

**Spousal concordance for factors related to metabolic syndrome in families of patients with premature coronary heart disease.**MV Konnov<sup>1</sup>, LM Dobordzhiginidze<sup>1</sup>, AD Deev<sup>1</sup>, N A Gratsiansky<sup>1</sup><sup>1</sup>*Institute of Physico-Chemical Medicine, Moscow, Russian Federation***Topic: Risk factors and risk prediction****Purpose:** To elucidate risk factors concordance between spouses in families of patients with "premature" coronary heart disease (CHD).**Methods:** We examined 174 spouse pairs. There were 174 probands with premature (onset before 55 years) CHD aged 32-63 years and 174 their spouses aged 28-63 years. Among probands 18.4% had angina pectoris only and 81.6% had history of myocardial infarction. There were 10 patients with CHD among spouses (5.75%). Characteristics studied included alcohol consumption, tobacco smoking, education, body mass index (BMI), waist circumference (WC), heart rate, systolic and diastolic blood pressure (DBP), total, low and high density lipoprotein cholesterol, triglycerides (TG), apoproteins A-I and B, lipoprotein (a), blood glucose and insulin, homeostasis model assessment-insulin resistance (HOMA-IR), fibrinogen, activity of plasminogen activator inhibitor type 1. Concordance of variables of continuous and ordinal type was estimated by Spearman's rank correlation coefficients adjusted for sex and age. Pairs were divided according to proband age (32-47 and 35-63 years) and spousal concordance for characteristics studied was evaluated separately in 2 groups (probands 32-47, spouses 28-53 years, and probands 48-63, spouses 35-63 years) with presumably different duration of marriage/cohabitation.**Results:** Registered characteristics of spouses except apo A-I correlated positively. Correlations between 9 characteristics were significant: education, insulin, HOMA-IR, WC (R=0.608, 0.424, 0.421, 0.294; all p=0.0001), glucose (R=0.261; p=0.0007), TG and fibrinogen (both R=0.222; p=0.0036 and 0.0063, respectively), BMI and DBP (R=0.195 and 0.185, respectively; both p<0.016). PAI-1 activity was the only characteristic with different correlations in "younger" and "older" pairs (R=-0.035 and 0.320, respectively; p=0.042).**Conclusion:** In families of patients with premature CHD we found various degree of spousal concordance mostly for factors considered to be related to metabolic syndrome.