1550088

Predictors of Vascular Complications Post Percutaneous Coronary Interventions

Drori, Y; Suleiman, K; Shafir, G; Azaiza, E; Turgeman, Y
Ha'Emek Medical Center, Afula, Israel

Vascular complications are the most common adverse events after percutaneous coronary intervention (PCI). Both cardiologists and nurses play a vital role in identification of risk factors and implementation of methods to reduce complications. Objectives: To assess predictors of vascular complications post PCI. Methods: Single center prospective study conducted by the nursing stuff with collaboration of cardiologists. Inclusion criteria: Patients underwent PCI. Primary endpoint: Hematoma>5cm, pseudo-aneurysm or AV fistula during hospitalization and 1-week after. A multivariable Cox proportional hazards model was used to evaluate the association between variables and outcomes. Results: 300 patients, mean age 59.1+/-10.9 years, 20% females. Indications for PCI: 209 (69.7%) acute coronary syndrome (ACS) (59 primary PCI) and 91(30.3%) stable angina. Pretreatment: Aspirin and clopidogrel 262(87.3%), Enoxaparin or heparin 128(42.7%), IIb/IIIaGP antagonistis 50(16.7%). Access site: 227(75.7%) radial/ulnar and 73(24.3%) femoral. All patients received weight adjusted heparin during catheterization. Primary endpoint was observed in 24 patients (8%): hematomas>5cm, n=21; pseudoaneurysm, n=3; fistulas, n=0. Pseudoaneurysm, n=3 (2 needed intervention) and blood transfusion, n=2, were observed in femoral access only. Multivariate model, using patient characteristics, medications, interventional and hemostasis techniques, revealed that females (OR 1.13, 95% CI 1.00-1.27, P=0.021), ACS (OR 1.04, 95% CI 0.97-1.11, P=0.016), femoral access (OR 1.26, 95% CI 1.06-1.50, P=0.007) and pain during sheath insertion (OR 1.23, 95% CI 1.05-1.44, P=0.009), were significant predictors of vascular complications. Conclusion: The main strategy to reduce vascular complications is the radial approach. Females, ACS patients and access site pain, were found to be at increased risk for vascular complications and need a careful follow-up post catheterization.