EPP CASE EXPRESS

Ventricular fibrillation associated with multi-vessel coronary spasms following radiofrequency ablation of atrial fibrillation and atrial flutter

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A 62-year-old man was admitted for radiofrequency (RF) ablation of symptomatic paroxysmal atrial fibrillation and typical atrial flutter refractory to medical treatment. He had a history of syncope diagnosed as vasospastic angina pectoralis. Upon admission to our hospital for RF ablation, an echocardiogram revealed a structurally normal heart. Sedation was maintained with the intravenous administration of dexmedetomidine hydrochloride during the ablation procedure. All four pulmonary veins were successfully isolated and bidirectional cavotricuspid isthmus block was confirmed. On the way to the medical ward after the procedure, he suffered a cardiopulmonary arrest. Cardiopulmonary resuscitation was started. Ventricular fibrillation was confirmed and terminated with a 300 J shock. Immediately after the cardioversion, the 12-lead electrocardiogram showed sinus tachycardia without any ST elevation, but 10 min later, it revealed ST elevation in Leads I, II, III, aVF, aVL, and V3–6. The intravenous administration of nitrates was started and the ST elevation improved. Urgent coronary angiography was performed and it revealed severe stenosis of the right coronary artery and left circumflex artery. An intracoronary bolus of nitroglycerin induced vasodilatation of the coronary artery (Figure). He recovered without any neurological sequelae and received an implantable cardioverter-defibrillator for secondary prevention.


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