

Peer Review File

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Reviewer A

Thank you so much for submitting your interesting case report.
I have several questions.

Comment 1: Did the case have subarachnoid hemorrhage rather than subdural hematoma?

If I look at the sagittal MR image, the hematoma is very localized at two to three vertebral columns.

Spinal subarachnoid space is a wide free space from the tip to the bottom from right to left. The blood bleeding in the subarachnoid space can freely spread to the whole subarachnoid space.

And also, the hematoma is dominantly distributed to the left.

I wonder if the main part of the hematoma is subdural hematoma rather than subarachnoid hemorrhage. Do you have any images during the surgical evacuation?

If this is the case with the subarachnoid bleeding, do you have any opinion on why this hematoma shows this specific localized distribution?

Reply 1: Thank you for your comment.

The hemorrhage extended from the cranio-cervical junction to the terminus of the spinal canal and was also evident peripherally along the entire length of the spinal cord. Notably, there was an area of asymmetrical compression between T6-T9 vertebrae, likely due to a blood clot that had developed in that region, causing the observed pressure and imaging irregularities. While subdural hemorrhage is a more typical differential diagnosis, it is less congruent in this case given the widespread and circumferential nature of the hematoma. Furthermore, the presence of intracranial SAH bolsters the diagnosis of spinal SAH. The surgical notes confirm the presence of hemorrhage in the subarachnoid space.

Unfortunately, images were not obtained during the surgical evacuation.

Changes in the text: We have incorporated lines 81-85, which provide additional details about the imaging findings. Additionally, lines 90-91 describe and corroborate that SAH was observed during the surgery, consistent with the surgical report.

Comment 2: As the authors say in the discussion, for an idiopathic spinal SAH case, the spinal DSA is necessary to exclude the dissection of spinal vasculature and spinal AVSs. Did you perform the spinal angiogram for this case?

Reply 2: Thank you for providing this crucial clarification. A spinal angiogram was not

conducted, primarily due to the patient's clinical improvement. The imaging performed in this case included a head CT without contrast, a CTA of the chest, abdomen, and pelvis, as well as a spinal MRI.

Changes in the text: We have added lines 99-100 to offer an explanation why angiography was not completed.

Reviewer B

Interesting paper showing impaired clearance of blood products with tSAH of spine.

Comment 1: Need to address spinal vasospasm PMID: 37333905 And emerging treatments to prevent expansion PMID: 36589526.

If above are addressed and references included, paper could be of interest.

Reply 1: We have discussed spinal vasospasm and the latest treatment options, incorporating the suggested references.

Changes in the text: We have introduced lines 160-166 as a new paragraph, providing further details on vasospasm and its potential treatments.