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FATAL BLEEDING, CASE-FATALITY RATE OF MAJOR BLEEDING AND ALL-CAUSE MORTALITY IN PATIENTS TAKING TARGET-SPECIFIC ORAL ANTICOAGULANT, A META-ANALYSIS OF RANDOMIZED CONTROLLED TRIALS

Moderated Poster Contributions

Vascular Medicine Moderated Poster Theater, Poster Hall B1

Saturday, March 14, 2015, 4:00 p.m.-4:10 p.m.

Session Title: Pulmonary Emboli: Advances in Management

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Authors: *Chatree Chai-Adisaksopha, Christopher Hillis, Tetsuya Isayama, Mark Crowther, McMaster University, Hamilton, Canada***Background:** The impact of Target-specific oral anticoagulants (TSOACs) on mortality outcomes compared to warfarin remains unclear. The objective of this study was to estimate the rate of fatal bleeding, case-fatality rate of major bleeding and compare mortality outcomes in patients treated with TSOACs versus warfarin.**Methods:** We searched for phase III, randomized controlled trials (RCTs) comparing TSOACs to warfarin (target international normalized ratio [INR], 2.0 to 3.0) in patients with atrial fibrillation or venous thromboembolism.**Results:** Twelve RCTs involving 102 607 patients were included in the analysis. The case-fatality rate of major bleeding was 7.57% [95% CI, 6.53-8.68] in patients taking TSOACs and 11.0% [95% CI, 9.20-13.10] in patients taking warfarin. The rate of fatal bleeding in patients receiving TSOACs was 0.1 per 100 patient-years [95% CI, 0.13-0.27]. When compared with warfarin, TSOACs were associated with significant reduction in fatal bleeding (RR, 0.53 [95% CI, 0.43-0.64]; $P < 0.001$; $I^2 = 0\%$), cardiovascular mortality (RR, 0.88 [95% CI, 0.82-0.94]; $P = 0.0002$; $I^2 = 0\%$) and all-cause mortality, Figure 1 (RR, 0.91 [95% CI, 0.86-0.95]; $P < 0.001$; $I^2 = 0\%$).**Conclusion:** In a meta-analysis of RCTs, the use of TSOACs was associated with lower risk of case-fatality rate of major bleeding, fatal bleeding, cardiovascular mortality and all-cause mortality when compared to therapeutic warfarin (target INR between 2.0 to 3.0).