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CIGARETTE SMOKING IN THE WORKPLACE: A CNR "HEALTH PROMOTION PROJECT"

Sotis G, Volpe R, Valle S*, Volpe S**, Gavita R

SPP-CNR (Italian National Research Council), Rome; *DPHS, **Cardiology II, La Sapienza University, Rome

Recent guidelines of workplace health promotion networks have recommended the determination of non-communicable diseases risk factors in the employee population in order to promote specific actions of prevention. In the context of the Health Promotion Project of the CNR, smoking habits were evaluated. The program was addressed to employees (Males and Females) of the Rome head office (aged 25-65 years). Data were collected by a questionnaire on nutrition, smoking habits and physical activity and a screening was performed in order to assess the global individual cardiovascular risk. 58% (n 459) of eligible employees took part in the study. The percentage of current smokers was similar between F (35%) and M (37%), but M smoked a greater number of cigarettes daily. A statistically significant difference between F and M was found in past smokers (17% of F v 30% of the M) and in never smokers (48% of F v 33% of the M). 60% of F smokers v 70% of M intend to quit smoking and beyond 70% of F and M has already tried ≥ 1 times. The main reasons that induced former smokers to stop smoking were (F and M, respectively): improvement of the quality of life (30 and 41%); fear of correlated diseases (25 and 22%); health problems (18 and 15%). Majority of former smokers (94% of M, 71% of F) did not have troubles because of the lack of the habit. In conclusion, both the prevalence of smokers and the great number of persons who intend to quit, stimulates a strong campaign against smoking in workplaces. Beyond the adoption of a smoke free area, it would also be important to support counselling to help smokers who are not able to quit on their own.

CAROTID INTIMA MEDIA THICKNESS (IMT) AND IMT-PROGRESSION AS PREDICTORS OF VASCULAR EVENTS IN A HIGH RISK EUROPEAN POPULATION: "THE IMPROVE STUDY"

D. Baldassarre, and R. Paoletti for the "IMPROVE Study Group"

Dept. of Pharmacological Sciences, University of Milan, Via Balzaretti,

The IMT of carotid arteries, assessed by B-mode ultrasound, is associated with atherosclerosis risk factors and with the prevalence and extent of coronary atherosclerosis. In addition IMT is a good predictor of new myocardial infarction and stroke. On this basis, IMT has been proposed as a surrogate index of atherosclerosis of other vascular regions. Little is known, however, about the relationship between IMT-progression, the real end point used in pharmacological studies, and vascular events. Attempts to delay IMT-progression using "anti-atherosclerotic" agents provided encouraging results. However, no studies have been able to address, prospectively, whether IMT-progression reflects the efficacy of treatments in reducing the rate of vascular events. The IMPROVE study, a currently on going prospective multicenter, longitudinal, long-term, observational study, funded by EU, will evaluate the association between IMT, IMT-progression and the rate of new vascular events in subjects at high risk of atherosclerosis. The effect of genes' polymorphism, lipid peroxidation, socio-economic and psychological variables will be also evaluated. 3600 patients will be recruited in 7 European countries and followed for 36 months. Data will be analysed with conventional statistics and with artificial neural networks. The study will be considered as positive if a difference of at least 3% in the cumulative incidence of acute vascular events between the lowest and the highest quintiles of IMT or IMT-progression will be detected. A summary of aims and design of the study will be presented.

Comparison of short-term antioxidant effects of statins: a randomized prospective study on atherosclerotic patients

F. D'Amico, L. Fontana.

Struttura Complessa di Geriatria e Lungodegenza - P.O. "Barone Ignazio Romeo" Patti - Azienda U.S.L. n. 5 Messina

Objectives: The percentage of 85-years-old subjects in total population is well known. It has also been assessed that atherosclerosis is associated with main cardiovascular risk factors. But what is the exact relationship between age and atherosclerosis plaques?

Design and Methods: To this purpose we have examined 133 elders divided in 2 groups. The first group contained 70 subjects aged 65-75 (average 70 \pm 5, 39 Males and 31 Females). The second one contained 63 subjects aged 85-95 (average 89 \pm 4, 34 Males and 29 Females).

We have performed color Doppler carotid echography on every subject and we have also considered the following parameters comparing the results of both groups: Glycemia : 108 \pm 28 mg/dl vs 115 \pm 32 mg/dl; Total Cholesterol: 224 \pm 32 mg/dl vs 172 \pm 30 mg/dl; HDL Cholesterol: 72 \pm 20 mg/dl vs 37 \pm 14 mg/dl; Homocysteine : 14 \pm 4 micronmol/L vs 21 \pm 4 micronmol/L; Blood Pressure: 142 \pm 22 mmHg vs 148 \pm 20 mmHg; Cigarette smoking : 34 % vs 5%; Physical exercise : 23% vs 11%.

Results : This study shows that the number of atherosclerosis plaques is higher in elders aged 85 -95 (71 vs 23, p<0,05), with a major incidence in the common carotid artery (29 vs 16, p<0,05). As far as the internal carotid artery and the carotid bifurcation are concerned there's no significant difference between group-I and group II.

In patients aged 85-95 plaques have a more calcified aspect (42% vs 5%, p<0,05) and there's also a more evident presence of stenosis (46% vs 19%, p<0,05).

Conclusions : We can affirm that age contributes to the development and progression of carotid atherosclerosis.

Through echographic observation we have also detected that in the carotid region plaques are more frequent in elder subjects and these plaques are more calcified as the subjects get older.

RELATIONSHIP BETWEEN CARDIOVASCULAR GLOBAL RISK IN PRIMARY AND SECONDARY PREVENTION AND CAROTID ATHEROSCLEROSIS

S. Castelnovo, S. Sanvito, L. Gerosa, B. Frigerio, F. Ferrari Bravo, M. Amato, E. Tremoli, C.R. Sirtori and D. Baldassarre.

E. Grossi Paoletti Center, Dept of Pharmacological Sciences, University of Milan, Via Balzaretti 9, Milan, Italy.

Clinical and epidemiological studies have provided mathematical algorithms based on vascular risk factors useful to estimate the 10 years global risk of vascular events. Although derived by selected populations, these algorithms are often used in clinical practice to estimate the individual risk of patients with quite different characteristics. In the present study we have investigated whether the Framingham Risk Score (FRS) and the GISSI Risk Score (GRS), two algorithms useful to calculate the individual global risk in primary and secondary prevention, are associated with carotid artery intima media thickness (IMT) and IMT-progression, two parameters widely accepted as indexes of carotid and even coronary atherosclerosis. 1205 asymptomatic and 262 symptomatic patients have been recruited to investigate the association with cross-sectional IMT. 312 asymptomatic and 92 in secondary prevention patients with at least 5 years of follow-up have been recruited to investigate how FRS and GRS affect the IMT-progression. While cross-sectional IMT significantly increases with the raising of quartiles of global risk of patients in both primary and secondary prevention (both p<0.0001; 4th vs 1st quartiles), IMT-progression is not affected by the individual global risk both in primary (FRS) and in secondary prevention (GRS). The positive association between FRS, GRS and IMT suggests that both these algorithms reflect the individual atherosclerotic pattern also in an Italian population of patients attending a Lipid Clinic.