Spasm Provocation Test results Predictive of Patients with Vasospastic Angina unresponsive to Vasodilator Treatment

Vasospastic angina (VSA) is characterized by transient constriction of epicardial coronary arteries, which reduces blood flow to the heart. VSA usually can be relieved or suppressed by coronary vasodilators. However, VSA in some patients is unresponsive to treatment and is defined as intractable VSA (i-VSA). It is important to identify patients at risk of i-VSA, but predictive tests have not been developed. We investigated clinical parameters, including angiographic findings from the spasm provocation test (SPT), to identify factors predictive of i-VSA. The study involved 155 patients with VSA diagnosed by SPT. We focused on the relationship of two SPT findings to i-VSA: 1) a positive SPT result (spasms) induced by low doses of acetylcholine at 30 μg and 50 μg for the right and left coronary artery, respectively, and 2) total artery occlusion caused by spasms. i-VSA was defined as uncontrollable angina after administration of two types of coronary vasodilators. Our results indicated that SPT spasms induced by acetylcholine at the aforementioned doses in the right and left coronary arteries and total occlusion were statistically significant independent predictors of i-VSA. We thus believe that SPT is pivotal in not only establishing the diagnosis of VSA but also providing prognostic information.

Authors: Hiroki Teragawa, Yuichi Fujii, Chikage Oshita, and Tomohiro Ueda


DOI: 10.21767/2471-8157.100058