

REFERENCES

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Reply

We read the thoughtful comments of Dr. Rott, Dr. Kaluski, and Dr. Pullatt and colleagues on our paper (1) with interest. Surgical myocardial revascularization was preferred for diabetic patients because the off-pump technique greatly reduces the incidence of post-operative bleeding and renal failure. We routinely used bare-metal stents to avoid the substantial risk of thromboses of drug-eluting stents by employing them in diabetic patients only for circumflex or right coronary arteries sized ≥ 2.5 mm. Our strategy of continuing acetylsalicylic acid therapy plus low-molecular-weight heparin, withdrawing ticlopidine or clopidogrel 1 week before planned vascular surgery, has been successful in reducing the incidence of perioperative cardiovascular events and post-operative bleeding.

We agree that the stress tests used in our study have excellent negative predictive values; nevertheless, the vascular patients are a typical cohort that often exhibits negative stress test results (see references 31 to 35 in our study). As reported, our study limits are the lack of both investigator blinding and an independent events adjudication committee. However, we believe that the choice of end points, as the major adverse cardiovascular events, including cardiac-related death and the long-term follow-up should reduce these limitations. The revised cardiac risk index (RCRI) is a widely accepted predictor of mortality; we routinely use it for its simplicity and reliability.

In our opinion, the use of beta-blockers for major vascular patients is clinically appropriate, but we agree that our ubiquitous use may have produced false negative results. However, vascular patients are often elderly, with frequent comorbidities, and so they

are less likely to be left off drugs to undergo diagnostic tests. Paradoxically, in these patients, it is more likely to be performed for pre-operative coronary angiography and vascular angiography in the same session.

Finally, from January 2005 through December 2008, we applied our systematic strategy to all medium-high risk vascular patients, and the results were most encouraging: of 217 patients with RCRI ≥ 2 who underwent surgery, we observed a 2.3% (5 of 217) global 30-day incidence of major adverse cardiovascular events, with a cardiovascular-related mortality of 0.9% (2 of 217).

In conclusion, randomized controlled trials provide reliable evidence of treatment effects, but their role in routine clinical practice may be unclear (2,3). We think that the main message of our paper has been misunderstood: comments have focused on the impact of prophylactic myocardial revascularization, citing the CARP (Coronary Artery Revascularization Prophylaxis) trial and the DECREASE-V (Dutch Echocardiographic Cardiac Risk Evaluation Applying Stress Echocardiography) study, and have overlooked the substantial criticisms already expressed in our paper. A recent meta-analysis of these randomized trials shows that coronary artery bypass graft may improve long-term outcomes in vascular surgical patients (4). The systematic strategy adopted of prophylactic coronary angiography (we underline that it is performed together with peripheral angiography, as part of standard diagnostic workup), identifies with certainty all coronary artery disease patients and allows the cardiovascular surgeon and referring physician to treat them appropriately, thus improving patients' life-long adherence to correct lifestyle and medications regimens. Vascular patients must be considered as cardiovascular patients (5). The conceptual unification of cardiac and vascular diseases would induce cardiac surgeons, vascular surgeons, and cardiologists to improve their relationship, thus ameliorating the outcome of such complex patients.

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