Arterial Blood Pressure and Blood Lipids as

Cardiovascular Risk Factors and Occupational Stress

in Taiwan

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Abstract

BACKGROUND: This study is to determine whether occupational stress (defined as high psychological demands and low decision latitude on the job) is associated with increased blood pressure and abnormal level of blood lipids as cardiovascular risk factors. METHODS: We conducted a cross-sectional study at three work sites of 526 white-collar male workers aged 20 to 66 years without evidence of cardiovascular disease. Systolic, diastolic blood pressure, serum total, high-density lipoprotein cholesterol and plasma triglyceride were measured. Occupational stress index was derived from data collected in the job strain questionnaire. RESULTS: In multiple linear regression models, occupational stress index was significantly related to diastolic blood pressure and plasma triglyceride, after adjusting for age, education, smoking, and alcohol consumption. A higher occupational stress index was directly associated with higher systolic, diastolic blood pressure and higher level of plasma triglyceride. CONCLUSIONS: These data from a white-collar working population confirm independent relations between occupational stress defined in the job demand-control model and diastolic blood pressure observed in predominantly Western populations and extend the range of associations to plasma triglyceride than do previous studies.