Dokumenttyp: journal article

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Titel des Beitrags: A gender-specific analysis of association between hyperuricaemia and cardiovascular events in patients with coronary artery disease.

Abstract: Gender-related differences in the association between hyperuricaemia and cardiovascular events remain poorly understood. The objective of this study was to assess gender-related differences in the association between hyperuricaemia and cardiovascular events in patients with coronary artery disease (CAD). This study included 13,273 patients with CAD. Hyperuricaemia was defined as a plasma uric acid >7.0mgdl(-1) in men and >5.7mgdl(-1) in women. The primary outcome was 1-year all-cause mortality. Hyperuricaemia was found in 3745 men (36.5%) and 1562 women (50.3%); odds ratio (OR)=1.76, 95% confidence interval (CI) 1.62-1.91; P<0.001. Women with hyperuricaemia were older, had higher proportions of patients with diabetes and arterial hypertension and had reduced renal function and higher C-reactive protein levels compared with men with hyperuricaemia. One-year all-cause mortality was 9.3% (n=143) in women with hyperuricaemia versus 6.9% (n = 252) in men with hyperuricaemia (P=0.002). After adjustment in multivariable Cox proportional hazards model, uric acid predicted 1-year mortality with an adjusted hazard ratio (HR)=1.17, 95% CI (1.03-1.31), P=0.012 in men and HR=1.25, 95% CI (1.06-1.48), P=0.007 in women, for each standard deviation increase in the natural logarithm. Uric acid predicted 1-year
mortality with an area under the receiver-operating characteristic curve=0.625, 95% CI (0.594-0.656) in men and 0.676, 95% CI (0.635-0.717) in women (P=0.044, for women versus men). Hyperuricaemia predicts an increased risk of 1-year mortality in both genders with a stronger association in women. Differences in cardiovascular risk profile may explain the stronger association between hyperuricaemia and cardiovascular events in women.