Author’s response to reviews

Title: Clinical Outcomes of Coronary Artery Bifurcation Disease Patients Underwent Culotte Two-stent Technique: A Single Center Experience

Authors:

Chih-Feng Chang (doc98049@yahoo.com.tw)
Keng-Hao Chang (howelldancer71@gmail.com)
Chih-Hung Lai (vincentvghtpe@gmail.com)
Tzu-Hsiang Lin (shou2324@gmail.com)
Tsun-Jui Liu (trliu@vghtc.gov.tw)
Wen-Lieng Lee (wenlieng.lee@gmail.com)
CHIEH SHOU SU (asoholmes0325@yahoo.com.tw)

Version: 2 Date: 28 Jun 2019

Author’s response to reviews:

BCAR-D-18-00657R1

Clinical Outcomes of Coronary Artery Bifurcation Disease Patients Underwent Culotte Two-stent Technique: A Single Center Experience

Chih-Feng Chang, MD; Keng-Hao Chang, MD; Chih-Hung Lai, MD; Tzu-Hsiang Lin, MD; Tsun-Jui Liu, MD, PhD; Wen-Lieng Lee, MD, PhD; CHIEH SHOU SU, M.D.

BMC Cardiovascular Disorders

Thank you very much for the gratitude of giving us a chance of major revision. We also owe a lot to the invaluable comments from the reviewers, reminding us a lot of issues in our previous manuscript. Without those, we could never improve our manuscript. We answered the reviewers’ comments point-by-point carefully and the manuscript has been revised accordingly. Attached please find our responses to the reviewers’ comments and the revised manuscript has been re-submitted on-line. Hopefully, all these questions are well taken care of and our responses are relevant to the issues raised.

Thank you for allowing us to resubmit this manuscript. All the authors have read and approved the revised manuscript. Hope the revised manuscript meets the minimal requirements for favorable consideration in your Journal.
Response to Editor’s and Reviewer’s Comments

Comments from Editor:

Editor Comments:

In the revision, please address the following items based on the journal's submission guidelines:

1. Title page: email addresses

   Response: email addresses for authors were in Title page. Thank you.

2. Ethics: okay in Methods

   Response: Thank you

3. Missing: Consent to participate, Consent to publish, Declarations, funding, Acknowledgements, Abbreviations

   Response: already in the manuscript. Thank you

3. Legend of table 5

   Response: corrected. Thank you.

5. Rename Introduction to Background; Methods and Materials to Methods

   Response: corrected. Thank you.

6. Conclusion heading

   Response: corrected. Thank you.

Comments from Reviewer #1 (Dobrin Vassilev):

Dobrin Vassilev (Reviewer 1): Please include all comments for the authors in this box rather than uploading your report as an attachment. Please only upload as attachments annotated versions of manuscripts, graphs, supporting materials or other aspects of your report which cannot be included in a text format.

Please overwrite this text when adding your comments to the authors.

Reviewer #1, Comment #1:
There is a big mixture of bifurcation disease dominated by left main lesions and LAD lesions. Thus, the conclusions could be addressed for those groups.

Response:

Thank you for your invaluable advice. We took your advice and the manuscript was revised. The changes were made in Abstract and Conclusions sections in the manuscript with comment labeled as “Reviewer #1, Comment #1” (page 5, line 9-11, and page 17, line 11-14). Thank you very much.

Reviewer #1, Comment #2:

No definition of outcomes in methods section - it is necessary, because whole manuscript is written, because of that!

Response:

Thank you for reminding. The definition of clinical outcomes about MI, TLR, TVR, TLF and any revascularization were defined and these changes were made in the manuscript with the comment labeled as “Reviewer #1, Comment #2” (page 9, line 10-19, and page 10, line 1-13). Thank you.

Reviewer #1, Comment #3:

Table 3 is lacking - I suppose it should present predictors of TLF.

Response:

Thank you for pointing out our big mistake and reminding us. The Table 3 (named Table 4 in the revised manuscript) was reloaded on resubmission. Thank you very much.

Reviewer #1, Comment #4:

The in-hospital mortality is high. Why?

Response:

In this report, the in-hospital mortality was 4.2% (10/238) and 2.5% (6/238) in-hospital mortality contributed to cardiac cause. We thought that the relatively high in-hospital mortality in our study might be multifactorial and mainly contributed to older population (average 70 years old), more medical comorbidities (HT, DM, CKD and dyslipidemia), acute setting and more complexity of CAD (53.8% ACS, 79% multivessel CAD and 37.8% LM disease) and minorly contributed to non-cardiac cause. Thank you.
Reviewer #1, Comment #5:

How the follow-up was performed? What were indications for rePCI - regular angiography (at what time), symptoms???

Response:

Thank you for valuable opinion and recommendation. Patients with CABD underwent PCI with culotte two-stent strategy had their regular clinical follow-up every 1 to 3 months according to their conditions at our hospital or returned to the clinics or CV outpatient department of other hospitals where they usually visited before and had regular follow-up. The clinical outcomes in the post-hospitalized periods were inquired from the notes of outpatient department saved in our hospital database or phone call by the assistant researcher/nurse during the study period in case the patients had clinical follow-ups at other hospital/clinic. Repeated coronary angiography was clinically-driven performed if the patients presented typical angina and suspected a recurrent ischemia event within one year or ischemically-driven performed with evidence of coronary ischemia by non-invasive test more than one year after the last coronary intervention. The changes were made in the manuscript with the comment labeled as “Reviewer #1, Comment #5” (page 9, line 14-19, and page 10, line 1-2 and 10-13). Thank you.

Reviewer #1, Comment #6:

The outcomes in LM and non-LM groups should be separated.

Response:

Thank you for valuable opinion. We did further analysis of our CABD patients with LM and non-LM bifurcation lesion subgroups and found that the in-hospital and total mortalities as well as TLR were higher in the LM group. But MI, TLR, TVR, or any revascularization was not significantly different between both groups. These changes were made in the manuscript with the comment labeled as “Reviewer #1, Comment #6” (Page 12, line 12-19) and Table 3. Thank you very much.

Reviewer #1, Comment #7:

In tables I suppose that authors meant univariate and multivariate logistics analysis, not non-adjusted and adjusted. This should be specified.

Response:

Thank you for point out the mistakes in the manuscript. ‘non-adjusted’ was corrected to ‘univariate’, and ‘adjusted’ was corrected to ‘multivariate’ and these changes were made in Table 4, 5 and 6 (Table 4, 5, and 6). Thank you very much.
Reviewer #1, Comment #8:

The whole first paragraph in discussion is useless, as it repeats results from previous section. Should be omitted. Later-on there is again repeat of results without comparison with data from studies cited from the authors. That should be corrected.

Response:

Thank you for invaluable opinion and recommendation. The first paragraph in discussion section of the manuscript was omitted. And data about TLR, TVR, TLF from studies cited in the manuscript were stated clearly in writing. These changes were made in the manuscript with the comment labeled as “Reviewer #1, Comment #8” (Page 14, line 5, 9-10, and page 16, line 14-16 ). Thank you very much.

Comments from Reviewer #2 (Eduardo Alegría-Barrero):

Eduardo Alegría-Barrero (Reviewer 2): Authors include retrospective data from culotte stenting in true bifurcations with interesting data.

Reviewer #2, Comment #1:

However, I would recommend that they include available contemporary data on TAP technique and share the numbers on the discussion.

Response:

Thank you for invaluable opinion and recommendation. Of course, there was no currently definite one two-stent strategy superior to other strategy in treating CABD. In our institute, the culotte two-stent technique (92%) was our major strategy to treat CABD in specific settings two-stent technique needed because we thought that the vessel diameter of the proximal part of MV at bifurcation is the 2/3 of the sum of distal part of main vessel and side branch, and bifurcation lesion we did mostly located at LM (37.8%), LAD-pm (39.5%) and LAD-md (11.8%) where the difference between the MV and SB was usually less than quarter to half, meaning the characteristic of the lesion itself suitable for culotte two-stent strategy. We did fewer other two-stent techniques (5%) such as T stent, crush, DK-crush, V/Y stent, and simultaneous kissing stent in a minority, and bail-out strategy (2%) for provisional stent strategy but side branch involved in trouble such as reverse crush and T-and-protrusion (TAP) techniques. We have conducted our data about two-stent strategy in discussion section. These changes were made in the manuscript with the comment labeled as “Reviewer #2, Comment #1” (Page 14, line 13-18). Thank you very much.