

Impact of high bleeding risk criteria on short- and long-term outcomes in patients with acute myocardial infarction

K. Dai¹, A.O. Okada¹, Y.H. Hyodo¹, T.N. Nakano¹, S.T. Tomomori¹, T.H. Higaki¹, K.O. Oi¹, T.K. Kawase¹, Y.N. Nakama¹, K.S. Suenari¹, K.N. Nishioka¹, M.O. Otsuka¹, Y.M. Masaoka¹, N.S. Shiode¹, Y.K. Kihara²

¹Hiroshima City Hiroshima Citizens Hospital, Hiroshima, Japan; ²Hiroshima University Hospital, Department of Cardiology, Hiroshima, Japan

Funding Acknowledgement: Type of funding source: None

Background: The Academic Research Consortium (ARC) proposed the new definition of high bleeding risk (HBR) criteria. It remains unknown about the prevalence and the impact of HBR on clinical outcome after acute myocardial infarction (AMI).

Purpose: To assess the prevalence and the impact of HBR on short- and long-term outcomes in patients with AMI.

Methods: Between January 2015 and January 2018, 412 patients with AMI underwent coronary angiography within 24 hours after the onset of chest pain. According to HBR criteria proposed by ARC, we divided patients into 2 groups; HBR and non-HBR group. We considered a patient HBR if the patient met at least 1 major criteria or 2 minor criteria. Major criteria included severe CKD (eGFR < 30 ml/min), severe anemia (Hgb < 11 g/dl), active cancer, and the use of oral anticoagulant drug. Minor criteria included high age (≥ 75), moderate CKD (eGFR 30–59 ml/min), moderate

anemia (Hgb 11–12.9 g/dl for men and 11–11.9 g/dl for women). Kaplan-meier method was used to compare long-term outcome of HBR and non-HBR group. Major adverse cardiovascular events (MACE) were defined as all-cause death, non-fatal MI, and stroke.

Results: Patients with HBR were found in 37% of patients with AMI. In-hospital mortality (11.3% vs 4.2%, $p=0.008$) and MACE rate was significantly higher in HBR than non-HBR group (Figure). HBR group was associated with higher all-cause death (15.7% vs 2.5%, $p<0.0001$) and intracranial bleeding (4.8% vs 0.5%, $p=0.02$) than non-HBR group, although the incidence of non-fatal MI was comparable between two groups (7.6% vs 8.5%, $p=0.76$).

Conclusions: AMI patients with HBR were associated with worse outcomes both short- and long-term.

