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 confounders 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.1 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 intravenously for 12 h during and immediately after PCI and of course there was no further intravenous administration of abciximab for primary angio- graphy.4 Could the transient akinesia seen 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? 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.4 Could the transient akinesia seen in these patients be the result of stunned myocardial infarct abortion? Could it be in aborted myocardial infarction when the thrombus responsible for the event has been completely lysed.

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 ST-elevation MI. 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 mortality2 and a greater benefit when the drug is administered early.3-4 All guidelines recommend its use in primary PCI.

References
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.\(^5\) 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 infarct abortion secondary to 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**