

## INTERVENTIONAL CARDIOLOGY PLATELET REACTIVITY AFTER STENTING

Findings from the ADAPT-DES study have been published. According to Dr Gregg Stone, first author on the study report, the findings “suggest that there is no routine role for platelet function testing at the present time”. He also concludes that “novel strategies must be developed for the use of more-potent antiplatelet agents, if survival is to be improved after PCI”.

Dual antiplatelet therapy (aspirin plus an ADP-receptor inhibitor) is currently recommended for at least 1 year after drug-eluting stent (DES) implantation, to reduce the risk of stent thrombosis. However, multiple studies have shown variability in platelet responsiveness to clopidogrel, in particular, but also to aspirin. Although high platelet reactivity while taking clopidogrel has been associated with stent thrombosis and adverse events after DES implantation, studies to assess the associations with mortality and major bleeding have provided conflicting results. The confusion has probably arisen because most prior studies involved small numbers of stable patients who had low event rates. Notably, the effects of high platelet reactivity while taking aspirin have been even less clearly defined.

ADAPT-DES is the largest study to date ( $n=8,583$ ) to assess whether high platelet reactivity while taking clopidogrel and aspirin predicts mortality and major bleeding. Median follow-up was 365 days in this prospective registry study of high-risk patients. In patients taking clopidogrel after DES implantation, high platelet reactivity had no apparent effect on mortality, probably because the increased risks of stent thrombosis (HR 2.49, 95% CI 1.43–4.31) and myocardial infarction (HR 1.42, 95% CI 1.09–1.86) were balanced by reduced risk of clinically relevant bleeding (HR 0.73, 95% CI 0.61–0.89). High platelet reactivity while taking aspirin was not predictive of stent thrombosis, myocardial infarction, or death, but was linked to reduced clinically relevant bleeding (HR 0.65, 95% CI 0.43–0.99).

The findings “question the necessity for, and utility of, aspirin after DES [implantation],” says Stone. However, as the number of patients with high platelet reactivity while taking aspirin was low, the investigators warn that the aspirin results are hypothesis-generating and should be tested in an adequately powered trial.

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