INTRODUCTION AND OBJECTIVES: The metabolic syndrome (MetS) is a plurimetabolic disease characterized by insulin resistance, hypertension, abdominal obesity and dyslipidemia. The circulating uric acid (UA) levels are associated with MetS and is a marker for cardiovascular risk. This study aims to identify the association between UA levels and MetS components in gender dependence. METHODS: The present study was approved by the Fluminense Federal University (UFF) Committee of Ethics in Research. It was a case-control cross-sectional study and the volunteers were young adults, aged 18 up to 30 years-old. Subjects were paired for gender, age and body mass index (BMI). Exclusion criteria were previous history of cancer, autoimmune and genetic diseases, pregnant or lactating women. After written consent, participants underwent anthropometric measurements: BMI and waist circumference (WC). The blood pressure (BP) was measured after 10 min rest. Blood venous samples were taken after 12-14h overnight fasting. The MetS classification was performed according the Joint Interim Statement criteria. Multiple correlation and linear regression analysis were performed and probability was considered significant for p values < 0.05. RESULTS: Thirty-nine men and 39 women were included. We found serum UA levels and BP values higher in males, meaning the known physiological differences among the genders. Twenty-four individuals not scored for MetS, 32 presented one component, 13 presented two components and 8, three or more components. We found that the UA levels were significantly associated with BMI, WC and triglycerides levels only in males (p<0.05). We also observed that UA levels were rising in accordance with the increase of MetS components only in males (p=0.001). No significant associations were observed in female participants. CONCLUSIONS: The UA levels are associated to the components of MetS only in males, which may represent an increased cardiovascular risk in these individuals. KEYWORDS: uric acid, metabolic syndrome, gender.