


Correlation between perceived cardiovascular risk (CVR) by physicians and real CVR is poorly known. Moreover, the underlying question of factors associated to risk misevaluation, especially for patients at high CVR and that could benefit of a lipid lowering therapy (LLT), remains unsolved.

Objective and methodology: This was an on-line non-interventional study conducted on a sample of 619 general practitioners. The aim was to describe the relation between physicians evaluated CVR and calculated CVR according to risk's scales. All consulting patients' aged50 years old (YO) were included. Physicians had to complete a questionnaire and to assess patient's CVR on a 3 level scale (low, medium, and high). Framingham and SCORE (low risk $<2 \%$, high risk5\%) were calculated.

Results: 13446 patients were included (mean age: 67 YO, male: $48 \%$, LDLc1.3g/L: $46 \%$, LLT: $36 \%$, personal history of CV disease: $16 \%$, smoker: $12 \%$, high blood pressure (HBP): $52 \%$, diabetes: $18 \%$ ).

## Population risk is listed below

|  | Evaluated (\%) | Framingham (\%) | Score (\%) |
| :--- | :---: | :---: | :---: |
| Low | 40 | 41 | 28 |
| Medium | 37 | 24 | 24 |
| High | 23 | 35 | 48 |

Physicians evaluation mismatched with Framigham for $50 \%$ of the patients and $27 \%$ were under-evaluated. Evaluation mismatched with SCORE for $53 \%$ of the patients, $38 \%$ were under-evaluated. Within the $25 \%$ of the patients having a Framingham score $>20 \%$ and without a lipid lowering treatment, $70 \%$ was under evaluated by physicians. Within the $38 \%$ of the patients having a SCORE calculation 5\% and without a lipid lowering treatment, 78\% were under evaluated.

Conclusion: This study underlines the mismatch between GP perceived CVR and calculated CVR, especially for high CVR patient. Males, patients with treated HBP and with high LDL-c were at increased risk of CVR underevaluation.

Explanatory factors for under-evaluation in primary prevention according to SCORE:

|  | OR | CI 95\% |
| :--- | :---: | :---: |
| Treated HBP vs no HBP | 2,55 | $2.04-3.19$ |
| Gender (male) | 2,44 | $2,16-2,76$ |
| Higher LDLc | 2,13 | $1,78-2,55$ |
| Smoker | 1,82 | $1,52-2,19$ |
| Chronic inflammatory disease | 1,19 | $1,00-1,42$ |
| Age | 1,16 | $1,15-1,17$ |

## 227

## Determinants of aortic stiffness in HIV-infected patients

Franck Boccara (1), Emmanuel Catez (1), Catehrine Meuleman (1), Stéphane Ederhy (1), Ghislaine Dufaitre (1), Claudine Duvivier (2), Christine Katlama (3), Gilles Pialoux (4), Laurence Slama (4), Pierre Marie Girard (5), Sylvie Lang (1), Ariel Cohen (1)
(1) CHU Saint Antoine, Cardiologie, Paris, France - (2) Institut Pasteur, Paris, France - (3) CHU Pitié Salpêtrière, Maladies Infectieuses, Paris, France - (4) CHU Tenon, Maladies Infectieuses, Paris, France - (5) CHU Saint Antoine, Maladies Infectieuses, Paris, France

Objective: Human immunodeficiency virus (HIV)-infected patients receiving combined active antiretroviral therapy (cART) are at higher risk of cardiovascular disease, due in part to metabolic complications such as lipodystrophy syndrome, insulin resistance, and dyslipidemia. Whether lipodystrophy and cART impact on the vasculature is debated. We investigated the impact of lipodystrophy and protease inhibitors (PIs) on aortic stiffness.

Methods: Aortic stiffness was evaluated using carotid-femoral pulse wave velocity (PWV) in consecutive HIV-infected patients without a history of cardiovascular disease referred to a cardiovascular clinic.

Results: 175 patients were enrolled (mean age $48.2 \pm 8.7$ years; $89 \%$ men) Eighty six per cent of patients were receiving cART. Dyslipidemia, tobacco, and hypertension were the most prevalent cardiovascular risk factors ( $39 \%$, $38 \%$, and $31 \%$, respectively). Seventy-nine ( $45 \%$ ) HIV-infected patients had lipodystrophy and $80(46 \%)$ were on PIs. Aortic PWV was similar in patients with or without lipodystrophy ( $9.7 \pm 1.9$ vs $9.8 \pm 2.5 \mathrm{~ms}^{-1}$, respectively; $P=0.81$ ) and in patients on or not on PIs ( $9.8 \pm 2.6$ vs $9.7 \pm 1.9 \mathrm{~ms}^{-1} ; P=0.71$ ). In univariate analysis, aortic PWV was associated with increasing age, waist/hip ratio, systolic and diastolic blood pressures, mean arterial and pulse pressures, but not with presence of lipodystrophy, PIs, or specific factors related to HIV infection. Linear regression analysis showed an association between aortic PWV and age $(=0.49, P=0.001)$ and systolic arterial pressure $(=0.21, P=$ 0.006 ).

Conclusions: Aortic stiffness is associated with traditional cardiovascular risk factors, particularly ageing and blood pressure. Hypertension is becoming an emerging complication in HIV-infected patients.

## 228

## Blood pressure in HIV-infected patients

Jean Baptiste Tougouma, Franck Boccara, Catehrine Meuleman, Ghislaine Dufaitre, Stéphane Ederhy, Emmanuel Berthelot, Fanny Douna, Louise Boyer-Chatenet, Sonia Benamara, Sylvie Lang, Ariel Cohen CHU Saint Antoine, Cardiologie, Paris, France

Objectifve: To determine the prevalence of hypertension in a cohort of HIV-infected patients (HIV+).

Methods: HIV+ patients were enrolled consecutively at ambulatory cardiology consultation. We evaluated :
cardiovascular risk factors,
office blood pressure,

24 hours ambulatory blood pressure monitoring (ABPM).
We identified patients with known hypertension, masked hypertension and white-coat effect.

Results: 258 HIV+ patients (mean age $49 \pm 7 \mathrm{ans}, 91 \% \mathrm{men}$ ) were consecutively included in this study between 2005 and 2009. Cardiovascular risk factors were as follows: $52 \%$ had dyslipidemia, $51 \%$ were active smokers, $40 \%$ with known hypertension and $9 \%$ were diabetics. Body mass index of the entire cohort was $24 \pm 4 \mathrm{~kg} / \mathrm{m} \sum$ and $89 \%$ were under antiretrovirals. Data on blood pressure are depicted in Table 1. 19\% (29) were discovered to have hypertension.

Conclusion: Hypertension is frequent in HIV-infected patients and more and more common with aging. The number of non-dipper HIV+ was high in this cohort. Studies on the impact of HIV infection and antiretrovirals on the autonomic nervous system should be performed.

| Parameters | $\mathrm{N}=258$ |
| :--- | :--- |
| Office systolic BP, mmHg | $131 \pm 19$ |
| Office diastolic BP, mmHg | $81 \pm 10$ |
| Mean 24h-systolic BP, mmHg | $125 \pm 13$ |
| Mean 24-diastolic BP, mmHg | $77 \pm 9$ |
| Daytime systolic BP, mmHg | $129 \pm 13$ |
| Daytime diastolic BP, mmHg | $80 \pm 9$ |
| Nighttime systolic BP, mmHg | $115 \pm 17$ |
| Nighttime diastolic BP, mmHg | $68 \pm 10$ |
| BP profile in known hypertensive patients | $\mathrm{N}=103$ |
| Number of patients with appropriate BP control, \% | $45 \%$ |
| Number of patients with white-coat effect, \% | $17 \%$ |
| Non dipper, \% | $43 \%$ in known <br> hypertensive patients |

## January 14 $^{\text {th }}$, Friday 2011

## 229

Screening for abdominal aortic aneurysm among patients admitted for acute myocardial infarction using portable transthoracic echocardiography.

Caroline Cueff De Monchy, Niall Keenan, Claire Cimadevilla, Gregory Ducrocq, Gabriel Steg, Alec Vahanian, David Messika-Zeitoun CHU Bichat, Cardiologie, Paris, France

Background: Abdominal aortic aneurysm (AAA) remains asymptomatic for many years but often revealed dramatically (inaugural rupture). Its relatively low prevalence in the general population ( $5.5 \%$ of men over 65 years) implies specific target population screening. Patients with acute myocardial infarction (AMI) represent a high-risk population in which screening for other atherosclerotic locations is recommended but is still often neglected. We aimed to evaluate the feasibility of AAA screening during routine transthoracic echocardiography (TTE) in patients with AMI using a portable echocardiography system and to determine the prevalence of AAA in this population.

Methods: We prospectively measured the size of the abdominal aorta at the end of a regular TTE performed at bedside in consecutive patients admitted for AMI in our intensive care unit using a portable TTE system (Vividi, General electric). AAA was defined by a transverse diameter 30 mm .

Results: One hundred and fifty two patients were enrolled (mean age $65 \pm 14$ years old, $78 \%$ of male). Measurement of the size of the abdominal aorta was feasible in $93 \%$ ( 10 patients had poor echogenicity) and time duration was $3 \pm 1 \mathrm{~min}$. Interobserver variability between cardiologists was good $(1.7 \pm 1 \mathrm{~mm})$. Eight patients had an AAA ( $5.2 \%$ ) and prevalence increases with
age, $8.7 \%$ after 60 years, $10.3 \%$ after 65 years. No patient below 50 years old had an AAA.

Conclusion: In patients admitted for AMI, screening for AAA during TTE using a portable TTE system was fast and highly feasible. Despite a striking low prevalence of AAA in this high cardiovascular risk population, analyse of the abdominal aorta should be recommended during TTE ("one cardiovascular shot") especially in elderly patients in regard to the simplicity, inocuity and availability of the present screening.

## 230

Prevalence and risk factors of lower extremity artery disease in subjects without traditional modifiable cardiovascular risk factors. The multi-ethnic study of atherosclerosis.

Victor Aboyans (1), Robyn L. Mcclelland (2), Matthew A. Allison (3), Mary M Mcdermott (4), Roger S. Blumenthal (5), Katarzyna Macura (6), Michael H. Criqui (3)
(1) Hôpital Dupuytren, CHU Limoges, Service de CTCV \& Angiologie, Limoges, France - (2) University of Washington, Seattle, Department of Biostatistics, Seattle, Etats-Unis - (3) University of California, San Diego, Dept. of Family and Preventive Medicine, San Diego, Etats-Unis - (4) Northwestern University Feinberg School of Medicine, Chicago, Chicago, Etats-Unis - (5) Johns Hopkins Ciccarone Center for Prevention of Heart Disease, Baltimore, Etats-Unis - (6) Dept. of Radiology, Johns Hopkins University, Baltimore, Etats-Unis

Introduction: Lower-extremity peripheral artery disease (PAD) is associated with traditional cardiovascular disease risk factors (smoking, hypertension, dyslipidemia, diabetes). Among participants in the Multi-Ethnic Study of Atherosclerosis (MESA), we sought to assess the prevalence of PAD in a population without these risk factors. We hypothesized that this prevalence is not negligible, and that in this situation, PAD would still remain associated with other measures of subclinical atherosclerosis.

Methods: In the MESA cohort, we selected those ( $\mathrm{n}=1932$ ) meeting the following criteria: no smoking over the last 10 years, no history of hypertension, dyslipidemia or diabetes, and normal blood pressure (140/90), fasting blood glucose $1.26 \mathrm{~g} / \mathrm{l}$, and a total-/HDL-cholesterol ratio <5. Participants were classified according to their ankle-brachial index (ABI) into 3 groups: low ( $<1.00$ ), normal ( $1.00-1.30$ ) and high ( $>1.30$ ) ABI. Measures of subclinical atherosclerosis included any coronary artery calcification (CAC) or carotid plaque.
Results: Overall, the mean estimated Framingham risk score for coronary heart disease was $0.61 \%$ /year. Low- and high ABI were found in 176 (9\%) and $149(7.8 \%)$ participants, respectively. In multivariable models including age, gender and ethnicity, lower glomerular filtration rates (OR: $0.88 / 10$ units, $\mathrm{p}=0.04$ ) and higher interleukin-6 levels (OR:1.42 /natural-log unit, $\mathrm{p}=0.02$ ) were associated with low ABI. Higher body-mass index (OR:1.07 /unit, $\mathrm{p}<0.001$ ) was associated with high ABI. In a fully-adjusted model, low-ABI, not high-ABI, was significantly associated with CAC prevalence (OR:1.22, $\mathrm{p}<0.03$ ). No significant association was found with carotid plaque.

Conclusion: In subjects without traditional risk factors, PAD is common. Such persons remain at higher risk for coronary artery disease.

## 231

Prognosis interest of ambulatory blood pressure monitoring in chronic heart failure: preliminary descriptive analysis.

Matthieu Berry (1), J Fourcade (1), Olivier Lairez (1), Jerome Roncalli (1), Atul Pathak (1), Bernard Chamontin (2), Michel Galinier (1) (1) CHU Rangueil, Cardiologie A, Toulouse, France - (2) CHU Rangueil, Médecine interne - HTA, Toulouse, France

Background: Ambulatory blood pressure monitoring (ABPM), while used routinely in Hypertension, has rarely been applied in Chronic Heart Failure (CHF). This study was designed to assess prognostic value of ABPM data in our patients with CHF.

