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Abstract: Prognostic impact of procedure-related bleeding in patients with stable coronary artery disease (CAD) undergoing elective percutaneous coronary intervention (PCI) remains incompletely investigated. The aim of this study was to investigate the association between peri-PCI bleeding and 1-year outcome of patients with stable CAD. The study included 9035 patients with stable CAD who underwent elective PCI. Bleeding within 30 days of PCI was defined using the Bleeding Academic Research Consortium (BARC) criteria. The primary outcome was 1-year mortality. Bleeding occurred in 844 patients (9.3%). Actionable bleeding (BARC class>= 2) occurred in 442 patients (4.9%). There were 210 deaths (2.3%) at 1 year following PCI: 41 deaths among patients with bleeding and 169 deaths among patients without bleeding [Kaplan-Meier estimates of mortality, 4.9% and 2.1%; odds ratio = 2.41, 95% confidence interval (CI) 1.73-3.36, P< 0.001]. The association between bleeding and mortality remained significant after adjustment for baseline risk variables (adjusted hazard ratio = 1.87, 95% CI 1.27-2.76, P = 0.002). Bleeding increased the discriminatory power of the model regarding prediction of 1-year mortality (absolute and relative integrated discrimination improvement, 0.006% and 16.3%, respectively, P = 0.001). In patients with stable CAD undergoing elective PCI, the occurrence of bleeding within 30 days of the
procedure was associated with increased risk of death at 1 year after PCI. These findings suggest that procedure-related bleeding may contribute to less than optimal results of PCI in terms of mortality reduction in patients with stable CAD.