

A case of brugada syndrome and vasospastic angina coexistence

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Brugada syndrome (BS) is associated with sudden cardiac death, leading to ventricular fibrillation (VF). Vasospastic angina (VSA) is sometimes occurred among BS patients. The clinical implication of ICD has been controversy in the patients with both coronary spasm and BS. A 37-year-old man visited the emergency room for loss of consciousness. He experienced VF and was resuscitated after 2 shocks and cycles of cardiac compression (Figure 1). The ECG showed RBBB and ST elevation in V1 and V2 (Figure 2). He was diagnosed with Type I BS according to the 2013 HRS/EHRA/APHR criteria. The transthoracic echocardiography (TTE) demonstrated moderate global hypokinesia of LV with reduced LV systolic function (ejection fraction [EF] =38%). Although coronary angiography reported no stenotic lesions, ergonovine injection induced 80% stenosis of left anterior descending artery (Figure 3 and 4) as well as right coronary artery showed ST elevation in V1, V2 and V3 (Figure 5 and 6). The electrophysiological study was performed and isoproterenol injection did not induce wide QRS tachycardia on the apex of the RV and right ventricular outflow tract. Also, genetic test was not remarkable. The ICD insertion was not performed because the patient refused. Instead, he was prescribed including calcium channel blocker (CCB) and nitrate. After five months, his LV systolic function was recovered up to EF of 58% and there was no regional wall motion abnormality. He had no further episodes of VF on following TTE. As known, VF more likely occurs when combining with BS and VSA. According to this study, using CCB is recommendable to the BS patients who also has vasospasm.

Figure 1.

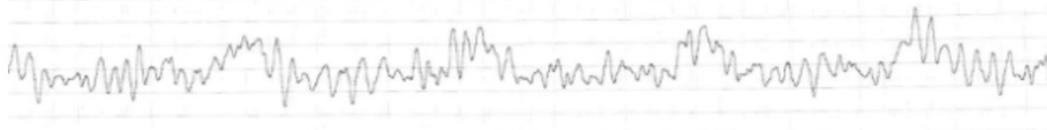


Figure 2.

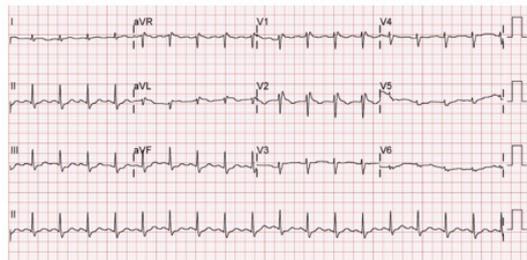


Figure 3.



Figure 4.

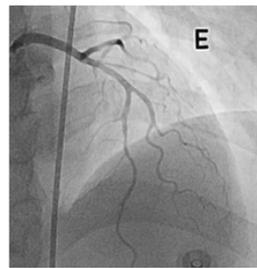


Figure 5.



Figure 6.

