ORAL ANTICOAGULANTS FOR SECONDARY PROPHYLAXIS OF STROKE IN CORONARY ARTERY DISEASE AND CEREBROVASCULAR ACCIDENT

ACC Poster Contributions
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Background: Secondary prophylaxis of stroke without atrial fibrillation or artificial heart valves remains challenging. Multiple randomized control trials evaluating warfarin with or without aspirin after the first incidence of coronary artery disease (CAD) or cerebrovascular disease (CVD) have yielded mixed results.

Methods: Meta-analysis of the literature (MEDLINE - 1980 to August 2010) was performed to determine pooled estimates of benefits (reduced incidence of stroke) and risks (mortality, intracranial bleeds, major and minor bleeds) of warfarin (with and without aspirin) in patients with CAD and CVD. 24 trials (32827 patients) were stratified based on the intensity of the therapeutic international normalized ratio (INR): low (INR<3.0). Intermediate intensity warfarin with aspirin when compared to aspirin alone, significantly reduced the risk of secondary strokes [relative risk (RR) 0.48, confidence interval (CI) 95% 0.29-0.80], increased the risk of intracranial (RR 3.03 CI 95% 0.48-19.20) and major bleed (RR 2.54, CI 95% 1.70-3.79) and did not reduce mortality (RR 1.00, CI 95% 0.80-1.25). Intermediate intensity warfarin without aspirin did not reduce stroke compared to aspirin alone (RR 1.16, CI 95% 0.46-2.93). In patients with CVD, intermediate intensity warfarin without aspirin although did reduce stroke, but did not reach statistical significance (RR 0.78, CI 95% 0.55-1.11) and modestly increased the risk of intracranial (RR 1.81, CI 95% 0.87-3.77) and major (RR 2.27, CI 95% 1.52-3.37) bleed. There are no studies of intermediate intensity warfarin plus aspirin in this population. Low intensity warfarin did not confer any additional benefit with previous CVD. High intensity warfarin increased intracranial (RR 14.30, CI 95% 1.89-108.44) bleed substantially.

Conclusions: In CAD patients, use of intermediate intensity warfarin with aspirin reduces the risk of stroke at the price of increased bleeding. In CVD patients, intermediate intensity warfarin without aspirin also reduced stroke. Intermediate intensity warfarin plus aspirin might be particularly effective for secondary prevention in CVD patients.