We thank Drs Takagi and Umemoto for their interest in our article describing 3-year outcomes of percutaneous coronary intervention (PCI) using sirolimus-eluting stent (SES) and off-pump coronary artery bypass grafting (OPCAB) in diabetic patients with multivessel disease (MVD).\(^1\) We are in complete agreement that this field will benefit from more data and larger clinical prospective randomized trials. As mentioned by Dr Takagi, propensity score analysis is a good method for adjusting various baseline characteristics statistically. However, in our study it was difficult to perform that analysis because of the small number of subjects (SES: \(n=92\), OPCAB: \(n=116\)).

Although the result of a meta-analysis performed by Dr Takagi shows that PCI using drug-eluting stents increased mortality compared with coronary artery bypass grafting (CABG), that analysis did not focus on diabetic patients with MVD, and the quality of the PCI and CABG remains unknown. Therefore, it seems hard to conclude the superiority of CABG over PCI in diabetic patients with MVD.

The results of recent Synergy between Percutaneous Coronary Intervention with Taxus and Cardiac Surgery (SYNTAX) trial, which was a large prospective randomized study, show that 1-year major adverse cardiac and cerebrovascular events were higher in diabetic patients with MVD treated with PCI using paclitaxel-eluting stents compared with CABG.\(^2\) However, it is important to consider the existence of some differences in procedural and angiographic characteristics between our study and that trial. In our study, PCI was basically performed under intravascular ultrasound (IVUS) guidance with longer continuation of dual-antiplatelet therapy, and OPCAB was performed using an arterial graft, including bilateral internal mammary artery (IMA). In the SYNTAX trial, the extent of IVUS usage remains unknown and bilateral IMA was used in only 20% (vs 82% in our study). It is reported that IVUS usage leads to a lower rate of restenosis and stent thrombosis after drug-eluting stent implantation,\(^3\) and bilateral IMA usage improves survival and decreases the need for coronary reoperation.\(^4\) Therefore, these procedural differences may have affected our patients’ outcomes. In addition, the SYNTAX scores of the SES and OPCAB groups in our study were lower than those in the SYNTAX trial. Because PCI and CABG have similar outcomes for patients with a low SYNTAX score, this anatomical background may also be associated with our result.\(^5\)

Prospective randomized clinical trials such as the BARI study and the SYNTAX trial only included patients who could be treated by either PCI or CABG.\(^6\) However, in the clinical setting, we also treat patients for whom only 1 treatment option is suitable. In our study, such patients were also included and the decision to treat each patient by PCI or OPCAB was taken after consensus between the case cardiologists and cardiac surgeons. Therefore, we think that our study result provides important information about diabetic patients with MVD, which reflects the contemporary real-world scenario currently found in many centers regarding revascularization treatment.

Thank you for your comments and I appreciate this opportunity to discuss 2 revascularization therapies in diabetic patients with MVD.

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**References**


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