

# Considerations about the Aspirin and Tranexamic Acid for Coronary Artery Surgery (ATACAS) trial

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The results of the Aspirin and Tranexamic Acid for Coronary Artery Surgery (ATACAS) trial have recently been published (1). The vast majority of patients scheduled for coronary artery bypass grafting (CABG) are undergoing chronic therapy with aspirin once daily. It is therefore not surprising that the debate on perioperative aspirin is extremely actual. In their article, Myles *et al.* report that among patients undergoing CABG the administration of preoperative aspirin resulted in neither a lower risk of death or thrombotic complications nor a higher risk of bleeding than that with placebo.

Nevertheless, since the only difference in the antiplatelet treatment between the two groups of patients consisted in taking 100 mg, enteric-coated aspirin 1–2 hours before undergoing CABG, the results of the ATACAS trial are actually not unexpected. Insufficient acetylation of cyclooxygenase (COX) after single dosing of 100 mg enteric-coated aspirin has been, in fact, demonstrated (2). All the patients enrolled in the study had the same level of thromboxane (TX) A<sub>2</sub>-dependent platelet aggregation both before and after CABG (notably, they all had not been taking aspirin regularly before the trial or had stopped taking aspirin at least 4 days before CABG and they all received postoperative aspirin within 24 hours after CABG). Noteworthy, time to maximum plasma concentration (T<sub>max</sub>) for 100 mg enteric-coated aspirin is about 5 hours and nadir in platelet TXA<sub>2</sub> production is about 8 hours after the first administration (2). Moreover, it has been proved that the postoperative increase in platelet turnover may limit the duration of platelet COX-1 inactivation when aspirin is administered once daily (3).

The absence of differences between the two groups with regard to the primary endpoint is, therefore, not unexpected and might be explained by dosing and timing of enteric-coated aspirin administration.

Whether it is best to stop or continue aspirin in patients

undergoing CABG still remains an open question.

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## Footnote

*Conflicts of Interest:* The authors have no conflicts of interest to declare.

*Comment on:* Myles PS, Smith JA, Forbes A, *et al.* Stopping vs. Continuing Aspirin before Coronary Artery Surgery. *N Engl J Med* 2016;374:728-37.

## References

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