20 local volunteer PCPs were trained and equipped (electrocardiogram machine, fibrinolysis kit and automated external defibrillators [AEDs]) to deal with cardiac emergencies. In this study, when the central call dispatcher receives a telephone call from a patient reporting chest pain with a high probability of STEMI in such an area, he sends a mobile intensive care unit (MICU) with a doctor on board and asks the local PCP, if one is available, to manage the patient while awaiting arrival of the MICU. Patients were taken by MICU to the interventional cardiology hospital if the diagnosis of STEMI was confirmed. We report on patients who received care from a PCP before arrival of the MICU.

Results: Of the 930 patients included in the STEMI registry, 184 presented in an isolated area of whom 144 were in an area with a participating PCP; 56 patients were treated by a PCP before MICU arrival. Thirty of the PCP-treated patients underwent thrombolysis and 8 patients with ventricular tachycardia/fibrillation were shocked with an AED before MICU arrival. Median time from onset of chest pain to thrombolysis were shorter when the patient was managed by the PCP versus MICU alone in a remote area: 105 (75-155) min vs 120 (75-182) min, respectively (p=0.84). A diagnosis of STEMI without contraindication to thrombolysis was confirmed in the hospital in 29/30 patients treated as such by the PCP (one Takotsubo syndrome).

Conclusions: These data suggest that PCP care of STEMI patients located in isolated areas is safe and efficient, with high rates of resuscitation and thrombolysis. The rate of GP intervention in our network needs to be increased in order to optimize management of such patients.

027

SYNTAX score is associated with in-hospital mortality as assessed by GRACE risk score in patients with acute myocardial infarction

Aurélie Gudjoncik (1), Sophie Richet (1), Abdelghani Derrou (1), Joelle Hamblin (1), Jack Ravisy (2), Philippe Buffet (1), Laurent Mock (2), Philippe Brunel (2), Damien Brunet (2), Marianne Zeller (3), Yves Cottin (1)
(1) CHU Bocage, Cardiologie, Dijon, France – (2) Clinique de Fontaine, Cardiologie, Fontaine Les Dijon, France – (3) INSERM U866, LPPCM, Faculté de Médecine, Dijon, France

Background: Current guidelines for the management of patients with acute myocardial infarction (AMI) recommend the GRACE score for risk stratification with assessment of admission variables. The syntax score (SS) is a comprehensive angiographic scoring system that is derived entirely from the coronary anatomy and lesion characteristics. We investigated the relationship between severity of coronary artery disease (CAD) assessed with SYNTAX Score (SS) and GRACE Score (GS) in patients with AMI.

Patients and Methods: From the obseRvatoire des Infarctus de Côte d'Or (RICO) survey, 614 consecutive patients hospitalized for an AMI from 1st march 2011 to 30 august 2012 and who underwent coronary angiography were included. Patients were analyzed into 3 tertiles of risk based on GS.

Results: The tertiles of risk were defined as low (n=205)(GS<133), intermediate (n=204)(GS:133-165), and high risk (n=205)(GS: >165). Age and comorbidities increase gradually with increased GS risk. Also, the number of diseased vessels on coronary angiography increased across the tertiles (p<0.001). In-hospital mortality increased from the low to the highest tertile (0.5%, 2.0% and 11.8%, p<0.001). Patients at high risk had significantly higher SS values compared with the intermediate and low GS risk (median (IQR) SS: 13(6-20) vs 9(4-15) vs 7(3-12), respectively, p<0.001). Moreover, SS was strongly correlated with GS (r=+0.254, p<0.001), and remained significant in patients with multivessel disease. By logistic regression analysis, both GS and SS score are significant correlate of hospital mortality (OR(95%CI)1.04(1.02-1.05), p<0.001 and OR(95%CI) 1.11(1.07-1.15)).

Conclusion: Although SS and GS don't share any common items, they are strongly associated for prognostic information. Both scores allow for an accurate personalized assessment of patient risk.

028

Is one measurement of copeptin plus high-sensitivity cardiac troponin T assays at admission sufficient to exclude non-ST-segment elevation myocardial infarction in the emergency department?

Komlavi Yayehd (1), Eulophe Dubie (2), Emilie Bohyn (3), Christophe Lebrun (3), Jerome Jund (4), Gaspard Beaune (3), Mathieu Chacornac (1), Patrick Lessage (2), Dominique Savary (4), Loic Belle (4)
(1) Cardiologie, Annecy, France – (2) SAMU Chambéry, Chambéry, France – (3) SAMU, Annecy, France – (4) Hôpital, RENAU, Annecy, France

Purpose: Guidelines recommend repeating measurement of cardiac troponin 6-12 h after admission, or high-sensitivity troponin T (hs-TnT) 3 h after admission, to establish a diagnosis in patients with suspected non-ST-segment elevation myocardial infarction (NSTEMI). We sought to test whether the addition of copeptin, an indirect marker for argininvasopressin, adds predictive information to cardiac troponin in the early evaluation of these patients, with a view to minimizing length of stay in the emergency department.

Methods: Consecutive adults (≥18 y) admitted for chest pain of <6 h duration and a suspected NSTEMI to the emergency departments of two hospitals were enrolled in this prospective observational study. Patients with ST elevation myocardial infarction were excluded. Blood samples were drawn to test hs-TnT and copeptin at admission, and troponin I (TnI) at admission and 12 h later. The following concentrations were considered to be negative: hs-TnT <14 pg/mL; copeptin <14 pmol/L; and TnI <0.03 ng/L. The results for copeptin in addition to hs-TnT at admission, and TnI at admission and 12 h later, were compared.

Results: Of the 245 patients included (mean age 63 [25-91] y; 135 men), 109 were negative for both hs-TnT and copeptin (negative group) and 136 were positive for one or both assays (positive group). Of the patients in the negative group, 105 (96%) were negative for TnI at admission and at 12 h; the other 4 patients had a positive second TnI result, and were diagnosed with

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