Influence of Coronary Artery Vasospasm on Brugada Syndrome

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Aims: We evaluated the influence of vasospasm in Brugada syndrome.

Method and Result: In 86 consecutive patients, we classified into 60 patients with Brugada syndrome and 26 patients with non-Brugada syndrome. First, the prevalence of vasospasm was compared between these two groups. Second, in Brugada syndrome, we evaluated the relationship between vasospasm and any factors, which is a history of syncope, a family history of Brugada syndrome or sudden death and a history of induced ventricular arrhythmia by electrophysiological study. Finally, we evaluated the occurrence of implantable cardioverter defibrillator (ICD) shock. Vasospasm was more prevalent in patients with the Brugada than in the non-Brugada syndrome. Vasospasm was more prevalent on right coronary artery. No specific relationship was found between vasospasm and any factors of Brugada syndrome. The occurrence of ICD shocks was more frequent in patients with a combination of a history of syncope and vasospasm. Conclusion: In Brugada syndrome, vasospasm frequently coexists, and there were no specific factors of coexistence. ICD shocks were more common in patients with a combination of a history of syncope and vasospasm. Determination of the presence of vasospasm may help predict the occurrence of cardiac events, especially with a history of syncope.

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