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Nailing the left anterior artery ostium in true 0,1,0 left main bifurcation disease and understanding its complication using optical coherence tomography

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This manuscript is in response to the letter to the editor 'Management of Medina 0,1,0 left main bifurcation disease with crossover stenting strategy', by E.G. Güner *et al.* https://doi.org/10.1093/ehjcr/ytae026.

We are grateful that E.G. Güner *et al.* have shown interest in our published manuscript.[1] Though they have written their two comments as serious criticism, we believe that these are the strengths of the case. This case calls attention to one of the complications associated with nailing the left anterior descending (LAD) artery ostium in left main (LM) bifurcation disease with Medina class 0,1,0. Yes, we want the reader to learn from this complication that in such cases crossover stenting is a better option as compared with nailing the LAD ostium for the reasons explained by A. Güner *et al.* in their letter to the editor.[2]

We do agree with the second comment about the preferred use of high-definition intravascular ultrasound (HD IVUS) for LM intervention, but this is true when LM ostium is involved or it is too short. Here, we would like to emphasize about the growing evidence for the feasibility and safety of optical coherence tomography (OCT) for distal LM bifurcation angioplasty.[3,4] Moreover, OCT has recently been used to identify the predictors of side branch restenosis after LM bifurcation angioplasty with double kissing crush technique, and based on the findings, some modifications of the double kissing crush technique have been suggested.[5] Its high resolution and availability of various modes like L mode, B mode, and 3D reconstruction make it a better option than IVUS in bifurcation angioplasty.[6] This case is the classic example of how high-resolution OCT helped in the understanding of complication. L mode OCT revealed that scoring balloon dilatation led to a large proximal LAD haematoma that got shifted to LM after stent placement. B mode analysis of the distal LM revealed that the haematoma is covered with a thick and stable intimal layer and is not communicating with the lumen. Based on these OCT findings, it was decided not to intervene further. Follow-up OCT at 6 months showed complete resolution of distal LM haematoma. We strongly believe that OCT was critical in the understanding and management of this complication and IVUS may not have given this much amount of information.

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Data availability

Data available on request.

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