Characterization of patients with bleeding complications who are at increased risk of death after percutaneous coronary intervention.

Bleeding complications in patients undergoing percutaneous coronary interventions (PCIs) are associated with increased risk of subsequent mortality. We undertook this study to characterize the subset of patients with bleeding complications who are at an increased risk of death within the first year after a PCI procedure. The study included 331 patients with bleeding complications among 9,954 patients who underwent PCI. The primary outcome analysis was 1-year mortality. Within the first year following PCI there were 39 deaths among 331 patients (11.8%), with bleeding complications and 240 deaths among 9,623 patients without bleeding complications (Kaplan-Meier estimates of 1-year mortality; 11.8% vs 2.5%, odds ratio 5.09, 95% confidence interval 3.76-6.90, P < 0.001). Time to death (median [25th-75th percentiles]) was 38.5 [7.2-125.9] days in patients with bleeding complications vs 137.1 [68.3-234.0] days in patients without bleeding complications (P < 0.001). Compared with survivors (n = 292), nonsurvivors (n = 39) had a significantly more adverse risk profile. The Cox proportional hazards model identified the elevated troponin level as the only independent correlate of 1-year mortality (hazard ratio = 2.35, 95% confidence interval 1.04-5.31, P = 0.039). In conclusion, patients with peri-PCI bleeding complications who die have a more adverse
cardiovascular risk profile than patients with bleeding complications who survive the first year after PCI. Patients with bleeding complications and an elevated troponin level are at high risk of death within the first year following PCI. The majority of deaths in patients with peri-PCI bleeding occur within the first 3 months after PCI procedure.