

## Answer regarding: Prognostic Impact of New Onset Atrial Fibrillation After Single or Double Stent Left Main Bifurcation PCI

We thank the colleagues for their letter to the Editor regarding our recent article. They rise some questions which have us the chance to better explain the issue raised by our study.

First of all, for sure in the last 5 years a number of alternative techniques to the classical DK crush have taken place in the LM interventions scenario with the aim to decrease not only the amount of the metal to the carina, but also the technical complexity of the classical DK-Crush technique. As the colleagues can appreciate from the length span of our retrospective study, 10 years ago no other double stenting techniques than DK -Crush, Culotte, T/TAP and the technique we developed, the Nano-Inverted-T, in the early years called Nano-crush. The DK crush more than 10 years ago was a quite exclusively Chinese technique, and we developed our technique on the basis of our computational fluid dynamic studies<sup>1-3</sup> because we felt the DK-crush promising but too much destructive as regards as the carina rheological properties. So we used at that time what we had and what we were confident and familiar with. Only relatively in recent time DK-crush came into the ESC and ACC guidelines. We can ensure our colleagues that nowadays NIT is our preferred strategy for upfront double stenting while DK crush is less commonly used in our lab. Secondly, the mechanism of NOAF after LM stenting is not completely understood, as appreciable in the discussion of our study. Our hypothesis driven by previous studies of new onset atrial fibrillation (NOAF) after PCI/CABG,<sup>4-5</sup> is that a long total ischemic time during the procedure and/or the grade of complete revascularization achieved may favor the occurrence of NOAF. The rest of the available data about procedural technique and protocols are easily understandable from the study.

### References

1. Rigatelli G, Zuin M, Dell'Avvocata F, Vassilev D, Daggubati R, Nguyen T, Nguyễn MTN, Foin N. Complex coronary bifurcation treatment by a novel stenting technique: Bench test, fluid dynamic study and clinical outcomes. *Catheter Cardiovasc Interv.* 2018 Nov 1;92(5):907-914. doi: 10.1002/ccd.27494. Epub 2018 Jan 25. PMID: 29368394
2. Rigatelli G, Zuin M, Dell'Avvocata F, Vassilev D, Daggubati R, Nguyen T, Van Viet Thang N, Foin N. Evaluation of coronary flow conditions in complex coronary artery bifurcations stenting using computational fluid dynamics: Impact of final proximal optimization technique on different double-stent techniques. *Cardiovasc Revasc Med.* 2017 Jun;18(4):233-240. doi: 10.1016/j.carrev.2017.01.002. Epub 2017 Jan 9. PMID: 28108202.
3. Rigatelli G, Dell'Avvocata F, Zuin M, Giatti S, Duong K, Pham T, Tuan NS, Vassiliev D, Daggubati R, Nguyen T. Comparative Computed Flow Dynamic Analysis of Different Optimization Techniques in Left Main Either Provisional or Culotte Stenting. *J Transl Int Med.* 2017 Dec 29;5(4):205-212. doi: 10.1515/jtim-2017-0035. PMID: 29340277; PMCID: PMC5767710.
4. Kosmidou I, Liu Y, Zhang Z, Redfors B, Kappetein AP, Serruys PW, Gersh BJ, Kandzari DE, Morice MC, Buszman PE, Bochenek A, Schampaert E, Sabik JF 3rd, Ben-Yehuda O, Stone GW. Incidence and Prognostic Impact of Atrial Fibrillation After Discharge Following Revascularization for Significant Left Main Coronary Artery Narrowing. *Am J Cardiol.* 2020;125:500-506. doi: 10.1016/j.amjcard.2019.11.021.
5. Mrdovic I, Savic L, Krljanac G, Perunicic J, Asanin M, Lasica R, Antonijevic N, Kocev N, Marinkovic J, Vasiljevic Z, Ostojic M. Incidence, predictors, and 30-day outcomes of new-onset atrial fibrillation after primary percutaneous coronary intervention: insight into the RISK-PCI trial. *Coron Artery Dis.* 2012;23:1-8. doi: 10.1097/MCA.0b013e32834df552.

### LETTER TO THE EDITOR AUTHOR'S REPLY

Gianluca Rigatelli, M.D.<sup>1</sup> 

Marco Zuin, M.D.<sup>2</sup> 

Claudio Picariello, M.D.<sup>1</sup>

Filippo Gianese, M.D.<sup>1</sup>

Gianni Pastore, M.D.<sup>3</sup>

Enrico Baracca, M.D.<sup>3</sup>

Francesco Zanon, M.D.; EHRA<sup>3</sup>

Loris Roncon, M.D.<sup>1</sup> 

<sup>1</sup>Division of Cardiology, Department of Specialistic Medicine, Rovigo General Hospital, Rovigo, Italy

<sup>2</sup>Department of Translational Medicine, Section of Internal and CardioRespiratory Medicine, University of Ferrara, Ferrara, Italy

<sup>3</sup>Unit of Interventional Electrophysiology, Division of Cardiology, Department of Specialistic Medicine, Rovigo General Hospital, Rovigo, Italy

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