Response to Letter Regarding Article, “The Long-Term Effect of Coronary Stenting on Epicardial and Microvascular Endothelial Function”

We highly appreciate the letter regarding our recently published study on the long-term effect of stenting in patients presenting with chest pain,1 where Dr Kaneda and Dr Tarashima raised several important comments.

Indeed, knowledge about the frequency of patients returning with symptoms after stent implantation, but no significant stenosis, would add interesting information and should be evaluated in further studies. The majority of patients included in our analysis were transferred from outside hospitals to our tertiary-center for further evaluation of chest pain, despite nonstenotic vessels, thus representing a selected patient population. In our experience, few patients present with chest pain and nonstenotic vessels in the long-term, after stent implantation; however, we do not have this data available for this study.

Our protocol excluded patients with chest pain who had significant stenotic coronary artery disease based on angiographic findings. Intravascular ultrasound—although assessed in some patients—was not routinely done, and thus we cannot provide the frequency of new nonsignificant lesions at the segment distal to the implanted stent, as suggested by the authors of the correspondence letter.

We agree with the notion that endothelial dysfunction might be time-dependent and different between different stent types. In response to this important comment, we conducted an additional analysis of our data. Although the numbers of observations are quite small, there is no evidence, according to the interaction \( P \) values, that the endothelial function/duration relationship is different between drug eluting stents and bare metal stents. However, the small numbers in each group limits conclusions.

Finally, the point that many patients may show marked coronary vasoconstriction in response to acetylcholine even before stent implantation, particularly patients with advanced coronary artery disease,2 is very well taken. Of course, we cannot exclude that microvascular dysfunction already existed before stent implantation in our study, because such an evaluation usually is not performed prior to stent implantation. Potentially to correct for this limitation, we would like to stress that our control group consisted of patients who were all evaluated for vascular function because of chest pain as well.

References

Disclosures
None.

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