



and direct application will tell us about the incremental value of this new piece of information.

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Improved Survival After Percutaneous Coronary Intervention of Chronic Total Occlusion Varies by Target Vessel

Safley et al. (1) conducted an important multivariable analysis to determine predictors of success in treating chronic total occlusion and clinical outcomes. As part of their conclusions, they stated that the use of glycoprotein IIb/IIIa was significantly associated with improved success (odds ratio: 2.27, 95% confidence interval: 1.36 to 4.80). However, we feel that the inclusion of glycoprotein IIb/IIIa in models to predict success and outcome is inappropriate,

as glycoprotein IIb/IIIa is typically used after and not before the chronic total occlusion has been crossed with a guidewire with reasonable assurance that the wire is intraluminal distally. Therefore, we question whether glycoprotein IIb/IIIa use has any impact on chronic total occlusion success rates. Further, its inclusion in the models can potentially impact the point estimates of other important variables. More importantly, the use of glycoprotein IIb/IIIa before successful crossing of a chronic total occlusion may increase the risk of pericardial effusion or tamponade. It would be of interest to conduct the same analysis without the inclusion of glycoprotein IIb/IIIa to observe whether other important variables are predictive of success and outcome in this cohort.

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1. Safley DM, House JA, Marso SP, Grantham JA, Rutherford BD. Improvement in survival following successful percutaneous coronary intervention of chronic total occlusion: variability by target vessel. *J Am Coll Cardiol Intv* 2008;1:295-302.

Reply

Drs. Shishehbor and Whitlow raise an excellent point regarding our analysis of predictors of procedural success in chronic total occlusion (CTO) angioplasty (1). There are several aspects regarding the use of glycoprotein (GP) IIb/IIIa antagonist use in CTO percutaneous coronary intervention (PCI) that need to be recognized to put the results of our analysis in context. First, GP IIb/IIIa antagonists were used in the later years of our analysis. Second, GP IIb/IIIa antagonists were administered after successful crossing of the target lesion in CTO PCI in the vast majority of cases. Third, GP IIb/IIIa is not a patient pre-procedural variable and thus is subject to important selection bias. We think including GP IIb/IIIa antagonist use in our model is justified to evaluate the possibility of both benefit and harm. In our analysis there did not seem to be any signal for harm. However, their use in the manner described above does bias this analysis. We have described technical success (crossing the lesion and performing angioplasty with or without stenting and <40% residual stenosis) as well as procedural success (technical success without major adverse clinical events while in the hospital). Therefore, using GP IIb/IIIa antagonists only in patients who have already had a successful crossing of their CTO lesion does increase the likelihood that they will have procedural success by the virtue of being well on the way

to technical success. We agree wholeheartedly that these agents should be administered only after the lesion has been crossed and intraluminal wire position has been confirmed.

We have repeated the analysis excluding GP IIb/IIIa antagonist use from the model, and the point estimates for the other variables are not significantly altered. In conclusion, we thank Drs. Shishehbor and Whitlow for raising this important point regarding the use of GP IIb/IIIa antagonists in CTO angioplasty and allowing us to expand on this important element of CTO PCI.

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American Board of Internal Medicine Maintenance of Certification Requirements

The recent article by Drs. Dangas and Popma (1) provided valuable information about the importance of Maintenance of Certification (MOC).

I am writing to clarify some details regarding the American Board of Internal Medicine (ABIM) interventional cardiology MOC requirements:

- ABIM encourages interventional cardiologists to enroll in MOC as early as possible during their 10-year certification cycle. This allows flexibility as to when and how they complete the MOC requirements.
- Physicians do not have to earn 100 self-assessment points prior to sitting for the exam. They can earn some or all points before or after the exam.
- In addition to completing ABIM-offered Practice Improvement Modules (PIMs), there are additional avenues for cardiologists to earn credit toward self-evaluation of practice performance. Data collected for 2 ACC initiatives, the National Cardiovascular Data Registry (NCDR) and the Door to Balloon (D2B) Alliance are both recognized by ABIM for MOC credit.