plasma concentration of MMP3 was significantly higher in hypertensive subjects then healthy subjects (20.24±8.63 vs 16.41±6.8 ng/ml; p<0.05). Whereas the plasma concentration of TIMP1 in the hypertensive group was significantly lower than that in the control group 88.96±26.9 vs 93.96±27.28 ng/ml. The present study identified abnormalities in plasma markers for extracellular matrix metabolism in hypertensive patients.

278

Gene polymorphisms of the renin angiotensin system in Tunisian hypertensive patients

Sonia Hammami [Orateur], Soumira Mehri, Nadia Koubaa, Amel Nkbi, Mohamed Hammami
Faculté de Médecine Monastir, Nutrition Humaine et désordres métaboliques, Monastir, Tunisie

Introduction: We studied the effects of the angiotensinogen M235T, angiotensin converting enzyme insertion/deletion (ACE I/D), and angiotensin II receptor 1 (AT1R) A1166C gene polymorphisms on the risk of essential hypertension (HTA).

Patients and methods: RAS gene polymorphisms were determined by PCR and PCR-RFLP method in a total of 142 hypertensive patients and 191 control subjects.

Results: The three polymorphisms of renin-angiotensin system (RAS) genes were significantly associated with HTA. The TT genotype and T allele of AGT, DD genotype and D allele of ACE and, CC genotype and T allele of AT1R polymorphisms were associated with increased risk of HTA. After adjustment for sex, smoking, diabetes, dyslipidemia, BMI, total cholesterol, LDL and HDL cholesterol, triglycerides and DD, TT and CC genotypes, BMI was independent risk factor of HTA. An association of BMI with ACE gene polymorphism, whereas no association with AGT and AT1R gene polymorphisms was obtained.

Conclusions: The present study implies that genotyping for the variants of RAS gene could in the future become an important part of the clinical process of risk identification for HTA in Tunisian population.

279

Prevalence of peripheral arterial disease in Algeria (PRAMIAL study)

Abdelkrim Berrah [Orateur]
CHU Bab El Oued, Médecine Interne, Alger, Algérie

This study was performed to evaluate the prevalence of peripheral arterial disease (PAD), among Algerian population aged over 40 years .

The prevalence of PAD is determined using ankle brachial index. The age and sex adjusted according to the latest census 2008, prevalence is estimated at 3.7%±0.8%. It is 6.9%±0.1% when it retains the lowest pressure ankle .

In this population of patients with PAD claudication is found in 32.9% versus 1.2% in free population. Thus, PAD is asymptomatic in 67% of the patients of PRAMIAL. Trophic disorders are rated 28.8% versus 0.5% in free population. 2.9% had been amputated versus 0.004% in free population. Sexual disorders were found in 14.9% of the patients with PAD versus 0.3% in free population. Abolition of the pulse is observed in 15.3% versus 0.6% in free population. An arterial murmur is observed in 10.3% versus 0.7% in free population.

A multivariate logistic regression type has been made to appreciate the own share of each risk factor in the occurrence of PAD.Echo Doppler lower limb confirmed diagnosis of PAD objectifying significant abnormalities in 94.2% of cases. Carotid lesions have been observed in 49.4% of cases. Atherosclerosis of abdominal aorta and its branches was observed in 13.8% in celiac trunk or mesenteric artery, and abdominal aortic aneurysm, renal artery stenosis. Coronary artery disease was found in 31.2% .

Prevalence of PAD in Algerian population is estimated at 3.7%±0.8% with conventional measure of ABI . It is 6.9%±0.1% when it retains the lowest pressure ankle . Six variables stand out as PAD very significant risk factors. Thus, by order of penetrance, they are: PAD family history, family history of major cardiovascular event, smoking, hypertension, Dyslipidemia and type 2 diabetes. Therapy ►

remain imperfect, only 29.4% of PAD patients received combination of antiplatelet therapy, statin and Renin angiotensin system blocker

280

Variability affecting autonomic nervous system of the upgrading of the morning blood pressure in Moroccan patients (about 100 cases)

Zannouba Elhonsali [Orateur], Farah Korchi, Meryem Alj, Farah Korchi
CHU Ibn Rochd, Cardiologie, Casablanca, Maroc

Introduction: The daily profile of blood pressure measured by ambulatory blood pressure of 24 on the change in the level of blood pressure and morning blood pressure have been reported as a cardiovascular risk factor. On waking in the morning, the sympathetic nervous system activity and the risk of cardiovascular events is high.

Objective: To clarify the relationship between the daily profile of the activity of the autonomic nervous system and blood pressure using ambulatory blood pressure and 24 hour ECG monitoring.

Material and methods: One hundred patients with untreated essential hypertension were included in this study. Patients with atrial arrhythmia or ventricular heart with a history were excluded. We evaluated the autonomic nervous system activity by measuring the RR interval using the Holter rhythm of 24h. We calculated the average systolic blood pressure before and 2 hours after waking. Patients were classified into 3 groups: decreased blood pressure (n=22), elevated blood pressure less than 10% (n=36) and more than 10% (n=42). The variability of the autonomic nervous system was assessed by changes in RR interval.

Results: There was no significant difference between blood pressure and heart rate before awakening, daytime and overnight in the 3 groups. The average heart rate 2 hours after awakening was higher in the group with elevated blood pressure over 10% (30.2±2.9) compared to the group that had a decrease in blood pressure (10.1±1.5). Moreover, the decrease in heart rate 2 hours before awakening in patients who have an elevation of more than 10% (70±29%) blood pressure was higher than in those with BP decreased (49.8±18%).

Conclusion: This study suggests that the elevation of blood pressure variability is associated with the autonomic nervous system in the morning and not only to increase the activity of the sympathetic nervous system.

281

Prevalence of cardiovascular risk factors in Moroccan patients with hypertension (about 200 cases)

Zannouba Elhonsali [Orateur], Meryem Alj, Naima Baaddy, Ahmed Bennis
CHU Ibn Rochd, Cardiologie, Casablanca, Maroc

Introduction: Hypertension is a major cardiovascular risk factor. The relationship between the degree of hypertension and cardiovascular risk is continuous and direct. The association of hypertension with other cardiovascular risk factors accelerates and aggravates organ damage.

The purpose of this study is to determine the prevalence of cardiovascular risk factors in patients with hypertension and the risk profile.

Materials and methods: We evaluated the lipid profile and glucose in 200 patients with hypertension.

Results: The mean age of patients was 47 years, 59.2% were women. The lipid profile showed a significant difference in triglycerides and LDL-c. The average value of triglycerides in hypertensive patients was 1.74±0.78 mmol/l vs. 1.49±0.85 mmol/l in normotensives (P<0.005). The average LDL-c was 3.71±1.46 mmol/l vs. 3.35±1.46 mmol/l (P=0.001). There was no significant difference in HDL-c in the 2 groups, mean value of 1.01±0.38 mmol/l in hypertensives vs. 1.04±0.40mmol/l in normotensives, P=y 0.24. Il was a significant difference for incidence of diabetes in hypertensive patients (p=0.03).

Conclusion: Hypertension is closely linked to other cardiovascular risk factors including diabetes, high LDL-c and triglycerides. HDL-C was lower in hypertensive patients without significant difference. ►