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Pros and Cons of a Novel Coronary Stenting Technique for Medina 0.0.1 Lesions: Osdokina Crush

LETTER TO THE EDITOR

To the Editor,

We have recently read with great interest the article by Acar et al[1] entitled "One-Stent Double-Kissing Nano Crush—Osdokina Crush—Technique Could be a Game Changer in the Treatment of Medina 0.0.1 Lesion." We appreciate the authors for the management of the case with a promising stenting technique in a patient with a medina 0.0.1 lesion. On the other hand, we would like to emphasize several drawbacks in light of the current evidence for the bifurcation stenting.

The reasons for our concern are as follows:

First, Medina 0.0.1 lesions, which are not considered true bifurcation lesions, constitute less than 5% of all bifurcation lesions.[2] Although most operators consider Medina 0.0.1 lesions as the least important bifurcation lesions, in a recent international and multicenter study in patients who underwent percutaneous coronary intervention (PCI) for bifurcation lesions, target lesion failure was the most frequent in Medina 1.1.1 and 0.0.1 lesions has been reported.[2] Hence, patients with Medina 0.0.1 lesions should be treated more carefully during PCI and closely followed up after PCI. Although several bifurcation techniques have historically been developed for isolated ostial side branch lesions, inverted provisional T stenting is a validated technique in current practice.[3] Besides, we have recently introduced the "Provisional Double-Kissing Nano-Culotte Stenting" technique to the literature. This technique was developed specifically for the medina 0.0.1 lesions.[4] Considering the steps of an optimal bifurcation stenting, it consists of 4 major components. These are "simple steps, full coverage, minimal protrusion, and minimal disruption of stent structure." In view of the optimal stenting perspective, the performance of the Osdokina Crush technique was quite well and the authors should be applauded. However, in this case report, the Osdokina crush technique consists of 14 steps and also requires the use of semi-compliant balloons, non-compliant balloons, and drug-coated balloons (DCB). This results in the technique being more complex but raises doubts about its cost-effectiveness. Compared to Osdokina Crush stenting, inverted provisional T stenting is simpler, requires less equipment, and has optimal short- and medium-term results. While appreciating the authors' efforts to create innovative techniques, the readers may wonder why inverted provisional T stenting is preferred over Osdokina Crush for this patient.

Second, several techniques exist to tackle bifurcation lesions. In its most recent iteration, the nano-crush technique, minimal (ideally less than 1 mm) side branch stent protrusion into the main vessel is recommended, to reduce the number of layers of stent struts at the ostium. Angiographic guidance of stent placement may not allow to achieve optimal positioning. The nano-crush techniques are the risk of side branch ostial gap that may be corrected by final kissing balloon dilation after the main vessel stenting. Hence, simultaneous intravascular imaging (optical coherence tomography or intravascular ultrasound) may be the approach to be applied in this technique to prevent geographic miss during stent implantation in the side branch ostium. Besides, the main vessel balloon size is the other determinant for the risk of side branch ostial gap. Nano-crush stenting was first described

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by Ray et al[5] with a smaller size balloon than the distal main vessel diameter to achieve optimal pull-back with nano protrusion. More recently, Rigatelli et al[6] have demonstrated nano-inverted T stenting with a 1 : 1 balloon sized to distal main vessel diameter. It is better to know which balloon size you prefer in this technique.

Third, the "game changer" nomenclature may be preferred for large-scale observational studies or randomized clinical trials (RCTs), especially for studies or trials that may lead to a change in recommendation in major cardiovascular guidelines. Therefore, its use in defining this case report may cause misleading.

Lastly, based on the current evidence, the major indications for DCB angioplasty are small vessel disease and in-stent restenosis. Besides, DCB angioplasty with bailout stenting strategy studies demonstrated safety and efficacy for small-vessel disease, not large diameter coronary arteries. In this case report, the authors may be expected to provide more detailed explanations of the rationale for the use of DCB so that readers can be enlightened more clearly.

In conclusion, Osdokina Crush could be considered as a promising stenting technique strategy in patients with Medina 0.0.1 lesions. Nevertheless, further RCTs are warranted to validate the findings of this novel stenting technique for the Medina 0.0.1 lesions to be a game changer.

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