

Aspirin Paradox Investigated in TIMI Database

The idea that prior aspirin use by those who develop an ACS may actually predispose to worse outcomes does not appear to be a true phenomenon, and use of aspirin is more likely just a marker of a high-risk group, according to new results from the **TIMI** database including more than 66 000 ACS patients [1].

In a paper in the October 19, 2010 issue of the *Journal of the American College of Cardiology*, a group of researchers explain that despite the proven benefits of aspirin in the primary prevention, secondary prevention, and treatment of ACS, some studies have suggested that those already on aspirin before suffering an ACS have worse outcomes than those not having taken aspirin before the event. They note that this apparent "aspirin paradox" has resulted in much controversy without clear explanation. Although "aspirin resistance" might be an explanation, this would apply only to a small group, and prior aspirin use may actually just be a marker of a high-risk cohort of patients.

To help clarify this issue, authors sought to determine the relationship of prior aspirin use on the presentation and short- and long-term outcomes in 66 443 ACS patients in the merged database of the TIMI trials.

Results showed that prior aspirin users were older and had more coronary risk factors and evidence of coronary artery disease than non-prior aspirin users and that after multivariate analysis, there was no difference in total mortality between prior aspirin users and non-aspirin users at day 30 (odds ratio 1.01) or by the last follow-up visit at a mean of 328 days (hazard ratio 1.03). However, prior aspirin use was modestly associated with an increase in the risk of recurrent MI (odds ratio 1.26) and the composite end point of death, MI, recurrent ischemia, or stroke (odds ratio 1.16).

References

Rich JD, Cannon CP, Murphy SA, et al. Prior aspirin use and outcomes in acute coronary syndromes. *J Am Coll Cardiol* 2010; 56:1376–1385.