LETTERS TO THE EDITOR

Implication of Collaboration between Intensivists and Cardiologists to Manage Acute Myocardial Infarction in the Intensive-care Unit

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To the Editor

The in-hospital mortality of severe acute myocardial infarction remains high. Takemoto et al. demonstrated that the presence of dedicated intensivists in the high-intensity intensive-care unit (ICU) collaborating with cardiologists was associated with a reduced in-hospital mortality in patients with Killip class IV acute myocardial infarction who required critical care (1). However, several concerns have been raised.

The authors selected several demographics and device data for multivariable analyses (1). However, the laboratory data and transthoracic echocardiography data, including plasma B-type natriuretic peptide, glomerular filtration ratio, and left ventricular ejection fraction, would also be associated with the disease severity and prognosis.

Given their findings, the appropriate use of mechanical devices would likely be key to the successful management of acute myocardial infarction (1). The use of the percutaneous left ventricular assist device Impella has been reimbursed since 2017 in Japan. The Impella supports systemic circulation, facilitating left ventricular unloading (2), which is advantageous compared with conventional mechanical devices, including intra-aortic balloon pumping, particularly in patients with Killip class IV acute myocardial infarction.

Did the authors’ team consider utilizing this device?

As mentioned in their discussion, the quality of multiple-device management by intensivists might be superior to conventional one, although the 28-day event freedom did not differ significantly between the high- and low-intensity ICU (1). Notably, the incidence of device-related complications, including bleeding and ventilator-related pneumonia, might differ between the two groups.

The lengths of ICU stay and in-hospital stay were not significantly different between the two groups (1). However, the low-intensity ICU group included more patients with inhospital death, who are expected to have had a shorter ICU/in-hospital duration. Did the authors consider excluding the deceased patients from this analysis?

The author states that he has no Conflict of Interest (COI).

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References


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