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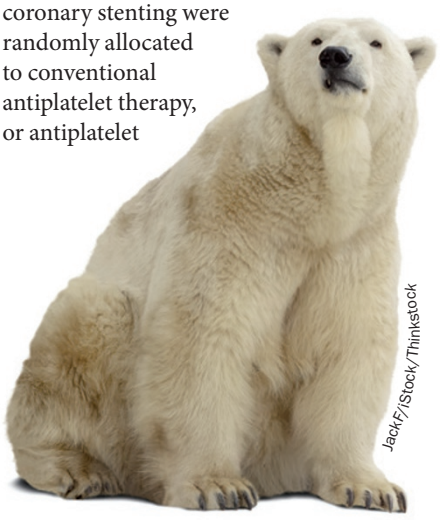
ANTIPLATELET THERAPY

# No need for extended DAPT after stenting in the ARCTIC-Interruption trial

Dual antiplatelet therapy (DAPT) extended beyond 1 year after implantation of a drug-eluting stent does not seem to be beneficial, and might increase the risk of bleeding, in low-risk patients. This finding comes from the ARCTIC-Interruption trial (a continuation of the ARCTIC-Monitoring trial), now published in the *Lancet*.

The optimal duration and combination of antiplatelet therapy after coronary stenting is uncertain, but the current recommendation in guidelines is for DAPT for 6–12 months after implantation. When prescribing DAPT, physicians must balance the risk of stent thrombosis against that of bleeding events. To inform this decision, the ARCTIC investigators prespecified a continuation of the study after 1 year.

In the ARCTIC-Monitoring phase of the trial, 2,440 patients undergoing coronary stenting were randomly allocated to conventional antiplatelet therapy, or antiplatelet therapy adjusted according to platelet-function testing. After 1 year, 1,259 of these patients underwent a second randomization phase into the ARCTIC-Interruption trial. Many high-risk patients who had experienced a cardiovascular event during the first year were excluded from ARCTIC-Interruption. Included patients were randomly allocated to DAPT continuation for a further 6–18 months, or interruption of the thienopyridine to leave aspirin monotherapy.



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After follow-up (median 17 months), the primary end point (a composite of death, myocardial infarction, stent thrombosis, stroke, or urgent revascularization) did not significantly differ between the two groups (4% in each; HR 1.17, 95% CI 0.68–2.03, $P = 0.58$). Major bleeding events occurred in seven patients in the DAPT continuation group compared with one patient in the interruption group, but this numerical difference was not significant (HR 0.15, 95% CI 0.02–1.20, $P = 0.073$). The incidence of major or minor bleeding was higher with DAPT continuation than with interruption (2% vs 1%; HR 0.26, 95% CI 0.07–0.91, $P = 0.04$).

The investigators conclude that "our finding suggests no apparent benefit but instead harm with extension of DAPT beyond 1 year ... when no event has occurred within the first year after stenting" which, therefore, "suggests the need for a reappraisal of guidelines for DAPT after coronary stenting towards shorter duration of treatment".

Dr Richard Becker from the University of Cincinnati College of Medicine, OH, USA, and who was not involved in the study, comments that "the findings of ARCTIC-Interruption add to a growing, but not yet conclusive, body of evidence that prolonged DAPT may not be beneficial or necessary in all patients following planned percutaneous coronary intervention. The exclusion of patients with ST-segment elevation myocardial infarction, those experiencing ischaemic thrombotic events or repeat revascularization during the initial phase, coupled with a greater number of primary outcome events, including stent thrombosis, among [patients] randomized to aspirin monotherapy, signals a need for further investigation."

Professor Gilles Montalescot, one of the ARCTIC investigators, anticipates the results of the ATLANTIC study (into starting DAPT early in high-risk patients with ST-segment elevation myocardial infarction) and the DAPT study (into the optimal timing of DAPT interruption), which are due to be presented later this year. "We will clearly know by the end of 2014 who benefits from early treatment and late prolongation of DAPT after stenting," predicts Professor Montalescot.

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