Vascular Medicine

LOW EJECTION FRACTION: COMMON LINK BETWEEN ARTERIAL AND VENOUS EVENTS IN PATIENTS UNDERGOING PCI

Poster Contributions
Poster Sessions, Expo North
Monday, March 11, 2013, 9:45 a.m.-10:30 a.m.

Session Title: Venous Thrombosis and Pulmonary Embolism
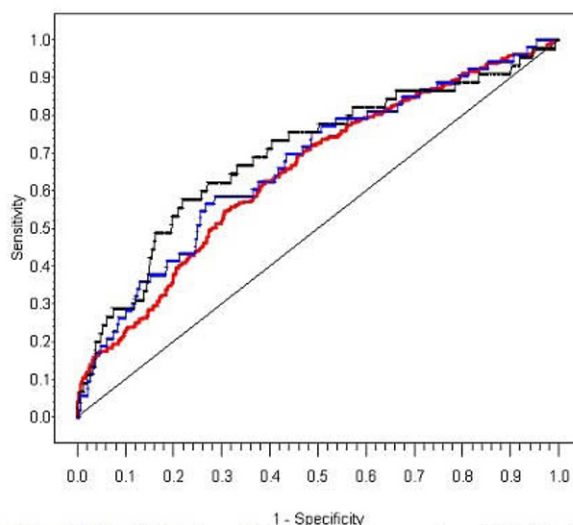Abstract Category: 36. Vascular Medicine: Venous Disease
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Background: Accumulating data suggest that atherosclerosis and venous thromboembolism (VTE) share common risk factors. We assessed the strength of the association between atherosclerosis risk factors, disease burden, and VTE, in a cohort of patients with coronary arterial disease undergoing percutaneous coronary intervention (PCI).

Methods: We pooled data from 3 multicenter, global randomized controlled trials assessing coronary stenting (ENDEAVOR II-IV). We developed a risk assessment tool to predict major adverse cardiac events (MACE: cardiac death, myocardial infarction [MI] and stroke) and assessed this tool for predicting VTE.

Results: 2975 PCI patients were included. At 5 years, 10.8% (305/2812) suffered at least one MACE, and 2.04% (55/2702) suffered a VTE. Increased age, hypertension, decreased ejection fraction (EF), prior MI, lack of hyperlipidemia, increased lesion class, and number of diseased vessels were significant predictors for MACE (Area under the ROC curve [AUC] 0.651). The AUC for predicting VTE with the selected predictors for MACE was 0.672. Increased age, lower Canadian Cardiovascular Society functional class, decreased EF, and female gender were significant predictors for VTE (AUC 0.699). EF and age were significantly associated with both MACE and VTE.

Conclusions: Risk assessment tools to predict MACE help predict VTE. Decreased ejection fraction and increased age are significantly and similarly associated with 5-year MACE and VTE.

Red line is ROC for MACE using predictors selected from regression on MACE, AUC=0.651;
Blue line is ROC for VTE using predictors selected from regression on MACE, AUC=0.672;
Black line is ROC for VTE using predictors selected from regression on VTE, AUC=0.699.