Increased bleeding risk during percutaneous coronary interventions by arterial hypertension.

We aimed to assess the association between arterial hypertension and bleeding in patients undergoing percutaneous coronary intervention (PCI). The impact of arterial hypertension on bleeding risk of patients with coronary artery disease undergoing PCI is unknown. This study included 14,180 patients who underwent PCI. Bleeding was defined using the Bleeding Academic Research Consortium (BARC) criteria. Arterial hypertension was defined as treatment with antihypertensive drugs or a systolic blood pressure >140 mm Hg and/or diastolic blood pressure value >90 mm Hg documented on at least 2 occasions. The primary outcome was bleeding rate within 30 days of PCI. Overall, 11,066 patients (78.0%) had arterial hypertension. Bleeding events occurred in 1,232 patients with arterial hypertension and 278 patients without arterial hypertension (11.1% vs 8.9%; odds ratio [OR] = 1.28, 95% confidence interval [CI] 1.11-1.46, P < 0.001). Access-site bleeding occurred in 730 patients with arterial hypertension and 175 patients without arterial hypertension (6.6% vs 5.6%; OR = 1.19 [1.01-1.41], P = 0.049). Non-access-site bleeding occurred in 502 patients with and 103 patients without arterial hypertension (4.5% vs
3.3%; OR = 1.39 [1.12-1.72], P = 0.003). After adjustment, arterial hypertension was significantly associated with any bleeding (adjusted OR = 1.41 [1.19-1.67], P < 0.001), access-site bleeding (adjusted OR = 1.36 [1.10-1.68], P = 0.005) and non-access-site bleeding (adjusted OR = 1.42 [1.09-1.83], P = 0.008). A history of arterial hypertension increased the risk of non-access-site bleeding (P = 0.002), whereas systolic blood pressure at the time of PCI increased the risk of access site bleeding (P = 0.018). Arterial hypertension is associated with increased risk of bleeding during PCI procedures. © 2015 Wiley Periodicals, Inc.