

Peer Review File

Article information: <https://dx.doi.org/10.21037/acr-23-56>

Reviewer A

The authors reported the case of traumatic pseudoaneurysm of the cervical ICA where the Papyrus balloon-mounted covered stent was successfully implanted. The result was satisfactory along with an angiographic outcome.

However, there are some points of concern that might help improve the manuscript.

Comment 1: Literature regarding the utilization of the covered stent (coronary stent) in treating extracranial vessels is well described particularly with the traumatic pseudoaneurysms. Also, there are several reports of the covered stent for the reconstruction of the intracranial pseudoaneurysms.

The covered stent has disadvantages in terms of stiffness and difficulty in navigation especially for the tortuosity, and intracranial vasculature. The balloon-mounted covered stent is even stiffer, therefore, there is a limited report case in using the Papyrus covered stent. It would be helpful for the readers if the author could discuss the advantage of using balloon-mounted stents instead of other covered stents or the benefit of reconstructing the lesion over the ICA occlusion to obliterate the aneurysm (since this patient passed the balloon occlusion test)

Reply 1: We thank the reviewer for their comments and have further elaborated upon the advantages of the balloon-mounted covered stent in the Discussion section that were originally present in the manuscript.

Changes in the text: Added lines 108-110, 111-118.

Comment 2: In the discussion segment, the authors mentioned that the covered stent might be used in cases where convention clipping/coiling is not feasible. But in such cases with intracranial pathology, the covered stent is precluded due to stiffness (difficult navigation), and risk of perforator occlusion. It is recommended to discuss the difference between balloon-mounted and non-mounted stents. And the limitation of the balloon-mounted stent for a lesion located from and distal to the petrous segment, since the pathology is surrounded by the skull base there might carry some difficulty in navigating such a device (balloon-mounted stent), and when inflating the balloon. I agree that balloon-mounted covered stent has the advantage of correcting the stenotic lesion, however, it might be suitable for only cervical ICA (straight segment).

Reply 2: We agree that it is important to highlight disadvantages as well when explaining the difference between the covered and balloon-mounted aspects of the Papyrus stent as compared to other devices. We added a paragraph to the Discussion section to elaborate, not only upon the benefits, but also the limitations, of the Papyrus stent.

Changes in the text: Added lines 125-133.

Comment 3: Another major concern is the resolution of the figures, also the preparation. The figures do not match the journal instruction. The figures should not take from the mobile phone or other devices. All the figures should be in high-resolution, proper preparation, according to the journal instructions.

Reply 3: We have maximized the resolution via increasing the number of pixels per inch.

Changes in the text: Updated figures.

Comment 4: Regarding the procedure, it would be helpful if the authors could provide DSA after the first stent (with endoleak) and after implanting the second stent. The 3D DSA of the lesion would be beneficial as well.

Reply 4: Unfortunately, at this time, we cannot provide these figures. We hope our provided figures suffice.

Changes in the text:

Reviewer B

Great case, but I have some questions, in your manuscript you described: sheath into the right common femoral artery. It was thereafter navigated into the left subclavian to the left vertebral artery and then maneuvered into the left internal carotid artery, where it remained in position.

Comment 1: Can you describe your technique? do you mean left carotid artery?

Reply 1: We thank Reviewer B for their feedback. The technique is described in the manuscript in lines 60-80. The pseudoaneurysm was found at the right ICA.

Changes in the text:

Comment 2: Did you size your stent based on CTA?

Reply 2: Using clinical judgement, we took all imaging into consideration.

Changes in the text: Added line 58.

Comment 3: Balloon covered stent are prone to compression, is this stent any different? do you consider this segment of carotid mobil/prone to kinking?

Reply 3: This stent has a larger diameter than comparable stents, as well as a higher pressure from balloon-mounted deployment. We highlighted that since the ICA is a straight segment, it is not as prone to kinking or troubled navigation; however, these issues are encountered with this stent more so at and distal to the petrous segments. Despite innately higher difficulty navigating these tortuous segments, the Papyrus stent is still suitable for these anatomical areas.

Changes in the text: Added lines 111-118 and 125-133.

Comment 4: Is distal protection device needed?

Reply 4: No distal protection is needed unless it is used for an atherosclerotic lesion, of which there are none in this case report. Our team has not yet used distal protection

with the PK Papyrus stent.

Changes in the text: Added lines 74 and 118-120.

Comment 5: Can you comment on antiplatelets duration? is there any guideline available for carotid stents?

Reply 5: Duration can be found in lines 83-84 of the Case Presentation in the manuscript. They followed clinical standards.

Changes in the text:

Comment 6: What is the plan for follow up this patient? patient is young

Reply 6: This point is important for us to include. Follow-up for this patient is the clinical standard, an annual CTA, and has been added to the manuscript.

Changes in the text: Added line 86.