

Ventricular fibrillation prevented by quinidine and cilostazol in early repolarization syndrome

충북대학교병원 심장내과¹나규연¹, 이대인¹

Background: Early repolarization syndrome (ERS) is a condition resulting sudden cardiac death (SCD), characterized by ECG pattern with J-point elevation of ≥ 0.1 mV in 2 continuous leads, and horizontal or downsloping ST segments. In this case report, we report a 36 years old man who presented with aborted SCD associated with ERS.

Case: A 36 years old man experienced sudden collapse related to ventricular fibrillation (VF). VF was restored to sinus rhythm with automated electronic defibrillator by emergency medical technician. In the emergency room, his initial 12-lead electrocardiography (ECG) showed atrial fibrillation and J wave with downsloping ST segment V3 ~ V6. (Figure 1). To evaluate the cause of VF, we performed transthoracic echocardiography and coronary angiography, which did not reveal the abnormal finding related to VF. Targeted temperature management (TTM) with a target of 35°C was implemented for 36 hours. At the time of TTM termination, he was extubated and soon restored to mental alertness. Any neurologic deficit was not found. In order to rule out channelopathy such as long QT syndrome and Brugada syndrome, flecainide and epinephrine stimulation test were done and its results were negative. He was discharged from the hospital after inserting an implantable cardioverter-defibrillator (ICD) for VF secondary prevention. ERS was diagnosed in that early repolarization pattern in ECG (Figure 2) is accompanied with a history of resuscitated idiopathic VF. One year later, he experienced with frequent ICD shocks. We prescribed quinidine 800mg/d and cilostazol 100mg/d and then VF did not recur. In outpatient clinic setting, we increased quinidine upto 1200mg/d because VF was identified in regular ICD electronic analysis.,

Conclusion: ERS shows low prevalence in general population, about 10 cases per 100,000. We here present the case of ERS patient with the refractory VF storm managed by quinidine and cilostazol.

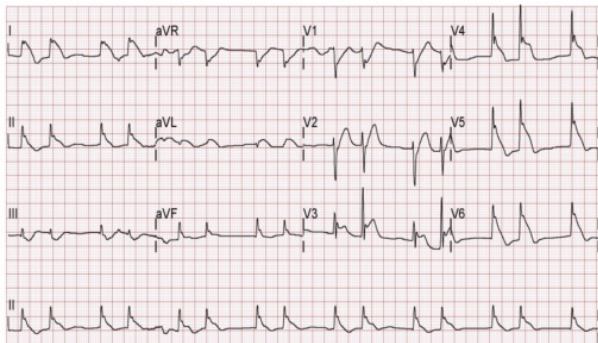


Figure 1



Figure 2