

INDOOR AIR POLLUTION AND MYOCARDIAL INFARCTION RISK AMONG WOMEN

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Background and aims: Indoor air pollution and health outcomes are under investigation in the recent years. Myocardial infarction risk is associated not only with the traditional ischemic heart disease risk factors, but with toxicants in the living and working environment as well. The aim of our study was to investigate the associations between indoor (gas stoves usage, environmental tobacco smoke) air pollution and first myocardial infarction among 34-61 years old women in Kaunas, Lithuania, taking into account the possible effects from age, the traditional ischemic heart disease risk factors (arterial hypertension, increased body mass index, low physical activity), education level, socioeconomic position, household crowding, perceived stress, sleep disorders, family stress, residential high traffic.

Methods: We conducted the population-based case-control study among 35-61 years old women in Kaunas, the second largest city in Lithuania in 1997-2005. Totally 368 myocardial infarction cases and 725 healthy controls were interviewed, using the standardized questionnaire, containing the information on gas stove usage, environmental tobacco smoke and other risk factors. The logistic regression analysis was used for the calculation of the adjusted OR and 95% CI of age, gas stove usage, environmental tobacco smoke, the traditional ischemic heart disease risk factors (arterial hypertension, increased body mass index, low physical activity), education level, socioeconomic position, household crowding, perceived stress, sleep disorders, family stress, residential high traffic for the first myocardial infarction risk among women.

Results: In the fully adjusted model the OR for gas stove usage was 1.20; 95% CI 0.72-1.98, environmental tobacco smoke 1.28; 95% CI 0.71-1.66.

Conclusions: The study has demonstrated that indoor air pollution exposure might have trace associations with the first myocardial infarction risk among women.