native for the passive support offered by IABP. We recently initiated a head-to-head randomized comparison of IABP and Impella support in hemodynamically compromised patients with large anterior STEMI.

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Letters to the Editor

Role of Percutaneous Coronary Minimalist Intervention in the Management of Acute ST-Segment Elevation Myocardial Infarction

In their interesting study, Sianos et al. (1) investigated the impact of thrombus burden on the clinical outcome and angiographic infarct-related artery (IRA) stent thrombosis in patients routinely treated with drug-eluting stent implantation for ST-segment elevation myocardial infarction (STEMI). Intracoronary thrombus burden was angiographically scored before stenting using the classification in 5 grades previously described by Gibson et al. (2). Because a majority of patients suffering an acute STEMI present with an occluded IRA that precludes any thrombus classification, the investigators proposed to reclassify thrombus burden after flow restoration was obtained by a minimal intervention based on the use of a guidewire crossing or small (diameter 1.5 mm) deflated balloon passage or dilation. It would have been interesting to know the level of flow achievement based on Thrombosis In Myocardial Infarction (TIMI) flow grade obtained by minimal intervention among patients with totally occluded IRA in the study of Sianos et al. (1), because similar minimal intervention without immediate stenting has been previously proposed for direct reperfusion of patients with acute STEMI (3). In their study (1), the investigators found that a large thrombus burden is an independent predictor of long-term mortality. Analysis of Table 1 shows (1), however, that when compared with patients with a small thrombus burden, patients with a large thrombus burden had higher rates of use of intra-aortic balloon pump and inotropes, and they more frequently had diabetes mellitus, stent thrombosis at presentation, and pacemaker implantation. Also, although it is widely recognized as a major predictor of clinical outcome in patients with STEMI, left ventricular ejection fraction has not been reported in the study by Sianos et al. (1). Entering all of these additional variables into the multivariate analysis model might have changed the results presented in their Table 3 (1) regarding the independent role of thrombus burden for 2-year mortality. The results of the study by Sianos et al. (1) regarding procedural outcome (Table 4 in their article) support the hypothesis and the data of a previously published work (3), in which it was suggested that immediate stenting should probably be avoided in many patients in the acute phase of STEMI once flow has been restored using minimalist intervention. Therefore, there is a need for a randomized trial in which the classical approach of direct percutaneous intervention with immediate stenting would be compared with stent implantation strategy based on thrombus burden analysis after flow restoration by immediate minimalist intervention.
We appreciate the interest of Dr. Isaaz for our work (1). In regard to our initial analysis, we did not calculate the flow after the minimal intervention in patients who presented with occluded vessels, but further to this request this parameter was randomly (every second) estimated in one-half (225) of these patients; Thrombolysis In Myocardial Infarction (TIMI) flow grade 1 was restored in 46.6%, TIMI flow grade 2 in 38.8%, and TIMI flow grade 3 in 14.6%.

The imbalances in the baseline characteristics among groups are related to the retrospective nonrandomized nature of our study. Appropriate multivariable statistical analysis was performed to account for these imbalances. For the same reason, established parameters related to clinical outcomes were missing as addressed in the extensive limitations paragraph. The influence of the baseline characteristics imbalances and missing parameters on the results of the study remains speculative. For example, during the review process, we were asked to perform the analysis excluding the patients presenting with stent thrombosis. By doing so, no difference was observed in the resultant independent predictors including large thrombus burden.

By no means could our results support the hypothesis that immediate stenting can probably be avoided in many patients at the acute phase of ST-segment elevation myocardial infarction (STEMI) once flow has been restored using minimal intervention, since all of our patients were stented during the index procedure. Such an approach partly questions the well-established superiority of bare-metal stents compared with balloon angioplasty (2–4), and beyond the questionable efficacy it has logistical and financial implications that would make it quite unlikely to be explored in a randomized fashion. In our view, in a STEMI setting, optimization of primary angioplasty for ST-elevation acute myocardial infarction based on minimalist immediate mechanical intervention. Coron Artery Dis 2006;17:261–9.

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The Discussion Is Open Again!

Lee et al. (1) present very interesting results on the prophylactic use of hemodialysis to prevent radiocontrast-induced nephropathy. Unfortunately, the quality of their discussion falls behind the quality of the data presented. The authors somehow fail to mention that several randomized controlled studies have previously failed to show an improvement of renal outcome by prophylactic hemodialysis after radiocontrast media application and that a recent meta-analysis of the controlled studies has revealed no advantage of prophylactic hemodialysis with respect to outcome (2). The failure to mention the previous controlled studies hindered the authors to emphasize the differences between their study and the ones previously done.

In contrast to previous studies including our own (2,3), the authors were very careful to avoid intravascular volume depletion during the prophyactic dialysis procedure. Not only was there no ultrafiltration provided during dialysis, but saline was administered at the beginning of the dialysis procedure to counteract expected volume shifts out of the vascular space into the intracellular space during dialysis. Although patients might have profited from the careful volume control during the prophylactic dialysis session, it is conceivable that the poor outcome of patients without dialysis might have resulted from the lack of a comparable volume

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Prophylactic Use of Hemodialysis to Prevent Radiocontrast-Induced Nephropathy

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