The following concern in the letter is about the validity of self-reporting data in patient questionnaires but as we indicated this was not the only mode of data collection, and physicians were surveyed, medical records consulted—and for hard endpoints, especially mortality which was the main objective, self-reporting is clearly not an issue.

Finally, the author does not concur with the conclusions of a favourable effect of abciximab in primary stenting of STEMI. However, ADMIRAL is a positive study for its primary hypothesis showing the superiority of the study drug over placebo to reduce death, re-infarction, and urgent revascularization at 30 days, confirmed also at 6 months. Because we believe that it is important to provide information on the long-term, a three-year follow-up was conducted to determine whether the benefit observed initially was preserved; we acknowledged that the study was not powered to detect a difference in hard clinical endpoints at 3 years. However, the expression of the results with Kaplan-Meier curves demonstrated the preservation of the initial absolute benefit, with two parallel curves for death or MI, over 3 years.

Our data along with other studies confirm the benefit of GPIIb/IIIa inhibition with abciximab in primary PCI. Meta-analyses have also shown a significant impact on mortality and a greater benefit when the drug is administered early. All guidelines recommend its use in primary PCI.

Three-year duration of benefit from abciximab in patient receiving stents for acute myocardial infarction in the randomized double-blind ADMIRAL study: reply

We have read carefully Dr Kanna’s comments trying to perform a critical appraisal of our manuscript, but it appears that most of these critics are inaccurate. Potential founders such as coronary risk factors are important to consider, but by definition randomization is used to balance the different groups and the ADMIRAL study was randomized and the two study groups were well balanced for all baseline characteristics.

Treatment compliance, another concern in Dr Kanna’s letter, is unlikely to be an issue because abciximab is administered intravenously for 12 h during and immediately after PCI and of course there was no further study drug administration during the 3-year follow-up of the ADMIRAL study. Blinded evaluation is another criterion of quality for studies and an issue in the letter; however, this critic does not apply to our study: of all randomized studies testing abciximab in primary stenting of STEMI, ADMIRAL remains, so far, the only double blind study. Moreover, the 3-year follow-up was performed blindly as indicated in Methods.

References

Tako-tsubo syndrome: a form of spontaneous aborted myocardial infarction?

We read with great interest the article by Verheugt et al. on aborted myocardial infarction. We agree with the fact that after the onset of acute coronary syndrome (ACS), the best scenario would be the spontaneous or mechanical abortion of the myocardial infarct. This myocardial infarct abortion could also induce wall motion abnormalities that may recover within hours or days. We want to highlight those cases of spontaneous myocardial abortion because of auto-thrombolysis and raise the question whether we could diagnose an aborted myocardial infarction when the thrombus responsible for the event has been completely lysed.

Tako-tsubo syndrome (also named transient left ventricular apical ballooning) presents with all the signs and symptoms of myocardial infarction, slight or no enzymatic release, and apical left ventricular akinesia that recovers within the first 2 weeks. These patients present on angiography (usually in the subacute phase and under the state-of-the-art antithrombotic–anticoagulant therapy) with no significant coronary artery stenosis. Because of the latter, ACS as the cause of the syndrome has usually been ruled out. Could tako-tsubo also represent spontaneous myocardial infarct abortion? Could it be in this population the balance between coronary thrombosis and endogenous fibrinolysis (eventually modulated by vasocostriction) falls on the fibrinolysis side and, therefore, no thrombus is seen on angiography? This hypothesis becomes more plausible when it has been reported in tako-tsubo patients that disrupted eccentric atherosclerotic plaques of the left anterior descending have been visualized by IVUS, but were not visible by contrast angiography. Could the transient akinesia seen in these patients be the result of stunned

Jaime Dominguez
Department of Internal Medicine
Lincoln Hospital
New York
USA

Balavenkatesh Kanna
Department of Internal Medicine
Lincoln Hospital
New York
USA

Lincoln Hospital
Affiliated with Weill Medical College of Cornell University
Department of Internal Medicine
Suite 8-22, 234, East 149th Street
Bronx New York 10451
USA
Tel: +1 718 579 5000 ext. 5016
Fax: +1 718 579 4836
E-mail address: bkvkanan@aol.com

doi:10.1093/eurheartj/ehl009

Online publish-ahead-of-print 12 May 2006

Gilles Montalescot
Institut de Cardiologie
Pitié-Salpêtrière University Hospital
Institut du Coeur
Bureau 2-236
47 Bld de l’Hôpital
Paris 75013
France
Tel: +33 1 4216 3006
Fax: +33 1 4216 2931
E-mail address: gilles.montalescot@psl.ap-hop-paris.fr

doi:10.1093/eurheartj/ehl021

Online publish-ahead-of-print 17 May 2006
myocardium? This phenomenon may be related to multiple episodes of occlusion–reperfusion, which makes the myocardium more prone to stunning. During episodes of ischaemia, regional left ventricular wall motion abnormalities develop in the region of ischaemia because myocytes cease contracting within seconds of the onset of acute ischaemia. After relief of ischaemia (e.g. by rapid lysis of a thrombus), the post-ischaemic but viable myocardium requires hours to days before the function is fully restored, as in the tako-tsubo syndrome. The length of time for the function to return is dependent on the number and duration of the ischaemic episodes. Charlat et al. showed that after a 15 min coronary artery occlusion, 48 h of reperfusion was needed for full recovery of systolic function, something that is common among tako-tsubo apical ballooning patients. Therefore, we believe that the tako-tsubo syndrome patients could represent the paradigm of myocardial infarction aborted by spontaneous thrombus autolysis. Hence, they could represent the ideal population to study the mechanisms leading to spontaneous thrombus autolysis and also deserves mention in your review. In addition, we would highly suggest the use of a technique that visualizes the entire vessel wall (not just the lumen, like contrast angiography does), such as IVUS or OCT, to explore the presence of disrupted plaques in patients with AMI and normal coronary arteries.

References