

BASELINE PREDICTORS OF ON-TREATMENT PLATELET ACTIVITY (AS P-SELECTIN EXPRESSION) IN PATIENTS IN THE TRIPLE ANTIPLATELETS FOR REDUCING DEPENDENCY IN ISCHAEMIC STROKE (TARDIS) TRIAL

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Background: Platelet activity may be measured remotely as surface P-selectin expression. Predictors of on-treatment P-selectin expression were assessed using baseline characteristics in the TARDIS trial.

Methods: TARDIS assessed intensive (combined aspirin, dipyridamole and clopidogrel, ACD) versus guideline (aspirin/dipyridamole, AD; or clopidogrel alone, C) antiplatelets in 3096 patients with acute stroke or TIA. On-treatment P-selectin levels were measured remotely at 7 days post randomisation. The tests detected the effects of either aspirin or clopidogrel. Analyses have been split by test and randomised treatment.

Results: 626 patients (ACD 312, AD 142, C 172) had P-selectin taken at day 7. For the aspirin sensitive test, P-selectin expression was only related to prior antiplatelet treatment in ACD patients: those on A (mean difference, MD -69.6, $p=0.010$) or AC (MD -95.3, $p=0.037$) prior to randomisation had lower levels than those on nothing. None of the baseline characteristics had any relationship with P-selectin in AD patients. For the clopidogrel test, P-selectin levels were only related to prior antiplatelet therapy in ACD patients: patients on C had lower levels (MD -157.5, $p=0.026$), and those on AD had higher levels (MD 210.1, $p=0.0044$) than those on nothing. In C patients, P-selectin was lower in smokers than non-smokers (MD -128.4, $p=0.0048$) and patients with a history of hypertension had higher levels (MD 83.1, $p=0.036$).

Conclusion: In ACD patients, prior antiplatelet treatment appeared to effect on-treatment P-selectin. In clopidogrel alone patients, P-selectin expression was lower in smokers than non-smokers, suggesting that smokers are less likely to exhibit resistance to clopidogrel.

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