

ABSTRACT

Background: The relationship between metabolic syndrome (MetS) and hyperuricemia is not fully understood.

Objective: To examine the association of hyperuricemia with MetS and the component of MetS that is mostly influenced by hyperuricemia among university workers.

Methods: Anthropometric measurements, blood pressure, glucose, lipid profiles, renal function tests were measured in 1198 male and 1075 female (22-60 years old) workers on annual medical examination.

Results: Hyperuricemia was 3-fold higher in males (odds ratio, OR, 2.938, 95% confidence interval, CI, 1.909-4.522, $P<0.01$) than females after adjustment for age, body mass index (BMI) and renal function. Overall, individuals with hyperuricemia were 3.9-fold likely to have MetS OR, 3.903; CI (2.439-6.245), $P<0.01$, and dyslipidemia, 2.5 times (OR, 2.501; 95% CI, 1.776-3.521, $P<0.01$) after adjustment for age, BMI, sex and renal function. However, no associations were found in individuals with hypertension (OR, 1.427; 95% CI, 0.996-2.205, $P=0.052$) and hyperglycemia (OR, 1.476; 95% CI, 0.989-2.202, $P=0.057$). Administrative work positively associated (OR, 1.895; 95% CI, 1.202-2.925, $P<0.05$) with hyperuricemia in males and not females.

Conclusion: Male workers with hyperuricemia, especially those working in administration were at risk of metabolic syndrome. It is important to screen, prevent and treat metabolic syndrome in individuals diagnosed with hyperuricemia at the workplace.

Keywords: Hyperuricemia, metabolic syndrome, uric acid, workers.