ACUTE CORONARY SYNDROMES

High uric acid levels predict mortality

“Elevated levels of uric acid predict an increased risk of 1-year mortality across the whole spectrum of patients with acute coronary syndrome (ACS),” suggests Gjin Ndrepepa, the lead investigator in a new study published in the *American Journal of Cardiology*.

The team from the German Heart Centre in Munich retrospectively analyzed prospectively collected data from 5,124 patients with confirmed ACS who underwent percutaneous coronary intervention (PCI). They grouped the patients in quartiles according to their plasma uric acid concentration (quartile 1, 1.3 mg/dl to <5.3 mg/dl; quartile 2, 5.3 mg/dl to <6.3 mg/dl; quartile 3, 6.3 mg/dl to <7.5 mg/dl; and quartile 4, 7.5 mg/dl to 18.4 mg/dl). The primary end point was 1-year all-cause mortality and the association between uric acid levels and risk for mortality was assessed according to the patients’ clinical presentation (STEMI, NSTEMI, and unstable angina).

Within the first year after PCI, a total of 450 deaths were reported. The number of deaths was higher among patients in quartile 4 than among those in quartiles 1–3 in all subgroups. After adjustment for traditional cardiovascular risk factors, 1-year mortality was found to be increased by 12% for every 1 mg/dl increase in uric acid concentration.

“We are interested in now assessing the impact of uric acid on the extension and severity of coronary atherosclerosis,” Ndrepepa says. Although uric acid levels seem to provide prognostic information incremental to that provided by conventional risk factors—at least in terms of mortality—the mechanisms involved in the detrimental effects of high uric acid levels are not yet known.

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