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Evaluation of cardiovascular risk and excess of risk according to age in high risk primary care patients not treated with lipid-lowering treatment in France


Purpose: Few data exist on high cardiovascular risk (HCVR) prevalence within a primary prevention population. The present goals of the study were: 1) to assess HCVR distribution according to SCORE, in France, for high-risk primary care patients not treated for dyslipidemia; 2) to compare risk assessment by physician and risk SCORE estimate; 3) to define the excess of risk (ER) due to other risk factor than age.

Methods: This observational study was conducted over a week within a representative sample of French general practitioners (GP). All consulting primary care men/women aged ≥50/60 y, with at least one other risk factor (RF) (smoking, high blood pressure (HBP), type 2 diabetes, HDL-c<0.40 g/L), not treated for dyslipidemia were included in the study. GP filled-in an on line questionnaire that enabled SCORE risk calculation in real time. ER was calculated from a “theoretical” SCORE, namely patient with no RF: total cholesterol=6 mmol/L, Systolic BP=120 mmHg, no smoking.

Results: GPs (n=1147) included 9049 patients with the following characteristics: mean age: 68y; male: 57%; LDL-c=1.3 g/L: 57%; smoking: 21%; HBP: 44%; type 2 diabetes: 21% HDL-c<0.4 g/L: 16%. According to SCORE, 50% of the patients were at HCVR. CPR was correctly assessed for 45.9% of the patients and under estimated for 62.8% HCVR patients. There was little correlation between GPs risk assessment and SCORE results: Kappa=0.078 [IC95%:-0.062-0.094]; weighted Kappa=0.097 [0.082-0.112]. Mean ER increased with age, from 1.1/0.9% to 4.5/3.6% for male (50y to >75y)/female (60y to >75y). At the end of the study, 85% of the GP declared that SCORE was useful in HCVR identification and 87% declared that they will use it in the future.

Conclusion: In France, 50% of the patients consulting in primary care with at least 1 RF on top of age and no lipid-lowering treatment have a high SCORE. GPs tend to underestimate their patient’s risk as compared to objective SCORE risk assessment. Excess risk increases with age.

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Prevalence of hypertension among schoolchildren in Brazzaville (Congo)

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Aim: To determine the prevalence of hypertension among schoolchildren in Brazzaville.

Patients and methods: a prevalence survey was conducted from March to May 2011 in five urban schools in Brazzaville. The survey was random at three levels. The variables studied were clinical and epidemiological.

Results: 603 children divided into 325 girls (54%) and 278 boys (46%) were examined. The average age was 11.8±3.6 years (range 5-18 years). There was 315 children (52.2%) from primary schools and 318 (53%) from private schools. The social level was average or higher in 360 cases (60%). The mean SBP was 112.8±13 mm Hg (range 79-150) and the mean DBP was 73.6±8.8 mm Hg (range 48-104). Obesity was noted in 25 cases (4.1%), and overweight in 47 cases (7.8%). Hypertension was found in 61 cases (10.1%) during the first screening, and in 20 cases (3.3%) during the second screening. Factors correlated with hypertension were obesity (OR 6.6, 95% CI 2.2-21) and overweight (OR 3.6, 95% CI 2.1-15).

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Ramadan fasting and high sensitive CRP in patients with stable coronary artery disease: a pilot study

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Introduction: Ramadan fasting is one of the five pillars observed by Muslim adults worldwide. Data on incidence of acute coronary syndrome during fasting Ramadan are scarce and conflicting. Inflammation plays a major role in atherothrombosis, and measurement of cardiac biomarkers such as High sensitive C-reactive protein (hs-CRP) may provide a strong independent predictor of future cardiac events.

Aim of this study: was to evaluate the effect of fasting during Ramadan on hs-CRP in patients with stable coronary artery disease (CAD).

Patients and Methods: it was a prospective pilot study among 27 patients with stable CAD (within the last 6 months) who were observed before and at the end of Ramadan fasting. Patients were recruited from outpatient department. Twenty one were males and 6 were females with a mean age of 59±8.2 years (52-75 y). Fifteen patients had hypertension, 10 were smokers and 7 were diabetics. Blood was analyzed at the first visit was a week before the onset of Ramadan and the second visit at the third week of Ramadan. The assay of hs-CRP was done with the collected sera by Demeditec Diagnostics Systems Laboratories (Germany).

Results: Six patients were excluded for the second visit due to various reasons (break voluntary of fasting in two cases, 4 patients with concurrent inflammatory disorders e.g. rheumatoid disease in 2 cases and concurrent infections in two others). A total of 21 subjects were screened during this period. There was a significant reduction in hs-CRP during Ramadan compared before this period: 6.5±7 vs 3.8±5.5 (p<0.0001). The mean variation of hs-CRP during this holy period was −39.3±−20.9 (0% à −68.3%). The hs-CRP level was less than 3 mg/l in 10 patients (47.6%) before compared to 13 pts (62%) during Ramadan. The reduction of hs-CRP was independent of the risk factors or the dosage of statins.

Conclusion: The practice of fasting during the month of Ramadan by the people with stable CAD might be cardio-protective as it resulted in the lowering of hs-CRP.

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Cardiovascular risk prevalence in high risk primary care patients not treated with lipid-lowering treatment in France, results of an online study


Purpose: Few data exists on high cardiovascular risk (HCVR) prevalence within a primary prevention population. The goal of the study was to assess HCVR distribution, according to SCORE, in France for high-risk primary care patients not treated with lipid-lowering drug.
Methods: This observational study was conducted over a week on a representative sample of French general practitioners (GP). All consulting primary care men/women ≥25/60 y, with at least one other CVR factor (smoking, high blood pressure (HBP), type 2 diabetes, HDL-c<0.4 g/L), not treated for dyslipidemia were included in the study. GP filled-in an on-line questionnaire that enabled SCORE calculation.

Results: GPs (n=1147) included 9049 patients with the following characteristics: mean age: 68 y; male: 57%; LDL-c<1.3 g/L; 57%; smoking: 21%; HBP: 44%; type 2 diabetes: 21% HDL-c<0.4 g/L: 16%.

According to SCORE, HCVR prevalence reached 50% in total population (male: 49%; female: 51%). 50% of HCVR men/women were older than ≥72/47/8.8 y. HCVR patients were older by 7.7/6.8 y for male/female (p <0.01) than non-HCVR patients. Other significantly more frequent characteristics in high CVR population are: HDL-c <0.6 g/L (38%), untreated or uncontrolled HBP (53%) and left ventricular hypertrophy (8%). Obesity is less frequent (15%) in high CVR population. Highest HCVR prevalence was observed in the Mediterranean population (54%), and lowest (47%) in the Northeast population (p <0.01). Adjustment by age and gender reduces regional disparities between regions (52% vs 48%).

Conclusions: Half consulting primary care patients aged 25/60 y for men/women with at least 1 risk factor on top of age and no lipid-lowering treatment are at HCVR according to SCORE risk equation. Assessing cardiovascular women with at least 1 risk factor on top of age and no lipid-lowering treatment are at HCVR according to SCORE risk equation. Assessing cardiovascular risk with risk equations appears particularly useful in this group of patients. Besides age, which has the strongest impact on risk estimation, other RF may be screened to improve HCVR management.

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Non-O blood types as a risk factor for venous thromboembolic recurrence
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Purpose: Prior studies have recognised non-O blood type as a risk factor for venous thromboembolism (VTE). Though, ABO blood type contribution to VTE recurrence risk is poorly studied. We sought to determine the impact of blood type on VTE recurrences.

Methods: Our prospective cohort included 120 subsequent patients presenting a first episode of pulmonary embolism (PE). In all cases, PE was diagnosed with a CT scan. All participants were followed for at least 12 months after anticoagulation therapy discontinuation.

Results: Over a mean follow-up period of 30 months, the rate of recurrence was 8.9% per patient and per year. PE was unprovoked in 63 patients (52.5%). Mean duration of oral anticoagulation was 6 months. Compared to O blood type, the unadjusted hazard ratio (HR) of VTE recurrence for non-O blood type was 1.97 (95%CI, 0.91-4.26, p=0.07). B blood type exposed to a higher risk of VTE recurrence than O blood type with a HR of 2.6 (95%CI, 1.12-6.06, p=0.03). A and AB blood types were not associated with an increased risk of VTE recurrence when compared to O blood type.

Conclusion: Non O blood type are involved not only in the occurrence of a first episode of VTE but tend to contribute to VTE recurrence. Patients with B blood type develop more VTE recurrence than others. The ABO blood type could be one of the characteristics to be studied for the determination of the length of anticoagulant treatment after a first episode of VTE.

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Relationships between chronic use of statins, presentation of acute coronary syndrome and one-year mortality after a first event in patients from the French MONICA registries
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Purpose: Statins have demonstrated their efficacy in many situations to prevent cardiovascular risk. In this work we investigated the link between chronic use of statins, type of subsequent acute coronary syndrome (ACS), namely ST-elevation myocardial infarction (STEMI) or unstable angina/non-ST-elevation myocardial infarction (UA/NSTEMI), early complications and their impact on one-year mortality in real life conditions.

Methods: Our study was based on 2006 data from the French MONICA population-based registry which collects all cases of ACS occurring in people aged 55-74 in 3 French areas. The sample consisted of 1951 hospitalized incident ACS (72 were excluded because of missing data). Relationship between chronic use of statins and type of ACS or early complications (reusculated cardiac arrests and shocks) were analyzed through logistic regression. Impact on one-year mortality was evaluated through Cox models. Analyses were adjusted for patients’ characteristics (living area, age, gender and previous cardiovascular treatments).

Results: Before index event, the rate of statins treated patients was 18%. The percentage of UA/NSTEMI among all hospitalized ACS was 45%; 54.5% in patients with previous statins treatment and 42.9% in those without (p<0.0001). The adjusted odds ratio (OR) for UA/NSTEMI was 1.29 (p=0.049) for subjects with versus those without statins. There was a significant association between statins and early complications (adjusted OR 0.58; p=0.030). Statins treatment prior to event was associated with a significant decrease in one-year mortality with an adjusted HR equal to 0.62 (p=0.017).

Conclusions: In our registry, people already treated with statins before an incident ACS had a lower rate of one-year mortality. This may result from a lower probability to develop STEMI, or early complications. However it remains difficult to assess from these observational data what is related to the treatment and what is related to potential confounding bias.

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Cognitive performance, cerebral oxygenation, exercise capacity and cardiac output in patients with coronary heart disease
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Objectives: Recent data suggested that coronary heart disease (CHD) is associated with non-amnesic mild cognitive impairment. Our purpose was to assess cognitive performances at rest, VO2max, cardiac output (CO), and cerebral hemodynamic changes during maximal exercise in patients with stable CHD.

Methods: 22 stable fit CHD patients (70±9;3.9 years), 10 healthy age-matched (68±6;8.6 years), 10 middle aged controls and 10 young controls (< 40y) were included. We assessed cognitive performance with a standard battery of paper and pencil tests, maximal exercise test on ergocycle with gas exchange analysis with non-invasive CO measurement and Near-Infrared Spectroscopy (NIRS) oxygenation indices at the brain level.

Results: There was no intergroup difference in VO2max or maximal CO between cardiac and healthy age-matched individuals. Some cognitive tests, especially for executive functioning, were significantly better for the healthy matched group (Trail Making Test-B; Inhibition/Flexibility Stroop Task and Backward Digits Span, p<0.05). For NIRS signals, we observed an increase in deoxyhemoglobin (HHb) for maximal intensities and the classical inverted U-shape curve for oxyhemoglobin (O2Hb) and hemoglobin difference (HbDH=O2Hb-HHb) in each group. Considering fitness, intra-CHD group...