
To the Editor:

Price et al have reported the results of the Gauging Responsiveness With a VerifyNow P2Y12 Assay: Impact on Thrombosis and Safety (GRAVITAS) trial in patients who had undergone percutaneous coronary intervention with ≥1 drug-eluting stents for the treatment of stable coronary artery disease or acute coronary syndrome at 83 sites in the United States and Canada. They reported that achievement of on-clopidogrel reactivity <208 P2Y12 reaction units at 12 to 24 hours after percutaneous coronary intervention/during follow-up was associated with a lower risk for cardiovascular events.1

This is a well-designed clinical trial represented by multiple published articles.2–3 The authors have analyzed and compared the effect of statins as a covariant in the previously published articles.3 However, although the covariant effects of acute coronary syndrome presentation, diabetes mellitus, prior myocardial infarction, coronary artery bypass grafting, percutaneous coronary intervention, creatinine clearance, β-blocker at discharge, and total stent length were reported at 60 days and 6 months in the recent study, there is no result related to statin use and its covariant effect.1

Statins show antiplatelet effects in patients with hypercholesterolemia and stable coronary artery disease. Ex vivo and in vivo evaluations showed lower platelet deposition, aggregate size, surface coverage, and collagen-induced platelet aggregation among statin-treated patients. The authors of this article conclude that in acute myocardial infarction patients statins have an early antiplatelet effect in addition to that afforded by standard antiplatelet therapy.4

Furthermore, clopidogrel (as a prodrug) requires hepatic cytochrome P450 metabolic activation to be converted to the active metabolite that is able to inhibit the platelet P2Y12 adenosine-diphosphate receptor, decreasing platelet activation and aggregation processes. Statins, especially atorvastatin, have been identified that limit the ability of clopidogrel to inhibit platelet activation and aggregation processes in pharmacodynamic studies.5

Collectively, it would be helpful if, in their conclusion, the authors were to provide more information on the intake of statins, types of statins used, analysis of covariant effect, and the impact of statins on study outcomes.

Disclosures

None.

Nariman Nezami, MD
Drug Applied Research Center
Tabriz University (Medical Sciences)
Tabriz, Eastern Azerbaijan, Iran

Oummaan Nezami Nargabad, MD
Baghyatollah Azam Hospital
Golestan University of Medical Sciences
Aliabad Katool, Golestan, Iran

Sona Ghorashi, MD
Young Researchers Club
Tabriz Branch, Islamic Azad University
Tabriz, Eastern Azerbaijan, Iran

References


Nariman Nezami, Ourmaan Nezami Nargabad and Sona Ghorashi

Circulation. 2012;125:e569
doi: 10.1161/CIRCULATIONAHA.111.068346

Circulation is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
Copyright © 2012 American Heart Association, Inc. All rights reserved.
Print ISSN: 0009-7322. Online ISSN: 1524-4539

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://circ.ahajournals.org/content/125/14/e569

Permissions: Requests for permissions to reproduce figures, tables, or portions of articles originally published in Circulation can be obtained via RightsLink, a service of the Copyright Clearance Center, not the Editorial Office. Once the online version of the published article for which permission is being requested is located, click Request Permissions in the middle column of the Web page under Services. Further information about this process is available in the Permissions and Rights Question and Answer document.

Reprints: Information about reprints can be found online at:
http://www.lww.com/reprints

Subscriptions: Information about subscribing to Circulation is online at:
http://circ.ahajournals.org//subscriptions/