To the Editor:

Sheth et al. compared optical coherence tomography (OCT)-guided versus angiography-guided primary percutaneous coronary intervention for ST-segment–elevation myocardial infarction among patients in the TOTAL trial (Thrombectomy Versus Percutaneous Coronary Intervention Alone). Patients (n=214) were imaged with OCT and were propensity-matched with 428 patients who had angiography-guided percutaneous coronary intervention. There were clear OCT guidelines for stent optimization; however, operator compliance to follow those guidelines and whether optimal results were achieved are not reported. This makes us wonder whether the investigator’s good intentions were actually executed and were effective. Hence, it is uncertain whether the OCT group could have achieved better clinical outcomes where optimal stenting was obtained. The other group had percutaneous coronary intervention performed with angiography alone, but we did not find the list of recommendations (comparable to that by OCT) to which the operators should have complied, was it a real guidance? Or just standard practice that could vary between operators? It would be ideal to analyze the final OCT recording and to categorize the patients into optimally versus nonoptimally OCT-guided stenting and then compare those groups with standard of care. This would answer the following questions: (1) In how many patients would OCT use lead to optimal versus nonoptimal OCT-guided stenting and then compare those groups with standard of care? (2) Within the OCT group, are the clinical outcomes different between optimally versus nonoptimally OCT-guided treated patients?

In this study, the observed differences are the result of both differing patient characteristics (adjusted by propensity matching) and patient selection to be imaged with OCT, which is a confounder by indication that cannot be addressed by propensity matching.

Further, despite the fact that drug eluting stent use in the OCT group was significantly higher, and drug eluting stent use is known to improve clinical outcome in ST-segment–elevation myocardial infarction population, their combined effect on the different combined or individual end points was not apparent, which speaks for the lack of power to detect treatment effects.

Disclosures

None.

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References

Letter by Garcia-Garcia and Brugaletta Regarding Article, "Optical Coherence Tomography–Guided Percutaneous Coronary Intervention in ST-Segment–Elevation Myocardial Infarction: A Prospective Propensity-Matched Cohort of the Thrombectomy Versus Percutaneous Coronary Intervention Alone Trial"

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Circ Cardiovasc Interv. 2016;9:
doi: 10.1161/CIRCINTERVENTIONS.116.004057

Circulation: Cardiovascular Interventions is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
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Print ISSN: 1941-7640. Online ISSN: 1941-7632

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