

Relationship of serum uric acid to cardiovascular risk factors in some Korean male workers

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Objectives : To investigate the relationship of serum uric acid to cardiovascular risk factors in some Korean male workers.

Methods : The study subjects were 522 male workers in an electrical manufacturing company who screened at periodic health examination and questionnaire survey in 2001. The collected data were age, smoking status, alcohol drinking status, body mass index (BMI), blood pressure, serum lipid, fasting blood glucose and serum uric acid. The methods of data analysis were ANOVA, Pearson's correlation analysis and multivariate regression analysis which were used to examine the association between uric acid and cardiovascular risk factors in cross-sectional study design.

Results : Serum uric acid concentration showed positive associations with BMI, total cholesterol, triglyceride, LDL-cholesterol; it was also significantly correlated to systolic and diastolic blood pressure. Life-style characteristics, such as smoking and alcohol drinking did not show any significant association. In multivariate regression analysis, only BMI was independent positive predictors of uric acid, while blood lipids and blood pressure did not give any independent contribution to explain the variability uric acid levels.

Conclusions : This study demonstrates that serum uric acid level in some Korean male workers have a significantly association with BMI of several cardiovascular risk factors.

Keywords : serum uric acid, body mass index, cardiovascular risk factor