

Impact of Hyperuricemia on Coronary Artery Spasm as assessed with Intracoronary Acetylcholine Provocation Test
Provocation Test

Background: Hyperuricemia is known to be associated with cardiovascular complications. However, there are limited data whether there is a clear association between hyperuricemia and significant coronary artery spasm (CAS) as assessed with intracoronary Acetylcholine (Ach) provocation test. Methods: This study consisted of 5,324 consecutive patients (pts) who underwent coronary angiography with Ach provocation test from January 2004 to September 2012. Study population were: Hyperuricemia group ($>7\text{mg/dL}$, $n=216$) and Control group ($<7\text{mg/dL}$, $n=2,462$). Significant CAS was defined as transient $>70\%$ luminal narrowing with chest pain and/or ST segment changes. Results: The baseline clinical characteristics were balanced between the two groups except the hyperuricemia group had more male gender, hypertension, current smoker, current alcoholics and higher body mass index, whereas the control group had more elderly. During the Ach provocation test, the hyperuricemia group showed higher incidence of multivessel spasm and ischemic EKG change (Table). Other major angiographic and clinical parameters were similar between the two groups. Conclusion: In the present study, although the incidence of CAS with Ach provocation test was not different in both groups, the pts with hyperuricemia was significantly associated with higher incidence of multivessel spasm and ischemic ST-T change during the Ach provocation test as compared with pts without hyperuricemia.