The Effect of the Adoption of the Mediterranean Diet on Cardiovascular Risk: The ATTICA Study

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BACKGROUND. Many investigators report that dietary factors exert their influence on cardiovascular disease (CVD) largely through their effects on blood lipids and lipoproteins, as well as on other established modifiable risk factors. In this work, we aimed to evaluate the impact of the Mediterranean-type of diet on several clinical and biochemical markers, associated to CVD risk.

METHODS. The ATTICA study is a prospective population-based cohort designed to enroll 3073 men and women from the greater area of Athens. A random algorithm was developed and stratified, by sex-age, sampling was performed during 2001. In this work we analyzed data from 520 men (18-86 years old) and 680 women (18-80 years old).

The consumption of red meat, chicken, fishes, vegetables, pasta, salads, cereals, fruits and other products, sweets and fruits was investigated as an average per week, during the past year, using a special nutritional questionnaire, developed by the National School of Public Health. We defined subjects who adopt this type of diet using cut-off points on the median values of the monthly food consumption score.

RESULTS. 684 (57%) of the subjects were more close to the Mediterranean diet. The adoption of Mediterranean diet reduces significantly total cholesterol (212 ± 212 vs. 291 ± 291, P = 0.005), triglycerides (112 ± 127 vs. 179 ± 179, P = 0.01), blood glucose concentration (90 ± 94 ± 7 vs. 127 ± 127, P = 0.01), fibrinogen (323 ± 36 vs. 346 ± 32 mg/dl, P = 0.05), homecysteine (12 ± 14 ± 5 mg/dl, P = 0.05) and diastolic/systolic blood pressure (127 ± 127 ± 8 vs. 127 ± 127 ± 8 mm Hg, P = 0.01). On the other hand, diet increases HDL-cholesterol (51 ± 46 ± 3 vs. 71 ± 71 ± 29 mg/dl, P = 0.01) and apoA1 (167 ± 157 ± 23 vs. 168 ± 168 ± 23 mg/dl, P = 0.01). No associations were found between the adoption of Mediterranean diet and LDL (a), unit acid, social status (described by educational and financial levels), age and sex (P ≥ 0.070).

CONCLUSION. Despite the "ecological" paradox regarding low CVD mortality in Mediterranean populations, where Keys and his colleagues reported to enroll 3073 men and women from the greater area of Athens. A random algorithm was developed and stratified, by sex-age, sampling was performed during 2001. In this work we analyzed data from 520 men (18-86 years old) and 680 women (18-80 years old).

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