Conclusions: Electrocardiographic abnormalities in this population are dominated by repolarisation, conduction defects and left ventricular hypertrophy, and are more related to blood pressure indices than diabetes specific factors.

January 14th, Saturday 2012

318

Benefits of statin therapy on long term prognosis in coronary artery disease
(1) CHU Toulouse, Cardiologie A, Toulouse, France – (2) CHU Toulouse, Epidémiologie, InsERM U1027, Toulouse, France – (3) CHU Toulouse, Epidémiologie, InsERM U1027, Toulouse, France – (4) CHU Rangueil, Cardiologie B, Toulouse 9, France – (5) CHU Rangueil, Cardiologie B, Toulouse, France

Purpose: In a large contemporary non experimental cohort of patients (pts) with known CAD, we assessed long term prognosis associated with statin therapy.

Methods: 783 consecutive male pts hospitalized in 2001-2004 for coronary artery disease were considered. The median follow-up was 7.17 years. Total mortality was predicted with a Cox proportional hazard model.

Results: Mean age (SD) was 60.2 (8.1), 144 pts (18.4%) were diabetic, mean glycaemia was 5.9 mmol/l (2.1), 155 pts (19.8%) were smokers, mean blood pressure was 139 (20)/84 (11) mmHg and median heart rate was 61 bpm [Interquartile range (IQR)] [57-70]. Mean HDL cholesterol was 43 mg/dl (11), mean LDL cholesterol 124 mg/dl (39) and median triglycerides were 147 mg/dl IQR [109-197]. Mean Cockcroft-Gault creatinine clearance was 87 ml/min and 11 pts (1.4%) had a severe chronic renal failure (lower than 30 ml/min). Mean left ventricular ejection fraction was 0.53 (0.13), 88.5% were on antiplatelet therapy, 75.2% on beta-blocker, and 54.8% on ACE inhibitors or ARB.

Statin therapy was given to 507 pts (66%). The cumulative seven-year total mortality rate was 17.9% in the whole sample. It was 14.1% in the statin group but reached 25.2% in pts without statin therapy (p<0.001.).

After multivariate adjustment for age, diabetes, tobacco consumption (none ; <=40 pack-years; >40 pack-years), heart rate, left ventricular ejection fraction (>0.5; <=0.5 and >0.35; <=0.35), duration of CAD, ankle-brachial index (>0.9; <0.9 and >0.6; <=0.6), history of chronic obstructive pulmonary disease or stroke and coronary revascularization, all-cause death was reduced by 46% (95% CI [23%; 65%] p<0.001) in the group with statin therapy compared to the group without.

Conclusion: In this large observational cohort of non-selected coronary pts, risk of all-cause death is decreased by more than 50% in pts under statin therapy.

319

The 3 city study-COVADIS: determinants of atrial fibrillation incidence in an elderly contemporary French cohort
Guillaume Fleury [Orateur] (1), Nabila Haddour (1), Christophe Tzourio (2), Cohen Ariel (1)
(1) AP-HP, CHU Saint Antoine, Paris, France – (2) AP-HP, CHU Pitié-Salpêtrière, Paris, France

Background: Epidemiological studies data indicate that the incidence of AF, a rapidly growing epidemic burden, varies from 10 to 20 per 1000 person-years in subjects aged 65 or over. Age is the more potent AF risk factor, due to combined risk factors and/or predisposing cardiac conditions for AF.

Aims: We aimed to evaluate the clinical and ECG predictors of the incidence of AF in a large contemporary French population-based prospective cohort study. The clinical evaluation and ECG was realized at admission and after 4 years of follow-up.

Methods: The study is part of the Three City Study (COVADIS), which included subjects aged - 65 years and not institutionalised. The incidence was investigated during a mean follow-up period of 3.65 years.

Results: The overall incidence rate was 4.4/1000 persons per year. Based on multivariable analyses, the HR was 2.32 [95% CI: 1.41-4.00], p<0.001 for male gender. Age above 75 years (HR 2.34 [95% CI: 1.10-3.10], p=0.02) and history of AF (HR 3.34 [95% CI: 1.12-8.89], p=0.03) were associated with an increased incidence of AF. ECG-derived parameters, including LV hypertrophy, and the usual clinical risk markers were not associated with AF occurrence at follow-up.

Conclusion: In a contemporary cohort of elderly subjects, hypertension, age, history of previous AF and gender are predictors of AF occurrence at mid-term follow-up. No ECG variables were predictors of AF.

320

Relationship between uric acid and metabolic syndrome in non-diabetic and non-hypertensive in a Tunisian population
Wiem Zidi (1), Monia Elasmi [Orateur] (2), Yosra Zayani (1), Moncef Feki (1), Riadh Jemaa (1), Heifa Sanjahi (1), Sameh Hadj Taieb (1), Souheil Omar (1), Abderraouf Mebazaa (1)
(1) CHU la Rabita, Research Laboratory LR99ES11, Biochemistry Laboratory, Tunis, Tunisia – (2) CHU la Rabita, Laboratoire de Biochimie Tunis, Tunisie

Objective: Serum uric acid (UA) is reported as an important marker of hypertension, coronary heart disease, and diabetes. We examined the association of serum uric acid (UA) with metabolic syndrome (MS) in a Tunisian population.

Material and methods: The study included 2712 subjects (1228 men and 1484 women), aged from 35 to 70 years and living in the Great Tunis region. Patients with a history of CVD and Chronic Kidney disease (CKD) were excluded from the study. The MS was defined according to ATPIII. Hyperuricemia was defined as a serum UA value >7.0 mg/dl, for males or >6.0 mg/dl for females.

Results: The prevalence of hyperuricemia, and metabolic syndrome, were 6.1% (9.8% in men and 2.8% in women), and 12.8% (10.2% in men and 15.2% in women), respectively.

Serum uric acid concentrations were significantly and positively correlated with body mass index, diastolic blood pressure and serum triglyceride concentrations; and statistically significant and inverse correlations were noted for serum uric acid and serum HDL-C concentrations. The prevalence of MS increased in men and in women according to the quartile of serum uric acid (p<0.0001). After adjusting for age, smoking status and BMI, multivariate logistic regression analysis revealed that there was a significant association between third-quartile uric acid levels and prevalence of metabolic syndrome in men and in women.

Conclusion: An increase of uric acid constitutes a risk factor for metabolic syndrome in Tunisian population. Uric acid may be a useful index for initial risk stratification of patient non-diabetic non hypertensive.

321

Prevalence of prehypertension and associated cardiovascular risk profiles among adults in Great Tunis region
Monia Elasmi [Orateur] (1), Monia Allal-Elasmi (2), Wiem Zidi (2), Yosra Zayani (2), Moncef Feki (2), Riadh Jemaa (2), Sameh Hadj Taieb (2), Heifa Sanjahi (2), Souheil Omar (2), Abderraouf Mebazaa (2), Naziha Kaabachi (2)
(1) CHU la Rabita, Laboratoire de Biochimie Tunis, Tunisie – (2) CHU la Rabita, Research Laboratory LR99ES11, Biochemistry Laboratory, Tunis, Tunisia

Abstract: The present study aimed to determine the prevalence of prehypertension (preHTN) and its cardio-metabolic profile in Tunisians, and to estimate the risk for coronary heart disease (CHD) according to blood pressure status. A total of 2712 individuals, aged 35 to 69 years were included. The
prevalence of preHTN and HTN was 56.8% and 25.0% in males, and 43.1% and 36.1% in females, respectively. Subjects with preHTN and those with HTN showed higher prevalence of diabetes, dyslipidemia, obesity and abdominal obesity than the normotensive (NT) group. The risk of developing CHD within 10 years was above 15% for 3.9%, 31.1% and 65.0% among NT, preHTN and HTN subjects, respectively. In multivariate analysis, preHTN was associated with age, male gender, obesity, abdominal obesity and smoking. In total, preHTN is very common in Tunisians. It is associated with a higher prevalence of cardio-metabolic risk factors and confers a higher risk for subsequent CHD. These findings support the recommendations of lifestyle modification for preHTN patients.

322

Correlations between LDL and HDL subclasses and serum lipoprotein-associated phospholipase A2

David Rosenbaum [Orateur] (1), Boris Hansel (1), Randa Bittar (2), Philippe Giral (1), Eric Bruckert (1), Xavier Girerd (3), Jean Christophe Charniot (2), Dominique Bonnefont-Rousselot (2)


Objective: It has been shown that blood levels of Lipoprotein-associated phospholipase A2 (Lp-PLA2) predict future cardiovascular events regarding the presence of any other traditional cardiovascular (CV) risk factors except LDL-Cholesterol (LDL-C). The aim of our study was to assess possible links between Lp-PLA2 and LDL and HDL subclasses.

Methods: Overweight and obese patients with no history of cardiovascular disease were recruited at our outpatient clinic and all underwent routine clinical and biological evaluation, as well as LDL and HDL subclasses determination. None was under any lipid lowering treatment. Lp-PLA2 was measured in serum with a Plac test turbidimetric immunoassay.

Results: 49 patients were included. Mean body mass index was 31.84kg/m² (sd: 3.45). The Lp-PLA2 ranged from 41 to 407 ng/mL, mean value was 201 ng/mL (sd: 73). Mean values for total cholesterol, LDL-C, HDL-C and apoB were respectively 2.31 g/L (sd: 0.38), 1.39 g/L (sd: 0.32), 0.47 g/L (sd: 0.13), and 1.27 g/L (sd: 0.25). 18 patients (37%) had diabetes. Mean HDL2b percentage was 11.47% (sd: 7.48). Mean HDL3b percentage was 27.22% (sd: 9.22). In univariate analysis, we found a strong linear correlation between Lp-PLA2, and LDL-C (r=0.42, p<0.028) as well as apoB (r=0.31, p=0.02) and total cholesterol (r=0.44, p=0.001). There was no correlation between percentages of LDL subclasses (LDL 1,2,3 and 4) or LDL size peak and Lp-PLA2 levels. We found no correlation with total HDL-C but a positive correlation with HDL2b percentage (r=0.29, p=0.04) and a negative association with HDL3b percentage (r=-0.3, p=0.03). Neither ApoA1 (r=0.061) nor ApoA2 (r=0.059) were correlated with Lp-PLA2 dosages.

Conclusion: In our population, LpPLA2 was related with total LDL-C levels without any significant relation with the LDL subclasses distribution. By contrast, LpPLA2 was not correlated with HDL-C level but with HDL subclasses. Interestingly, LpPLA2 was negatively correlated with HDL3b and positively with large HDL particles (HDL2b). This supports differential properties of HDL subclasses in atherosclerosis and suggests a potential interaction between HDL and LpPLA2.