ANTARCTIC trial antiplatelet monitoring: No benefit in elderly patients

August 29 2016

Monitoring platelet function in order to individualize antiplatelet therapy did not improve outcomes for elderly patients after a heart attack compared to a standard, unmonitored approach, results of the ANTARCTIC trial show.

The findings, presented in a Hot Line session at ESC Congress 2016, and with simultaneous publication in the *Lancet*, challenge current international guidelines which recommend platelet function testing in high risk patients.

"Platelet function testing is still being used in many centres to measure the effect of antiplatelet drugs and adjust the choice of these drugs and their doses. Our study does not support this practice and these recommendations," said senior investigator Gilles Montalescot M.D, Ph.D, from Hôpital Pitié-Salpêtrière, in Paris, France.

"Although measuring the effect of antiplatelet agents makes sense in order to choose the best drugs or doses, this costly and more complex strategy does not appear to benefit patients, even when they present with extremely high risk of ischemic and bleeding events liked those enrolled in ANTARCTIC."

ANTARCTIC is the only study of platelet function testing in elderly patients at very high risk of ischemic and bleeding complications.

It enrolled 877 patients, aged 75 years or more, who presented with an

acute coronary syndrome and underwent coronary stenting.

All patients were started on the antiplatelet agent prasugrel (5mg), with 442 randomised to the conventional therapy (no adjustment) and 435 to monitoring and treatment adjustment, if needed.

Patients in the monitoring arm received 14 days of the daily 5mg prasugrel dose, but then underwent a platelet function test at Day 14, followed by medication adjustment, if the test showed high or low platelet reactivity. Additional monitoring was performed at Day 28 in patients who needed treatment adjustment.

The primary end point of the trial was the composite of cardiovascular death, myocardial infarction, stroke, stent thrombosis, urgent revascularization and bleeding complication at 1-year.

This endpoint occurred at a similar rate in both arms of the study: 27.6% in the monitoring group, and 27.8% in the conventional group (hazard ratio [HR], 1.003; 95% confidence interval [CI], 0.78 to 1.29; P=0.98).

There was similarly no significant difference in rates of the main secondary end point (a composite of cardiovascular death, myocardial infarction, stent thrombosis or urgent revascularization), which occurred in 9.9% and 9.3%, respectively (HR, 1.06; 95% CI, 0.69 to 1.62; P=0.80).

"Platelet function monitoring led to a change of treatment in 44.8% of patients who were identified as being over- or under-treated, yet this strategy did not improve ischemic or safety outcomes," noted Professor Montalescot.

"ANTARCTIC confirms the ARCTIC study (NEJM 2011) in a different population with a different drug, and has addressed the potential

limitations of the ARCTIC study, but finally reached the same conclusion. I expect there will be adjustments of guidelines and practice in light of this."

ANTARCTIC stands for Assessment of a Normal versus Tailored dose of prasugrel after stenting in patients Aged > 75 years to Reduce the Composite of bleeding, stent Thrombosis and Ischemic Complications.

Provided by European Society of Cardiology