Letter by Hayashi et al Regarding Article, “Early Repolarization Is an Independent Predictor of Occurrences of Ventricular Fibrillation in the Very Early Phase of Acute Myocardial Infarctions”

We read with much interest the article published by Naruse et al.¹ The article described that the incidence of early repolarization before acute myocardial infarction was higher in patients with occurrence of ventricular fibrillation than in those without. In the total population, most patients had hypertension, almost half patients had hyperlipidemia, and ≈40% patients had diabetes mellitus. In this study, multivariate logistic regression analysis confirmed that a time from the symptom onset to the arrival at the emergency room <180 minutes, a Killip class >I, and the presence of early repolarization were significantly and independently associated with the occurrence of ventricular fibrillation after acute myocardial infarction. However, hypertension and diabetes mellitus were not associated with the occurrence of ventricular fibrillation. We guess that some medicines were prescribed to treat these diseases. It was reported that the presence of early repolarization on ECG was influenced by cardiovascular drugs, such as β-blocker,² and was associated with L-type calcium channel.¹ Glibenclamide, one of the antidiabetic sulfonylureas, is known to block ATP-dependent potassium channel. In addition, heart rate is an important factor affecting transient inward current. The availability of these channels participates in generating early repolarization.³ In the article published by Naruse et al,¹ no information on prescribed medicines and heart rate was noted. In our opinion, medicines and heart rate are potential confounding factors, which are of interest to address.

Disclosures

None.

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