

Arterial hypertension as a risk factor of myocardial infarction in different occupational categories of Kaunas men, Lithuania

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Introduction. Arterial hypertension is one of the risk factors of myocardial infarction. The risk of first myocardial infarction varies considerably among different occupational categories in Western countries as well as in the countries after transition. In Lithuania legislators, senior officials and managers (1st occupational category) and plant and machine operators and assemblers (8th occupational category) were found at increased myocardial infarction risk. The aim of our study was to investigate the effect of arterial hypertension on the first myocardial infarction risk in different occupational categories of Kaunas men, Lithuania.

Subjects and methods. We conducted the epidemiological case-control study among 25-64 years men in Kaunas. Cases were 203 men with the first myocardial infarction defined according to Monica protocol. Controls were 287 men, randomly selected from the study base, without signs of ischemic heart disease. A standardized questionnaire was used for cases and controls, containing the information on possible myocardial infarction risk factors. Arterial hypertension was defined as either blood pressure exceeding 140/90 mmHg and/or treatment for hypertension. The International Standard Classification of occupations was used to code the occupations and to divide them into 10 occupational categories. The logistic regression analysis was used to evaluate the effect of arterial hypertension on the first myocardial infarction risk among different occupational categories, after adjustment for age, smoking and obesity.

Results. The logistic regression model showed that arterial hypertension was a risk factor for myocardial infarction in all the occupational categories – increased and non-increased myocardial infarction risk after adjustment for age, smoking and obesity. Odds ratio estimates were 2.74; 95% CI 1.80-4.18 for legislators, senior officials and managers (1st occupational category); 2.68; 95% CI 1.76-4.08 for professionals (2nd category); 2.69; 95% CI 1.77-4.18 for associate professionals (3^d category); 2.65; 95% CI 1.74-4.04 for craft and related trades workers (7th category); 2.66; 95% CI 1.74-4.07 for plant and machine operators and assemblers (8th category).

Conclusions. Arterial hypertension is a risk factor for myocardial infarction in all the occupational categories of Kaunas men – increased and non-increased myocardial infarction risk.