10 - POLYMORPHISM OF THE COMT GENE AND VITAL EXHAUSTION IN POPULATION OF 45-64 YEARS. INTERNATIONAL EPIDEMIOLOGICAL PROGRAMS: WHO MONICA, HAPIEE

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Objective: to study the association of the polymorphic genotypes rs4680 of the COMT gene with life depletion in the general population of men and women 45-64 years old.

Materials and methods. As part of the IV screening, MONICA, HAPIEE in 2003-2005. A representative sample of the population 45-64 years old (n = 781 men, n = 869 women) respondents was surveyed - 61%. All study participants completed a questionnaire on vital exhaustion (VE). Genotyping of the Val158Met (rs4680) polymorphism of the COMT gene was carried out. To check the statistical significance of the differences between the groups, we used: Pearson's chi-square test χ^2 . Reliability in all types of analysis was adopted at a significance level of $p \leq 0.05$.

Results: Both in the general population (48.6%) and among men (44.4%) and women (51.5%) the heterozygous G / A polymorphism of the COMT gene was the most common. Among individuals with HVE (high level of vital exhaustion), the A / A genotype (18.6%) was more common in the general population, and also for women (13.3%), and there was a trend for men (30.8%). The genotype of the G / G gene prevailed in individuals with an average level of vital exhaustion (AVE) as in the general population (31.1%), among women (29.7%), in men there was a tendency (33.3%).

Conclusions: The polymorphic variants of the Val158Met COMT gene are associated with vital exhaustion in the general population of men and women.

FREQUENCY OF GENOTYPES AND ALLELES OF THE RS4680 POLYMORPHISM OF THE COMT GENE IN THE POPULATION OF 45-64 YEARS

Hardy-Weinberg Equilibrium

$\chi^2 = 9,29$ A allele frequency = 0,61; G allele frequency = 0,39
 $\chi^2 = 8,37$ A allele frequency = 0,61; G allele frequency = 0,39
 $\chi^2 = 2,4$ A allele frequency = 0,6; G allele frequency = 0,4

THE FREQUENCY DISTRIBUTION OF GENOTYPES OF THE COMT GENE IN THE GENERAL POPULATION COMPARED TO THE LEVEL OF VE

$\chi^2 = 16,275$ df=4, $p = 0,003$ $\chi^2 = 4,69$ df=2, $p > 0,5$

THE FREQUENCY DISTRIBUTION OF GENOTYPES OF THE COMT GENE IN MALE POPULATION IN COMPARISON WITH THE LEVEL OF VE

$\chi^2 = 5,571$ df=4, $p > 0,5$ $\chi^2 = 1,835$ df=2, $p > 0,5$

THE FREQUENCY DISTRIBUTION OF GENOTYPES OF THE COMT GENE IN FEMALE POPULATION IN COMPARISON WITH THE LEVEL OF VE

$\chi^2 = 15,704$ df=4, $p = 0,03$ $\chi^2 = 0,88$ df=2, $p > 0,5$

NVE – no vital exhaustion, AVE - average level of vital exhaustion, HVE - high level of vital exhaustion