Dear Editors,

Thank you for the comments on our manuscript titled “Focal intramural hematoma as a potential pitfall for iatrogenic aortic dissection during subclavian artery stenting: a case report” (ID: 69612). These comments helped us to improve our manuscript, and provided important guidance for our future research. We have addressed the reviewer’s comments to the best of our abilities. We hope the revised manuscript meets your requirements for publication.

We marked the revised portions in red in the revised manuscript. Point by point responses to the reviewer’s comments are listed below this letter. If you have other queries, please don’t hesitate to contact me again. I am looking forward to hearing from you soon.

Sincerely yours,

Ge Jin

August 8, 2021

Response to Reviewers

Reviewer #1:

Comment 1. What predisposing factors were assessed in taking this patient up for stenting?

Answer: We apologize for our earlier lack of clarity in this manuscript.

In addition to age, gender and hypertension, we also evaluated the predisposing factors include trauma, obesity, diabetes, dyslipidemia, heart disease, atrial fibrillation, smoking, alcohol consumption, drug abuse, asymptomatic carotid stenosis, and sleep apnea syndrome before the subclavian artery stenting. We added the predisposing factors for stroke in line 73 of page 7.

For possible peri-procedural complications of stenting, we evaluated subclavian artery dissection or rupture, stent thrombosis, stroke and embolism of distal upper limb artery. We added this part in the discussion (line 162, page 10).

Comment 2. Was there evidence of significant carotid artery disease predisposing this patient's CVA history?

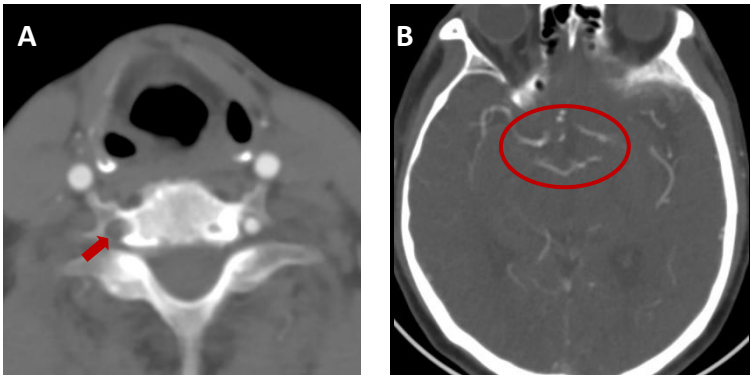
Answer: We apologize for our earlier lack of clarity. The patient had no previous history of stroke and transient ischemic attack (TIA) caused by carotid artery disease such as atherosclerotic stenosis, carotid web and dissection. We added “There was no previous stroke or transient ischemic attack in his history” in line 73 of page 7.

Comment 3. Under what circumstances were surgery obviatory in this patient?

Answer: We apologize for our earlier lack of clarity. In this case, the main reason of stenting for left subclavian artery (LSA) is that the right VA has been completely occluded and the bilateral posterior communicating arteries have not been opened for compensation. Therefore, severe stenosis at the ostium of left vertebral artery (LVA) has great therapeutic value to improve blood supply and secondary prevention of stroke. We planned to perform LVA stenosis angioplasty following the LSA stenting due to the approach problem.

If the Willis circle is complete, and the right VA is the dominant artery without occlusion, treatment with medication alone should be considered for this patient.

We added “CTA also revealed the bilateral posterior communicating arteries were not opening which means the incomplete Willis circle.” in line 95 of page 8.



A: the right VA was occluded (red arrow). B: bilateral posterior communicating arteries have not been opened for compensation (red oval area).

Comment 4. What baseline characteristics were evaluated to rule out IMH?

Answer: We apologize for our earlier lack of clarity. In the preoperative evaluation, we did not fully consider the possibility of IMH because the patient had no obvious chest or back pain. CTA was undergone in another hospital and we did not perform another CTA of head and neck after admission. After the thoracic endovascular aortic repair, we obtained the DICOM files of CTA and found that although there was no obvious two-lumen flow and crescent-shaped aortic wall thickening, but a local intimal calcification displaced inward was be discovered which is one of the important characteristics for IMH.

We added “no obvious two-lumen flow and crescent-shaped aortic wall thickening. Besides” in line 148 of page 9.

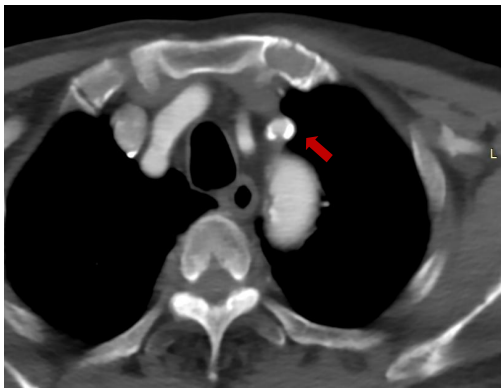
Comment 5. Under what circumstances does your unit stent a dissecting ulcer/ IMH in place of conservative fenestration in patients over 60 years of age?

Answer: We apologize for our earlier lack of clarity. Chimney and fenestration techniques are feasible, effective, and safe treatment options for type B aortic dissection and IMH. Considering the high risk of stroke due to severe stenosis of left VA during thoracic endovascular aortic repair, we chose the chimney technique to shorten the procedure time in this case. Usually, we prefer choose the in-situ fenestration technique to treat aortic arch pathologies in our hospital.

We added “Considering the high risk of stroke due to severe stenosis of left VA and malperfusion of LSA, we chose the chimney technique to shorten the procedure time.” in line 109 of page 8, and “the endovascular chimney technique was used with” was deleted in line 111, page 8.

Comment 6. Were composite stents used to address the LSCA stenosis & dissection?

Answer: We apologize for our earlier lack of clarity. PTFE covered stents can also be used for subclavian artery stenosis and dissection. In this case, the LSA stenosis is mainly caused by calcified plaques and the lesion range is not long. Therefore, we chose to use a balloon expandable bare metal stent because provide a great radial force and accurate location is more important to the patient.



CTA axial images showed the LSA calcified plaques lead to the stenosis (red arrow).

Other modified contents in this manuscript are as follows.

1. We added "inward "in line 146 of page 9 and “of IAD” in line 167 of page 10.

2. We replaced the “Figure 1”, and add the CTA image of head and neck in Figure 1C. In addition, we add the corresponding figure legends of “Figure 1” in line 208 and 213, page 12.

Important requests

1. After reviewed the automatically edited manuscript, we found that "FINAL DIAGNOSIS" is in front of "TREATMENT", but this case focuses on the complication after LSA stenting. Therefore, we request to move the "FINAL DIAGNOSIS" below the "OUTCOME AND FOLLOW-UP" to match the procedures of this case. Please refer to the format in this document as below.

2. “Laboratory examinations” and “MULTIDISCIPLINARY EXPERT CONSULTATION” are unremarkable or not applicable in this case. Please delete them if appropriate.

3. The author **Yu Zhang** and **Jun-Wei Wang** are contributed equally to this work (line 10, page 5). We would be grateful if you could mark this in the author's information as below.