

C99. The Influence Of Platelet Reactivity In Patients With St. Jude Aortic Mechanical Prostheses Treated With Clopidogrel & Aspirin Thromboprophylaxis

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OBJECTIVES: Aortic mechanical prostheses (AMP) generate regions of acceleration, shear stress and erythrocyte fragmentation with ADP release that cause platelet activation, the cause of thromboembolism. Thromboprophylaxis with antiplatelet agents clopidogrel and aspirin (clop-ASA) should prevent thromboembolic events in patients with AMP.

METHODS: Over 7 ½ years 135 consecutive, patients underwent aortic valve replacement (AVR) with or without concomitant thoracic procedures were treated with (clop-ASA) as thromboprophylaxis. Platelet reactivity was measured with the Verify Now[®] system and thromboelastography. Patients were followed every 6 months with 2D echocardiography and assessment of platelet reactivity.

RESULTS: The number of follow up months is 4368.6 (364.1 years). Average follow up is 32.6 ± 24.5 months. Eighteen patients (13.3%) died. Eight (44.4%) of coronary artery disease, 3 (16%) of valve related causes. Five (3.7%) had bleeding complications and none valve thrombosis. Two patients (2.9%) had transient ischemic attacks. One in a patient who discontinued clop-ASA. The other in a responder to clop-ASA. Seven patients (5.1%) had strokes. One patient 48.5 months after AVR. Of the other 6, one in a non responder to clopidogrel and 5 in patients that stopped taking clop-ASA. Three were on warfarin.

CONCLUSIONS: Thromboprophylaxis in patients with AMP with clop-ASA is effective. Patients have a low incidence of bleeding, TIA and ischemic strokes and none valve thrombosis. Deaths were primarily due to myocardial infarction. None had anticoagulant related death. Patients on this protocol should undergo testing of platelet reactivity and continue antiplatelet therapy or increase the risk of an ischemic stroke.